



STATE OF ARKANSAS
OFFICE OF STATE PROCUREMENT
 1509 West 7th Street, Room 300
 Little Rock, Arkansas 72201-4222

ADDENDUM 1

TO: Vendors Addressed
 FROM: Shane Phillips, Buyer
 DATE: June 6, 2017
 SUBJECT: SP-17-0012 Integrated Eligibility and Benefits Management System

The following change(s) to the above-referenced RFP have been made as designated below:

- Change of specification(s)
- Additional specification(s)
- Change of bid opening time and date
- Cancellation of bid
- Other

CHANGE OF SPECIFICATIONS

- Delete from Template T6- Functional Requirements, Instructions Tab, Solution Method and replace with the following:

Solution Method	<p>Vendor response to how the Functional Requirement will be met by the Vendor solution. Indicate how the requirement will be met by selecting one of:</p> <p>* <u>Leveraged Functionality</u> - The State Requirement will be met by leveraging/enhancing the EEF Solution functionality already configured and implemented for MAGI Medicaid at DHS</p> <p>* <u>Configuration</u> - The State Requirement will be met by configuring the proposed Solution and/or any existing DHS Enterprise assets already in production</p> <p>* <u>Third Party Product</u> - The State Requirement will be met by commercially available third-party software or hardware assets and is included in this proposal. Note: In the "Suggested Clarifying Comments" column, indicate the name of the proposed third-party software vendor and proposed components and indicate its compliance to DHS' technology or architecture standards.</p> <p>* <u>New Development</u> - The State Requirement will be met through development of new software code to provide specific business or technical services where there are no leverageable off-the-shelf functionality or software assets. Note: This column is not included on the Sections (worksheets) where it does not apply</p>
------------------------	---

The specifications by virtue of this addendum become a permanent addition to the above referenced RFP. Failure to return this signed addendum may result in rejection of your proposal.

If you have any questions please contact Shane Phillips at Jordan.Phillips@dfa.arkansas.gov or (501) 324-9322.

Company: OptumInsight, Inc.

Signature: 

Date: 6/29/2017



STATE OF ARKANSAS
OFFICE OF STATE PROCUREMENT
1509 West 7th Street, Room 300
Little Rock, Arkansas 72201-4222

ADDENDUM 1

TO: Vendors Addressed
FROM: Shane Phillips, Buyer
DATE: June 23, 2017
SUBJECT: SP-17-0012 Integrated Eligibility and Benefits Management System

The following change(s) to the above-referenced RFP have been made as designated below:

- Change of specification(s)
- Additional specification(s)
- Change of bid opening time and date
- Cancellation of bid
- Other

BID OPENING DATE AND TIME

- The bid opening date and time have changed to **July 7, 2017 at 2:00 p.m. CDT.**

CHANGE OF SPECIFICATIONS

- Delete Template C1 Cost Workbook and Replace with Template C1 Cost Workbook Revised

The specifications by virtue of this addendum become a permanent addition to the above referenced RFP. Failure to return this signed addendum may result in rejection of your proposal.

If you have any questions please contact Shane Phillips at Jordan.Phillips@dfa.arkansas.gov or (501) 324-9322.

Company: OptumInsight, Inc.

Signature: 

Date: 6/29/2017



STATE OF ARKANSAS
OFFICE OF STATE PROCUREMENT
1509 West 7th Street, Room 300
Little Rock, Arkansas 72201-4222

ADDENDUM 3

TO: Vendors Addressed
FROM: Shane Phillips, Buyer
DATE: June 26, 2017
SUBJECT: SP-17-0012 Integrated Eligibility and Benefits Management System

The following change(s) to the above-referenced RFP have been made as designated below:

- Change of specification(s)
- Additional specification(s)
- Change of bid opening time and date
- Cancellation of bid
- Other

CHANGE OF SPECIFICATIONS

- Delete Template C1 Cost Workbook Revised and replace with Template C1 Cost Workbook Revised Version 2.0

The specifications by virtue of this addendum become a permanent addition to the above referenced RFP. Failure to return this signed addendum may result in rejection of your proposal.

If you have any questions please contact Shane Phillips at Jordan.Phillips@dfa.arkansas.gov or (501) 324-9322.

Company: OptumInsight, Inc.

Signature: 

Date: 6/29/2017



STATE OF ARKANSAS
OFFICE OF STATE PROCUREMENT
1509 West 7th Street, Room 300
Little Rock, Arkansas 72201-4222

ADDENDUM 4

TO: Vendors Addressed
FROM: Shane Phillips, Buyer
DATE: June 27, 2017
SUBJECT: SP-17-0012 Integrated Eligibility and Benefits Management System

The following change(s) to the above-referenced RFP have been made as designated below:

- Change of specification(s)
- Additional specification(s)
- Change of bid opening time and date
- Cancellation of bid
- Other

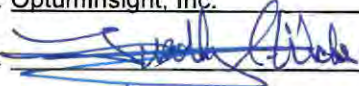
CHANGE OF SPECIFICATIONS

- Delete Template C1 Cost Workbook Revised Version 2.0 and replace with Template C1 Cost Workbook Revised Version 3.0

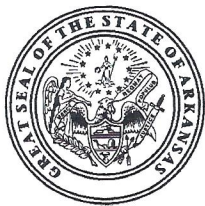
The specifications by virtue of this addendum become a permanent addition to the above referenced RFP. Failure to return this signed addendum may result in rejection of your proposal.

If you have any questions please contact Shane Phillips at Jordan.Phillips@dfa.arkansas.gov or (501) 324-9322.

Company: OptumInsight, Inc.

Signature: 

Date: 6/29/2017



STATE OF ARKANSAS
OFFICE OF STATE PROCUREMENT
 1509 West 7th Street, Room 300
 Little Rock, Arkansas 72201-4222

ADDENDUM 5

TO: Vendors Addressed
 FROM: Shane Phillips, Buyer
 DATE: June 30, 2017
 SUBJECT: SP-17-0012 Integrated Eligibility and Benefits Management System

The following change(s) to the above-referenced RFP have been made as designated below:

- Change of specification(s)
- Additional specification(s)
- Change of bid opening time and date
- Cancellation of bid
- Other

CHANGE OF SPECIFICATIONS

- Delete from Template C1 Cost Workbook Revised Version 3.0, Tab Packaged Software:
 The Vendor may leverage some of the software components already within the EEF environment and install additional software as required. The Vendor must include all packaged software that will be included in their proposed application (T1-T6 of the solution architecture outlined in Section 3.5 of the RFP). The Vendor must review the information in the Procurement Library to determine the current inventory available.

For software components already owned by DHS which the Vendor's solution will leverage the Vendor must provide any additional licenses that must be purchased (licenses for both new modules and additional volumes/users) and anticipated ongoing costs for that software component (including both the newly acquired software and software already owned by DHS). The annual cost for software already within the EEF environment has been provided in Table 1. The vendors should add this cost to the maintenance cost of new licenses to calculate the "Additional Year <x> Costs" in Table 2. If the vendor anticipates not leveraging DHS' software licenses, the row corresponding to that software component should be left blank. The vendors should assume a 10% increase in cost annually.

For any new software which the Vendor's solution will leverage the Vendor must include all one time, acquisitions, anticipated ongoing costs (Table 3) and specifications (in Table 4, Package Software Specifications table)

The vendor must include all new packaged software in Table 4 and capture the manufacturer, brand name, module name and version number for the items being proposed. Costs shall include any licensing necessary to cover all environments (e.g., Development, Test, Training, Production). All costs associated with the purchase, delivery, installation, inspection, licenses and production of the software components must be included into the Software Cost.

Vendors may insert additional rows as required. It is the responsibility of the Vendor to ensure spreadsheet calculations are correct. New Software items in Table 3, New Packaged Software Costs, must correspond to the Software Items in Table 4, New Packaged Software Specifications.

DHS reserves the right to purchase any software directly or request the vendor purchase the software on DHS' behalf.

Replace with:

The Vendor may leverage some of the software components already within the EEF environment and install additional software as required. The Vendor must include all packaged software that will be included in their proposed application (T1-T6 of the solution architecture outlined in Section 3.5 of the RFP). The Vendor must review the information in the Procurement Library to determine the current inventory available.

For software components already owned by DHS which the Vendor's solution will leverage the Vendor must provide any additional licenses that must be purchased (licenses for both new modules and additional volumes/users) and anticipated ongoing costs for that software component (including both the newly acquired software and software already owned by DHS). The annual cost for software already within the EEF environment has been provided in Table 1. The vendors should add this cost to the maintenance cost of new licenses to calculate the "Additional Year <x> Costs" in Table 2. If the vendor anticipates not leveraging DHS' software licenses, the row corresponding to that software component should be left blank. **The vendors should assume an annual increase in cost not to exceed 10% annually.**

For any new software which the Vendor's solution will leverage the Vendor must include all one time, acquisitions, anticipated ongoing costs (Table 3) and specifications (in Table 4, Package Software Specifications table)

The vendor must include all new packaged software in Table 4 and capture the manufacturer, brand name, module name, and version number for the items being proposed. Costs shall include any licensing necessary to cover all environments (e.g., Development, Test, Training, Production). All costs associated with the purchase, delivery, installation, inspection, licenses and production of the software components must be included into the Software Cost.

Vendors may insert additional rows as required. It is the responsibility of the Vendor to ensure spreadsheet calculations are correct. New Software items in Table 3, New Packaged Software Costs, must correspond to the Software Items in Table 4, New Packaged Software Specifications.

DHS reserves the right to purchase any software directly or request the vendor purchase the software on DHS' behalf.

The specifications by virtue of this addendum become a permanent addition to the above referenced RFP. Failure to return this signed addendum may result in rejection of your proposal.

If you have any questions please contact Shane Phillips at Jordan.Phillips@dfa.arkansas.gov or (501) 324-9322.

Company: OptumInsight
Signature: [Handwritten Signature]
Date: June 30, 2017

Template T-1
**Cover Letter and Executive
Summary**
Response Template
RFP #: SP-17-0012

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1.0 Submission Cover Sheet

The Vendor must include the following Cover Letter sheet provided in this section 1.0, and an individual authorized to legally bind the Vendor must sign the Cover Letter in ink and include it in the Proposal copy labeled “Original Proposal.”

This section 1.0 with the legally binding signature, only applies to the “Original Proposal” and not to the remaining copies of the proposal being submitted. However, all other sections in this Template T-1, from Section 2.0 to Section 6.0 must be provided both with the “Original Proposal” as well as with all other proposal copies.

Instructions: Provide the following information regarding the person responsible for the completion of the Vendor response. This person should also be the person OSP and DHS will contact for questions and/or clarifications.

Name: Jeff Jarjoura Phone: 281-382-7751
Address: 11000 Optum Circle Fax: (888) 445-8745
Eden Prairie, MN 55344 E-mail: Jeff.jarjoura@optum.com

Subject to acceptance by OSP and DHS, the Vendor acknowledges that by submitting a response AND signing in the space indicated below, the Vendor is submitting a formal offer to meet the requirements and intent of the RFP. In addition, should a Contract result from this RFP with said Vendor, the Vendor shall be contractually obligated to comply with all items in this RFP. While the Vendor is directed to list clarifications on appropriate templates, all such clarifications shall be subject to OSP’s and DHS’ acceptance and/or further negotiation. If no clarifications are noted, none will apply. The Vendor agrees that it will not later take clarification to any item agreed to by this signature. Failure to sign the Submission Cover Sheet or signing it with a false statement shall void the submitted response and any resulting Contract(s).

_____/_____
Original signature of individual authorized to legally bind the Company / Date

Name (typed or printed): Timothy Wicks
Title: Chief Financial Officer, Optum
Company name: Optum
Physical address: 11000 Optum Circle
Eden Prairie, MN 55344
State of Incorporation: Delaware

1.0 Submission Cover Sheet


The Vendor must include the following Cover Letter sheet provided in this section 1.0, and an individual authorized to legally bind the Vendor must sign the Cover Letter in ink and include it in the Proposal copy labeled "Original Proposal."

This section 1.0 with the legally binding signature, only applies to the "Original Proposal" and not to the remaining copies of the proposal being submitted. However, all other sections in this Template T-1, from Section 2.0 to Section 6.0 must be provided both with the "Original Proposal" as well as with all other proposal copies.

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Eden Prairie, MN 55344 E-mail: Jeff.jarjoura@optum.com

Subject to acceptance by OSP and DHS, the Vendor acknowledges that by submitting a response AND signing in the space indicated below, the Vendor is submitting a formal offer to meet the requirements and intent of the RFP. In addition, should a Contract result from this RFP with said Vendor, the Vendor shall be contractually obligated to comply with all items in this RFP. While the Vendor is directed to list clarifications on appropriate templates, all such clarifications shall be subject to OSP's and DHS' acceptance and/or further negotiation. If no clarifications are noted, none will apply. The Vendor agrees that it will not later take clarification to any item agreed to by this signature. Failure to sign the Submission Cover Sheet or signing it with a false statement shall void the submitted response and any resulting Contract(s).

 / 6/29/2017
Original signature of individual authorized to legally bind the Company / Date

Name (typed or printed): Timothy Wicks
Title: Chief Financial Officer, Optum
Company name: Optum
Physical address: 11000 Optum Circle
Eden Prairie, MN 55344
State of Incorporation: Delaware

By signature hereon, the Vendor certifies that:

1. All statements and information prepared and submitted in response to this RFP are current, complete and accurate.
2. The proposed Solution meets all the requirements of this RFP and the stated intentions of the Project.
3. The Vendor will comply with all Federal and State laws, rules, and regulations that are in force currently or anytime during the term of a resulting Contract.
4. The company or companies represented here is/are authorized dealer(s) in good standing of the products / services included in this response.
5. The Vendor and its principals are eligible to participate in this transaction and have not been subjected to suspension, debarment, or similar ineligibility determined by any Federal, State or local governmental entity and that the Vendor is in compliance with State of Arkansas statutes and rules relating to procurement, and that the Vendor is not listed on the Federal government's terrorism watch list as described in Executive Order 13224. Entities ineligible for Federal procurement are listed at <http://www.epls.gov>.

By signature hereon, the Vendor certifies that:

1. All statements and information prepared and submitted in response to this RFP are current, complete and accurate.
2. The proposed Solution meets all the requirements of this RFP and the stated intentions of the Project.
3. The Vendor will comply with all Federal and State laws, rules, and regulations that are in force currently or anytime during the term of a resulting Contract.
4. The company or companies represented here is/are authorized dealer(s) in good standing of the products / services included in this response.
5. The Vendor and its principals are eligible to participate in this transaction and have not been subjected to suspension, debarment, or similar ineligibility determined by any Federal, State or local governmental entity and that the Vendor is in compliance with State of Arkansas statutes and rules relating to procurement, and that the Vendor is not listed on the Federal government's terrorism watch list as described in Executive Order 13224. Entities ineligible for Federal procurement are listed at <http://www.epls.gov>.

2.0 Submission Cover Letter

The Vendor should also provide the following information as part of the Submission Cover Letter:

- A statement regarding the Vendor's legal structure, federal tax identification number, and principal place of business
- Applicable W-9 forms (<http://www.irs.gov/pub/irs-pdf/fw9.pdf>)
- A list of the people who prepared the Vendor's Proposal, including their titles
- A list of all subcontractors, if any, that the Vendor will use on the Project, if DHS selects to contract with the Vendor
 - For each proposed subcontractor, the Vendor should attach a letter from the subcontractor, signed by an individual authorized to legally bind the subcontractor, with the following included in the letter:
 - The subcontractor's legal status, tax identification number, and principal place of business address
 - The name, phone number, fax number, email address, and mailing address of a person who is authorized to legally bind the subcontractor to contractual obligations
 - A description of the work the subcontractor will do
 - A commitment by the subcontractor to do the work if the Vendor is selected
 - A statement that the subcontractor has read and understood the RFP and will comply with the requirements of the RFP
 - A statement that the subcontractor will maintain any permits, licenses and certifications required to perform its portion of the work

Instructions: Provide a Cover Letter that includes the information required above.



11000 Optum Circle | Eden Prairie, MN 55344 | phone: (888) 445-8745 | fax: (952) 917-7878 | www.optum.com

July 7, 2017

Mr. Shane Phillips
State of Arkansas Office of State Procurement
1509 West 7th Street, Room 300
Little Rock, AR 72201-4222

RE: State of Arkansas RFP# SP-17-0012 Integrated Eligibility and Benefit Management Solution (IE-BM)

Dear Mr. Phillips:

OptumInsight, Inc. (Optum)^[1] is pleased to submit this proposal for Integrated Eligibility and Benefit Management Solutions to the Arkansas Department of Human Services.

The Vendor should also provide the following information as part of the Submission Cover Letter:

A statement regarding the Vendor's legal structure, federal tax identification number, and principal place of business

Federal Tax ID number for OptumInsight - #41-1858498

OptumInsight, Inc.'s ultimate parent company is UnitedHealth Group Incorporated, a Delaware (U.S.) corporation whose shares are listed on the New York Stock Exchange (NYSE: UNH).

Optum's headquarters are located at 11000 Optum Circle, Eden Prairie, Minnesota 55344.

Domestically, Optum has locations Lansing, MI; Sacramento, CA; Springfield, IL; Indianapolis, IN; Little Rock, AR; Trenton, NJ; San Francisco, CA; Colorado Springs, CO; Denver, CO; Rocky Hill, CT; Duluth, GA; Lenexa, KS; Overland Park, KS; Louisville, KY; Waltham, MA; Eden Prairie, MN; Minneapolis, MN; Basking Ridge, NJ; Providence, RI; Salt Lake City, UT; Reston, VA; and Milwaukee, WI.

Optum also maintains operations across North America, South America, Europe, Asia Pacific, and the Middle East.

Applicable W-9 forms (<http://www.irs.gov/pub/irs-pdf/fw9.pdf>)

Please see the W-9 attachment at the end of this section.

^[1] The legal name of the bidder is OptumInsight, Inc. and has adopted the brand "Optum" as part of a leading health services business.

A list of the people who prepared the Vendor's Proposal, including their titles

- **Jeff Jarjoura**, *VP Business Development*
- **T. David Smith**, *VP Business Development*
- **David Drury**, *Capture Manager*
- **Hue Ngu**, *Associate Director of Finance*
- **Jill Colleran**, *Senior Proposal Manager*
- **George Irwin**, *Director, Government Business Solutions Integration*
- **Aimée Blatz**, *Senior Associate General Counsel*
- **Michael Dennis**, *Director, Government Business Solutions Integration*
- **Chad Flentje**, *Sr. IT Architecture Consultant*
- **Scott Baune**, *Director IT*
- **Terri Creekmur-Hughes**, *Proposal Development Senior Consultant*
- **Robin Couch**, *Proposal Development Senior Consultant*
- **Joe Mercurio**, *IT Project Analyst*
- **Olivia Shabash**, *IT Project Consultant*
- **Navid Nikravan**, *Director, Application Development*
- **Ted Escalante**, *Business Analyst Consultant*
- **Thomas Boesch**, *Director, Government Business Solutions Integrator*
- **Sabrina W. Lee**, *IT Project Analyst*
- **Thomas Szvetcz**, *Director, IT Project Management PEDS - Commercial Services*

A list of all subcontractors, if any, that the Vendor will use on the Project, if DHS selects to contract with the Vendor

Connvertex Inc.

For each proposed subcontractor, the Vendor should attach a letter from the subcontractor, signed by an individual authorized to legally bind the subcontractor, with the following included in the letter:



June 16, 2017

Connvertex Technologies, Inc., with headquarters at 10855 South River Front Parkway, Suite 275, South Jordan, Utah 84095 was incorporated in the State of Utah on September 18, 2008 with a Federal Tax ID of 26-3383013.

I, Mahesh Chavan, CEO of Connvertex Technologies certify that I have the authority to legally bind the corporation.

Connvertex Technologies agrees to provide services for Cúram migration, data conversion and Cúram maintenance and operations conversion services related to this proposal should the Vendor be selected. We further state that we have read and understand the RFP and will comply with the requirements.

Connvertex Technologies agrees to maintain any permits, licenses and certifications required to perform our portion of the work.

Connvertex Technologies has authorized Phil Silverman, VP Business development to provide clarification concerning the proposal and participate in further negotiations and decisions related to this response.

Sincerely,



Mahesh Chavan

CEO

(801) 326-4490 Off

(801) 326-4489 Direct

(866) 979-8447 Fax

mahesh.chavan@connvertex.com

The subcontractor's legal status, tax identification number, and principal place of business address

Status: Private

Federal Tax ID: 26-3383013

Connvertex: Incorporated in the State of Utah on September 18, 2008
10855 S. River Front Parkway, Suite 275
South Jordan, UT 84065

The name, phone number, fax number, email address, and mailing address of a person who is authorized to legally bind the subcontractor to contractual obligations

Mahesh Chavan, CEO

Phone Number: 801-326-4490

Fax Number: 866-949-5447

Email: mahesh.chavan@connvertex.com

10855 S. River Front Parkway, Suite 275
South Jordan, UT 84065

A description of the work the subcontractor will do

Connvertex will support Optum in support of Implementation as well as Maintenance and Operations functions.

A commitment by the subcontractor to do the work if the Vendor is selected

See commitment on signed statement image



June 16, 2017

Connvertex Technologies, Inc., with headquarters at 10855 South River Front Parkway, Suite 275, South Jordan, Utah 84095 was incorporated in the State of Utah on September 18, 2008 with a Federal Tax ID of 26-3383013.

I, Mahesh Chavan, CEO of Connvertex Technologies certify that I have the authority to legally bind the corporation.

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Connvertex Technologies agrees to maintain any permits, licenses and certifications required to perform our portion of the work.

Connvertex Technologies has authorized Phil Silverman, VP Business development to provide clarification concerning the proposal and participate in further negotiations and decisions related to this response.

Sincerely,



Mahesh Chavan

CEO

(801) 326-4490 Off

(801) 326-4489 Direct

(866) 979-8447 Fax

mahesh.chavan@connvertex.com

July 7, 2017

A statement that the subcontractor has read and understood the RFP and will comply with the requirements of the RFP

See Statement on signed statement image



June 16, 2017

Connvertex Technologies, Inc., with headquarters at 10855 South River Front Parkway, Suite 275, South Jordan, Utah 84095 was incorporated in the State of Utah on September 18, 2008 with a Federal Tax ID of 26-3383013.

I, Mahesh Chavan, CEO of Connvertex Technologies certify that I have the authority to legally bind the corporation.

Connvertex Technologies agrees to provide services for Cúram migration, data conversion and Cúram maintenance and operations conversion services related to this proposal should the Vendor be selected. We further state that we have read and understand the RFP and will comply with the requirements.

Connvertex Technologies agrees to maintain any permits, licenses and certifications required to perform our portion of the work.

Connvertex Technologies has authorized Phil Silverman, VP Business development to provide clarification concerning the proposal and participate in further negotiations and decisions related to this response.

Sincerely,



Mahesh Chavan

CEO

(801) 326-4490 Off

(801) 326-4489 Direct

(866) 979-8447 Fax

mahesh.chavan@connvertex.com

July 7, 2017

A statement that the subcontractor will maintain any permits, licenses and certifications required to perform its portion of the work

See Statement contained in Signed Commitment image



June 16, 2017

Connvertex Technologies, Inc., with headquarters at 10855 South River Front Parkway, Suite 275, South Jordan, Utah 84095 was incorporated in the State of Utah on September 18, 2008 with a Federal Tax ID of 26-3383013.

I, Mahesh Chavan, CEO of Connvertex Technologies certify that I have the authority to legally bind the corporation.

Connvertex Technologies agrees to provide services for Cúram migration, data conversion and Cúram maintenance and operations conversion services related to this proposal should the Vendor be selected. We further state that we have read and understand the RFP and will comply with the requirements.

Connvertex Technologies agrees to maintain any permits, licenses and certifications required to perform our portion of the work.

Connvertex Technologies has authorized Phil Silverman, VP Business development to provide clarification concerning the proposal and participate in further negotiations and decisions related to this response.

Sincerely,



Mahesh Chavan

CEO

(801) 326-4490 Off

(801) 326-4489 Direct

(866) 979-8447 Fax

mahesh.chavan@connvertex.com

July 7, 2017

Instructions: Provide a Cover Letter that includes the information required above

See Cover letter attached in the following pages and in image below



June 16, 2017

Connvertex Technologies, Inc., with headquarters at 10855 South River Front Parkway, Suite 275, South Jordan, Utah 84095 was incorporated in the State of Utah on September 18, 2008 with a Federal Tax ID of 26-3383013.

I, Mahesh Chavan, CEO of Connvertex Technologies certify that I have the authority to legally bind the corporation.

Connvertex Technologies agrees to provide services for Cúram migration, data conversion and Cúram maintenance and operations conversion services related to this proposal should the Vendor be selected. We further state that we have read and understand the RFP and will comply with the requirements.

Connvertex Technologies agrees to maintain any permits, licenses and certifications required to perform our portion of the work.

Connvertex Technologies has authorized Phil Silverman, VP Business development to provide clarification concerning the proposal and participate in further negotiations and decisions related to this response.

Sincerely,



Mahesh Chavan

CEO

(801) 326-4490 Off

(801) 326-4489 Direct

(866) 979-8447 Fax

mahesh.chavan@connvertex.com

I, Timothy Wicks, am authorized to commit Optum to the Scope of Work identified in the RFP. Please direct any questions or communications regarding this proposal to Jeff Jarjoura, VP, Business Development, State Government, at (281)-382-7751 or jeff.jarjoura@optum.com.

Best regards,



~~Timothy Wicks~~
Timothy Wicks
Chief Financial Officer, Optum

3.0 Table of Contents

Instructions: Provide a Table of Contents for the Proposal. This should include all parts of the Proposal, including response forms and attachments, and should be identified by volume and page number. The structure of the Proposal should match the structure of the Response Templates for ease of Proposal evaluation. The Table of Contents should identify all sections, figures, charts, graphs, etc.

Template T-1

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Functional RTM

Excel Spreadsheet

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Technical RTM

Excel Spreadsheet

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Implementation RTM

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State of Arkansas Terms & Conditions of this RFP and Any Resulting Contract

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4.0 Executive Summary

Instructions: Provide a brief (three [3] to five [5] page) summary of the key aspects of the Vendor's Technical Proposal. The Executive Summary should include an overview of the Vendor's qualifications, approach to deliver the services described in the RFP, time frame to deliver the services, proposed team and advantage of this Proposal to DHS.

The Arkansas Department of Human Services (DHS) has a goal to migrate to a person-centric Health and Human Services (HHS) delivery model. This directly aligns with the core design principles that drove development of the Optum Integrated Eligibility Solution (IES), our proposed solution for your Eligibility and Benefit Management System (AR IE-BM) project.

As your current Arkansas Medicaid Enterprise and Decision Support System (AME DSS) vendor, we have demonstrated our ability to understand your programs, work with your systems, and perform to your expectations. We have been closely monitoring your progress to stabilize and improve the current Eligibility and Enrollment Framework (EEF) project. Our proposed solution is based on our understanding of your goals, a close review of your RFP requirements, and lessons we have learned in previous state and Federal engagements.

After considering multiple solution options, including building on and improving the current EEF, we have concluded that the best way to help you achieve your objectives and realize your vision of a person-centric HHS delivery model is full migration to the Optum IES. We understand that the decision to continue to invest in your current system or to transition to an improved system is an important one. The vendor and solution that DHS chooses at this critical juncture will be at the heart of everything you do for many years to come. It is crucial that the solution you select best serve the State in the long term. We believe that solution will be one that is open, flexible, scalable, and enables a much lower total cost of ownership for the State.

Overview of the Vendor's Qualifications

Optum has a demonstrable record of successfully executing very large, complex, highly visible HHS technology projects similar to the AR IE-BM. Often these engagements had very strict deadlines and zero tolerance for error. We have been recognized for our unique ability to manage very complex implementations while focusing on the operational, business, and customer impacts of the new technology.

In 2011, CMS asked Optum to serve as systems integrator to develop the Federal Data Service Hub (FDSH). The FDSH routes enrollment verification requests between the Federally Facilitated Marketplace (FFM), Medicaid agencies, State Based Exchanges (SBE), and the authoritative federal data sources. The Optum FDSH performed as planned during the initial ACA open enrollment period.

Optum expertise and experience:

- The nationally recognized leader in HHS enterprise data integration helping states execute person-centric HHS delivery
- Asked by CMS to serve as "general contractor" to fix the troubled roll-out of HealthCare.gov
- Asked to help save five struggling state eligibility system projects

As a result of successfully delivering the FDSH on time and within budget, CMS and the Administration asked Optum to serve as general contractor to fix the troubled roll-out of HealthCare.gov. We led a collaborative, "badgeless" team across multiple IT vendors to bring the site back up to performance, enabling millions of people to enroll in health coverage by the end of that first enrollment period. Our success with CMS led to similar work that we performed for several States experiencing similar challenges, including two Cúram-based projects.

Through these projects, in addition to our other state and federal experience, we gained a national perspective into the current state of the technology supporting human services programs today. Some of our observations included:

- Most states were still utilizing legacy systems, some of which were over thirty years old
- Many systems implemented in the last three to five years were “re-use” systems that, at their core, still sit on outdated (i.e. client-server) technology when compared to today’s standards
- States continued to struggle after the systems went live due to a lack of interoperability and limited configurability to adapt to change
- Case workers had to toggle between different screens and even different systems to get a complete picture of a citizen’s situation, program enrollment, and history

The vendor and solution that DHS chooses at this critical juncture will be at the heart of everything you do for many years to come. It is crucial that the solution you select best serve the State in the long term.

We designed the Optum IES to help states address these challenges. Unlike the design, development, and implementation (DDI) approaches of the past, we have made a considerable up-front investment to bring our state customers as much core functionality and pre-configured workflows and business rules as possible. The intent of this approach is to minimize custom development to the extent possible and deliver state-specific requirements through configuration. This approach has proved to reduce risk, cost, and time to go-live.

The Optum IES

We designed the Optum IES after extensive consumer research, which included Arkansas DHS clients. Based on this research, we incorporated features that clients want and minimize the number of unnecessary interactions with state staff. Some of these features include notifications/alerts/warnings to proactively inform clients on the status of their applications at different points in the process; streamlined recertification using existing client profile data; ability to upload document images; and proactive suggestions on other relevant non-profit resources that are available to address unmet needs.

We also set out to help make the jobs of State workers easier and more enjoyable by:

- Allowing DHS users to spend more time providing assistance and less time addressing consumer challenges with the application process
- Empowering DHS staff to address a citizen’s needs holistically
- Maximizing one-and-done processing, reducing pended applications and frustrating backlogs
- Designing user interfaces that are intuitive and pleasing to the eye
- Enabling managers and program leads to see what is happening in the system through real-time KPI dashboards to drive programs and policies

The Optum IES – Technology and Architecture

The Optum IES incorporates proven commercial-off-the-shelf (COTS) software components enabled by a service oriented architecture (SOA).

The Optum IES is a plug-and-play platform allowing you to swap or add other COTS components as future needs dictate.

In addition, our solution includes the Optum Integration Layer (OIL), a health and human services-specific SOA, equipped with a library of standard service adapters and data models that we have used to deliver other complex technology

projects like the AR IE-BM. OIL communicates via the enterprise service bus (ESB) to create a plug-and-play environment allowing you to swap or add other COTS components as your future needs dictate. The result is a system that is extensible, nimble, and will help you more efficiently manage ongoing changes across multiple programs.

Our user portals share modular, reusable backend services to trigger automated tasks such as notice generation, alerts, and data validation services. Optum IES includes configurable workflows, guided data entry, single-click navigation between client and case records, and automated triggering of periodic background processes. Systemic execution of these common functions will help DHS staff intuitively navigate processes that vary by program, which helps reduce training time, enables cross-functional/multi-disciplinary teams, and enforces process consistency.

Approach to Deliver the Services Described in the RFP

Your plan to implement the AR IE-BM Solution in multiple releases aligns with our integrated delivery and project management methodology, the Optum Delivery Model. The Optum Delivery Model is based on industry standards and lessons learned over two decades of successful delivery of technology projects like the AR IE-BM. It divides work into smaller, more manageable and time-predictable efforts in order to provide early and continuous delivery of high quality, fully tested components.

Our plan is to execute multiple work streams in parallel. This approach allows us to identify interdependencies between the various HHS programs in order to implement them as a cohesive unit. This substantially reduces any impact to worker caseload by providing an integrated presentation of system functionality throughout the pilot phases of the project.

Finally, we have extensive experience supporting states both before and during the CMS certification process. For those systems that require certification, we have a 100 percent success rate achieving first time certification.

Timeline

Optum is committing to a 30-month implementation timeline. Assuming a December 31, 2017, start date, we will complete the project, including all testing and pilot phases, by May 2020. Figure 1 shows our multi-release approach and timeline.

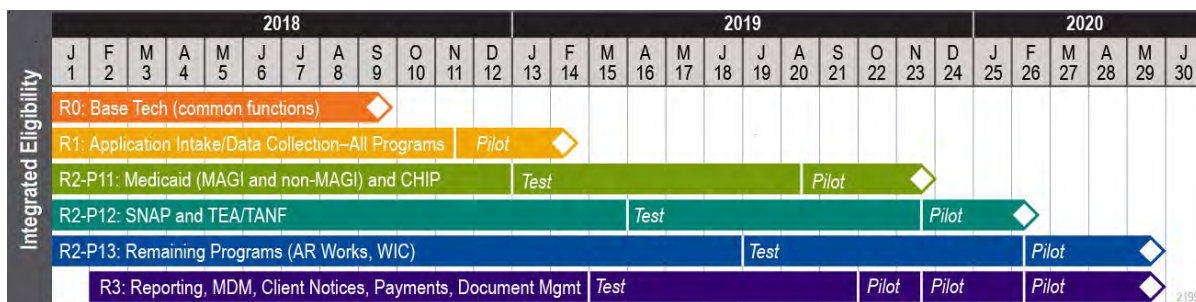


Figure 1. Optum Multi-Release Approach and IE-BM Timeline.

Optum will complete the AR IE-BM project in 30 months by executing multiple more manageable and time predictable work streams in parallel

Summary of Proposed Team

We are proposing close to 200 Optum IES project team members who will work shoulder-to-shoulder with you every step of the way. Our team has IE implementation experience, large-scale HHS systems and integration experience, knowledge of Arkansas’ unique operating and technology environment, and a clear understanding of your vision for the AR IE-BM. This team

will reduce project ramp up and delivery time based on experience in these core functional areas.

Steve Hinz will lead the project. Mr. Hinz is PMP-certified and has more than 20 years of experience in the delivery of transformational technology solutions across the HHS industry. He has led client engagements at 16 different federal and state agencies across 15 states, as well as the delivery of various payer solutions for 10 private sector clients. In North Carolina, Mr. Hinz served as the senior project manager responsible for delivering core functions for the NC FAST implementation of Cúram. He will leverage this diverse experience across the HHS continuum to bring innovative thinking to the AR IE-BM project.

With Optum, you will be working with a diverse team of individuals with experience across the HHS continuum. Our team consists of technologists, program experts, business process consultants, change management experts, and other professionals. They are empowered by well-defined project organizational structure, proven project management practices, and oversight from Optum leadership, including our CEO Larry Renfro.

Project Organization

We have structured our project organization to foster a close and collaborative working relationship with you. We understand the need to make sure State staff's time is used efficiently. Our organizational structure is based on proper alignment with State staff to promote efficient communication and clear lines of accountability. Open and transparent communication was the cornerstone of project success for the AME DSS and will be for the AR IE-BM project as well.

For this project, we are partnering with Connvertex Technologies, Inc. (Connvertex). Connvertex is an IBM Gold Partner with considerable experience maintaining and customizing the Cúram framework for Medicaid, TANF, Food Stamps, Child Care, Child Welfare, Unemployment Insurance, and Health Insurance Exchanges. As part of the EEF project team, Connvertex brings valuable knowledge of the environment, processes, tools, artifacts, and lessons learned derived from years of successful project experience.

Optum understands the challenges of inter-department and inter-vendor coordination, and our project management processes and staffing approach have been adapted for these exact situations.

Advantages of this Proposal to DHS

Below we summarize the advantages of the Optum proposal in the context of your key business drivers and imperatives.

Migrate to a Person/Family-Centric Model

The Optum IES works with ease, speed, and flexibility to bring together disparate data and systems to produce a consolidated and complete 360 degree view of a citizen's information and program history. This helps you better understand the entirety of a household's needs and identify programs to address the whole person.

Leverage Technology to Improve Client Satisfaction, Robust Self Service and Multi-Channel Access to Benefits

The Optum IES is designed based on an extensive consumer research to incorporate features citizens want. Almost all research participants, including those from Arkansas, found the Optum portal to be designed with their needs in mind. They reported that the Optum portal was streamlined and simple to follow. They liked the ability to track the status of their application, recertification and benefits. In short, the Optum portal addressed many of the challenges participants face and aligned with their own identified needs

Increase Access to Data and Information

The Optum IES provides single-click navigation between client and case records providing the user quick access to data with little navigational burden. The navigation allows agency workers to toggle between client and case records with options to open multiple records simultaneously. This allows workers to manage case, program and client tasks and information simultaneously without exiting pages.

In addition, our reporting and analytic service is a flexible web-based solution designed to streamline reporting and business intelligence across HHS programs. Our services combine data from multiple sources to extrapolate analytic insights, which are used to drive key business decisions through configurable real-time dashboards

Decrease Technology Risk and/or Costs

The Optum IES is a COTS-SOA based system. All proposed COTS components are ones we use throughout our enterprise and have deep proficiency. In addition, business users can easily configure and maintain the rules with minimal training. They do not require any programming skills to edit or update rule sets. Efficiencies gained due to increased automation and time savings to execute common tasks significantly contribute to a lower TCO. Optum is nationally recognized for reliability in remediating and delivering large, complex HHS projects like the IE-BM

Improve Operational Efficiency and Effectiveness

The Optum IES is designed to maximize automation in multiple areas including notice generation, MAGI determinations, batch processes and many more. In addition, we have configured the system to provide context sensitive help and guided data entry for DHS users to intuitively navigate through the case management lifecycle with robust decision support.

Automated case assignment or reassignment can be configured based on custom status values. For example, DHS can leverage the solution to identify a worker's skill set and role giving you the ability to include or exclude a task from a work queue, which allows for appropriate staffing from the beginning of the work. This approach limits inefficient use of time and reduces DHS staff frustration because of inappropriate work assignments.

Establish an Integrated Platform of Components that will Decrease TCO and Support Future Needs

As stated, the Optum IES is COTS-SOA based system that creates a plug and play platform allowing you to swap or add components in a non-disruptive fashion as future needs dictate. Components are re-usable for other functions across your HHS enterprise to maximize the application of the A-87 cost allocation exception

The Optum IES "future proofs" your organization through continuous COTS vendor investment in new functionality delivered through regular and non-disruptive upgrades.

With Optum, the State will leap-frog to the most modern IE-BM solution on the market today; one that is web-based, flexible, interoperable, and will help DHS realize a significantly lower total cost of ownership.

We look forward to the opportunity to demonstrate the Optum IES and discuss how our proposal achieves the lowest total cost of ownership and the best way to realize your vision of an integrated person-centric human services delivery organization.

5.0 Vendor Contact Information

Instructions: Complete the following information regarding the Vendor’s headquarters and primary contact for any questions pertaining to the Vendor’s responses to this RFP. Do not change any of the completed cells. Any changes to the completed cells could lead to the disqualification of the Proposal.

Table 1. Vendor Contact Information

COMPANY HEADQUARTERS INFORMATION:	
Company Name:	Optum
Address:	11000 Optum Circle
City, State & Zip Code:	Eden Prairie, MN 55344
Company Type (Check One):	<input type="checkbox"/> Private <input checked="" type="checkbox"/> Public
Company Size:	132,000 (Total Number of Employees)
Annual Revenue:	\$184.8 B
PRIMARY CONTACT INFORMATION:	
Name:	Jeff Jarjoura
Title:	VP, Business Development, State Government
Address:	11000 Optum Circle
City, State & Zip Code:	Eden Prairie, MN 5534
Phone:	281-382-7751
Fax:	(888) 445-8745
E-mail:	jeff.jarjoura@optum.com
REGIONAL OR LOCAL OFFICE INFORMATION:	
Company Name:	OptumInsight, Inc.
Region Name:	N/A
Address:	One Allied Drive, Building #2, Suite 2210
City, State & Zip Code:	Little Rock, AR 72202

Primary Contact:	Mark Langenfeld, Account Director Arkansas Medicaid Enterprise Decision Support System (AME DSS)	
Phone:	501-725-3283	Fax: 501-725-3319
E-mail:	Mark.Lagenfeld@Optum.com	

5.1 Subcontractor Contact Information (If applicable)

Instructions: Complete the following information regarding the subcontractor’s contact information. If more than one subcontractor is proposed, add more Tables as necessary. Do not change any of the completed cells. Any changes to the completed cells could lead to the disqualification of the Proposal.

Table 2. Subcontractor Contact Information

COMPANY INFORMATION:		
Company Name:	Connvertex Technologies, Inc.	
Address:	10855 S. River Front Parkway, Suite 275	
City, State & Zip Code:	South Jordan, UT 84095	
Company Type (Check One):	<input checked="" type="checkbox"/> Private <input type="checkbox"/> Public	
Company Size:	36 (Total Number of Employees)	
Annual Revenue:	8,105,452	
PRIMARY CONTACT INFORMATION:		
Name:	Mahesh Chavan	Title: CEO
Address:	10855 S. River Front Parkway, Suite 275	
City, State & Zip Code:	South Jordan, UT 84065	
Phone:	801-326-4490	Fax: 866-949-5447
E-mail:	mahesh.chavan@connvertex.com	

6.0 Minimum Mandatory Qualifications

The Vendor must provide clear, compelling justification that it meets all of the Minimum Mandatory Qualifications. The Vendor is encouraged to provide ample references to information contained in the Proposal that supports its attestation. Vendors that fail to provide clear, sufficient evidence that they meet the Minimum Mandatory Qualifications may be subject to disqualification. DHS may ask for additional clarifications relating to the Minimum Mandatory Qualifications prior to determination of compliance.

Instructions: Complete the following information regarding the Vendor’s ability to meet the Minimum Mandatory Qualifications. Provide specific references to Proposal locations that support the Vendor’s assertions that it meets the Minimum Mandatory Qualifications. Do not change any of the completed cells. Any changes to the completed cells could lead to the disqualification of the Proposal.

Table 3. Minimum Mandatory Qualifications

#	QUALIFICATION ITEM	DOES THE VENDOR MEET QUALIFICATION ITEM?		REFERENCE TO PROPOSAL RESPONSE SECTION
1	The Vendor (Prime only) must have experience with three (3) engagements similar in size, complexity and scope to this procurement in the last five (5) years. (Vendor responses to Template T-3 will be used to confirm this)	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	T3 Pages 1-11
2	The Vendor’s team (Prime only) must have proven experience implementing and maintaining State human services systems with at least three (3) implementations in the past five (5) years. (Vendor responses to Template T-3 shall be used to confirm this)	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	T3 Pages 1-11
3	The Vendor (Prime) must have annual revenue of at least \$100M	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	UHG 10K 2015 UHG 10K 2016 Both reports are on CD as requested

Request for Taxpayer Identification Number and Certification

**Give Form to the
requester. Do not
send to the IRS.**

Print or type See Specific Instructions on page 2.	1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank. OptumInsight, Inc.		
	2 Business name/disregarded entity name, if different from above		
	3 Check appropriate box for federal tax classification; check only one of the following seven boxes: <input type="checkbox"/> Individual/sole proprietor or single-member LLC <input type="checkbox"/> Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=partnership) ▶ _____ Note. For a single-member LLC that is disregarded, do not check LLC; check the appropriate box in the line above for the tax classification of the single-member owner. <input type="checkbox"/> Other (see instructions) ▶ _____		4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3): Exempt payee code (if any) _____ Exemption from FATCA reporting code (if any) _____ <small>(Applies to accounts maintained outside the U.S.)</small>
	5 Address (number, street, and apt. or suite no.) *** For 1099 Remittance Only ***		Requester's name and address (optional)
	6 City, state, and ZIP code Attn: Corporate Tax MN008-T390, 9900 Bren Rd E, Minnetonka, MN 55343		
	7 List account number(s) here (optional)		

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

Note. If the account is in more than one name, see the instructions for line 1 and the chart on page 4 for guidelines on whose number to enter.

Social security number	
[] [] [] - [] [] - [] [] [] []	
or	
Employer identification number	
4 1 - 1 8 5 8 4 9 8	

Part II Certification

Under penalties of perjury, I certify that:

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
- I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
- I am a U.S. citizen or other U.S. person (defined below); and
- The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions on page 3.

Sign Here	Signature of U.S. person ▶	Date ▶ <u>6/29/2017</u>
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General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. Information about developments affecting Form W-9 (such as legislation enacted after we release it) is at www.irs.gov/fw9.

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following:

- Form 1099-INT (interest earned or paid)
- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)

- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding? on page 2.

By signing the filled-out form, you:

- Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
- Certify that you are not subject to backup withholding, or
- Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income, and
- Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting, is correct. See *What is FATCA reporting?* on page 2 for further information.

Note. If you are a U.S. person and a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien;
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States;
- An estate (other than a foreign estate); or
- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax under section 1446 on any foreign partners' share of effectively connected taxable income from such business. Further, in certain cases where a Form W-9 has not been received, the rules under section 1446 require a partnership to presume that a partner is a foreign person, and pay the section 1446 withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid section 1446 withholding on your share of partnership income.

In the cases below, the following person must give Form W-9 to the partnership for purposes of establishing its U.S. status and avoiding withholding on its allocable share of net income from the partnership conducting a trade or business in the United States:

- In the case of a disregarded entity with a U.S. owner, the U.S. owner of the disregarded entity and not the entity;
- In the case of a grantor trust with a U.S. grantor or other U.S. owner, generally, the U.S. grantor or other U.S. owner of the grantor trust and not the trust; and
- In the case of a U.S. trust (other than a grantor trust), the U.S. trust (other than a grantor trust) and not the beneficiaries of the trust.

Foreign person. If you are a foreign person or the U.S. branch of a foreign bank that has elected to be treated as a U.S. person, do not use Form W-9. Instead, use the appropriate Form W-8 or Form 8233 (see Publication 515, Withholding of Tax on Nonresident Aliens and Foreign Entities).

Nonresident alien who becomes a resident alien. Generally, only a nonresident alien individual may use the terms of a tax treaty to reduce or eliminate U.S. tax on certain types of income. However, most tax treaties contain a provision known as a "saving clause." Exceptions specified in the saving clause may permit an exemption from tax to continue for certain types of income even after the payee has otherwise become a U.S. resident alien for tax purposes.

If you are a U.S. resident alien who is relying on an exception contained in the saving clause of a tax treaty to claim an exemption from U.S. tax on certain types of income, you must attach a statement to Form W-9 that specifies the following five items:

1. The treaty country. Generally, this must be the same treaty under which you claimed exemption from tax as a nonresident alien.
2. The treaty article addressing the income.
3. The article number (or location) in the tax treaty that contains the saving clause and its exceptions.
4. The type and amount of income that qualifies for the exemption from tax.
5. Sufficient facts to justify the exemption from tax under the terms of the treaty article.

Example. Article 20 of the U.S.-China income tax treaty allows an exemption from tax for scholarship income received by a Chinese student temporarily present in the United States. Under U.S. law, this student will become a resident alien for tax purposes if his or her stay in the United States exceeds 5 calendar years. However, paragraph 2 of the first Protocol to the U.S.-China treaty (dated April 30, 1984) allows the provisions of Article 20 to continue to apply even after the Chinese student becomes a resident alien of the United States. A Chinese student who qualifies for this exception (under paragraph 2 of the first protocol) and is relying on this exception to claim an exemption from tax on his or her scholarship or fellowship income would attach to Form W-9 a statement that includes the information described above to support that exemption.

If you are a nonresident alien or a foreign entity, give the requester the appropriate completed Form W-8 or Form 8233.

Backup Withholding

What is backup withholding? Persons making certain payments to you must under certain conditions withhold and pay to the IRS 28% of such payments. This is called "backup withholding." Payments that may be subject to backup withholding include interest, tax-exempt interest, dividends, broker and barter exchange transactions, rents, royalties, nonemployee pay, payments made in settlement of payment card and third party network transactions, and certain payments from fishing boat operators. Real estate transactions are not subject to backup withholding.

You will not be subject to backup withholding on payments you receive if you give the requester your correct TIN, make the proper certifications, and report all your taxable interest and dividends on your tax return.

Payments you receive will be subject to backup withholding if:

1. You do not furnish your TIN to the requester,
2. You do not certify your TIN when required (see the Part II instructions on page 3 for details),

3. The IRS tells the requester that you furnished an incorrect TIN,

4. The IRS tells you that you are subject to backup withholding because you did not report all your interest and dividends on your tax return (for reportable interest and dividends only), or

5. You do not certify to the requester that you are not subject to backup withholding under 4 above (for reportable interest and dividend accounts opened after 1983 only).

Certain payees and payments are exempt from backup withholding. See *Exempt payee code* on page 3 and the separate Instructions for the Requester of Form W-9 for more information.

Also see *Special rules for partnerships* above.

What is FATCA reporting?

The Foreign Account Tax Compliance Act (FATCA) requires a participating foreign financial institution to report all United States account holders that are specified United States persons. Certain payees are exempt from FATCA reporting. See *Exemption from FATCA reporting code* on page 3 and the Instructions for the Requester of Form W-9 for more information.

Updating Your Information

You must provide updated information to any person to whom you claimed to be an exempt payee if you are no longer an exempt payee and anticipate receiving reportable payments in the future from this person. For example, you may need to provide updated information if you are a C corporation that elects to be an S corporation, or if you no longer are tax exempt. In addition, you must furnish a new Form W-9 if the name or TIN changes for the account; for example, if the grantor of a grantor trust dies.

Penalties

Failure to furnish TIN. If you fail to furnish your correct TIN to a requester, you are subject to a penalty of \$50 for each such failure unless your failure is due to reasonable cause and not to willful neglect.

Civil penalty for false information with respect to withholding. If you make a false statement with no reasonable basis that results in no backup withholding, you are subject to a \$500 penalty.

Criminal penalty for falsifying information. Willfully falsifying certifications or affirmations may subject you to criminal penalties including fines and/or imprisonment.

Misuse of TINs. If the requester discloses or uses TINs in violation of federal law, the requester may be subject to civil and criminal penalties.

Specific Instructions

Line 1

You must enter one of the following on this line; **do not** leave this line blank. The name should match the name on your tax return.

If this Form W-9 is for a joint account, list first, and then circle, the name of the person or entity whose number you entered in Part I of Form W-9.

a. **Individual.** Generally, enter the name shown on your tax return. If you have changed your last name without informing the Social Security Administration (SSA) of the name change, enter your first name, the last name as shown on your social security card, and your new last name.

Note. ITIN applicant: Enter your individual name as it was entered on your Form W-7 application, line 1a. This should also be the same as the name you entered on the Form 1040/1040A/1040EZ you filed with your application.

b. **Sole proprietor or single-member LLC.** Enter your individual name as shown on your 1040/1040A/1040EZ on line 1. You may enter your business, trade, or "doing business as" (DBA) name on line 2.

c. **Partnership, LLC that is not a single-member LLC, C Corporation, or S Corporation.** Enter the entity's name as shown on the entity's tax return on line 1 and any business, trade, or DBA name on line 2.

d. **Other entities.** Enter your name as shown on required U.S. federal tax documents on line 1. This name should match the name shown on the charter or other legal document creating the entity. You may enter any business, trade, or DBA name on line 2.

e. **Disregarded entity.** For U.S. federal tax purposes, an entity that is disregarded as an entity separate from its owner is treated as a "disregarded entity." See Regulations section 301.7701-2(c)(2)(iii). Enter the owner's name on line 1. The name of the entity entered on line 1 should never be a disregarded entity. The name on line 1 should be the name shown on the income tax return on which the income should be reported. For example, if a foreign LLC that is treated as a disregarded entity for U.S. federal tax purposes has a single owner that is a U.S. person, the U.S. owner's name is required to be provided on line 1. If the direct owner of the entity is also a disregarded entity, enter the first owner that is not disregarded for federal tax purposes. Enter the disregarded entity's name on line 2, "Business name/disregarded entity name." If the owner of the disregarded entity is a foreign person, the owner must complete an appropriate Form W-8 instead of a Form W-9. This is the case even if the foreign person has a U.S. TIN.

Line 2

If you have a business name, trade name, DBA name, or disregarded entity name, you may enter it on line 2.

Line 3

Check the appropriate box in line 3 for the U.S. federal tax classification of the person whose name is entered on line 1. Check only one box in line 3.

Limited Liability Company (LLC). If the name on line 1 is an LLC treated as a partnership for U.S. federal tax purposes, check the "Limited Liability Company" box and enter "P" in the space provided. If the LLC has filed Form 8832 or 2553 to be taxed as a corporation, check the "Limited Liability Company" box and in the space provided enter "C" for C corporation or "S" for S corporation. If it is a single-member LLC that is a disregarded entity, do not check the "Limited Liability Company" box; instead check the first box in line 3 "Individual/sole proprietor or single-member LLC."

Line 4, Exemptions

If you are exempt from backup withholding and/or FATCA reporting, enter in the appropriate space in line 4 any code(s) that may apply to you.

Exempt payee code.

- Generally, individuals (including sole proprietors) are not exempt from backup withholding.
- Except as provided below, corporations are exempt from backup withholding for certain payments, including interest and dividends.
- Corporations are not exempt from backup withholding for payments made in settlement of payment card or third party network transactions.
- Corporations are not exempt from backup withholding with respect to attorneys' fees or gross proceeds paid to attorneys, and corporations that provide medical or health care services are not exempt with respect to payments reportable on Form 1099-MISC.

The following codes identify payees that are exempt from backup withholding. Enter the appropriate code in the space in line 4.

- 1—An organization exempt from tax under section 501(a), any IRA, or a custodial account under section 403(b)(7) if the account satisfies the requirements of section 401(f)(2)
- 2—The United States or any of its agencies or instrumentalities
- 3—A state, the District of Columbia, a U.S. commonwealth or possession, or any of their political subdivisions or instrumentalities
- 4—A foreign government or any of its political subdivisions, agencies, or instrumentalities
- 5—A corporation
- 6—A dealer in securities or commodities required to register in the United States, the District of Columbia, or a U.S. commonwealth or possession
- 7—A futures commission merchant registered with the Commodity Futures Trading Commission
- 8—A real estate investment trust
- 9—An entity registered at all times during the tax year under the Investment Company Act of 1940
- 10—A common trust fund operated by a bank under section 584(a)
- 11—A financial institution
- 12—A middleman known in the investment community as a nominee or custodian
- 13—A trust exempt from tax under section 664 or described in section 4947

The following chart shows types of payments that may be exempt from backup withholding. The chart applies to the exempt payees listed above, 1 through 13.

IF the payment is for . . .	THEN the payment is exempt for . . .
Interest and dividend payments	All exempt payees except for 7
Broker transactions	Exempt payees 1 through 4 and 6 through 11 and all C corporations. S corporations must not enter an exempt payee code because they are exempt only for sales of noncovered securities acquired prior to 2012.
Barter exchange transactions and patronage dividends	Exempt payees 1 through 4
Payments over \$600 required to be reported and direct sales over \$5,000 ¹	Generally, exempt payees 1 through 5 ²
Payments made in settlement of payment card or third party network transactions	Exempt payees 1 through 4

¹ See Form 1099-MISC, Miscellaneous Income, and its instructions.

² However, the following payments made to a corporation and reportable on Form 1099-MISC are not exempt from backup withholding: medical and health care payments, attorneys' fees, gross proceeds paid to an attorney reportable under section 6045(f), and payments for services paid by a federal executive agency.

Exemption from FATCA reporting code. The following codes identify payees that are exempt from reporting under FATCA. These codes apply to persons submitting this form for accounts maintained outside of the United States by certain foreign financial institutions. Therefore, if you are only submitting this form for an account you hold in the United States, you may leave this field blank. Consult with the person requesting this form if you are uncertain if the financial institution is subject to these requirements. A requester may indicate that a code is not required by providing you with a Form W-9 with "Not Applicable" (or any similar indication) written or printed on the line for a FATCA exemption code.

- A—An organization exempt from tax under section 501(a) or any individual retirement plan as defined in section 7701(a)(37)
- B—The United States or any of its agencies or instrumentalities
- C—A state, the District of Columbia, a U.S. commonwealth or possession, or any of their political subdivisions or instrumentalities
- D—A corporation the stock of which is regularly traded on one or more established securities markets, as described in Regulations section 1.1472-1(c)(1)(i)
- E—A corporation that is a member of the same expanded affiliated group as a corporation described in Regulations section 1.1472-1(c)(1)(i)
- F—A dealer in securities, commodities, or derivative financial instruments (including notional principal contracts, futures, forwards, and options) that is registered as such under the laws of the United States or any state
- G—A real estate investment trust
- H—A regulated investment company as defined in section 851 or an entity registered at all times during the tax year under the Investment Company Act of 1940
- I—A common trust fund as defined in section 584(a)
- J—A bank as defined in section 581
- K—A broker
- L—A trust exempt from tax under section 664 or described in section 4947(a)(1)
- M—A tax exempt trust under a section 403(b) plan or section 457(g) plan

Note. You may wish to consult with the financial institution requesting this form to determine whether the FATCA code and/or exempt payee code should be completed.

Line 5

Enter your address (number, street, and apartment or suite number). This is where the requester of this Form W-9 will mail your information returns.

Line 6

Enter your city, state, and ZIP code.

Part I. Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. If you are a resident alien and you do not have and are not eligible to get an SSN, your TIN is your IRS individual taxpayer identification number (ITIN). Enter it in the social security number box. If you do not have an ITIN, see *How to get a TIN* below.

If you are a sole proprietor and you have an EIN, you may enter either your SSN or EIN. However, the IRS prefers that you use your SSN.

If you are a single-member LLC that is disregarded as an entity separate from its owner (see *Limited Liability Company (LLC)* on this page), enter the owner's SSN (or EIN, if the owner has one). Do not enter the disregarded entity's EIN. If the LLC is classified as a corporation or partnership, enter the entity's EIN.

Note. See the chart on page 4 for further clarification of name and TIN combinations.

How to get a TIN. If you do not have a TIN, apply for one immediately. To apply for an SSN, get Form SS-5, Application for a Social Security Card, from your local SSA office or get this form online at www.ssa.gov. You may also get this form by calling 1-800-772-1213. Use Form W-7, Application for IRS Individual Taxpayer Identification Number, to apply for an ITIN, or Form SS-4, Application for Employer Identification Number, to apply for an EIN. You can apply for an EIN online by accessing the IRS website at www.irs.gov/businesses and clicking on Employer Identification Number (EIN) under Starting a Business. You can get Forms W-7 and SS-4 from the IRS by visiting IRS.gov or by calling 1-800-TAX-FORM (1-800-829-3676).

If you are asked to complete Form W-9 but do not have a TIN, apply for a TIN and write "Applied For" in the space for the TIN, sign and date the form, and give it to the requester. For interest and dividend payments, and certain payments made with respect to readily tradable instruments, generally you will have 60 days to get a TIN and give it to the requester before you are subject to backup withholding on payments. The 60-day rule does not apply to other types of payments. You will be subject to backup withholding on all such payments until you provide your TIN to the requester.

Note. Entering "Applied For" means that you have already applied for a TIN or that you intend to apply for one soon.

Caution: A disregarded U.S. entity that has a foreign owner must use the appropriate Form W-8.

Part II. Certification

To establish to the withholding agent that you are a U.S. person, or resident alien, sign Form W-9. You may be requested to sign by the withholding agent even if items 1, 4, or 5 below indicate otherwise.

For a joint account, only the person whose TIN is shown in Part I should sign (when required). In the case of a disregarded entity, the person identified on line 1 must sign. Exempt payees, see *Exempt payee code* earlier.

Signature requirements. Complete the certification as indicated in items 1 through 5 below.

- 1. Interest, dividend, and barter exchange accounts opened before 1984 and broker accounts considered active during 1983.** You must give your correct TIN, but you do not have to sign the certification.
- 2. Interest, dividend, broker, and barter exchange accounts opened after 1983 and broker accounts considered inactive during 1983.** You must sign the certification or backup withholding will apply. If you are subject to backup withholding and you are merely providing your correct TIN to the requester, you must cross out item 2 in the certification before signing the form.
- 3. Real estate transactions.** You must sign the certification. You may cross out item 2 of the certification.
- 4. Other payments.** You must give your correct TIN, but you do not have to sign the certification unless you have been notified that you have previously given an incorrect TIN. "Other payments" include payments made in the course of the requester's trade or business for rents, royalties, goods (other than bills for merchandise), medical and health care services (including payments to corporations), payments to a nonemployee for services, payments made in settlement of payment card and third party network transactions, payments to certain fishing boat crew members and fishermen, and gross proceeds paid to attorneys (including payments to corporations).
- 5. Mortgage interest paid by you, acquisition or abandonment of secured property, cancellation of debt, qualified tuition program payments (under section 529), IRA, Coverdell ESA, Archer MSA or HSA contributions or distributions, and pension distributions.** You must give your correct TIN, but you do not have to sign the certification.

What Name and Number To Give the Requester

For this type of account:	Give name and SSN of:
1. Individual	The individual
2. Two or more individuals (joint account)	The actual owner of the account or, if combined funds, the first individual on the account ¹
3. Custodian account of a minor (Uniform Gift to Minors Act)	The minor ²
4. a. The usual revocable savings trust (grantor is also trustee) b. So-called trust account that is not a legal or valid trust under state law	The grantor-trustee ¹ The actual owner ¹
5. Sole proprietorship or disregarded entity owned by an individual	The owner ³
6. Grantor trust filing under Optional Form 1099 Filing Method 1 (see Regulations section 1.671-4(b)(2)(i)(A))	The grantor ⁴
For this type of account:	Give name and EIN of:
7. Disregarded entity not owned by an individual	The owner
8. A valid trust, estate, or pension trust	Legal entity ⁴
9. Corporation or LLC electing corporate status on Form 8832 or Form 2553	The corporation
10. Association, club, religious, charitable, educational, or other tax-exempt organization	The organization
11. Partnership or multi-member LLC	The partnership
12. A broker or registered nominee	The broker or nominee
13. Account with the Department of Agriculture in the name of a public entity (such as a state or local government, school district, or prison) that receives agricultural program payments	The public entity
14. Grantor trust filing under the Form 1041 Filing Method or the Optional Form 1099 Filing Method 2 (see Regulations section 1.671-4(b)(2)(i)(B))	The trust

¹ List first and circle the name of the person whose number you furnish. If only one person on a joint account has an SSN, that person's number must be furnished.

² Circle the minor's name and furnish the minor's SSN.

³ You must show your individual name and you may also enter your business or DBA name on the "Business name/disregarded entity" name line. You may use either your SSN or EIN (if you have one), but the IRS encourages you to use your SSN.

⁴ List first and circle the name of the trust, estate, or pension trust. (Do not furnish the TIN of the personal representative or trustee unless the legal entity itself is not designated in the account title.) Also see *Special rules for partnerships* on page 2.

*Note. Grantor also must provide a Form W-9 to trustee of trust.

Note. If no name is circled when more than one name is listed, the number will be considered to be that of the first name listed.

Secure Your Tax Records from Identity Theft

Identity theft occurs when someone uses your personal information such as your name, SSN, or other identifying information, without your permission, to commit fraud or other crimes. An identity thief may use your SSN to get a job or may file a tax return using your SSN to receive a refund.

To reduce your risk:

- Protect your SSN,
- Ensure your employer is protecting your SSN, and
- Be careful when choosing a tax preparer.

If your tax records are affected by identity theft and you receive a notice from the IRS, respond right away to the name and phone number printed on the IRS notice or letter.

If your tax records are not currently affected by identity theft but you think you are at risk due to a lost or stolen purse or wallet, questionable credit card activity or credit report, contact the IRS Identity Theft Hotline at 1-800-908-4490 or submit Form 14039.

For more information, see Publication 4535, Identity Theft Prevention and Victim Assistance.

Victims of identity theft who are experiencing economic harm or a system problem, or are seeking help in resolving tax problems that have not been resolved through normal channels, may be eligible for Taxpayer Advocate Service (TAS) assistance. You can reach TAS by calling the TAS toll-free case intake line at 1-877-777-4778 or TTY/TDD 1-800-829-4059.

Protect yourself from suspicious emails or phishing schemes. Phishing is the creation and use of email and websites designed to mimic legitimate business emails and websites. The most common act is sending an email to a user falsely claiming to be an established legitimate enterprise in an attempt to scam the user into surrendering private information that will be used for identity theft.

The IRS does not initiate contacts with taxpayers via emails. Also, the IRS does not request personal detailed information through email or ask taxpayers for the PIN numbers, passwords, or similar secret access information for their credit card, bank, or other financial accounts.

If you receive an unsolicited email claiming to be from the IRS, forward this message to phishing@irs.gov. You may also report misuse of the IRS name, logo, or other IRS property to the Treasury Inspector General for Tax Administration (TIGTA) at 1-800-366-4484. You can forward suspicious emails to the Federal Trade Commission at: spam@uce.gov or contact them at www.ftc.gov/idtheft or 1-877-IDTHEFT (1-877-438-4338).

Visit IRS.gov to learn more about identity theft and how to reduce your risk.

Privacy Act Notice

Section 6109 of the Internal Revenue Code requires you to provide your correct TIN to persons (including federal agencies) who are required to file information returns with the IRS to report interest, dividends, or certain other income paid to you; mortgage interest you paid; the acquisition or abandonment of secured property; the cancellation of debt; or contributions you made to an IRA, Archer MSA, or HSA. The person collecting this form uses the information on the form to file information returns with the IRS, reporting the above information. Routine uses of this information include giving it to the Department of Justice for civil and criminal litigation and to cities, states, the District of Columbia, and U.S. commonwealths and possessions for use in administering their laws. The information also may be disclosed to other countries under a treaty, to federal and state agencies to enforce civil and criminal laws, or to federal law enforcement and intelligence agencies to combat terrorism. You must provide your TIN whether or not you are required to file a tax return. Under section 3406, payers must generally withhold a percentage of taxable interest, dividend, and certain other payments to a payee who does not give a TIN to the payer. Certain penalties may also apply for providing false or fraudulent information.

Template T-2
Vendor Experience
Response Template
RFP #: SP-17-0012

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1.0 Vendor Organization Overview

The Vendor should include details of the Vendor’s Experience in this section. The details should include Vendor organization overview; corporate background; Vendor’s understanding of the relevant domain; and Vendor’s experience in the public sector.

Instructions: Provide all relevant information regarding the general profile of the Vendor. Do not change any of the completed cells. Any changes to the completed cells could lead to the disqualification of the Proposal.

Table 1. Vendor Organization Profile

VENDOR ORGANIZATION PROFILE:	
Company Name	Optum
Name of Parent Company	The ultimate parent company of Optum is UnitedHealth Group, Incorporated (United), a publicly traded Minnesota (U.S.) corporation, with shares listed on the New York Stock Exchange (NYSE: UNH).
Industry (NAICS) (North American Industry Classification System)	518210 – Data Processing, Hosting, and Related Services
Type of Legal Entity	Corporation
Company Ownership (i.e., Private/Public, Joint Venture)	The ultimate parent company of Optum is UnitedHealth Group, Incorporated, a public corporation.
Arkansas Economic Development Commission Minority Business Certification Number (if applicable)	N/A
Minority Business Number (if applicable)	N/A
Number of Full Time Employees	Optum and its subsidiaries comprise a Health and Human Services (HHS) company dedicated to making the health system work better for everyone. We have more than 130,000 employees who serve virtually every aspect of the health care ecosystem and health community.
Last Fiscal Year Company Revenue	\$184.8 billion

VENDOR ORGANIZATION PROFILE:	
Last Fiscal Year Company Net Income	\$7.293 billion
% of Revenue from State and Local Government Clients in the United States	Optum revenue comes from four market segments: physician practices and hospitals; commercial payers; governments; and life sciences. The annual revenue reported in our parent company's Form 10-K is not divided by market segment. We have 36 state government clients plus the District of Columbia.
% of Revenue from IT Design/ Implementation, and Operations Support Services	Optum revenue comes from four market segments: physician practices and hospitals, commercial payers, governments, and life sciences. The annual revenue reported in our parent company's Form 10-K is not divided by market segment. We have 36 state government clients plus the District of Columbia.
Number of Years in Business	Optum has been providing services to the state government marketplace for 23 years.
Number of Years Vendor has been Providing the Type of Services Specified in the RFP	Optum has been successfully designing, developing, implementing and operating HHS solution for state governments and other public sector clients for 23 years.
Number of Employees Providing the Type of Services Specified in the RFP	More than 20,000
Headquarters in the USA	Our corporate headquarters are located at: 11000 Optum Circle, Eden Prairie, MN 55344
Locations in the USA	Optum has locations in Little Rock, AR; Lansing, MI; Sacramento, CA; Springfield, IL; Indianapolis, IN; Trenton, NJ; San Francisco, CA; Colorado Springs, CO; Denver, CO; Rocky Hill, CT; Duluth, GA; Lenexa, KS; Overland Park, KS; Louisville, KY; Waltham, MA; Eden Prairie, MN; Minneapolis, MN; Basking Ridge, NJ; Providence, RI; Salt Lake City, UT; Reston, VA; and Milwaukee, WI. Optum also maintains operations across North America, South America, Europe, Asia Pacific, and the Middle East.
Office Servicing this Account	One Allied Dr., Building #2, Suite 2210, Little Rock, AR 72202

1.1 Subcontractor Organization Overview (If applicable)

The Vendor should only complete this section if proposing subcontractors as part of the Proposal.

Instructions: Provide all relevant information regarding the profile of each subcontractor. This section should be duplicated in its entirety for each subcontractor included. Do not change any of the completed cells. Any changes to the completed cells could lead to the disqualification of the Proposal.

Table 2. Subcontractor Organization Profile

SUBCONTRACTOR ORGANIZATION PROFILE	
Subcontractor Name	Connvertex Technologies, Inc.
Type of Legal Entity	Corporation (S-Corp)
Company Ownership (i.e., Private/Public, Joint Venture)	Private
Arkansas Economic Development Commission Minority Business Certification Number (if applicable)	N/A
Headquarters Location	10855 South River Front Parkway, Suite 275 South Jordan, Utah 84095
Date Founded	September 18, 2008
Number of Employees	38
Last Fiscal Year Company Revenue	\$8,105,452
Last Fiscal Year Company Net Income	\$154,726
Services to be Provided	Cúram IT and M&O Services
Experience of Subcontractor in Performing the Services to be Provided	10 years with many similar projects completed
Brief Description and Number of Projects that Vendor has Partnered with this Subcontractor on	Connvertex has over 10 years' experience working with HHS organizations in delivering and maintaining Integrated Eligibility solutions. Connvertex is an IBM Gold partner with experience and certification maintaining and operating the IBM Cúram platform. The firm has participated in 14 such Cúram projects with several large systems integrators, although none of these have been with the Vendor.
Locations Where Work is to be Performed	State of Arkansas Offices, Little Rock, AR

2.0 Vendor Corporate Background and Experience

2.1 Vendor’s Corporate Background

The Vendor should describe its corporate background to provide context of the organization that will be providing the products and services in this RFP.

Instructions: Describe the Vendor’s corporate background as it relates to projects similar in scope and complexity to the project described in this RFP.

Corporate Background

Optum is the largest Health and Human Services (HHS) company in the country, with a wide-ranging portfolio of solutions, highly experienced people, and innovative technology. Our mission is to help make the HHS system work better for everyone. This is what drives us to invest in innovation, talent, resource scale, and the breadth of capabilities necessary to reliably deliver large, complex, and transformative projects like your AR IE-BM. Our comprehensive portfolio of products and services enables us to serve every segment of the HHS market. Optum was incorporated in the state of Delaware on October 13, 1993, and is authorized to conduct business in all 50 states.

Our employees bring expertise that covers the entire HHS spectrum. With a combined workforce of over 130,000 people, we employ more than 20,000 technology professionals who have skills sets relevant to the scope specified in this RFP. Figure 1 illustrates the markets we serve and the scale at which we operate.



Figure 1. Optum Serves the Entire HHS Ecosystem.

The resource scale and breadth of Optum capabilities provides DHS a partner that can reliably deliver large complex IT projects like the IE-BM project.

While size and scale are important, we understand it is also important to remain nimble. We offer comprehensive solutions comprised of modular, commercially available components under a single, integrated company. In this way we help our clients focus on solving the biggest and most complex challenges facing our HHS system.

Relevant experience & projects of similar size and scope to the AR IE-BM

Optum has direct relevant experience and a documented track record of success delivering and remediating large, high-visibility, HHS technology projects like the AR IE-BM. Additionally, our experience working with the Department of Human Services (DHS) on the Arkansas Medicaid Enterprise (AME) Decision Support System (DSS) has proven our ability to deliver a large, complex project on time and on budget.

Our experience includes multiple state Integrated Eligibility (IE) implementations where a mission-critical eligibility system was troubled and performing below client expectations. In every instance, our work resulted in operational and system improvements that successfully addressed barriers that clients experienced in accessing services.

A good example is the support we provided to the federal government and CMS in overseeing the stabilization and implementation of HealthCare.gov. Following its troubled implementation during the first Accountable Care Act (ACA) open enrollment period, we first successfully developed and implemented the Federal Data Services Hub (FDSH). CMS subsequently asked Optum to serve as the general contractor to fix the troubled roll-out of the federal portal and system. We led a collaborative, badgeless team across multiple IT vendors to bring the site back up to performance, enabling millions of people to enroll in health coverage by the end of that first enrollment period.

Prior to contracting with Optum, there was a lack of strict software development and quality assurance processes in place causing defective code and missed timelines. In addition, CMS needed a reporting system to monitor and manage all business requirement alignment with the Centers' policies.

Our success supporting CMS led to multiple states requesting our help to fix their challenged exchange, eligibility, and enrollment projects. We ultimately performed stabilization, development and maintenance for eligibility systems in five states; Massachusetts, Vermont, Maryland, West Virginia, and the District of Columbia.

- In four of these five states (Massachusetts, Vermont, Maryland, and West Virginia) we completed a smooth takeover of the eligibility system from the prior vendor in less than two months.
- In Massachusetts, we completely replaced the Commonwealth's failed eligibility solution in a six month period, which was an unprecedented accomplishment.
- Two of the five projects (Maryland and the District of Columbia) included remediation of eligibility system implementations where Cúram was the core of the system.

In addition to our experience stabilizing, developing and maintaining HHS systems, we have helped states accomplish their goals to integrate HHS service delivery. Optum provides the State of Michigan an enterprise data warehouse supporting data from 40 state agencies. Michigan has a vision to achieve a holistic person-centered system of care.

Optum expertise and experience:

- Recognized leader in enterprise data integration, enabling states to achieve integrated HHS service delivery
- Served as CMS's general contractor to remediate challenges experienced with initial roll-out of HealthCare.gov
- Performed stabilization, development, and maintenance for five state eligibility systems

In April, 2017, Gov. Rick Snyder publicly recognized Optum for helping develop CareConnect360, a case management tool and Internet portal that connects foster care professionals, medical and behavioral health providers, health plans, and other community partners. CareConnect360 integrates data from disparate systems to provide care professionals a holistic view of a child's circumstance in order to identify gaps in care, engage with parents about their child's needs, and inform new foster parents of a child's medical and social background. CareConnect360 will help more than 1,800 foster care workers, partner agencies, and community partners improve overall health outcomes for this vulnerable population.

“With CareConnect360, our foster care professionals now have a window into the care and treatment of these (foster) children, which will enable them to make better and faster decisions and improve overall health outcomes for this vulnerable population,”

—Nick Lyon, Director
Michigan Department of
Health and Human Services

To illustrate our relevant experience, below we provide: 1) summaries of our success implementing the key technology and service components required in this RFP; and 2) detailed descriptions of seven projects similar in size, scope and complexity to the AR IE-BM. *Each project was completed on time and within budget.*

Experience Implementing Key Components of the AR IE-BM Project

Systems Integration and ESB Development: For HealthCare.gov, Optum developed the FDSH to broker calls out to external government agencies, including the Internal Revenue Service, Social Security Administration, Department of Homeland Security, and Experian. We developed the standard application interface (API) used by states to integrate their IE systems with the FDSH, which was critical to achieving successful delivery of this project in late 2013. Our success delivering the FDSH led directly to CMS's request for Optum to become the general contractor for the HealthCare.gov remediation effort.

For the Maryland Health Benefit Exchange (MHBE), we leveraged the MHBE custom-developed Enterprise Service Bus (ESB) to integrate Cúram with Connecture, their COTS enrollment and benefits management system. We also developed the integration for internal and external web service verification calls.

Master Data Management (MDM) and Enterprise Identity Management (EIDM): MDM is integral to Optum work in our state enterprise data warehouse engagements. We have a record of successfully recognizing and matching different identifiers across different source systems to create a single individual identifier. This individual identifier will allow DHS to track one person across all programs throughout the enterprise. We have completed MDM initiatives in most of our state engagements including Michigan, New Jersey, and New York, and have greatly simplified cross-program analysis in those states. This functionality is foundational to achieve a person-centric HHS delivery model.

Since 2012, we have assisted CMS with the implementation and operation of its EIDM System. EIDM collects personal information to uniquely identify a user who registers to access CMS systems. It includes identity management, access management, user-authorized workflows, and functions for managing an ID across its lifecycle. We provide identity and credential management, access management, auditing and reporting, and operations engineering services as part of this engagement.

Enterprise Data Warehouse (EDW): Optum is the leader in delivering EDW solutions to state governments. Starting with the development and implementation of the country’s first Medicaid data warehouse for Michigan in 1994, we now provide EDW solutions to over a dozen state government clients, including the AME DSS. We delivered each of our EDW projects on time and within budget. In Michigan, over 1,000 Department of Health and Human Services (MDHHS) case workers access our solution. Our partnership with the State has helped county managers in 115 local offices achieve work load efficiencies. In 2004, workers managed an average of 200 cases. Today, the number has soared to an average of 600 cases per case worker and a single case worker can assist clients with multiple benefit programs.

For the New Jersey Division of Family Development, we manage a shared data warehouse that facilitates the reporting and analysis for the Temporary Assistance for Needy Families (TANF) program. Users can create on-demand views that enable them to prospectively develop strategic plans to meet changing TANF requirements. These reports are the repository for weekly and monthly updates on TANF work participation rates and allow supervisors and case workers to proactively manage their caseloads. These capabilities help the State obtain higher federal funding and avoid sanctions.

For the State of Illinois Department of Public Aid, a cost-benefit analysis of its Medicaid Enterprise Data Warehouse (EDW) concluded that “implementation of the EDW resulted in more than 47,000 hours of actual time saved, compared to the pre-EDW operations. The EDW provides direct access to data and it has eliminated extended waiting periods by the users for reports created by technical staff which provides substantial cost and time savings to the Agency.”

“It is universally agreed that the Illinois EDW is an indispensable tool that has enhanced their ability to perform their job duties.”

—State of Illinois Public Aid
Cost Benefit Analysis Report

Business Rules Engines (BRE): We have successfully migrated Medicaid eligibility and business process rules from legacy platforms, including COBOL based systems, to modern platforms. For Massachusetts, we migrated Medicaid rules from a legacy application into an Optum-supplied COTS application to replace the Commonwealth’s Health Insurance Exchange and Eligibility platform. As the systems integrator, we led the execution of rules requirement gathering and analysis, as well as the rules extraction and testing phases.

As the systems integrator for Vermont we drive a change-of-circumstance (COC) business process that updates account information and triggers eligibility re-determination for qualified health plans (QHP), Medicaid, CHIP and the recalculation of premium assistance subsidies.

These projects led us to pre-configure the Optum IES with HHS specific workflows, 1,600 federal eligibility rules for Medicaid (MAGI and non-MAGI), CHIP, SNAP and TANF, and 650 test cases to help accelerate implementation.

Case, Benefits, and Customer Relationship Management Systems (CRM): Optum has extensive experience developing, configuring, implementing and maintaining both COTS and custom developed CRM systems. For example, in Vermont we enhanced the State’s Seibel CRM to provide intake agents and caseworkers a comprehensive view of individuals enrolled in State programs. The platform is used by the Medicaid call center vendor, the State, and Optum to process applications and manage cases. For the District of Columbia Health Benefit Exchange, we redesigned the Salesforce CRM tool. This is the same tool we use within the Optum IES and are proposing for the AR IE-BM. We also built a parallel CRM for the District’s

Department of Human Services (DHS) to manage Medicaid customers, building links to share data between departments.

Business Process Outsourcing and Re-engineering: Optum is one of the nation’s largest providers of HHS administrative services. We not only develop and implement HHS systems, but we are also users of these systems. Because of our experience administering eligibility and enrollment programs, we are regularly asked by clients to consult on process improvements to help them work smarter, not harder. For example, as part of our work for the District of Columbia, Optum deployed administrative staff and policy experts to provide overall leadership for business stabilization, communication enhancements and streamlined processes to help enrollment teams more efficiently facilitate eligibility determinations, enrollments and renewals.

When we began working with several of our state exchange customers, they were conducting mostly manual enrollment processes due to the system challenges that they were facing. In parallel with our efforts to remediate their IT systems, we provided operational services to help them achieve their short-term enrollment goals. In Massachusetts, we facilitated operational readiness for over 500 customer service representatives (CSRs) from both Commonwealth agencies and third party vendors. We prepared user and facilitator guides and trained and managed 250 CSRs to augment Commonwealth and third-party resources. This work included the processing of applications, verifications and collection of necessary supporting documentation. We implemented a data entry tool and staff training that reduced manual application processing time from 120 minutes per application to 27 minutes.

For Vermont, working side-by-side with state staff, Optum mobilized and trained 180 staff members to handle operational issues and trained another 220 agents on processing change-of-circumstances (COC) requests. We provided this support while we developed and implemented COC functionality. Optum and the State handled more than 51,000 outbound calls, 22,000 inbound calls, and 21,000 COC requests in less than five months.

We understand that technology alone is not enough to achieve desired outcomes. Not every process can be automated, nor should they be to best serve stakeholders. Organizational and process changes are important to help fully leverage any new technology. These changes could range from shifting the way work is allocated, to policy changes such as removing unnecessary validations, or implementing express-lane eligibility determinations. Technology should enable efficient business processes, not define them.

Below are descriptions of seven Optum projects that are of similar size, scope and complexity to the Arkansas IE-BM engagement.

Project Examples of Similar Size, Scope and Complexity to the AR IE-BM

PROJECT EXAMPLE 1: WEST VIRGINIA ELIGIBILITY SYSTEM TAKEOVER, MAINTAINANCE AND OPERATIONS	
Customer	State of West Virginia, Department of Health and Human Resources (WV DHHR)
Project Description	Optum replaced DHHR’s long-time incumbent to take over and perform enhancement, maintenance and operations (M&O) for its legacy Medicaid and human services eligibility system, the Recipient Automated Payment and Information Data System (RAPIDS). RAPIDS supports the following programs: Temporary Assistance to Needy Families (TANF), Supplemental Nutrition Assistance Program (SNAP), Disaster SNAP (D-

	<p>SNAP), SNAP Employment and Training Program, Medicaid, CHIP, work programs, emergency assistance, refugee assistances, low income energy assistance program (LIEAP), non-emergency medical transportation, and West Virginia school clothing allowance. Optum deployed our core team in one business day and successfully completed transition of the RAPIDS system from the incumbent vendor in eight weeks.</p>
<p>Size and Complexity</p>	<p>RAPIDS is a highly complex system consisting of 22 subsystems. It resides on an IBM BC (business class) z12 model 2828-S02 Enterprise Server Mainframe and uses DB2 as the database with 1,790 COBOL OS/390 & VM source programs (646 CICS programs, 978 batch programs, and 166 subroutines) with data stored and accessed on more than 460 database tables. The system interacts with 27 exchanges and interfaces with various State and federal agencies. We currently lead the following M&O activities for the RAPIDS system: application maintenance and enhancement services, incident management, program management, change management, release management, event management, knowledge management, master data management, and access integration services.</p> <p>Scope of the RAPIDS system:</p> <ul style="list-style-type: none"> ■ Application entry and eligibility determination ■ Benefit Issuance ■ Integration with FDSH and other outside systems ■ Identity management ■ Notice generation ■ Customer and caseworker Portals ■ Eligibility Rules Engine (Corticon) ■ Master Data Management (Informatica) ■ Business Intelligence (Cognos)
<p>Other In-Scope Services and Notable Outcomes</p>	<p>Help Desk and Training: Optum currently provides help desk support for RAPIDS and maintains the RAPIDS training environment.</p> <p>Member Management: Optum helps triage any system issues related to clients not receiving benefits or those that have received incorrect benefits. We analyze and resolve all incidents based on pre-defined SLAs to minimize any adverse system related impacts to the client benefits.</p> <p>Financial Management: Optum manages the financial disbursements for TANF, SNAP, Emergency Assistance and Medicaid programs by computing the client benefits and sending that data to the state’s ERP system. We generate State and Federal reports that aggregate payments to maximize federal reimbursement.</p> <p>Provider Management: Optum manages more than 44,000 providers within the Child Welfare (FACTS) system. In addition, we manage approximately 24,000 vendors for emergency assistance payments (e.g. electric, heating companies who provide LiHEAP benefits) and transportation providers (for Welfare to Work participants). This includes management of provider demographic information, tax and corporate structure, as well as maintaining a roster of the services that they provide.</p>

	<p>Project Benefits: A streamlined conversion in support of an M&O environment that:</p> <ul style="list-style-type: none"> ■ Migrated to a new system without incident ■ Maintained the existing environment improving the lives of their citizens ■ Mitigated issues tying systems and process together reducing manual process and improving customer satisfaction ■ Optum is also helping the State to move to a more ITIL centric model of service management via the implementation of Service Now and ITIL
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**PROJECT NUMBER 2:
 VERMONT HEALTH SERVICES ENTERPRISE (HSE) & VERMONT HEALTH CONNECT (VHC) ELIGIBILITY SYSTEM INTEGRATION**

Customer	State of Vermont Agency of Human Services, Department of Vermont Health Access
Project Description	<p>Design, Development, implementation, Maintenance, Operations, and hosting for the Vermont Health Connect’s (VHC) eligibility determination system, the Health Services Enterprise Platform (HSEP). This system currently determines QHP, MAGI Medicaid, CHIP, and dental eligibility.</p> <p>The HSEP provides support for Vermont’s entire HHS enterprise including the VHC, and the legacy MMIS and human services eligibility systems. We currently lead the following activities for Vermont’s Health Services Enterprise (HSE) and VHC: application maintenance and enhancement services, incident management, program management, change management, release management, disaster recovery, event management, capacity management, availability management, knowledge management, service asset and configuration management, escalations, CRM system management, legacy IE integration, identity and access management services, and enterprise content management services.</p>
Size and Complexity	<p>Optum supports over 250 servers spanning 7 environments as part of HSEP.</p> <p>Scope of the Health Services Enterprise:</p> <ul style="list-style-type: none"> ■ Case Management Front & Back Office ■ Enterprise Content Management ■ Enterprise Service Bus and service architecture ■ Integration with CMS FDSH and external verification Systems ■ EDI integration with Carrier and trading partners ■ Financial System (WEX health) ■ Hosting ■ Customer and Case Management Portals ■ Siebel (CRM) Platform ■ Business and Eligibility Rules Engine ■ Master Data Management

	<ul style="list-style-type: none"> ■ Business Intelligence and reporting ■ Security wrapper ■ Disaster recovery ■ Identity and Access Management ■ Notice Generation and fulfillment <p>Member/Provider statistics:</p> <ul style="list-style-type: none"> ■ Over 200,000 covered lives ■ 2,000 to 3,000 average inbound/outbound calls handled per month for Change of Circumstance (COC) and life events ■ 4,000 average monthly application-like transactions for COCs and annual renewals
<p>Other In-Scope Services and Notable Outcomes</p>	<p>Training Management: Working side-by-side with State staff, Optum mobilized and trained 180 staff members to handle operational issues and trained another 220 agents on processing change-of-circumstances (COC) requests. Optum and the State handled more than 51,000 outbound calls, 22,000 inbound calls, and 21,000 COC requests in less than five months.</p> <p>Client Management: Working with the State, we enhanced the Seibel CRM to provide intake agents and caseworkers a comprehensive view of individuals. The platform is used by the Medicaid call center vendor, the State, and Optum to process applications and manage cases.</p> <p>Service Management: Optum assumed management of all system and stack components, as well as completion of development and implementation of COC functionality. The new functionality we provided dramatically reduced the amount of time to process COC requests. Prior to the upgrade, staff members were required to re-enter the entire health insurance application (often more than 100 fields of data) and then work with additional teams to transmit and update the information into as many as six different systems over a period of weeks. The new functionality automated this process and provided integration to all relevant systems.</p> <p>Optum remediated a number of critical security issues on the HSEP so the HSE and VHC could conform to CMS regulations and reconnect to the FDSH in time for 2015 Open Enrollment. We established a project management office (PMO), working with the State to develop an assessment, document, make recommendations for the future, develop a quality assurance program, and build a governance structure for the HSE and VHC.</p> <p>Financial Management: We deployed several releases in 2015 and 2016 that provided significant additional functionality to VHC including financial integration with COC processing, automated renewals processing, reconciliation, and retroactive change processing with full integration to the VHC financial system financial services partner (WEX health)</p> <p>Provider Management: The VHC platform indirectly supports provider activities through its integration with its carrier, CHIP, and Medicaid partners. The VHC platform acts as the source of truth for PII and enrollment information for all individuals and families enrolled in these programs and this information is shared with providers via downstream systems.</p>

PROJECT NUMBER 3: MASSACHUSETTS HEALTH CONNECTOR & MEDICAID ELIGIBILITY SYSTEM INTEGRATION	
Customer	Commonwealth of Massachusetts, Massachusetts Health Connector
Project Description	<p>Optum performs design, development, and implementation (DDI) as well as ongoing M&O for the Massachusetts Connector. The Massachusetts Health Connector engaged Optum to provide M&O and technology support beginning in January 2014. In March 2014, the Commonwealth decided to contract with Optum as the primary systems integrator. We also host the Massachusetts Health Connector solution on the Optum Cloud, meeting CMS, IRS, and Commonwealth security requirements to protect consumer information. The Health Connector Portal is a Web-based application that integrates the Medicaid and health insurance exchange eligibility intake and determinations. The Health Connector eligibility platform integrates with existing Commonwealth systems that continue to perform further eligibility determinations for HHS programs. We run business rules within the system to renew the Medicaid applications and send the appropriate transactions to the MMIS.</p>
Size and Complexity	<p>There are approximately 170 servers supporting the two Connector applications, hCentive (web-portal) and AVV (single sign-on). There are 11 non-production environments for hCentive. There are four non-production environments for AVV. Software includes Oracle Enterprise Edition and Oracle RAC, JBoss, Optum ID, F5, Datapower, Physical & Virtual firewalls, Akamai, Siteminder, Guardium and ArcSight.</p> <p>Scope of the Massachusetts Health Connector: We lead the following activities for the Connector: application maintenance and enhancement services, incident management, program management, change management, release management, event management, capacity management, availability management, knowledge management, MDM, and access integration services.</p> <p>Member/Provider statistics:</p> <ul style="list-style-type: none"> ■ Implemented new solution to support the exchange marketplace in less than six months ■ Performed between 24,132 and 73,396 eligibility system determinations each week, for a total of 536,719 determinations made for MassHealth or Health Connector plans ■ Received 57,208 unique website visits during open enrollment’s opening weekend; resulting in approximately 13,700 accounts created, 8,336 applications submitted, and 12,000 consumers deemed eligible for coverage. ■ Supported 334,108 unique visitors to the Connector’s website in the first full week of Optum Cloud operations, meeting all website performance standards ■ Experienced 4,833,894 unique website visitors with 100% up-time

<p>Other In-Scope Services and Notable Outcomes</p>	<p>Training Management: Preparing for the launch of a new eligibility system in November 2014, we facilitated Operational Readiness for over 500 customer service representatives (CSRs) for both Commonwealth agencies and third party vendors. We prepared User Guides and Facilitator Guides for the new system as well as performing Train the Trainers for all training teams. We also trained and managed 250 CSRs to augment Commonwealth and third party resources in processing of applications, verifications, and other eligibility documentation.</p> <p>Client Management: Optum developed two applications to address outstanding needs of CSRs. We developed a tool to manage and track the progress and status of escalations from both internal and external sources. This allowed the escalations team to address priority items in a timely manner in assistance of member eligibility. Based on Commonwealth requirements, Optum also developed a tool to address open needs for viewing of eligibility details and tracking of eligibility verifications for both CSRs and the Commonwealth Appeals team.</p>
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<p>PROJECT EXAMPLE 4: FEDERAL DATA SERVICES HUB</p>	
<p>Customer</p>	<p>CMS, Office of Technology Services (OTS)</p>
<p>Project Description</p>	<p>Optum is the prime contractor for the CMS, CCIIO, Federal Data Services Hub (FDSH) Health Insurance Exchange (HIX) project. The FDSH is part of the Federal Exchange Processing System (FEPS) built to support the Patient Protection and Affordable Care Act (PPACA) mandate to provide a series of consumer choices and insurance competition through health benefit exchanges.</p> <p>CMS OTS contracted with Optum to develop and support the CMS FDSH to broker calls out to external government agencies, including the Internal Revenue Service, Social Security Administration, Department of Homeland Security and Experian. FDSH is a system-to-system project providing data used by CMS and State officials, insurance carriers and issuers, and citizens seeking to find information or to enroll in health insurance and affordability programs. The FDSH routes enrollment verification requests between the FFM, State Based Marketplace (SBMs), Medicaid/CHIP agencies, and the authoritative data sources (Federal agencies). FDSH also routes eligibility and enrollment transactions between state agencies, FFM, and issuers. Additionally, we implemented the reporting services vital to maintaining the FDSH health; they include operational reports providing daily statistics of the number of “successful” and “failed” service requests; Tiivoli Workload Scheduler (TWS) reports detailing the health of FDSH virtual machines; and electronic funds transfer (EFT) reports listing the electronic file transfers between the systems.</p>
<p>Other In-Scope Services</p>	<p>Initiation, concept, and planning services: Working with the company’s independent Program Management Office (PMO) and Quality Management Office (QMO), Optum created detailed plans that are now used to execute the project. Working with a QMO representative, Optum</p>

	<p>established management plans that are aligned with Capability Maturity Model Integration (CMMI) best practices, Project Management Body of Knowledge (PMBOK) guidelines, and customer-mandated methodologies.</p> <p>Requirement services: We used the Agile methodology and user stories to collect, analyze and manage requirements around a CMS-provided blueprint. To do so, we engaged a number of additional stakeholders known as Trusted Data Sources (TDS) — other Federal agencies. FDSH has required Optum to engage and collaborate with multiple stakeholders involved in its day-to-day operations, including CCIIO, as well as several divisions of CMS OIS, including the Architecture Review Board, State Based Exchanges, Insurance Carriers (Issuers), and various Federal agencies. Our FDSH requirements team works closely with OTS and CCIIO to make sure the business requirements align with the CMS’s policy.</p> <p>Design services: Optum further fleshed out the CMS blueprint. Over a series of planning sessions with our vendors and CMS, we determined the FDSH system’s framework, infrastructure, and architecture. Working with CMS, we designed and developed a solution based on open-source technologies. Because we used open source building blocks, CMS’s software costs for this project were substantially reduced.</p> <p>Development services: FDSH was one of CMS’s first programs to use a true Agile methodology. Our developers used 30-day sprints; CMS business owners received new functionality every 30 days instead of every three months.</p> <p>Test services: Each 30-day sprint incorporated a full battery of testing in the Terremark Cloud, including end-to-end testing with the TDS and state exchanges. To meet FDSH’s rigorous testing requirements, we drew on a deep understanding of user needs; CMS’s testing methodology and test tools; and the company’s experienced CMS test experts.</p> <p>Additional services include: Security Control Assessment (SCA) services, Maintenance services, Support services, Change management</p>
<p>Notable Outcomes</p>	<ul style="list-style-type: none"> ■ Replaced original prime systems integrator and led successful start and completion of the 2015 open enrollment period ■ Transitioned DDI activities successfully from the previous vendor and implemented and tested new functionality for rapid production release ■ CMS’s software costs were reduced as a result of using open source building blocks during our Migration ■ CMS realized a reduce risk of introducing these new technologies into the CMS environment. ■ Improved Root cause analysis related to issues. These customized dashboards allowed CMS to effectively maintain their environment. Using this dashboard, the CMS exchange operations center (XOC) team can quickly survey all applications and drill down to explore a specific issue. ■ CMS realized efficiencies, through the use of 30-day sprints; CMS business owners received new functionality every 30 days instead of every 3 months.

PROJECT EXAMPLE 5: MICHIGAN BUSINESS INTELLIGENCE SERVICES – MDHHS/DCH DATA WAREHOUSE & CARECONNECT360	
Customer Name	Michigan Department of Health and Human Services (MDHHS)
Project Description:	<p>Optum has performed EDW/BI services for the State of Michigan since 1994. We developed and installed the State’s original data warehouse infrastructure in 1994 and then worked with the Department of Social Services to build the first Medicaid data warehouse in the country—initially starting with 50 users.</p> <p>Optum helped expand the data warehouse into a full EDW/BI solution that involves more than 20 agencies across multiple departments, including the Department of Community Health, Department of Human Services, Department of Treasury, and State Court Administrative Office. More than 10,000 individuals across the State currently use the EDW/BI solution. It supports stronger relationships among public health, human services, medical care, social services, behavioral health and long-term care organizations.</p> <p>The State has evolved dramatically using the EDW—from simply collecting and compiling data, to applying more, advanced analytical capabilities that support informed decision-making. This positively affects policies, programs and people. With Optum’s help, Michigan has translated the data analysis into significant cost savings and improved outcomes in many programs and service areas. Many of these cost savings lead to future cost avoidance when program changes are forced to the front end of programs by policy changes derived from the data.</p> <p>The EDW and the value of data accessibility are instrumental in the following:</p> <ul style="list-style-type: none"> ■ Supporting more than 10,000 users ■ Increasing the State’s ability to perform analysis in support of the yearly budgeting process ■ Providing fraud, waste, and abuse program work and related investigations ■ Performing advanced analytics in support of driving improved outcomes for the state’s citizens ■ Driving more comprehensive and overarching views of the state’s citizens by sharing data across agencies and program areas ■ Improving the daily operations of the State’s programs ■ Supporting the following agencies and organizations to monitor for fraud, waste, and abuse: <ul style="list-style-type: none"> <input type="checkbox"/> Department of Health and Human Services, Office of Inspector General <input type="checkbox"/> Department of Treasury, Tax Audit Division. Tax Compliance Bureau
Size and Complexity	Currently, we have 55 EDW/BI staff members performing services at the State for various agency projects. Staffing levels fluctuate to accommodate

	<p>the state’s needs. Support roles have included data modelers, database administrators, business analysts, project managers, ETL specialists, report developers, Web developers, BI administrators, help desk analysts and subject matter experts (Master Data Management, MMIS, HEDIS, ICD-10).</p> <p>During the past 22 years, Optum has provided ongoing hardware and software support for the EDW and ETL infrastructure. We have performed several hardware and software upgrades to assist and lead the State in maintaining current data warehouse hardware and software technology. We have also managed EDW/BI projects where we performed on a firm, fixed-price and time-and-materials basis supporting various projects to connect additional data sources and applications to the EDW.</p> <p>Tools, including BI Query and SAP BusinessObjects Crystal Reports, support our EDW/BI analytics. The solution incorporates Medicaid and human services program data from more than 60 state and federal sources.</p>
<p>Other In-Scope Services and Notable Outcomes</p>	<ul style="list-style-type: none"> ■ Michigan has received national recognition using the data warehouse from numerous third parties, including the National Governors Association, National Association of State Chief Information Officers, The Data Warehousing Institute, and numerous business and trade publications. ■ Optum, working closely with MDHHS, developed a Care Coordination/Integrated Care application called CareConnect360 which leverages data from the EDW and presents the data (Physical and Behavioral Health Claims and Encounters, Pharmacy Data, Medicare Data, and Human Services Data) to staff working for the State’s managed care plans (Behavioral and Physical) to facilitate coordination of care for Medicaid Beneficiaries. ■ MDHHS uses the EDW/BI as a broad-based business intelligence solution to manage its health care programs and outcomes. MDHHS has integrated 12 separate health-related program areas, encompassing 34 separate data sources, into a single environment within the EDW – an integration that has been critical since many of MDHHS’ beneficiaries are enrolled in more than one program. ■ Today, MDHHS can monitor the cost and care associated with a single individual across multiple programs, and the EDW has been instrumental in the following areas: <ul style="list-style-type: none"> <input type="checkbox"/> Improving the administration of healthcare services <input type="checkbox"/> Conducting advanced healthcare analysis to determine patterns <input type="checkbox"/> Assessing which programs are most effective <input type="checkbox"/> Detecting and reducing fraud, waste, and abuse <input type="checkbox"/> Improving and interpreting disease management and epidemiological patterns <input type="checkbox"/> Improving healthcare outcomes <input type="checkbox"/> Streamlining operations and improving efficiencies <input type="checkbox"/> Serving as a basis to help drive future HIE initiative

PROJECT NUMBER 6: MARYLAND HEALTH BENEFIT EXCHANGE (MHBE) & MARYLAND DEPARTMENT OF HUMAN RESOURCES ELIGIBILITY SYSTEM INTEGRATION	
Customer	Maryland Health Benefit Exchange (MHBE)
Project Description	<p>MHBE engaged Optum to provide operations and IT support beginning in December 2013. Our IT-related responsibilities included providing overall leadership for system stabilization, new project/release management and testing processes. We performed a technical assessment of the initial system and evaluated potential options for supporting MHBE. Optum maintained system functionality and helped chart the course for the next Open Enrollment period.</p> <p>At the time Optum began work with the MHBE, The web-based and hosted solution determined QHP, and MAGI Medicaid eligibility through a Cúram rules engine. The solution also included a portal, plan shopping (Connecture) and ESB (EXACT), supported by three separate environments; development, test and production. We supported interfaces to the FDSH, Maryland’s MMIS, and the human services eligibility system operated by the Maryland Department of Human Resources. Optum oversaw data analytics and reporting to CMS and IRS, and provided overall leadership for system issues, operational support, and testing processes.</p>
Size and Complexity	<p>In February 2014, Optum replaced the prime systems integrator and instituted leadership for system stabilization, DDI and M&O, new project/release management and testing processes, data analytics reporting/oversight, and operations. Key focus areas included eligibility analytics support, life events processing, verifications, and renewals support. MHBE requested that Optum takeover the full life events end-to-end processing operation as well.</p> <p>Scope of the Maryland Health Benefits Exchange:</p> <ul style="list-style-type: none"> ■ Enterprise Service Bus (EXACT) ■ Integration with FDSH and other outside Systems ■ Financial System (Engagepoint) ■ Identity Management (IBM Tivoli) ■ Notice Generation ■ Portal (Custom) ■ Oracle (CRM) Platform ■ Eligibility Rules Engine (Cúram and Corticon) ■ MDM (look up to CIS system) ■ Hosting <p>In 2015, we led the evaluation recommending that MHBE transition their existing IT solution to an alternative platform.</p> <p>Member/Provider statistics:</p> <ul style="list-style-type: none"> ■ 80,000 QHP and 260,000 Medicaid enrollees ■ Users: 1,200 State employees

	<ul style="list-style-type: none"> ■ More than 135 IT staff at peak ■ Oversaw data analytics and reporting to CMS & IRS
<p>Other In-Scope Services and Notable Outcomes</p>	<p>Training Management: Working side-by-side with State staff, Optum mobilized and trained 180 staff members to handle operational issues; trained another 220 agents on processing COC requests – Optum and the State handled more than 51,000 outbound calls, 22,000 inbound calls, and 21,000 COC requests in less than five months.</p> <p>Client Management: Designed a process to execute COC changes that leveraged the Optum contact center, the exchange call center, navigators, and the exchange’s existing CRM system. We triaged and matched individual reference numbers so individuals could access Medicaid.</p> <p>Service Management: Took over an existing BRE (Cúram and ESB (EXACT), successfully completed the integration of these existing components and established M&O procedures for ongoing management. In Maryland, EXACT was the custom developed ESB. The purpose was to connect both COTS products, Cúram and Connecture, as well as to make calls out for internal and external web service verification calls including eligibility verifications with the FDSH, and other local state data sources.</p> <p>Financial Management: Supported interface between the MHBE and external systems, including enrollments and payments to issuers. We also provided EDI and carrier support to address 834 errors. Managed the EngagePoint financial module.</p>

<p>PROJECT NUMBER 7: DISTRICT OF COLUMBIA HEALTH BENEFIT EXCHANGE & DC HEALTH LINK ELIGIBILITY SYSTEM INTEGRATION</p>	
<p>Customer</p>	<p>District of Columbia Health Benefit Exchange (DCHBX)</p>
<p>Project Description</p>	<p>In January 2015, DCHBX engaged Optum to conduct an operational assessment and provide recommendations and enhancements. Based on the assessment, DCHBX engaged Optum to provide operations and IT support. IT-related responsibilities included a redesign of the case management system within the DC Health Link (DCHL) Customer Relationship Management (CRM) tool, Salesforce. Optum also built a parallel CRM for the Department of Human Services (DHS) to manage Medicaid customers, building links between DCHBX and DCHL to share data between departments. Additionally, Optum has performed ongoing support and coordination with the IT Enrollment vendor to refine and improve the enrollment operating system. We performed a technical assessment of the initial system and developed an enhanced system with controlled entry, automated case triage and enhanced reporting and data visualization. Operationally, Optum provided overall leadership for business stabilization, communication enhancements, streamlined processes, and documentation. Optum also provided staff support and policy expertise to the enrollment teams to facilitate eligibility determinations, enrollments and renewals.</p>

<p>Size and Complexity</p>	<p>In January 2015, Optum began the engagement with DCHBX to provide operations support stemming from challenges with their IT solution. In April 2015 and again in August 2015, Optum was awarded additional contracts to continue operational support and process development work.</p> <p>Scope of the DC Benefits Exchange:</p> <ul style="list-style-type: none"> ■ Salesforce architecture design, maintenance and enhancement (250 end-users) ■ Congressional marketplace support ■ Small Business marketplace staff augmentation ■ Carrier data reconciliation ■ Carrier data reconciliation ■ Transaction Error Reporting and resolution ■ Enrollment data management and migration ■ Electronic Data Interchange analysis and support
<p>Other In-Scope Services and Notable Outcomes</p>	<p>Optum provides ongoing support in several domains, including training management, service management and provider management to achieve DCHL's goals over the past two years:</p> <ul style="list-style-type: none"> ■ Eliminated SHOP case backlog (over 400 cases that were 6 months behind) ■ Reduced case processing time from 4-6 weeks to less than 1 week ■ Improved quality through training documentation and system refinements <p>Resolved over 90% of enrollment discrepancies with the carriers; minimized new discrepancies by resolving sources of error through root cause analysis</p> <p>Training Management: Developed training, job aids and operational guides for CRM use at all levels of business for over 200 end users, including Call Center Agents, Case Managers, EDI, Operations and Maintenance and Leadership. Training is ongoing.</p> <p>Client Management: Worked closely with all DCHBX business units to streamline operations and develop Salesforce enhancements to improve quality, case processing time, and communication between business units. Salesforce now has a controlled case definition using series of dropdown menus, unique templates based on case definitions, and automated case triage. This results in more accurate data collection from consumers, improved coordination between business units, and reduced case processing time. The system enabled enhanced reporting for leadership decisions, management and resource allocation, and individual case worker productivity.</p> <p>Service Management: Worked closely with DCHL project management leads to improve enrollment data management through multiple efforts, including the reconciliation of over 4000 enrollments between carriers and DCHBX, processing thousands of new enrollments and life event policy changes, building a refined transaction error remediation process, and supporting more than 6,000 EDI transactions.</p>

	<p>Financial Management: Enrollment and billing reconciliation between the carriers and DCHL.</p> <p>Provider Management: Supported DCHL efforts to improve the data transactions success rates by conducting root cause analyses of failures and coordinating solutions between carriers and DCHL units.</p>
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**PROJECT EXAMPLE 8:
 MARKETPLACE ADVISOR SYSTEMS INTEGRATOR (MASI)**

Customer	CMS, Office of Technology Services, (OTS)
Project Description	Optum provided coordination and integration support services for the CMS ACA Marketplace systems environment, a complex, multi-contractor systems-integration program. As the Marketplace Advisor Systems Integrator (MASI) contractor, Optum supported the Marketplace’s IT systems modules, cloud infrastructure, and business processes for public and private stakeholders. We also supported numerous procedures for operations and maintenance (O&M).
Other In-Scope Services	<p>Optum established a process-driven, collaborative environment to standardize code development, release management, version control, defect and issue management, capacity planning and management, and system development schedules in compliance with the CMS PMO’s Integrated Master Schedule of activities and processes. We established a cadence for providing a forum for the Marketplace vendors and stakeholders to get together and provide visibility into upcoming changes, risks, issues, and key milestones. This forum allowed stakeholders to stay informed of key Marketplace activities. It proved to be invaluable for the Marketplace stakeholders as it gave them a perspective into the Marketplace’s end-to-end integration at a detailed level,</p> <p>Requirement services: Optum analyzed and prioritized change requests from Marketplace subcontractors on a daily basis to address the requests in an optimal schedule based on requirements. In adapting to changing requirements, we demonstrated considerable agility.</p> <p>Design services: We conducted a structured review of architecture and software to design optimal performance, throughput, and availability. From this review, CMS and the FFM developer gained more than 350 findings. In one of our major findings, we identified hard-coded dates in the 2014 enrollment period. In so doing, we prevented a potential catastrophic failure of HealthCare.gov during the next Open Enrollment period. CMS implemented several other key recommendations we offered, including hardening of XOC; ways to improve infrastructure capacity, stability, and performance; improvements in monitoring; App 2.0 coordination; batch coordination and planning of auto-reenrollment; and Issuer communication and assistance.</p> <p>Maintenance services: Our MASI team brought to CMS a “tower” structure that allowed business owners more efficiently prioritized implementation of changes and fixes. Weekly availability reports</p>

	<p>demonstrated that system availability improved from below 50 percent at the beginning of November 2013, to 93 percent within two weeks and finally nearly 100 percent during the final several weeks of open enrollment.</p> <p>Support services: As a result of our work on MASI, Optum maintains a substantial library of technical documentation, architecture baselines, and requirements. Our infrastructure review process granted us significant technical insight into Marketplace-specific architectural, logical, and physical components and their configurations. A key output of this task was the establishment and management of a baseline reference for every Marketplace system’s architecture, design, and code. Additionally, our XOC team developed, maintained, and improved crisis SOPs, incident management SOPs, a communications plan, and other critical operational SOPs and processes.</p> <p>Data request services: Our infrastructure review process granted us significant technical insight into Marketplace-specific architectural, logical, and physical components and their configurations. Additionally, we implemented the following approaches/technologies:</p> <ul style="list-style-type: none"> ■ Application, infrastructure, and data-center performance tuning, which improved performance significantly—in some cases, by more than tenfold ■ Helpdesk best practices in incident management to reduce Mean Time to Resolution during critical system outages
<p>Notable Outcomes</p>	<ul style="list-style-type: none"> ■ Optum managed the installation and configuration of the Oracle Exadata appliance in an unprecedented short time: nine days. Optum successfully managed the implementation of new identity-management solution for HealthCare.gov and led the rollout of new functionalities, including Financial Management, and Reporting. ■ We provided a broad range of business operations support services through constant engagement for each of the main service Towers. For example, we conducted daily scrum meetings for SLS (the aforementioned new identify management system) development groups and conducted meetings to manage the submittal of health plans to the FFM (Federal Facilitated Marketplace) PM (Plan Management) application. ■ We successfully implemented a collaborative environment across the Marketplace by operating as one badgeless team. The Centers benefit from the resulting rise in transparency and accountability across our various CMS stakeholders and Marketplace vendors. This transparency has provided visibility into program risk and issues, allowing the program team to proactively address these concerns before they become significant problems. ■ Additionally, Optum drove the implementation and daily operations of the Exchange Operations Center (XOC). For CMS, the XOC introduced new capabilities for maintaining—and continuously improving—the Marketplace’s availability, throughput, and performance.

2.2 Vendor’s Understanding of Human Services

Instructions: Describe the Vendor’s understanding of Human Services. Discuss the Vendor’s strategies and areas of focus related to this service. Discuss key trends affecting Human Services in the next three (3) to five (5) years with specific focus on how the Vendor will translate these trends in its solution to benefit DHS.

Because we have responsibility for health care outcomes for millions of Americans, Optum has a unique perspective on human services and the importance of these services to the health and wellbeing of individuals and families who rely on them. We support states in developing analytics that integrate data across the state governmental enterprise. For example, in one state we incorporated data sets from child support enforcement, the state’s paternity registry, vital records, and beneficiary eligibility data to help enhance case management and support of babies born to unwed mothers and track paternity to recover Medicaid monies. We have been a leader in incorporating management of social determinants of health in coordinating care for complex populations. This experience from the broader Optum enterprise has informed our thinking in the design of the Optum IES.

In addition to the experience and perspective above, Optum participates in key industry associations to stay abreast of legislative and regulatory developments, market trends, and new technologies that affect HHS policies and programs. Optum is a longstanding and active member of the Human Services Information Technology Advisory Group (HSITAG) where key federal and state HHS leaders discuss topical issues affecting their agencies. Optum is also an annual sponsor of the American Public Human Services Association IT Solutions for Management (APHSA-ISM) conference as well as at the Medicaid Enterprise Systems Conference. Our subject matter experts provide thought leadership to state agencies regarding HHS issues and programs.

Based on this experience, below are five key trends in human services programs that have been the foundation of our design and development of the Optum IES and supporting services that we discuss in more detail in this section:

1. Program integration and person-centric delivery models
2. Personal responsibility and work requirement provisions
3. Delivery transformation through creative community partnerships
4. Business process modernization and operational efficiencies
5. Advancements in analytics to drive evidence-based policy making

Program integration and person-centric delivery models

Our human services system is a collection of disparate, but inherently interrelated programs, each with its own set of rules, goals, performance requirements, funding streams, and technology systems. Administratively this fragmentation has created a complex, confusing, and sometimes redundant maze of services leading to frustration for both state workers and citizens.

The vision of an integrated person-centric delivery model has existed for years, but the technology to enable the vision has been slow to evolve. In many states case workers must toggle to different screens, and even different systems, in order to get a complete picture of a client’s situation and case history. To make your vision a reality, you need a system that is able to produce a holistic 360-degree view of a member’s circumstances, reduce fragmentation in

the delivery system, and enable real-time collaboration across DHS divisions, other state departments, and external partners.

How Optum and the Optum IES Helps

At Optum, we share your vision of a person-centric service delivery model. In fact, it is the core design principle of the Optum IES. Central to executing a person-centric approach is flexible technology that can quickly and reliably integrate with different data sources and systems no matter their location or the type of technology they operate on.

We developed the Optum IES with integration and flexibility in mind, using the principles of service oriented architecture (SOA). The main purpose of SOA is to move away from monolithic applications and instead integrate, support, and orchestrate a series of different software components, or modules, that collectively work together to execute business processes across your enterprise. This approach enables you to easily and quickly integrate with necessary systems and data sources irrespective of a system's technology or data structure.

The Optum IES works with ease, speed, and flexibility to bring together disparate data and systems to produce a consolidated and complete 360 degree view of a citizen's information and program history, a key factor in person centric human services delivery. With Optum, you will have a vendor that has already delivered on this vision. We look forward to applying lessons learned from our work supporting the State of Michigan on the development of CareConnect360.

We designed the Optum IES to allow you access to information from multiple departments, providing a consolidated and complete picture of the client without having to toggle between different systems and/or screens. You will be able to consolidate administration of multiple programs and provide no-wrong-door access to State programs. The Optum IES will streamline and integrate service delivery, addressing needs in a coordinated and comprehensive manner, enabling you to account for the social determinants of health. You will know what benefits are available to your citizens and be able to guide them through the confusing maze of programs. This will increase one-and-done processing, reduce the number of pended applications, and maximize the capacity of your current workforce.

Personal responsibility and work requirement provisions

With the passage of the Health Care Independence Program in 2013, Arkansas was the first state in the nation to receive approval from CMS to use Medicaid funding to subsidize the purchase of private insurance. Among the positive outcomes of this program were lessons learned on how to incorporate incentives to encourage healthy behaviors, shared responsibility, and sustained independence.

While these provisions hold promise to achieving these goals, they can also be complex to administer. The new AR Works eligibility rules include requiring enrollees to spend at least 80 hours a month on approved activities. These include employment; taking high school, college, or vocational classes; employment training; or taking advantage of programs available through the Arkansas Department of Workforce Services. Credits will be available to enrollees for participating in classes on health insurance, using the health system, or healthy living. Considerations must also be made for population categories that are exempt from these requirements. Implementing these initiatives and incentives into the decision-making process requires a system that is easily configurable and both open and extensible to meet the changing dynamics of public policy.

How Optum and the Optum IES Helps

The Optum IES was designed with the agility to accommodate your innovation in eligibility program design. Our proposal includes configuration of the necessary eligibility and business rules to maximize the automation of the new AR Works requirement, where possible, and where it makes sense. For example, when a participation requirement is met, the system can push notifications to DHS users to execute next steps as well as trigger other downstream processes such as notice generation.

Optum understands successful administration and performance tracking against clearly defined outcomes are critical to the success of these programs. We understand that programs like AR Works require coordination with other State agencies, workforce development partners, the education and training system, the private sector, and other stakeholders.

The types of activities necessary to administer AR Works are fully configurable to meet the policy needs for the State. These can include tracking job search, employment or work activities, training classes or substance abuse treatment and counseling. Other options include orientation and assessment; approved educational activities; approved childcare or transportation activities; and medical or other referral activities.

Finally, Optum brings substantial subject matter expertise in helping states design and measure performance of premium cost sharing and personal responsibility programs. For example, the Lewin Group, an Optum affiliate, is the independent evaluator of the State of Indiana's 1115 waiver, the Healthy Indiana Program (HIP 2.0). Lewin delivers to the State the information for its CMS reports, and is evaluating the impact of several innovations of the program that are receiving close attention from CMS. These include, among other factors, understanding the impact of member premium payments and participation in the work programs on enrollment and lockout.

Delivery transformation through creative community partnerships

HHS professionals at DHS understand that effective partnerships incorporating a broad range of stakeholders are important in providing an integrated continuum of individual and family supports. DHS has developed a strong and diverse network of local community partners to deliver services that account for the unique needs and culture of Arkansas' diverse communities.

Comprehensive networks of local community partners are critical in the design and delivery of community intervention strategies. These partners include Federally Qualified Health Centers (FQHCs), patient-centered medical homes, Area Agencies on Aging, food assistance programs, private employers, faith-based organizations, and others.

Systems need to be able to support, and not limit, innovation in executing different partnership models.

How Optum and the Optum IES Helps

The Optum IES is a web-based, open and flexible platform that enables real-time collaboration across state agencies as well as external partners. The Optum IES security framework allows you to configure different user roles that drive what different users can see and do in the system. This functionality supports a person-centric integrated coordinated care model across the entire health and human services delivery system. Allowing secure and appropriate access to information and system functions helps alleviate DHS user workload.

The system can also be configured to automate assignment of different providers based on requirements created by DHS. For example, rules can be configured based on different criteria to recommend a subset of providers appropriate for each citizen's specific needs, location, and eligibility requirements.

Although not part of the scope of this RFP, the "My Provider View" of the Optum IES allows DHS clients to see what providers are available to them by location, type, and other factors. For example, the system will provide to a DHS user a list of providers to recommend to applicants at the point of service. Members also have the option to self-serve through "My Provider View" to search for and choose providers based on location and type. The system can be configured to alert case workers that the member self-selected a provider.

Business process modernization and operational efficiencies

With the passage of the ACA, human services agencies experienced an unprecedented increase of new applicants, and by some estimates, a 150 percent increase in workload. Human services professionals understand technology is not enough to achieve desired outcomes. Not every process can be automated, nor should they be. Organization and business process changes are critically important to help leverage any new technology and fully realize demonstrable improvement in key process metrics. Many states are experimenting with different approaches to achieve two goals:

1. Increase "one & done" case processing
2. Reduce occurrence of re-application and re-enrollment due to inefficient redetermination and renewal processes.

How Optum and the Optum IES Helps

Optum is one of the country's largest business process outsourcing firms. We provide services that support the entire HHS business process lifecycle. We not only develop the systems to support eligibility and enrollment, we are also users of these systems.

Often there is a disconnect between the needs of the business and technology. As users of these systems, we bring a program and business process perspective to the technology allowing us to design our solutions to support the needs of the program versus having the program and business adjust to limitations in technology. We recognize technology should be an enabler of efficient business processes, not define them.

The Optum IES offers configurable workflows, automated notifications, tasks for required actions, guided data entry, single-click navigation between member and case records, and automated triggering of periodic background processes, among many others. Automated execution of these common functions helps central office and field workers intuitively navigate processes that vary by program and department. This helps reduce training time, enable cross-program and cross-functional teams, enforce process consistency, and ultimately improve service to your citizens.

In addition, the Optum IES' embedded workflow management tool for enrollment, review and other processes can be configured to efficiently delegate and track caseloads based on multiple criteria, including case complexity. With the Optum IES, you will be able to optimize your staff through work load balancing and skill set alignment. This approach has been shown to improve the worker experience, promote a more systematic experience-based training program, and promote development of cross-functional capabilities and teams.

Advancements in analytics to drive evidence-based policy making

As state and federal agencies strive to improve the quality of health care and human services and to control escalating costs, they need to begin taking advantage of the ever-expanding pool of structured and unstructured data. Transforming data into actionable business intelligence will allow financially strapped government programs to make better decisions and get better results.

Getting to this desired state has been a challenge primarily due to data fragmentation across systems and organizations. The true value of analytics can only be realized with a comprehensive data strategy focused on breaking down systemic and organizational silos. Through improved access to data, DHS divisions and other state agencies will encourage interdepartmental collaboration helping you make more informed decisions to deliver person-centered and holistic services.

How Optum and the Optum IES helps

In December 2013, Optum and DHS executed a contract for Optum to develop and maintain the AME DSS. The AME DSS supports data management, reporting, and analytics for DHS and the Division of Medical Services (DMS). Through our partnership with DHS we were able to deliver this project on time and within budget.

Data management and the ability to bring together disparate data sets from multiple sources are key to the success of the AR IE-BM project, and a core offering of Optum. We work collaboratively across the DHS and Department of Information Systems (DIS) environment to provide a series of standard and ad-hoc reports, as well as tools for advanced analytics. Our Little Rock based project team understands your data environment; its structure, source systems, and connection points. We regularly work with the DHS enterprise data warehouse taking in necessary data feeds to meet your state and federal reporting requirements. We understand and work with DIS tool sets including security tools and file transfer protocols. We are well-versed in programmatic considerations such as your data governance model and project management.

Our advanced analytics tool-set was used to assist the Medical Director of DMS with developing Quality of Care analytic workbooks. These enable granular views of data to further analyze eligible member breakdown by age, gender, race, program and aid categories, along with geographic distribution across the states. We continue to refine and validate key data metrics such as adherence rates for specific Medicaid populations such as members with HIV/AIDS and sickle cell anemia. We look forward to leveraging our knowledge of your data and systems to bring standard ad-hoc reporting capabilities to the project and also further our work providing advanced custom analytics driven by your unique needs.

Other trends effecting our approach to Optum IES development

There are many other trends that we are considering as we evolve the Optum IES platform. These include advances in mobile technology, effective use of social media, strategies to account for and measure the impact of social determinants of health, self-service capabilities, and advancements in the use of cloud-based solutions.

Working with us to address these trends will allow you to maximize opportunities to better serve your citizens. Our strategy will be to work with you to utilize our knowledge and industry experience to improve operational efficiency and effectiveness. Together, we will analyze your current operations and design a platform that “future proofs” your organization, decreasing Total Cost of Ownership (TCO), and supporting your vision of a person centric delivery system.

We look forward to leveraging our knowledge of your data and systems to bring standard ad-hoc reporting capabilities to the project and also further our work providing advanced custom analytics driven by your unique needs.

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2.3 Integrated Eligibility and Benefit Management (IE-BM) Engagements Completed in the Public Sector in the Last Five Years

The Vendor should list all engagements that were completed/finished or were active in the last 5 years in the Public Sector (in particular for Health and Human Services and similar to the Arkansas IE-BM). This includes all engagements where the Vendor was providing DDI and M&O support services and/or providing services to implement application enhancements.

Instructions: Provide a listing and contact information for all similar HHS engagements in the last five (5) years. Denote any that are pending litigation or have been terminated for cause or convenience. Provide the same information for each subcontractor, associated company, consultant and entity that will be involved in any phase of this engagement. **Duplicate the table for each entity in the Proposal.** Do not change any of the completed cells. Any changes to the completed cells could lead to the disqualification of the Proposal.

Table 3. Optum IE-BM Engagements Completed in the Last Five (5) Years

REF #	ENGAGEMENT NAME	CUSTOMER NAME	CUSTOMER CONTACT	PROJECT DURATION	BUSINESS DISPUTE?	
1	West Virginia RAPIDS, Take-over, enhancement, and M&O	West Virginia Department of Health and Human Services	Jon Cain jon.w.cain@wv.gov (304) 558-5402	1/26/2016 – Present	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
2	Federal Data Services Hub (DSH)	CMS, Office of Technology Services, (OTS)	Aaron Blackshire aaron.blackshire@cms.hhs.gov (410) 786-8204	9/30/2011-3/1/2017	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
3	Maryland Health Benefit Exchange and Eligibility System Integration	State of Maryland – Maryland Health Benefit Exchange	Subi Muniyasamy Subi.Muniyasamy@maryland.gov 603-568-0995	12/16/2013 – 6/16/2015	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>

REF #	ENGAGEMENT NAME	CUSTOMER NAME	CUSTOMER CONTACT	PROJECT DURATION	BUSINESS DISPUTE?	
4	Vermont Health Services Enterprise and Vermont Health Connect Eligibility Integration	Vermont Department of Health Access	John Stern john.stern@vermont.gov (802) 585-5390	6/9/2014 – Present	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
5	Massachusetts Health Connector and Eligibility System Integration	Commonwealth of Massachusetts Health Connector	Louis Gutierrez Louis.gutierrez@state.ma.us (617) 933-3060	1/26/2014- Present	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
6	District of Columbia (DC) Health Benefit Exchange & DC Health Link Eligibility System Integration	District of Columbia Health Benefit Exchange	Rob Shriver robert.shriver@dc.gov (202) 741-8820	1/2015 - Present	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
7	Marketplace Advisor Systems Integrator (MASI)	CMS, Office of Technology Services, (OTS)	Alan Fredericks, 410-786-8622, alan.fredericks@cms.hss.gov	10/25/2013-10/31/2015	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>

Table 3. Connvertex IE-BM Engagements Completed in the Last Five (5) Years

REF #	ENGAGEMENT NAME	CUSTOMER NAME	CUSTOMER CONTACT	PROJECT DURATION	BUSINESS DISPUTE?	
1	UTAH eREP	State of Utah HHS	Penni DeHaan	48 months	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
2	UTAH eREP Migration	State of Utah HHS	Mark Schultz	60 months ongoing	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
3	NC FAST	State of North Carolina	Tonya Prince	80 months ongoing	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
4	MNSure	State of Minnesota, HHS	Deb Bokhurst	15 months	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
5	Arkansas EEF	RedMane	Kyran Lynch	8 months	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>

REF #	ENGAGEMENT NAME	CUSTOMER NAME	CUSTOMER CONTACT	PROJECT DURATION	BUSINESS DISPUTE?	
6	USVI Integrated Eligibility	RedMane	Kyran Lynch	10 months	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>

2.4 Vendor’s Work Locations

The Vendor Key Project Personnel associated with the IE-BM engagement must be available to participate in-person for project-related meetings as scheduled by DHS during normal business hours, Monday through Friday 8:00 a.m. to 5:00 p.m. CST, except Federal, State and local holidays.

At no time shall the Vendor maintain, use, transmit, or cause to be transmitted information governed by privacy laws and regulations outside of the United States and its territories.

Instructions: Describe the locations where the Vendor proposes performing work associated with this RFP. Indicate the site(s) from which the Vendor will perform the relevant tasks identified in this Proposal. If the site(s) for a specific task changes during the Contract term, provide a timeline reflecting where the task will be performed during each time period.

Specifically identify where the Key Project Personnel identified in the RFP will be physically located for the duration of the Contract.

For each of the deliverables identified in the RFP, provide the percentage of work to be done in the State.

Our approach to facility identification, implementation, and management makes certain that all aspects of the AR IE-BM project will be fully supported by well-planned, secure, scalable facilities that meet or exceed the RFP requirements and provide the foundation for future project needs. We know from our previous state HHS implementation projects that integration with State staff and stakeholders will be an important factor for the success of the AR IE-BM project. This working philosophy aligns with DHS’ preference for a shoulder-to-shoulder working relationship with its selected vendor.

Following the release of the RFP, Optum corporate real estate representatives conducted an initial market survey to identify potential Optum project office locations that meet the requirements outlined in 3.6.8 Expected Work Environment. The results we include are for locations that the market shows as currently available and that meet the space requirements and specifications. We will continue to monitor market availability for properties that most closely align with the DHS’ preferences.

Finding an office location in close proximity to DHS will facilitate collaboration, project planning, and other contract activities, as needed. The office will be the primary location of our AR IE-BM project contract administration and key personnel. Our office will be conducive to enabling a collaborative, productive, and secure environment for DHS and Optum staff.

Figure 2 provides information for each of the potential locations.






No	Image	Building	Distance from DHS	Total Square Feet	Parking Spaces Per Square Feet
1		Bank of America Plaza 200 W. Capitol Ave Little Rock, AR 72201	0.2 Miles	268,598 square feet	45 free surface spaces plus 300 free covered spaces 1.3: 1,000 square feet
2		Simmons Tower 425 W. Capitol Ave Little Rock, AR 72201	0.5 Miles	623,354 square feet	415 free surface spaces 0.66: 1,000 square feet Plus 952 spaces in adjacent garage
3		River Crest Center 8907 Kanis Road Little Rock, AR 72205	7.6 Miles	32,000 square feet	225 free surface spaces 7.03: 1,000 square feet
4		Kanis Park Professional 1404 Kanis Park Drive Little Rock, AR 72205	6.8 Miles	26,000 square feet	113 free surface spaces 4.3: 1,000 square feet
5		Doctors Building 500 S. University Ave. Little Rock, AR 72205	4.7 Miles	5,274 square feet	200 free surface spaces 2.01: 1,000 square feet

Figure 2. Potential Locations.

Optum's office will be conducive to enabling a collaborative, productive, and secure working environment for State and Optum staff.

2.5 Existing Business Relationships with the State of Arkansas

Instructions: Describe any existing or recent (within the last five (5) years) business relationships the Vendor or any of its affiliates and proposed subcontractors has with the State.

The business relationships OptumInsight, Inc. (Optum) and Optum affiliates have with the State of Arkansas are as follows.

- **Optum Government Solutions:** Optum Government Solutions holds separate contracts with the State to respectively host a Medicaid Decision Support System and to provide Independent Assessment and Transformation Support services
- **OptumRx:** OptumRx has three pharmacies that serve Arkansas Medicaid beneficiaries
- **OptumCare:** OptumCare has two urgent care centers that serve Arkansas Medicaid beneficiaries

Because Optum has several business interests with the State, Optum offers the below comments to assure the State that an award to Optum under this RFP will not create any organizational conflicts of interest (OCI) with the affiliates noted above.

As a general rule, we believe that in the absence of a state-specific definition, federal regulations govern what constitutes an OCI. Those regulations generally provide that the two underlying OCI principles are: (1) preventing the existence of conflicting roles that might bias a contractor's judgment; and (2) preventing unfair competitive advantage.

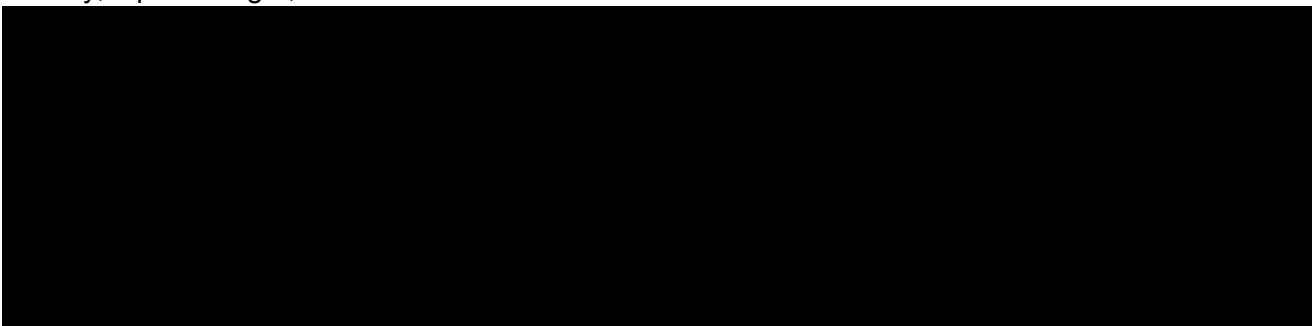
None of the current interests of Optum or its affiliates would conflict with or cause any bias in Optum's judgment if it were to provide the Arkansas IE-BM solution under a contract resulting from this RFP. As the Arkansas IE-BM provider, Optum would be providing technology executing eligibility determinations per State specifications. Similarly, an award of a contract to Optum would not create circumstances that would result in any of Optum's affiliates have an unfair competitive advantage in a future procurement. Accordingly, Optum has no OCI.

Our proposed subcontractor, Connvertex, within the last 5 years, has supported the AR EEF project under a subcontract agreement with RedMane.

2.6 Business Disputes

Instructions: Provide details of any disciplinary actions and denote any that are pending litigation or Terminated for Cause or Convenience and associated reasons. Also denote any other administrative actions taken by any jurisdiction or person against the Vendor. List and summarize all judicial or administrative proceedings involving sourcing activities, claims of unlawful employment discrimination and anti-trust suits in which the Vendor has been a party within the last five (5) years. If the Vendor is a subsidiary, submit information for all parent companies. If the Vendor uses subcontractors, associated companies and consultants that will be involved in any phase of this engagement, provide the same information for each of these entities.

The following includes open and closed litigation matters within the past five years of the bidding entity, OptumInsight, Inc.



Optum is a part of UHG Incorporated, a global company with subsidiaries and affiliates, including affiliates of the Vendor, who on a combined basis do business in all fifty (50) states in the U.S. and in countries throughout the world. As a result, OptumInsight, its affiliates and its parent, UHG, is involved in commercial business disputes, commercial litigation matters, claims of employment discrimination, administrative actions and has had contracts terminated in accordance with their provisions in the ordinary course of business. However no such disputes, litigation, claims, administrative actions and/or contract terminations have impacted or will impact our ability to provide the services as set forth in our response.

Our subcontractor partner Connvertex has had no disciplinary actions, pending litigation or contracts that have been terminated for Cause or Convenience. Furthermore, Connvertex has had no administrative actions taken by any jurisdiction or person against Connvertex involving sourcing activities, claims of unlawful employment discrimination or anti-trust suits in which Connvertex has been a party within the last five (5) years.

3.0 Financial Stability

3.1 Dun & Bradstreet Ratings

The Vendor should provide the industry standard Dun & Bradstreet (D&B) Ratings that indicates the firm's financial strength and creditworthiness, assigned to most US and Canadian firms (and some firms of other nationalities) by the US firm D&B. These ratings are based on a firm's worth and composite credit appraisal. Additional information is given in credit reports (published by D&B) that contain the firm's financial statements and credit payment history. Additional information may be requested regarding financial stability for the Vendor and any subcontractors proposed.

Instructions: Provide a D&B Ratings report.

Optum has included a recent Dun and Bradstreet report containing its most recent D&B ratings, included as Attachment 1.

Dun and Bradstreet reports depend in large part on either information voluntarily provided by the applicable bidder or information that D&B obtains from other sources that are often inaccurate. Wholly owned subsidiaries of large, publicly held companies, where the wholly owned subsidiary is a responsible and responsive bidder for an RFP, commonly limit the amount of information provided to D&B. This results in a low D&B rating that ignores other financial

attributes of the wholly owned subsidiary that demonstrate its financial capabilities. These same subsidiaries, however, have the financial ability to fully perform the contract resulting from this RFP. Evidence of that financial capability can be found in their revenue or in their financial results are consolidated in, and reflected in the audited financial statements of, their parent company.

We believe the better evidence of our financial stability is contained in the audited financial statements of our parent company, UnitedHealth Group (UHG). Optum is the largest health services company in the nation, with revenue for the fiscal year ending December 31, 2016 of \$184.8 Billion, well in excess of the anticipated total contract value from this procurement.

As noted below in Section 3.2, Optum has included the audited financial statements of UHG, for the two most recent, completed fiscal years for which such audited financial statements are available. Optum does not maintain audited financial statements of its own, but the financial results of Optum are included as part of the consolidated financial statements of UHG.

3.2 Financial Capacity

Vendors should submit an Independent Auditor's Report and audited financial statements, including any management letters associated with the Auditor's Report with the applicable notes, OMB A-133 Audit (if conducted) for the last three (3) fiscal years (an Audit Receipt Letter from Contract Support for each year is acceptable), balance sheet, statement of income and expense, statement of changes in financial position, cash flows and capital expenditures.

Most current financial statements (may be unaudited) should be provided on a separate USB Memory Stick, labeled "Financial Capacity Information Template T-2 – 3.2" to be provided as part of the Technical Proposal. If the Vendor has not had an audit conducted within the past three (3) fiscal years, then the Vendor should provide the following un-audited financial statements for the last three (3) fiscal years:

- a) State of Financial Position (Balance Sheet)
- b) Statement of Activities (Income Statement)
- c) Statement of Cash Flows

If the Vendor is a corporation that is required to report to the Securities and Exchange Commission (SEC), it should submit its two (2) most recent SEC Forms 10K, Annual Reports. If any change in ownership is anticipated during the twelve (12) months following the Proposal due date, the Vendor should describe the circumstances of such change and indicate when the change is likely to occur.

Additional information may be requested regarding financial stability for the Vendor and any subcontractors proposed.

Instructions: Supply evidence of financial stability sufficient to demonstrate reasonable stability and solvency appropriate to the requirements of this procurement.

Optum as a corporation, to demonstrate evidence of financial stability, has included SEC Form 10K Annual Reports for its parent company, UnitedHealth Group Incorporated (UHG), for 2015 and 2016, in Attachment 2 on CD as requested. These are the two most recent SEC Form 10K for UHG. They contain UHG's audited financial statements for the two most recently completed fiscal years of 2015 and 2016. These financial statements include the financial results of OptumInsight, the bidding entity, for this IE-BM engagement. These statements note that Optum

has revenue for the fiscal year ending December 31, 2016, of \$184.8B and net income of \$7.9 Billion, well in excess of the anticipated total contract value from this procurement.

3.3 Financial References

The Vendor should provide references that can verify the standing of the Vendor.

Instructions: List credit references of the Vendor. Do not change any of the completed cells. Any changes to the completed cells could lead to the disqualification of the Proposal.

Table 4. Credit References

INSTITUTION	ADDRESS	PHONE NUMBER
Fifth Third Bank	1701 West Golf Road MD GRLM9J Rolling Meadows, IL 60008 USA	(O)847.354.7392 (C) 847.452.8586
Standard & Poor's	55 Water Street New York New York, 10041 USA	1-877-772-5436, option 3,1 ratings_request@spglobal.com
Moody's	Boston, Massachusetts Moody's Investors Service, Inc. One International Place 100 Oliver Street, Suite 1400 Boston, MA 02110 USA	212-553-1653
Fitch	33 Whitehall St New York, NY 10004 USA	212-908-0500 usaclientservices@fitchsolutions.com
A.M. Best	Ambest Road Oldwick, NJ 08858 USA	908-439-2200 ext. 5036

3.4 Corporate Guarantee

If the Vendor is substantially owned or controlled, in whole or in part, by one or more other legal entities, the Vendor should submit the information required under the "Financial Capacity" section above for each such entity, including the most recent financial statement for each such entity. The Vendor should also include a statement that the entity or entities will unconditionally guarantee performance by the Vendor for each and every obligation, warranty, covenant, term and condition of the Contract. If DHS determines that an entity does not have sufficient financial resources to guarantee the Vendor's performance, DHS may require the Vendor to obtain another acceptable financial instrument or resource from such entity, or to obtain an acceptable guarantee from another entity with sufficient financial resources to guarantee performance.

Instructions: Provide any additional information requested, and the unconditional guarantee by the owning/controlling entities.

As noted in our response to Section 3.2, we have provided SEC Forms 10K for UnitedHealth Group for 2015 and 2016 as Attachment 2 on CD.

UHG will guarantee the performance of Optum with regard to the IE-BM contract. If awarded the contract, UHG, Optum’s parent entity will provide a Corporate Guarantee covering every obligation, warranty, covenant, term and condition of the Contract for the term of the contact, as amended or extended, and limited to the an amount sufficient to cover the obligations, warranties, covenants, terms and conditions of the Contract.

4.0 General Assumptions

Instructions: Document the assumptions related to this Response Template in the following Table. Add rows as necessary. Do not change any of the completed cells. Any changes to the completed cells could lead to the disqualification of the Proposal.

Table 5. Vendor Experience Assumptions

ITEM #	REFERENCE (Section, Page, Paragraph)	DESCRIPTION	RATIONALE
1.	Section 2.3 Table 3, IE-BM Engagements Completed in the Last Five (5) Years, page 27	Optum assumes only those client references noted in T3 will be contacted directly by the State.	The project examples cited in T2 are for illustrative purposes to establish Optum experience with projects similar to the IE-BM. Only those clients listed in T3 have given permission to be formally cited as a reference for this RFP. If the State wishes to contact any Optum customer that is listed in T2 but not in T3 we request the State contact the noted point of contact listed in the Optum response prior.
2.	Section 2.3 Table 3, IE-BM Engagements Completed in the Last Five (5) Years, page 27	For all listed projects, DDI was completed on time and within budget. Those projects with duration end dates listed as “present” are currently in the M&O phase.	Optum assumes the State is primarily interested in making sure the deliverables were completed successfully during DDI.
3.	Section 2.4, Vendor’s Work Location, page 29	The information provided for the locations identified by Optum Corporate Real Estate are a point in time summary. Optum’s actual work location will be determined at a time deemed most appropriate by Optum and the State following the award of the AR IE-BM project.	

Template T-3
Vendor References
Response Template
RFP #: SP-17-0012

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1.0 Vendor References

To realize the objectives stated as part of the RFP, the State of Arkansas is issuing this RFP to contract with a Vendor who has experience implementing and managing complex integrated eligibility applications for major organizations. As such, the State has established mandatory qualifications that must be met to submit a proposal as stated in Section 1.2.1 of the RFP.

To satisfy the mandatory qualifications, include at least three (3) references (for the Prime Vendor) of projects which are of similar size, complexity and scope to this engagement, that have either completed within the last five (5) years or are active projects. Additionally, include at least three (3) references (for the Prime Vendor), of projects implementing and maintaining State human services systems that have been completed within the last five (5) years or are active projects. References may overlap if they meet qualifications for both requirements. Each reference chosen should clearly demonstrate the Vendor’s ability to perform the Scope of Work described in the RFP.

Instructions: Provide the information requested in the Tables below. The Tables may be replicated if the Vendor would like to include more than three (3) references. Do not change any of the completed cells. Any changes to the completed cells could lead to the disqualification of the Proposal.

Table 1. Reference 1

VENDOR INFORMATION	
Vendor Name: Optum	Vendor Contact Name: [REDACTED]
Project Dates: February 1, 2016 – December 31, 2017	Vendor Contact Phone: [REDACTED]
CUSTOMER INFORMATION	
Customer Organization: West Virginia Department of Health and Human Resources	Customer Contact Name: [REDACTED]
	Customer Phone: [REDACTED]
Customer Address: One Davis Square, Suite 100 East Charleston, WV 25301	Customer Email: [REDACTED]
	Customer Fax: [REDACTED]
PROJECT INFORMATION	
Total Vendor Staff:	Information not disclosed, client reference may provide verbally upon being contacted
West Virginia Recipient Automated Payment and Information Data System (RAPIDS) Project Objectives/ Business Problem: West Virginia was experiencing system issues with its aging legacy eligibility system, RAPIDS. The system issues were affecting the services DHHR provides to its members. RAPIDS administers federal and state public assistance programs at the State level. RAPIDS is the integrated automated benefit eligibility system for administering the following programs: Temporary Assistance to Needy Families (TANF), Supplemental Nutrition Assistance Program (SNAP) Disaster SNAP (D-SNAP), SNAP Employment and Training Program, Medicaid, CHIP, work programs, emergency assistance, refugee assistances, low income	

energy assistance program (LIEAP), non-emergency medical transportation, and West Virginia school clothing allowance.

Project Description:

Working in partnership with West Virginia, Optum established a transition plan from the incumbent vendor and an M&O plan to include support for their program. The scope of the RAPIDS system includes:

- Application Entry and Eligibility Determination
- Benefit Issuance
- Integration with FDSH and other outside Systems
- Identity Management
- Notice Generation
- Customer and Case worker Portals
- Eligibility Rules Engine (Corticon)
- Master Data Management (Informatica)
- Business Intelligence (Cognos)

Member/Provider statistics:

- 600,000 individuals have enrolled through the system
- 40,000 Providers
- 300 Cognos Reports

Optum also provides the following services to DHHR for RAPIDS: Application maintenance and enhancement services, Incident management, Program management, Change management, Release management, Event management, Knowledge management, Master data management, and Access integration services

Vendor's Involvement (Role and Scope):

Optum currently performs Maintenance and Operations (M&O). Our responsibilities include:

- **Training Management:** Optum currently manages the training environment for eRAPIDS.
- **Client Management:** We help triage any system related issues related to clients not receiving benefits or those that have received incorrect benefits.
- **Service Management:** Optum currently supports eRAPIDS Help Desk functionality Statewide via custom-developed software named Automated Tracking System (ATS).
- **Financial Management:** Optum manages all financial disbursements for TANF, SNAP, Emergency Assistance and Medicaid programs by computing the client benefits and sending that data to OASIS, which is the state's ERP system.
- **Provider Management:** Optum manages more than 44,000 providers within the Child Welfare (FACTS) system. In addition, we manage approximately 24000 vendors for emergency assistance payments (e.g. electric, heating companies who provide LiHEAP benefits and transportation providers (for Welfare to Work participants) within the eRAPIDS application. This includes management of provider demographic information, tax and corporate structure, as well as maintaining a roster of the services that they provide.

Project Benefits:

- Optum completed the transition from the former vendor in only one month; the cutover occurred without major issues. The work is being done at a cost 25%+ less than the previous vendor, helping WV meet budget challenges.
- We helped the State move to an ITIL centric model of service management via the implementation of Service Now for incident and problem management.
- We streamlined the generation of State and Federal reports that aggregate the payments to help maximize the federal reimbursement rates.

<ul style="list-style-type: none"> ■ We enhanced the State’s document management capabilities. ■ We helped improve application stability and availability for state end users, with a substantial reduction in open incidents. ■ We helped implement Disaster Supplemental Nutrition Assistance Program (D-SNAP) benefits for 48,000 residents of 12 counties affected by deadly flooding in 2016. ■ We helped mitigate issues tying systems and processes together reducing manual intervention and improving customer satisfaction. 	
VENDOR KEY PERSONNEL ASSIGNED TO PROJECT	
	Role:
	Role:
PROJECT MEASUREMENTS	
Operating Budget of Organization: Approximately \$40M	# of Employees and External Users: 43 Optum Employees and Approximately 2,500 state workers
Estimated One-time Costs: Firm Fixed Price	Actual One-time Costs: Firm Fixed Price
Reason(s) for Change in One-time Cost: Information not disclosed. Client may provide information verbally upon being contacted.	
Original Value of Vendor’s Contract: \$29M	Actual Total Contract Value \$40M
Reason(s) for Change in Value: Total contract value includes Option years	
Estimated Start & Completion Dates:	From: February 2016 To: December 31, 2017
Actual Start & Completion Dates:	From: February 2016 To: Current
Reason(s) for Difference Between Estimated and Actual Dates: No difference	
If the Vendor performed the work as a subcontractor, the Vendor should describe the scope of subcontracted activities: Optum is the prime vendor	
Describe the project’s billing and invoicing procedures and any special accommodations: Standard monthly bill plus enhancements which are billed at a hourly rate	

Table 2. Reference 2

VENDOR INFORMATION	
Vendor Name: Optum	Vendor Contact Name: [REDACTED]
Project Dates: June 9, 2014 – present	Vendor Contact Phone: [REDACTED]
CUSTOMER INFORMATION	
Customer Organization: State of Vermont Agency of Human Services, Department of Vermont Health Access	Customer Contact Name: [REDACTED]
	Customer Phone: [REDACTED]
Customer Address: Vermont Agency of Human Services 280 State Drive - Center Building Waterbury, VT 05677	Customer Email: [REDACTED]
	Customer Fax: [REDACTED]
PROJECT INFORMATION	
Total Vendor Staff: Optum currently has a staff of over 100 employees supporting the State.	
<p>Project Objectives:</p> <p>Optum performed a wide range of IT and operational support to the Vermont Health Connect (VHC) after they experienced challenges in the first ACA open enrollment period. In August 2014, the VHC terminated its contract with its prior vendor for DDI and M&O and named Optum as the prime systems integrator starting in October 2014. We assumed responsibility for all DDI and M&O activities and implemented system and process improvements. We are also the Health Services Enterprise (HSE) platform-hosting vendor. The HSE supports Vermont’s entire HHS enterprise including the VHC, and the legacy MMIS and human services eligibility systems.</p>	
<p>Project Description:</p> <p>Optum performs design, development, implementation, maintenance, operations, and hosting for the Vermont Health Connect’s (VHC) eligibility determination system, and the Health Services Enterprise Platform (HSEP). This system determines QHP, MAGI Medicaid, CHIP, and dental eligibility. The HSEP will support all human services programs as the Agency migrates from its legacy mainframe eligibility system and MMIS.</p>	
<p>Vendor’s Involvement (Role and Scope):</p> <p>We currently lead the following activities for Vermont’s Health Services Enterprise (HSE) and VHC: application maintenance and enhancement services, incident management, program management, change management, release management, disaster recovery, event management, capacity management, availability management, knowledge management, service asset and configuration management, escalations, CRM system management, legacy IE integration, identity and access management services, and enterprise content management services.</p>	
<p>Project Benefits:</p> <ul style="list-style-type: none"> ■ Replaced original prime systems integrator and led successful start and completion of the 2015 open enrollment period ■ Transitioned DDI activities successfully from the previous vendor and implemented and tested new functionality for rapid production release ■ Enabled VHC to achieve system performance and enrollment goals quickly with best 	

practices in program management, release management, and testing

- Enrolled 87 consumers successfully on the first day of 2015 open enrollment - this was more people in one day than in the previous year's total from the start of 2014 open enrollment through January 2014
- Developed and implemented change of circumstance functionality and IRS 1095 notification
- Supported VHC's ability to meet CMS security requirements and reconnect to the Federal Hub prior to the 2015 open enrollment period
- Successfully deployed hosting transition for the HSE in September 2015
- Completed development environment application installations including staging and testing of applications for the HSE

VENDOR KEY PERSONNEL ASSIGNED TO PROJECT

Name: [REDACTED]	Role: [REDACTED]
Name: (Add more rows as needed)	Role: (Add more rows as needed)

PROJECT MEASUREMENTS

Operating Budget of Organization: Not disclosed	# of Employees and External Users: Approximately 200,000 external users
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Estimated One-time Costs: N/A	Actual One-time Costs: N/A
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Reason(s) for Change in One-time Cost: No change from original	
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Original Value of Vendor's Contract: \$33,392,737	Actual Total Contract Value: \$137,378,967.00
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Reason(s) for Change in Value: Scope of work was amended to include M&O of HSE and number reflects all option years

Estimated Start & Completion Dates:	From: 6/9/2014	To: 6/30/16
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Actual Start & Completion Dates:	From: 6/9/2014	To: 12/31/2015 (DDI); 08/14/2018 (M&O); 12/31/2017 (Hosting)
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Reason(s) for Difference Between Estimated and Actual Dates:
 Although May 15, 2015 was the original contract end date, Vermont extended the DDI and M&O contracts, and added the Health Services Enterprise contract, as shown in the completion dates above. Optum was awarded a contract to continue maintenance and operations in June 2016.

If the Vendor performed the work as a subcontractor, the Vendor should describe the scope of subcontracted activities: Optum is the prime vendor

Describe the project’s billing and invoicing procedures and any special accommodations:
 Optum has worked closely with the State of Vermont to comply with billing and invoicing procedures. This includes detailed weekly workbook and separate monthly invoices by contract type; DDI, M&O, and hosting.

Table 3. Reference 3

VENDOR INFORMATION	
Vendor Name: Optum	Vendor Contact Name: [REDACTED]
Project Dates: December 2010 – December 2019 Predecessor contracts began in 1994	Vendor Contact Phone [REDACTED]
CUSTOMER INFORMATION	
Customer Organization: Michigan Department of Health and Human Services (MDHHS)	Customer Contact Name: [REDACTED]
	Customer Phone: [REDACTED]
Customer Address: 235 S Grand Ave, Lansing, MI 48933	Customer Email: [REDACTED]
	Customer Fax: [REDACTED]
PROJECT INFORMATION	
Total Vendor Staff: 65 FTEs	
Business Problem/Objective: Michigan Department of Health and Human Services’ (MDHHS) full Electronic Data Warehouse Business Intelligence (EDW/BI) solution involves more than 20 agencies across multiple departments, including Department of Health and Human Services, Department of Treasury, and State Court Administrative Office. More than 10,000 individuals across the state currently use the EDW/BI solution. It supports stronger relationships among public health, human services, medical care, social services, behavioral health and long-term care organizations.	
Project Description: Optum has performed EDW/BI services for the State of Michigan since 1994. We developed and installed the state’s original data warehouse infrastructure in 1994 and then worked with the Department of Social Services to build the first Medicaid data warehouse in the country—initially starting with 50 users. The state has evolved dramatically using the Electronic Data Warehouse (EDW) from simply collecting and compiling data, to applying more, advanced analytical capabilities that support informed decision-making. This positively affects policies, programs and people. With Optum’s help, Michigan has translated the data analysis into significant cost savings and improved outcomes in many programs and service areas. The EDW and the value of data accessibility are instrumental in the following: <ul style="list-style-type: none"> ■ Supporting more than 10,000 users ■ Increasing the state’s ability to perform analysis in support of the yearly budgeting process 	

- Providing fraud, waste, and abuse program work and related investigations
- Performing advanced analytics in support of driving improved outcomes for the State's citizens
- Driving more comprehensive and overarching views of the State's citizens by sharing data across agencies and program areas
- Improving the daily operations of the State's programs
- Supporting the following agencies and organizations to monitor for fraud, waste, and abuse:
 - Department of Health and Human Services – Office of Inspector General
 - Department of Treasury – Tax Audit Division – Tax Compliance Bureau

Vendor's Involvement (Role and Scope):

Currently, Optum has 65 EDW/BI staff members performing services at the State for various agency projects. Staffing levels fluctuate to accommodate the State's needs. Support roles have included data modelers, database administrators, business analysts, project managers, Extract Transformation Load (ETL) specialists, report developers, Web developers, BI administrators, help desk analysts and subject matter experts (Master Data Management, MMIS, HEDIS, ICD-10).

During the past 23 years, Optum has provided ongoing hardware and software support for the EDW and ETL infrastructure. We have performed several hardware and software upgrades to assist and lead the state in maintaining current data warehouse hardware and software technology. We have also managed EDW/BI projects where we performed on a firm, fixed-price and time-and-materials basis supporting various projects to connect additional data sources and applications to the EDW.

Tools, including BI Query and SAP BusinessObjects Crystal Reports, support our EDW/BI analytics. The solution incorporates Medicaid and human services program data from more than 60 state and federal sources.

Project Benefits:

Michigan has received national recognition using the data warehouse from numerous third parties, including the National Governors Association, National Association of State Chief Information Officers, The Data Warehousing Institute, and numerous business and trade publications.

- Optum, working closely with MDHHS, developed a Care Coordination/Integrated Care application called CareConnect360 which leverages data from the EDW and presents the data (Physical and Behavioral Health Claims and Encounters, Pharmacy Data, Medicare Data, and Human Services Data) to staff working for the State's managed care plans (Behavioral and Physical) to facilitate coordination of care for Medicaid Beneficiaries.
- MDHHS uses the EDW/BI as a broad-based business intelligence solution to manage its health care programs and outcomes. MDHHS has integrated 12 separate health-related program areas, encompassing 34 separate data sources, into a single environment within the EDW – an integration that has been critical since many of MDHHS' beneficiaries are enrolled in more than one program.
- Today, MDHHS can monitor the cost and care associated with a single individual across multiple programs, and the EDW has been instrumental in the following areas:
 - Improving the administration of healthcare services
 - Conducting advanced healthcare analysis to determine patterns
 - Assessing which programs are most effective

<input type="checkbox"/> Detecting and reducing fraud, waste, and abuse <input type="checkbox"/> Improving and interpreting disease management and epidemiological patterns <input type="checkbox"/> Improving healthcare outcomes <input type="checkbox"/> Streamlining operations and improving efficiencies <input type="checkbox"/> Serving as a basis to help drive future Health Information Exchange (HIE) initiative	
VENDOR KEY PERSONNEL ASSIGNED TO PROJECT	
Name: [REDACTED]	Role: Engagement Leader
Name: [REDACTED]	Role: Lead Business Analyst
Name: [REDACTED]	Role: Project Manager
PROJECT MEASUREMENTS	
Operating Budget of Organization: \$24.7B – MDHHS FY2017 budget	# of Employees and External Users: 14,000 MDHHS employees 10,000 MI EDW users
Estimated One-time Costs: Not Applicable – time and material contract	Actual One-time Costs: Not Applicable – time and material contract
Reason(s) for Change in One-time Cost: Not Applicable – time and material contract	
Original Value of Vendor’s Contract: (BI Services Contract) \$12.3M	Actual Total Contract Value: Information not disclosed. Client may provide information verbally upon being contacted
Reason(s) for Change in Value: No change disclosed	
Estimated Start & Completion Dates:	From: December 2010 To: December 2019
Actual Start & Completion Dates:	From: December 2010 To: Present
Reason(s) for Difference Between Estimated and Actual Dates: No difference in estimated and actual start and completion dates.	
If the Vendor performed the work as a subcontractor, the Vendor should describe the scope of subcontracted activities: Optum is the prime contractor.	
Describe the project’s billing and invoicing procedures and any special accommodations: Optum provides monthly invoices to MDHHS for this time and materials-based contract, including details by project (number of hours and amount billed for each resource on each project), and by individual resource (number of hours billed for each resource for the month).	

Table 4. Reference 4

VENDOR INFORMATION	
Vendor Name: Optum	
Project Dates: 9/30/11-10/1/2017	
CUSTOMER INFORMATION	
Customer Organization: Center for Medicare and Medicaid Services (CMS)	
Customer Address: Location – W-08-177 (Bethesda) 7500 Security Blvd. Baltimore, MD 21244-1850	
PROJECT INFORMATION	
Total Vendor Staff: Average 179 FTEs over the life of the contract	
Federal Data Services Hub (FDSH) Health Insurance Exchange (HIX) Project Objectives: CMS, Office of Technology Services, (OTS), contracted with Optum to take over from the incumbent vendor to design, develop and implement the FDSH. The FDSH is used by CMS and State officials, insurance carriers and issuers, and citizens seeking to find information to enroll in Medicaid, health insurance, and affordability programs. The FDSH routes enrollment verification requests between the Medicaid/Children’s Health Insurance Program (CHIP) agencies, Federally Facilitated Marketplace (FFM), State Based Marketplace (SBMs), and the authoritative data sources (Federal agencies). FDSH also routes enrollment transactions, including transactions in the Small Business Health Options Program (SHOP), from the FFM to issuers.	
Business Problem/Objective: Prior to contracting with Optum there was a lack of strict software development and quality assurance processes in place causing defective code and missed timelines. In addition, CMS needed a reporting system to monitor and manage all business requirement alignment with the Centers’ policies. The reporting services are vital to maintaining the FDSH’s operations; they include reports providing daily statistics of the number of “successful” and “failed” service requests; Tivoli Workload Scheduler (TWS) reports detailing the status of FDSH’s virtual machines; and electronic funds transfer (EFT) reports listing the electronic file transfers between the systems.	
Project Description: Working in partnership with CMS, Optum stepped in to provide a range of services in order to stabilize the development environment, remediate defective code, and complete the required deliverables. These services included initiation, concept, and planning services, requirements development, design, development, and implementation, regional technical support, M&O and enhancement services, and change management services.	

Vendor’s Involvement (Role and Scope):
 Optum’s role was to engage and collaborate with multiple stakeholders involved in its day-to-day operations, including Center for Consumer Information Insurance Oversight (CCIIO), as well as several divisions of CMS’ Office of Information Service (OIS), including the Architecture Review Board, State Based Exchanges, Insurance Carriers (Issuers), state Medicaid and human services agencies, and various Federal agencies.

- Project Benefits:
- FDSH was one of the Centers’ first programs to use a true Agile methodology. Our developers used 30-day sprints; CMS business owners received new functionality every 30 days instead of every 3 months.
 - In addition to Agile, Optum instituted a number of other innovative processes that were replicated to improve other federal projects and programs. Examples include Continuous Integration/Continuous Delivery processes, open source development tools, and Security Control Assessment Services.
 - Through the use of Agile and the introduction of open source technologies CMS’ software costs were substantially reduced and the integrity of project timelines was preserved.
 - Optum created a customized dashboard in order for CMS to maintain their environment and improve root cause analysis. Using this dashboard, project stakeholders can quickly survey all applications and drill down to explore a specific issue.

VENDOR KEY PERSONNEL ASSIGNED TO PROJECT

	Role: XXXXXXXXXX
	Role: XXXXXXXXXX
	Role: XXXXXXXXXX

PROJECT MEASUREMENTS

Operating Budget of Organization: \$236.9M	# of Employees and External Users: The DSH program consists of multiple systems supporting more than 1,450 users including federal, state, marketplace agencies, issuers, and brokers.
Estimated One-time Costs: Not Applicable	Actual One-time Costs: Not Applicable
Reason(s) for Change in One-time Cost: Not Applicable	
Original Value of Vendor’s Contract: \$68.7M	Actual Total Contract Value: \$236.9M
Reason(s) for Change in Value: CMS requested additional Contract Line Item numbering System CLINS and task order extension to cover delayed re-compete.	
Estimated Start & Completion Dates:	From: 9/30/11 To: 3/1/2017
Actual Start & Completion Dates:	From: 9/30/11 To: 10/1/2017
Reason(s) for Difference Between Estimated and Actual Dates: CMS granted Optum a contract extension through 10/1/2017.	

If the Vendor performed the work as a subcontractor, the Vendor should describe the scope of subcontracted activities: Optum is the prime contractor.
Describe the project’s billing and invoicing procedures and any special accommodations: Optum submits a standard 1034 form to the government for payment on a monthly basis. This voucher reflects the costs incurred for that particular month. Submission is completed on or before the 15 th of each month. Vouchers are submitted both electronically, and by regular mail. Reimbursements for submitted vouchers are expected to be made no later than 30 calendar days after receipt of an acceptable voucher.

1.1 Subcontractor References (If applicable)

If the proposal includes the use of subcontractor(s), include at least three (3) references of projects that have been completed within the last five (5) years or are active projects. The State has a preference for the use of subcontractors with Health and Human Services experience, but it is not required. Section 1.2.1 of the RFP outlines the mandatory minimum qualifications. Instructions: Provide the information requested in the Tables below. Replicate the Table if more than three (3) references are desired. Do not change any of the completed cells. Any changes to the completed cells could lead to the disqualification of the Proposal.
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Table 5. Subcontractor Reference 1

SUBCONTRACTOR INFORMATION	
Subcontractor Name: Connvertex Technologies Inc.	
Project Dates: August 2012 - Current	
CUSTOMER INFORMATION	
Customer Organization: Department of Technology Services, State of Utah	
Customer Address: 140 E Broadway, Salt Lake City, UT 84111	
PROJECT INFORMATION	
Project Objectives: eREP Migration and Systems Enhancements The electronic Resource and Eligibility Product (eREP) is a major State of Utah software development project that started in 2002 to replace the PACMIS mainframe system. Major components of eREP are Temporary Assistance to Needy Families (TANF), Food Stamps, and Medical Services.	

<p>Project Description: <u>eREP Migration and System Enhancements</u> The eREP Migration project comprises of the following</p> <ul style="list-style-type: none"> ■ Replace the Cúram framework with in-house solutions built using proprietary and open source third party libraries. ■ Update frameworks and libraries used in the application that are or nearing end of life. ■ Cleaning up codebases, application data that would elevate system performance and aid developer productivity. Migrating from the existing DB2 database to Oracle. ■ Build a scaffolding framework for quick bootstrap of microservice applications. ■ Migrate from IBM Websphere to Wildfly/Spring Boot. ■ Use Docker to deploy applications. ■ Testing framework to unit/integrate test applications. ■ ESB applications to remove point-point communication from existing code and to decouple migrated applications from being bound to the same contract as provided to partnering agencies 	
<p>Subcontractor’s Involvement (Role and Scope): Our consultants are associated with eREP Migration and play a key role in design, development and deployment of many phases for project. During the eREP migration and enhancement project our multiple consultants are associated with different roles as below:</p> <ul style="list-style-type: none"> ■ Project Manager ■ Development Architect ■ System Administrator ■ Database Administrator ■ Java / Rules Developer ■ Java J2EE Developers and ■ IT Business Analyst ■ Web Developer 	
<p>Project Benefits: Integration without disruption to existing environment</p>	
<p>SUBCONTRACTOR KEY PERSONNEL ASSIGNED TO PROJECT</p>	
	Role: Sr. Programmer Analyst
	Role: Team Lead
<p>PROJECT MEASUREMENTS</p>	
Operating Budget of Organization: Not disclosed. Customer may provide verbally.	# of Employees and External Users: Not disclosed. Customer may provide verbally.
Estimated One-time costs: Time and Materials project	Actual One-time costs: \$4,380,767
Reason(s) for Change in One-time cost: No Change	
Original Value of Subcontractor’s Contract: Time and Materials	Actual Total Contract Value: \$4,380,767
Reason(s) for Change in Value: No change in Value this was a time and materials contract	
Estimated Start & Completion Dates:	From: August 2012 To: Current

Actual Start & Completion Dates:	From: August 2012	To: Current
Reason(s) for Difference Between Estimated and Actual Dates: No difference between Estimated and Actual dates		

Table 6. Subcontractor Reference 2

SUBCONTRACTOR INFORMATION	
Subcontractor Name: Connvertex Technologies Inc.	[REDACTED]
Project Dates: August 2010 - Ongoing	[REDACTED]
CUSTOMER INFORMATION	
Customer Organization: Department of Health and Human Services, State of North Carolina	[REDACTED]
Customer Address: 3724 National Drive, Raleigh, NC 27612	[REDACTED]
PROJECT INFORMATION	
<p>Project Objectives: The North Carolina Department of Health and Human Services' (DHHS) NC FAST program is an enterprise approach to delivering family-centered benefits and services to the citizens of North Carolina through enabling case management technology. In 2008, DHHS selected the Cúram Business Application Suite as the underlying integrated case management solution for NC FAST. At the completion of the six projects, IBM Cúram will be used for SNAP, TANF, Medicaid including MAGI and non-MAGI, child welfare, child care and adult protective services. Connvertex was contracted to participate in the development and ongoing Maintenance and Operations of the solution.</p>	
<p>Project Description: The 19 legacy systems—some dating from the 1980s—were not well suited to support the growing demands of economic benefits, adult care and aging services, child welfare, and health insurance reform, nor did they adequately share and integrate information. IBM-Cúram supports North Carolina's vision for NCFAST by providing the following elements:</p> <ul style="list-style-type: none"> ■ Automated tools for workers to assess needs and determine eligibility ■ Tools to help workers track cases and share information ■ Comprehensive data for evaluating outcomes and ensuring accountability <p>At the completion of the six projects, IBM Cúram will be used for SNAP, TANF, Medicaid including MAGI and non-MAGI, child welfare, child care and adult protective services.</p>	

<p>Subcontractor's Involvement (Role and Scope): Connvertex's experience in using Cúram across a number of programs enables us to provide critical server-based web application design expertise to the State and provide guidance in making the most appropriate use of the functions that Cúram offers. In addition, we understand that our customers need to modify the package to meet the unique requirements, and use our wealth of experience to design and develop extensions and customizations to the Cúram environment.</p>	
<p>Responsibilities:</p> <ul style="list-style-type: none"> ■ Participate in JAD (Joint Application Development) sessions with NJ State Department of Information Technology Services and Department of Health Subject Matter Experts (Client). ■ Requirements gathering to identify interfaces that satisfy the business requirements ■ Systems analysis and gap analysis for building quality interfaces ■ Developing requirements that support the collection ■ Integration and transformation of large volumes of data with data structures ranging from simple to highly complex ■ Designing and implementing complex SOA solutions using the WebSphere suite of products ■ Developing and executing system testing ■ Train State staff on the use of the software solution and tools. ■ Business analysis and documentation including fit/gap analysis and documentation. ■ Develop customized software when authorized by the State. ■ Provide consultation, tools, and support for Interfaces design and development activities. 	
<p>Environment: Cúram 6.0 Social Enterprise Framework, Java 5, Oracle 11g, Eclipse 3.0/3.4, JUnit, TOAD for Oracle, UML, Rational Rose, Subversion, Rational ClearQuest, Apache Tomcat 5.0, Apache Ant, CruiseControl, Microsoft Share Point, Microsoft Visio, Microsoft Excel, Microsoft Word, Acrobat PDF Pro, XML, SQL, Cúram WebServices implementation, Cúram Batch Framework.</p>	
<p>Project Benefits: With Connvertex assistance, this project has been recognized as one of the most successful Cúram implementations in the world, with continually expanding scope, adding additional programs, and increased benefits to the citizens of North Carolina.</p>	
<p>SUBCONTRACTOR KEY PERSONNEL ASSIGNED TO PROJECT</p>	
<p>PROJECT MEASUREMENTS</p>	
<p>Operating Budget of Organization: Not disclosed. Customer will provide verbally</p>	<p># of Employees and External Users: Not disclosed. Customer will provide verbally.</p>
<p>Estimated One-time costs: time and material</p>	<p>Actual One-time costs: \$ 3,715,446</p>
<p>Reason(s) for Change in One-time cost: No Change as this is a time and materials Contract</p>	

Original Value of Subcontractor’s Contract: time and materials	Actual Total Contract Value: \$ 3,715,446		
Reason(s) for Change in Value: No change in value time and materials contract			
Estimated Start & Completion Dates:	From:	August 2010	To: Current Ongoing
Actual Start & Completion Dates:	From:	August 2010	To: Current Ongoing
Reason(s) for Difference Between Estimated and Actual Dates: No difference, Project is on time and ongoing			

Table 7. Subcontractor Reference 3

SUBCONTRACTOR INFORMATION	
Subcontractor Name: Connvertex Technologies Inc.	[REDACTED]
Project Dates: 09/01/2015 to 12/31/2016	[REDACTED]
CUSTOMER INFORMATION	
Customer Organization: State of Minnesota IT Services (MNSure)	[REDACTED]
Customer Address: 444 Lafayette Rd, St Paul, MN 55155	[REDACTED]
PROJECT INFORMATION	
<p>Project Objectives: MNSure is a Minnesota-made health insurance marketplace, tailored to the needs of the Minnesota state’s families, employers, and health care system. It is a marketplace where Minnesotans can shop, compare and choose health insurance coverage that meets their needs. MNSure is the only place where consumers can qualify for financial help either through federal tax credits or through Minnesota Care and Medical Assistance. All MNSure plans include coverage for essential health benefits and consumer protections.</p>	
<p>Project Description: The Minnesota Eligibility Technology System (METS) Maintenance and Operations (M&O) Project comprises of system changes and enhancements needed to correct eligibility rules errors, implement program elements, and federally required components. The Project focuses on program integrity and compliance business domain. The purpose of the Operations (M&O) project is to work closely with State team and IBM and focus on maintaining the integrity of all the systems that integrate with the IBM- Cúram HCR platform and resolve any issues that arise while interacting with other systems during eligibility determination for health insurance programs for state residents.</p>	
Subcontractor’s Involvement (Role and Scope):	

- Connvertex developers were instrumental in designing, development and testing for Release-1, Release-2 and Release-3 functionalities.
- Validating the use cases with Curam OOTB and sharing the feasibility study, design, development, testing and Code review.
- Maintaining the Curam Express Rule(CER) and complex JAVA logic to implement HCR related business rules for the Eligibility and Entitlement module.
- Performed work on WebServices to integrate with the MMIS system.
- Implemented and refined workflows to implement Task framework.
- Performed defect resolution related to Eligibility and Entitlement for the Pregnant Women program and IEG for MAGI.
- Interacted with client; helping them understand the CER framework and to find the root cause for the defects.
- Coordinated with various teams and the client for planning and enhancement.
- Worked in Dynamic Evidence and CER.
- Responsible for Curam build/deployment and code merge.
- Responsible for JUnit test case preparation & execution.
- Led effort in defect fixes for Dev/ST/AT environment.
- Responsible for automation of builds and continuous integration using Jenkin.
- Reported weekly status to the client project manager.

Project Benefits: Prior to Connvertex involvement, there was no specific Curam M&O team in DHHS MN for IBM Curam function. This lack of a specific M&O team created a buildup to the defect backlogs on the main stream development. The Connvertex M&O team was contracted to resolve long standing defects and take up additional CRs to ease the pressure on the Development Project Teams. Connvertex successfully triaged, screened, fixed and delivered many production defects.

SUBCONTRACTOR KEY PERSONNEL ASSIGNED TO PROJECT

Name: (Add more rows as needed)	Role: (Add more rows as needed)
Name: (Add more rows as needed)	Role: (Add more rows as needed)

PROJECT MEASUREMENTS

Operating Budget of Organization: Not disclosed. Customer will provide verbally.	# of Employees and External Users: Not disclosed. Customer will provide verbally.
Estimated One-time costs: time and material contract	Actual One-time costs: \$1,777,280
Reason(s) for Change in One-time cost: Contract was for time and materials and was billed as services were provided	
Original Value of Subcontractor’s Contract: time and materials	Actual Total Contract Value: \$1,777,280
Reason(s) for Change in Value: Contract was a time and material agreement and was billed as services were provided	
Estimated Start & Completion Dates:	From: 9/01/2015 To: 12/31/2016

Actual Start & Completion Dates:	From:	9/01/2015	To:	12/31/2016
Reason(s) for Difference Between Estimated and Actual Dates: There is no difference in dates project was started and ended on schedule under a time and materials agreement for requested services				

Table 8. Subcontractor Reference 4

SUBCONTRACTOR INFORMATION	
Subcontractor Name: Connext Technologies Inc.	
Project Dates: June 2008 to July 2012	
CUSTOMER INFORMATION	
Customer Organization: Department of Technology Services, State of Utah	
Customer Address: 140 E Broadway, Salt Lake City, UT 84111	
PROJECT INFORMATION	
<p>Project Objectives: eREP The electronic Resource and Eligibility Product (eREP) is a major State of Utah software development project that started in 2002 to replace the PACMIS mainframe system. Major components of eREP are Temporary Assistance to Needy Families (TANF), Food Stamps, and Medical Services.</p>	
<p>Project Description: The electronic Resource and Eligibility Product (eREP) is a major State of Utah software development project that started in 2002 to replace the PACMIS mainframe system. Major components of eREP are Temporary Assistance to Needy Families (TANF), Food Stamps, and Medical Services. The eREP system comprises numerous components:</p> <ul style="list-style-type: none"> ■ Eligibility is the core of the system and includes all eligibility related functionality: <ul style="list-style-type: none"> <input type="checkbox"/> TANF, Child Care, Core Eligibility (production Nov 2004) <input type="checkbox"/> Food Stamps, General Assistance, Refugee Cash <input type="checkbox"/> Medicaid (all categories), CHIP, PCN ■ Utah Cares (production Oct 2003) is community-based screening and referral with 211. ■ InfoSource (production Apr 2004) is online policy reference for all eligibility related policies and programs with seamless links from eligibility rules. ■ Screening for Eligibility (Aug 2004) screens for potential eligibility programs. ■ Application for Eligibility (Feb 2007) allows for web-enabled electronic application for services. As an application is submitted, it is processed through a workflow process where the application is imaged and the worker is notified that an application has been submitted. ■ Customer Directory (Oct 2006) enterprise function allows for the collection (add, 	

delete, change, access) of demographic identifying information for Utah residents who are associated with eligibility and supportive service programs in a consistent manner. There are seven systems that will share common information in the Customer Directory.	
Subcontractor's Involvement (Role and Scope): Our consultants were associated with eREP since Mar 2003 and played key role in design, development and deployment of many phases for project. During the eREP Medicaid Project our multiple consultants were associated with different roles as below: <ul style="list-style-type: none"> ■ Project Manager ■ Development Architect ■ System Administrator ■ Database Administrator ■ Java / Rules Developer ■ Java J2EE Developers and ■ IT Business Analyst ■ Web Developer In June 2009 Connvertex became the Prime Vendor on eREP Maintenance Project under Contract # 096430 to provide services in following IT Consulting Services Category: <ol style="list-style-type: none"> 1. Technical / Business Lead(s) 2. Java / J2EE Developer(s) 3. Development Architect(s) 4. System Administrator(s) 5. Database Administrator(s) 	
Project Benefits: A seamless integration into an existing environment without disruption	
SUBCONTRACTOR KEY PERSONNEL ASSIGNED TO PROJECT	
PROJECT MEASUREMENTS	
Operating Budget of Organization: Not disclosed. Client may share upon being contacted.	# of Employees and External Users: Not disclosed. Client may share upon being contacted.
Estimated One-time costs: Time and Materials	Actual One-time costs: \$ 2,807,939
Reason(s) for Change in One-time cost: This was a time and material contract no change occurred	
Original Value of Subcontractor's Contract: Time and Materials value was equal to total contract value	Actual Total Contract Value: \$ 2,807,939
Reason(s) for Change in Value: There was no difference in the value as this was a time and material agreement	
Estimated Start & Completion Dates:	From: June 2008 To: July 2012
Actual Start & Completion Dates:	From: June 2008 To: July 2012
Reason(s) for Difference Between Estimated and Actual Dates: There was no difference.	

Estimated One-time costs: Time and Materials		Actual One-time costs: \$ 2,807,939
Reason(s) for Change in One-time cost: This was a time and material contract no change occurred		
Original Value of Subcontractor's Contract: Time and Materials value was equal to total contract value		Actual Total Contract Value: \$ 2,807,939
Reason(s) for Change in Value: There was no difference in the value as this was a time and material agreement		
Estimated Start & Completion Dates:	From: June 2008	To: July 2012
Actual Start & Completion Dates:	From: June 2008	To: July 2012
Reason(s) for Difference Between Estimated and Actual Dates: There was no difference.		

Template T-4

Vendor Engagement Organization and Staffing


Response Template

RFP #: SP-17-0012

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1.0 Engagement Organization and Staffing Plan

The Vendor should describe the integrated Project Organization and Staffing Plan required to execute the proposed approach and create the deliverables required for the Engagement. This section should include details of the Vendor's team, proposed use of subcontractors, and the Vendor's expectations of DHS resources. This section should include a visual representation of the Vendor engagement including the reporting structure. The Vendor should also describe the required staffing of business and technical resources DHS must provide to support the delivery of the services and creation of all deliverables. The Plan should include the number of resources (both business and technical), anticipated role and responsibilities, level of participation and necessary capabilities/skills for both DHS and Vendor resources. The Staffing Plan should highlight the staff performing the roles required to deliver the scope of services outlined in the RFP.

Key Project Personnel identified in the Proposal for the engagement are considered to be the core Vendor resources and are therefore expected to be the major participants in all procurement activities (e.g. oral presentations) and services delivery activities. If the Vendor is selected, its Key Project Personnel cannot be replaced without prior DHS approval during the life cycle of the Project.

DHS has the right to require Vendor replacement of Key Personnel or any person in the Vendor's team (including subcontractors) for any reason not limited to inadequate skills, team work, and responsive attitude etc. barring EEO guidelines.

Instructions: Provide a Staffing Plan and associated organization chart detailing the number of personnel, level, roles and responsibilities, and team reporting relationships, and identify the approach to providing "shoulder-to-shoulder" links for key staff roles between Vendor staff and DHS staff. Show proposed Vendor personnel hours by phase, by personnel level, and by role for the entire engagement. Identify all Key Project Personnel for the Vendor, personnel for DHS and their proposed roles. Additionally, the response should include an assessment of DHS' current staffing plan (outlined in the RFP).

Introduction

We have a shared understanding of the importance of this project to you. For this reason, we have assembled a team that has experience working with one another as a team, experience with the Optum Integrated Eligibility platform and the technologies at its core, experience on integrated eligibility (IE) and health and human services (HHS) projects, and experience on Arkansas projects. Our leadership team for this project includes the following professionals:

- **Engagement Director/Executive** [REDACTED] will be the primary point of contact with DHS leadership. [REDACTED] is a PMP with nearly 20 years of experience developing and delivering transformational technology and eligibility solutions. Under his leadership, the AR IE-BM project team will work with you as partners with a single focus on success for this project.
- **Project Manager** [REDACTED] will provide onsite management of the project. [REDACTED] brings deep experience driving integrated eligibility projects of similar size and complexity. [REDACTED] attention to detail and relentless focus on managing risk will be an asset to this project.

- **Architect Lead** [REDACTED] has served as our lead architect for development of our Integrated Eligibility platform. [REDACTED] was responsible for the end-to-end architecture of the solution we have proposed for you including all technologies, modules, and integration points.

Beyond the examples mentioned above, we have proposed a team of experienced professionals with comprehensive knowledge of IE, HHS programs, reporting, and health care. This team has contributed to and will draw from our experience serving 47 states including the District of Columbia. These projects improved outcomes and care for Temporary Assistance for Needy Families (TANF), Children’s Health Insurance Program (CHIP), Aged, Blind and Disabled (ABD), Long Term Care (LTC), and Dual Eligible (Medicare-Medicaid) populations.

Our Commitment to Arkansas

As we have demonstrated to you in our work maintaining and operating the Arkansas data warehouse, our team will be your partner to achieve your vision and goals for the performance of the AR IE-BM.

One of the greatest challenges to transformational eligibility projects is migration and integration of data. We are uniquely positioned to manage this risk through our knowledge and expertise maintaining and operating the Arkansas data warehouse. We have experience with all the vendors and stakeholders in the current infrastructure and familiarity with their processes, requirements, and challenges. As an example, our work supporting the ongoing clean-up activities related to overlapping spans is critical to identify the correct span to provide a proper match and eligibility determination. This is critical to the success of the AR IE-BM project and our team has the expertise to manage this risk and, most importantly, get it right.

We have proposed this team for you to demonstrate our commitment to your vision and goals for the AR IE-BM project. This team will be responsive to your changing needs over time and will meet or exceed all staffing requirements described in the RFP.

Optum Cultural Values

At Optum, we are committed to helping people live healthier lives and modernizing the delivery of health and human services. We believe our culture differentiates us from other organizations. We believe that achieving a goal is equally important as how it was achieved. Our values will drive how we serve you in all aspects of this project whether a decision or issue affects one family or thousands of Arkansans. Figure 1 describes our Optum cultural values, which are the foundation of our ability to support the DHS team and your stakeholders effectively.

OUR OPTUM CULTURE				
Integrity	Compassion	Relationships	Innovation	Performance
Honor commitments and never compromise ethics	Walk in the shoes of people we serve and those with whom we work	Build trust through collaboration	Invent the future and learn from the past	Demonstrate excellence in everything we do
We are an enterprise that represents the highest level of personal and institutional integrity. We will meet our commitments to you and collaborate with you and your other project stakeholders to accomplish that.	We must be truly compassionate and genuinely understand, feel, and identify with you and the needs of the people you serve. We know that the IE-BM is your means to connect Arkansans to vital services that they rely on.	We understand that relationships are critical to help people work together, even when their interests are not fully aligned. We intend to build trust and open communication within the DHS environment to achieve your goals for the IE-BM.	We learn from past experiences of the past and use those insights to invent a better future. We will apply creativity and bold ideas to help you complete a truly modern IE-BM system.	We are accountable and responsible for delivering high quality and superior results that make a difference. Performance is critical for an outcomes based project.

Figure 1. Our Optum Culture.

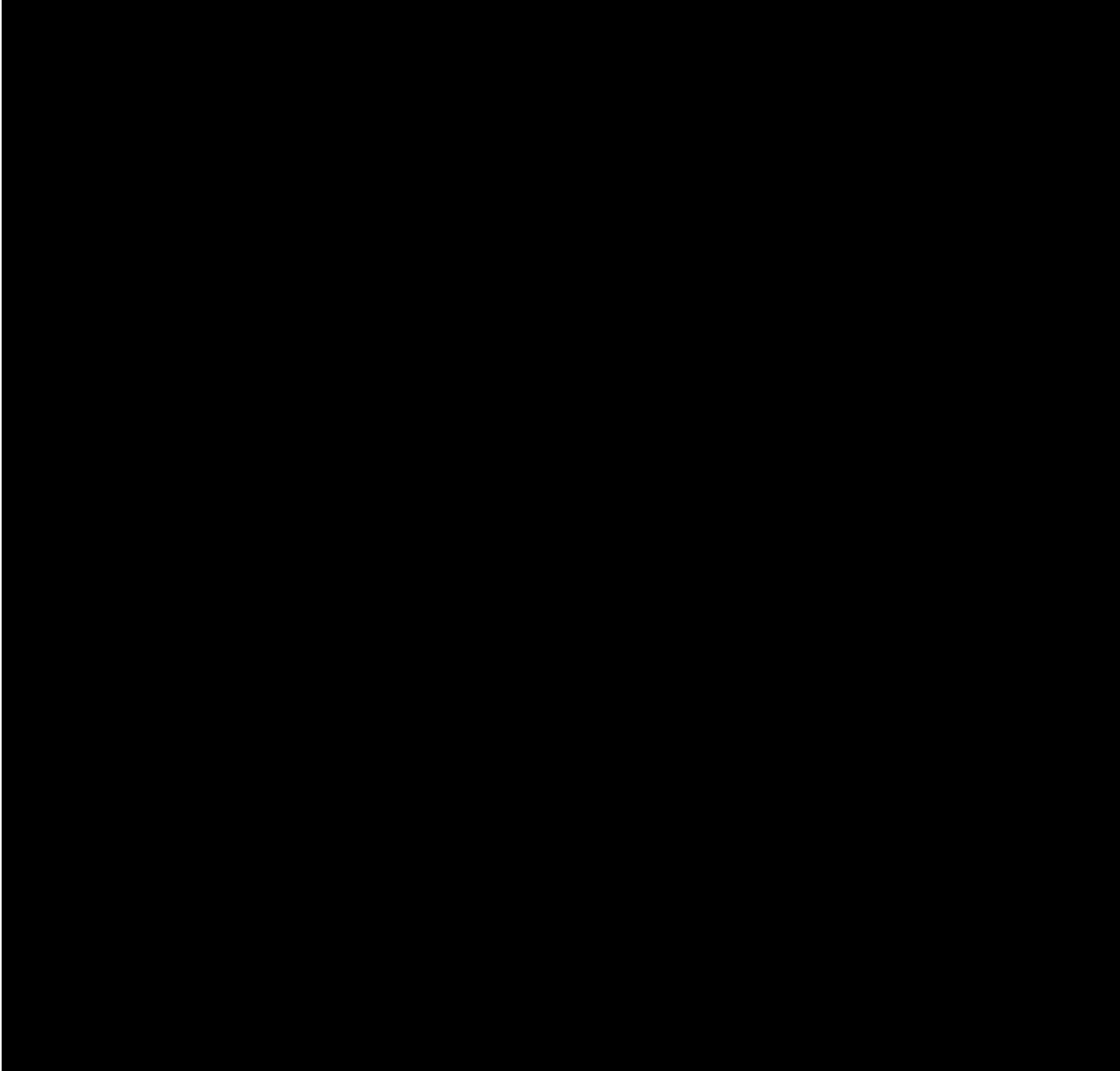
You will see our people live our cultural values every day in their work for you.

Adhering to these cultural values is a top priority for Optum in all of our state engagements. By living these cultural values, we help our clients achieve the best possible outcomes. These values have helped us in supporting your AME DSS. Our experienced and versatile AR IE-BM team will bring the same urgency, collaboration, and focus on accomplishing your goals to the AR IE-BM engagement.

Staffing Plan

The following table shows the roles, number of personnel, personnel level and personnel hours by phase we are proposing for the AR IE-BM Project.

Table A: Optum Proposed Staffing Plan



Organization Charts

Our organizational structure provides clear lines of authority and responsibilities. Over the course of our HHS projects, we have developed best practices based on lessons learned. This focus on continuous improvement has shaped and refined our processes for effectively coordinating and managing our implementation teams. Our proven organizational approach will provide a sound framework for a low-risk AR IE-BM for Arkansas.

We have aligned our organizational structure and staff to allow for flexibility within the AR IE-BM releases. In preparing our response to the RFP, we reviewed the requirements and designed a solution and approach to successfully deliver the functionalities you have requested. As more fully described in the T-11 Section of this proposal, the project will consist of several interim

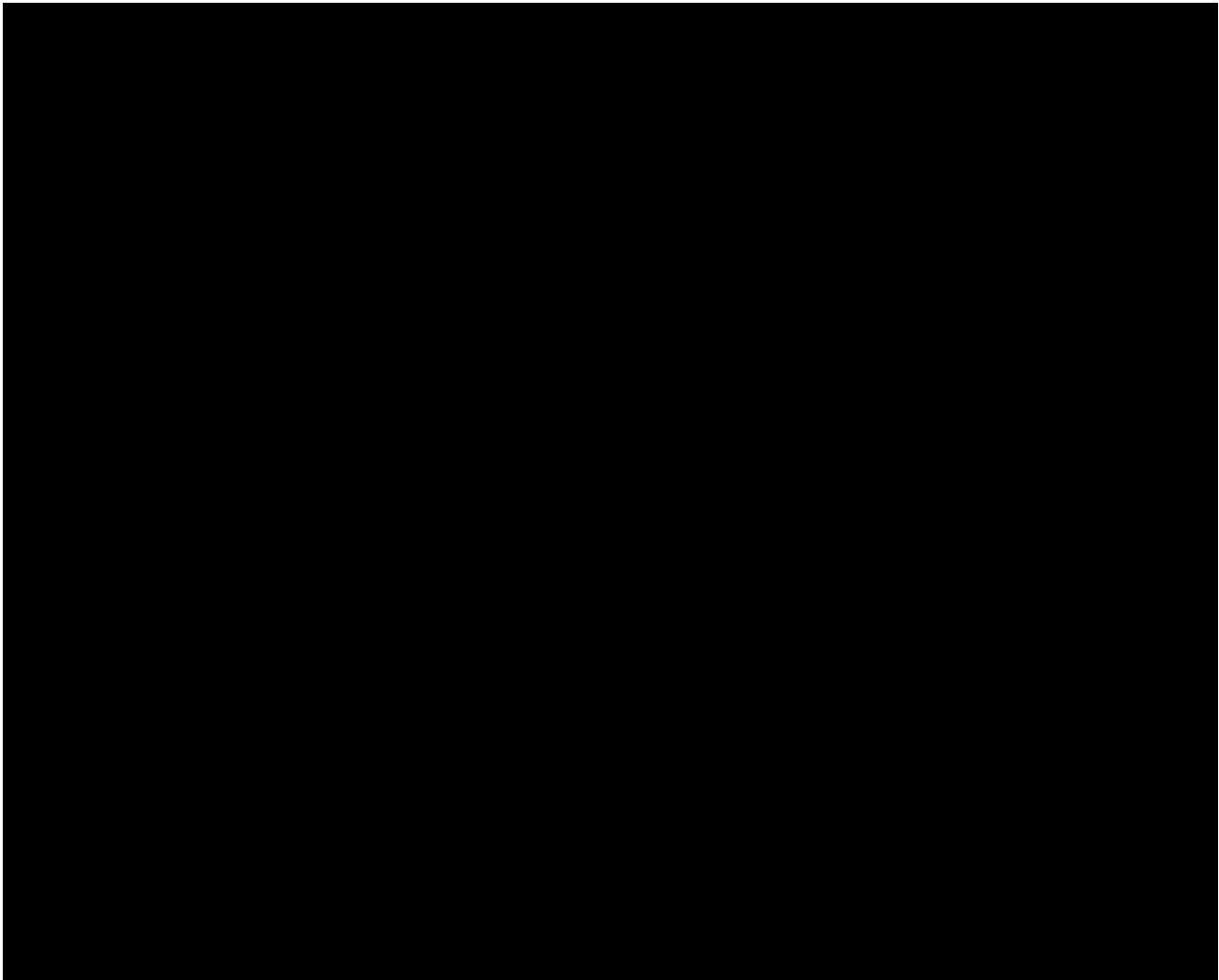
releases, which will incrementally build up to the final AR IE-BM. This approach will allow us to minimize delivery risk by dividing the work into smaller, more manageable efforts. It will also provide a phased approach that will allow your staff a longer period of time to adjust to the new system.

DDI Organization Chart

Our AR IE-BM Engagement Director/Executive [REDACTED] will be the primary point of contact with DHS leadership. [REDACTED] will provide executive oversight throughout the engagement. Project Manager [REDACTED] will provide onsite management of the project

All named staff will be non-contractor staff. They will work full-time in the Little Rock facility and will be dedicated to this project with the exception of the engagement director/executive and the security expert, as noted in the RFP requirements.

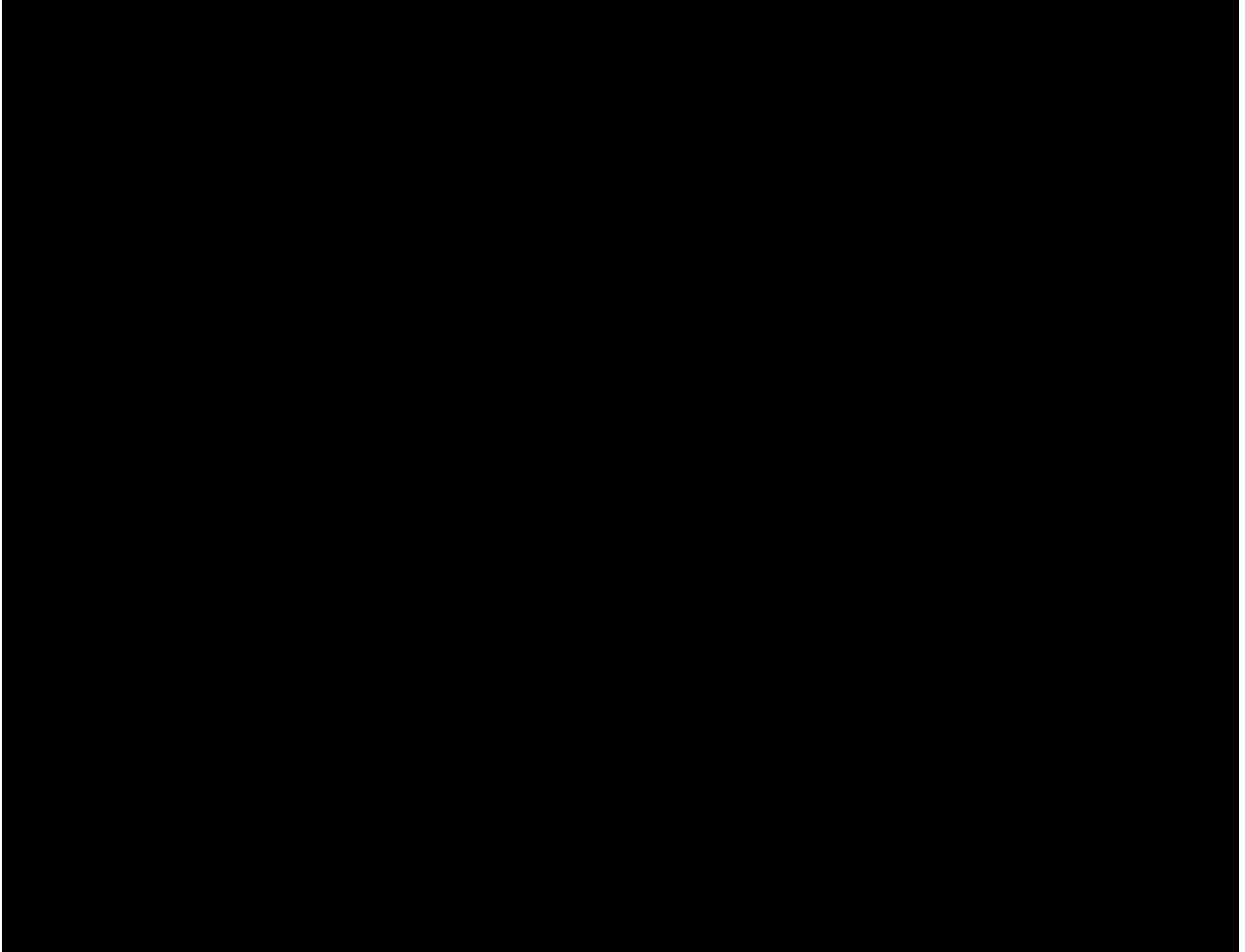
Figure 2 shows our proposed DDI organization and project team reporting relationships. We will work with you to finalize the organizational chart as part of our startup activities.



M&O Organization Chart

Our operations team will work with you to manage and maintain the AR IE-BM with a focus on customer service, cost-containment, and continuous improvement. We will provide consistent, uninterrupted service to your users as you achieve steady state operations. We will right-size the staff for operational services, while continuing to provide customer service excellence and operational efficiency.

Figure 3 shows our proposed organization and reporting relationships for M&O. We will work with you to finalize the organizational chart as part of our startup activities.



Shoulder-to-Shoulder Collaboration

Close collaboration with our customers is a hallmark of our approach to large-scale implementations and operations. As the current data warehouse vendor for Arkansas, we already understand your culture, people and processes. We will continue building on those relationships in Arkansas as your collaborative partner.

We believe in transparency and collaboration from the top down. We accomplish this through planned and controlled communication in an open-door environment where we work shoulder-to-shoulder with you. At the beginning of the project, our team will work with you to establish

processes and procedures for communicating with you often. We will align our project leaders with your corresponding leaders to develop a solid working rapport and accountability. Our engagement director/executive, project manager, and operations manager will be our key customer facing positions during the DDI phase of the project. The engagement director/executive and operations manager will continue as the key customer facing positions during the M&O phase of the project. They will provide access to both our people and our tools that will help your personnel perform their jobs with ease and confidence. We can partner our project staff members and yours so all will work closely together to define the requirements, review deliverables, and test the solution. Working together, the AE IE-BM Project team will confront issues directly with you and work as a team to resolve issues quickly so we can build on our foundation of transparency and trust and celebrate success together.

Working shoulder-to-shoulder with you will result in a substantial mutual knowledge transfer. This approach will help us move you beyond being told that a system is a “black box.” We will work with you to help you understand how and why the system operates the way it does. DHS will have the opportunity to learn about AR IE-BM from the very beginning of the project. This is the way we work, in alignment with our cultural values.

We also recognize that many of your project team members will have other commitments outside this project. A key element of working shoulder to shoulder is understanding this and making sure we use your valuable State resources optimally. We will draw from our own experience and not simply rely on yours.

Optum and DHS Project Teams

We will staff the project with experienced, Optum IES-knowledgeable technical resources from Optum or from one of our contracting partners. Our contracting partners will provide us with a broad pool of resources to fulfill the specialized position requirements for the AR IE-BM. All key personnel will be Optum employees. We will meet all staffing requirements for the AR IE-BM Project with our highly qualified personnel.

Optum DDI Key Personnel Roles, Qualifications and Responsibilities

We selected the key personnel based on their functional technology expertise, HHS background, project management and leadership expertise, and their ability to meet the RFP qualification requirements for their respective positions. Resumes for the key personnel we propose for the AR IE-BM project are presented at the end of Section T5. We will not replace key personnel on the project without prior DHS approval. The following table summarizes how each of our personnel meets the position qualification requirements stated in the RFP through education, certifications, and work experience for DDI.

Table B: Optum DDI Key Personnel Roles, Qualifications and Responsibilities

Staff Member and Role	RFP Qualification Expectation Requirements	Qualifications of Proposed Staff Member	RFP Roles and Responsibilities
<p>██████████ Engagement Director/Executive</p>	<ul style="list-style-type: none"> ■ Minimum of five (5) years direct project oversight and authority over ongoing relationships with clients where it firm has implemented enterprise solutions and in excess of 10 million dollars ■ Previously managed a DDI project and transition to an ongoing M&O in a similar environment ■ Special consideration will be given to those who have previously managed integrated eligibility accounts that have included both DDI and operations ■ Minimum of fifteen (15) years of relevant experience in professional services, development, client support or project management. 		<ul style="list-style-type: none"> ■ Serves as the primary point of contact with DHS leadership, governance bodies and other State Executive Sponsors for activities related to contract administration, overall engagement management and scheduling, correspondence between DHS and the Vendor, dispute resolution, and status reporting to DHS for the duration of the Contract ■ Is authorized to commit the resources of the Vendor in matters pertaining to the performance of the Contract ■ Is responsible for addressing any issues that cannot be resolved with the Vendor’s Project Manager ■ Is responsible for all subcontractor relationships

Staff Member and Role	RFP Qualification Expectation Requirements	Qualifications of Proposed Staff Member	RFP Roles and Responsibilities
<p>[REDACTED] Project Manager</p>	<ul style="list-style-type: none"> ■ Five (5) years of experience leading the implementation of enterprise solutions on similar technologies ■ Five (5) years of experience implementing solutions of similar functional scope ■ Minimum of fifteen (15) years of relevant experience in professional services, client support or project management 	<p>[REDACTED]</p>	<ul style="list-style-type: none"> ■ Provides onsite management of the Project and is the chief liaison for DHS during the Project ■ Is authorized to make day-to-day Project decisions ■ Is available and responsive to State requests for consultation and assistance ■ Provides timely and informed responses to operational and administrative inquiries that arise ■ Is responsible for facilitating the Project by using the project management processes, organizing the Project, and managing the team work activities consistent with the approved work plan ■ Develops and maintains thorough project planning documentation that includes, but is not limited to, Project Management Plan and fully resourced Project schedule ■ Manages staff assigned to all DDI activities ■ Plays an active role in day-to-day management of the Account so as to be knowledgeable and aware of

Staff Member and Role	RFP Qualification Expectation Requirements	Qualifications of Proposed Staff Member	RFP Roles and Responsibilities
			<p>all issues, concerns and requirements</p> <ul style="list-style-type: none"> ■ Meets with DHS staff or such other person DHS may designate on a regular basis to provide oral and written status reports and other information as required ■ Provides expert guidance ensuring that policies, business rules, and requirements as defined by DHS are correctly implemented in the IE-BM Solution ■ Advises DHS regarding best practices and recommends modifications to business processes, which improve the overall operations ■ Manages the relationships with subcontractors and partner vendors ■ Provides ongoing reporting of operation against SLAs ■ Ensures all activities are coordinated and follow the processes outlined in this RFP (e.g. enhancement development)

Staff Member and Role	RFP Qualification Expectation Requirements	Qualifications of Proposed Staff Member	RFP Roles and Responsibilities
<p>██████████ Integration Manager/ Functional Lead</p>	<ul style="list-style-type: none"> ■ Ten (10) years of experience leading the implementation of enterprise solutions on similar technologies ■ Five (5) years of experience implementing solutions of similar functional scope 	<p>██████████</p>	<ul style="list-style-type: none"> ■ Is responsible for leading the team who configures and develops the IE-BM Solution ■ Is familiar with the functional design of all of the components, has a solution-wide view and ensures each component/module work together to address the functional requirements and Use Cases ■ Ensures the configured solution addresses all of the functional requirements ■ Provides the methodology/approach to building the solution ■ Works with SMEs of the business units to understand the System and process requirements and articulate the requirements to the Vendor project team leads. ■ Ensures that the proposed solution aligns with the business requirements of the organization ■ Manage the expectations of the business units with a clear understanding of the Project Sponsor’s project objectives.

Staff Member and Role	RFP Qualification Expectation Requirements	Qualifications of Proposed Staff Member	RFP Roles and Responsibilities
[REDACTED] Training Lead	<ul style="list-style-type: none"> ■ Five (5) years of experience as a Training lead for projects similar in size and complexity to the proposed Project 	[REDACTED]	<ul style="list-style-type: none"> ■ Lead all training and knowledge transfer planning, material development and delivery ■ Prepares for the deployment of the Solution to the full organization
[REDACTED] Testing Lead	<ul style="list-style-type: none"> ■ Five (5) years of experience as a testing lead for projects similar in size and complexity to the proposed Project within the public sector 		<ul style="list-style-type: none"> ■ Leads all testing activities including planning, documentation and execution ■ Ensures the test plan and process is coordinated with all stakeholders ■ Ensures documentation and resolution of issues discovered during the testing process ■ Serves as the point of contact for User Acceptance Testing (UAT) matters
[REDACTED] Technical Lead	<ul style="list-style-type: none"> ■ Ten (10) years as a Technical lead on complex projects, seven (7) of these should be in management ■ Five (5) years of experience architecting/designing enterprise solutions 		<ul style="list-style-type: none"> ■ Responsible for all technical aspects of the Solution. Establishes documentation and coding standards for the Project team and ensures the team adheres to the standards ■ Is available to DDI Project teams for consultation on

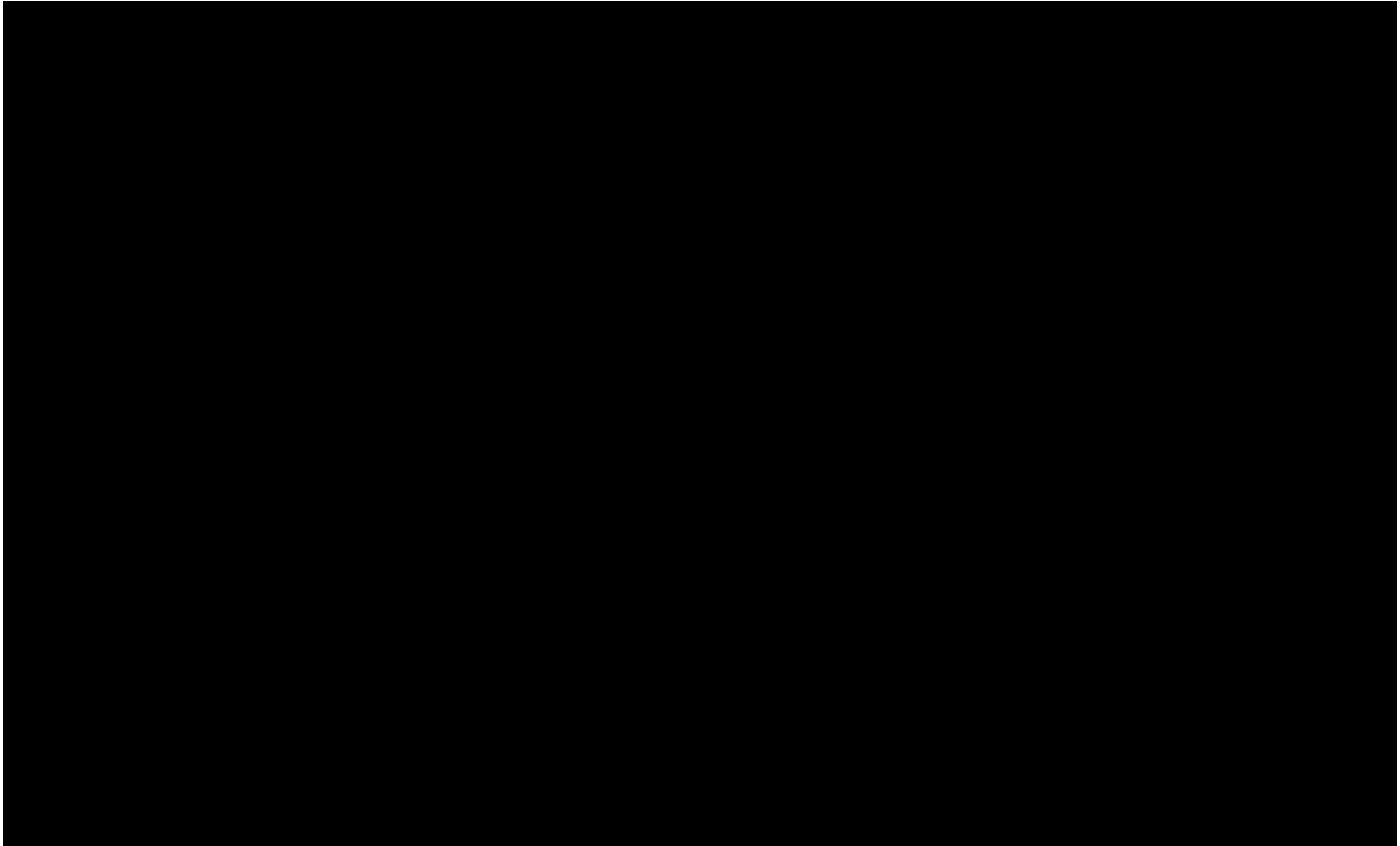
Staff Member and Role	RFP Qualification Expectation Requirements	Qualifications of Proposed Staff Member	RFP Roles and Responsibilities
			future enhancements (e.g., changes to achieve strategic objectives, implement a new program) <ul style="list-style-type: none"> ■ Oversees the development of all technical documentation ■ Is familiar with the Technical design of all of the components, has a solution-wide view and ensures each component/module work together to address the Technical requirements
[REDACTED] Architect Lead	<ul style="list-style-type: none"> ■ Ten (10) years of experience architecting/designing enterprise solutions ■ Five (5) years of experience with the technology to be implemented at DHS ■ Enterprise architecture certification in one or more industry leading architecture frameworks 		<ul style="list-style-type: none"> ■ Drives the solution architecture and mapping of required functionality to minimize the need for custom development ■ Well versed in architectural design and documentation at a technical reference model level as well as at a system or subsystem level ■ Well versed in application and data modeling, building block design, applications and role design, systems integration etc.
[REDACTED] Security Expert	<ul style="list-style-type: none"> ■ CISSP or similar security certification ■ Ten (10) years of experience implementing/managing security in enterprise solutions 		<ul style="list-style-type: none"> ■ Architects all elements of the Solution's security ■ Oversees the development of all security documentation

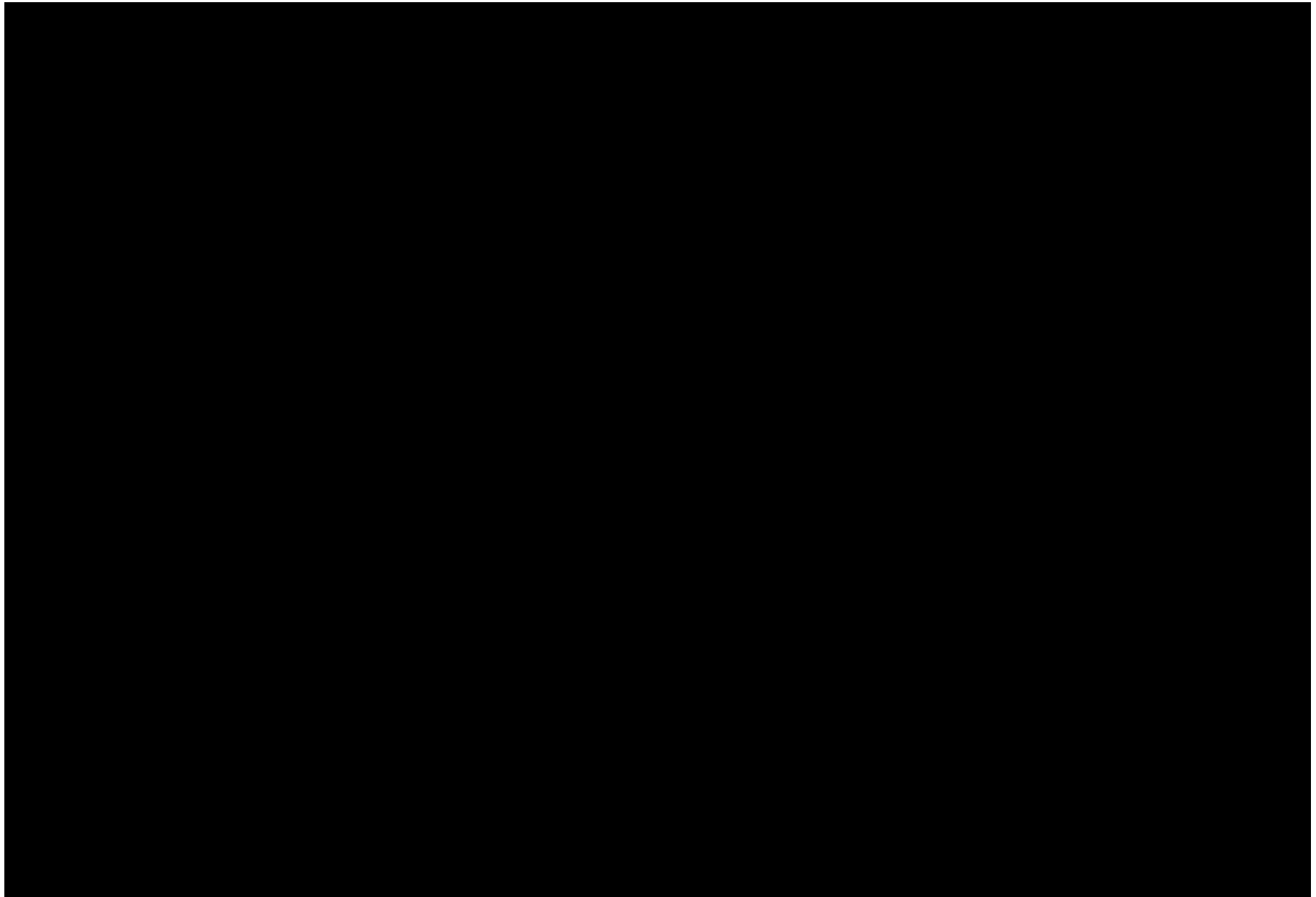
Staff Member and Role	RFP Qualification Expectation Requirements	Qualifications of Proposed Staff Member	RFP Roles and Responsibilities
			<ul style="list-style-type: none"> ■ Ensures the Solution meets all applicable security regulations

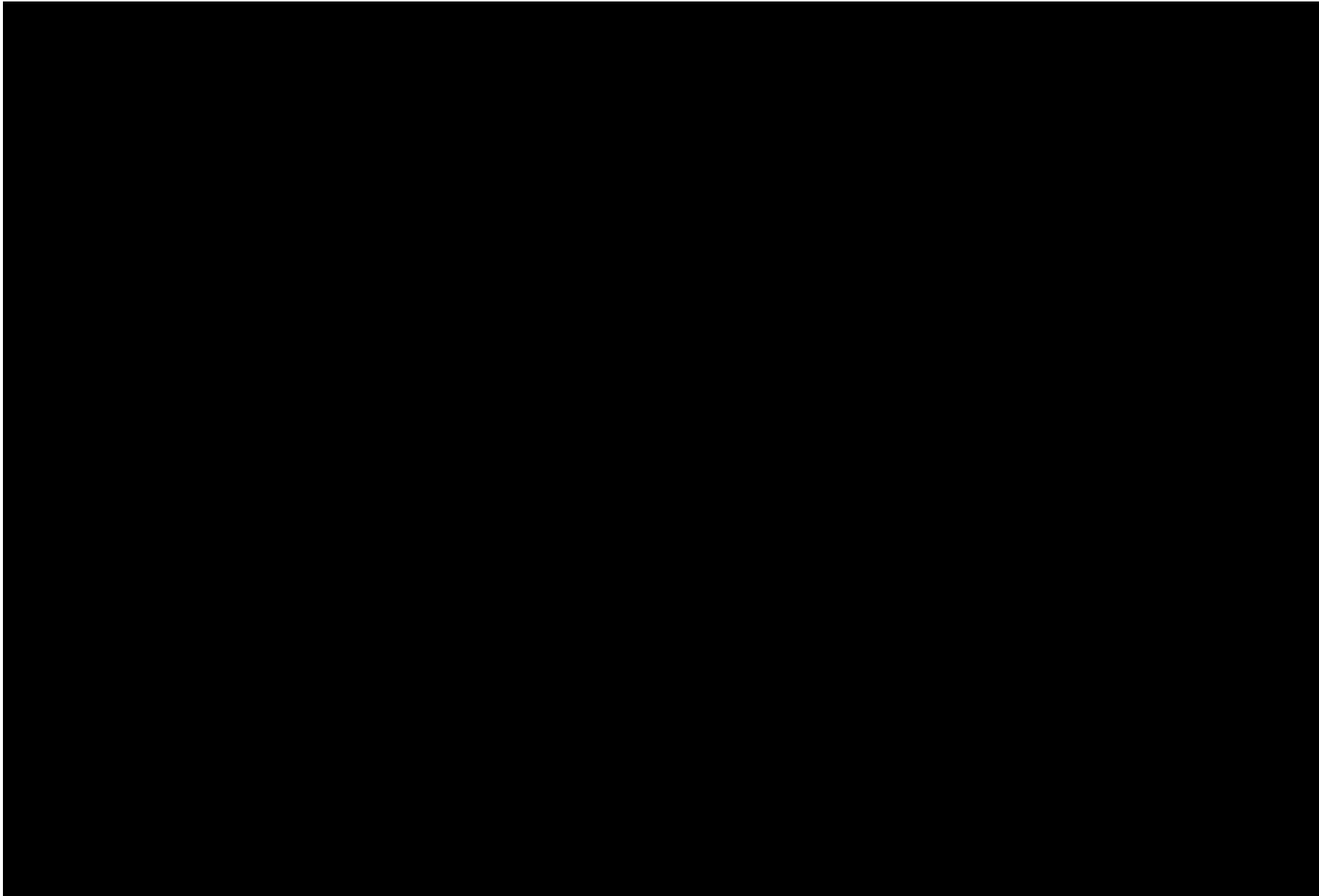
Optum DDI Additional Personnel Roles, Skills and Responsibilities

The following table summarizes the additional personnel roles we recommend for the AR IE-BM project during DDI.

Table C: Optum DDI Additional Personnel Roles, Skills and Responsibilities







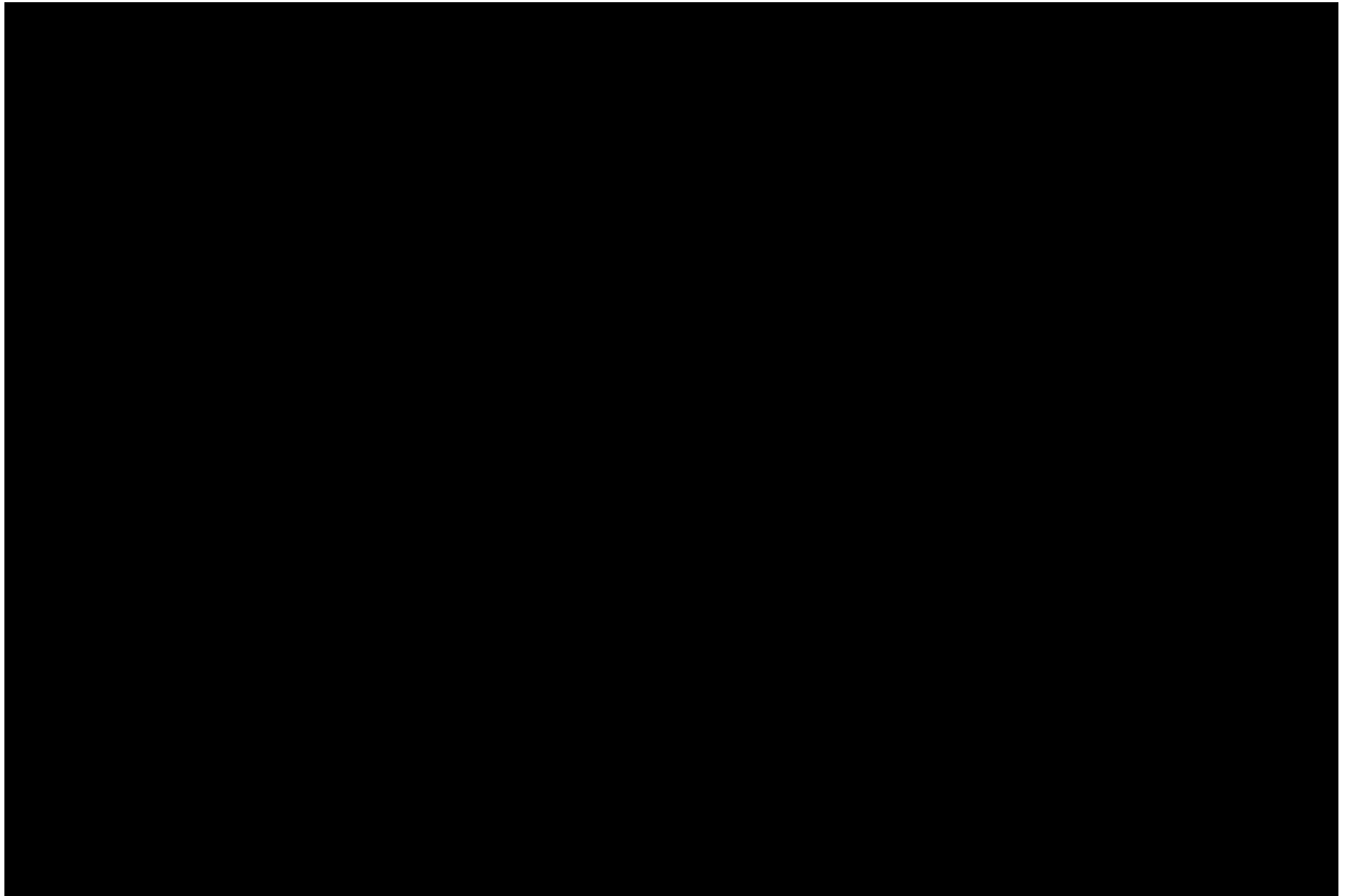
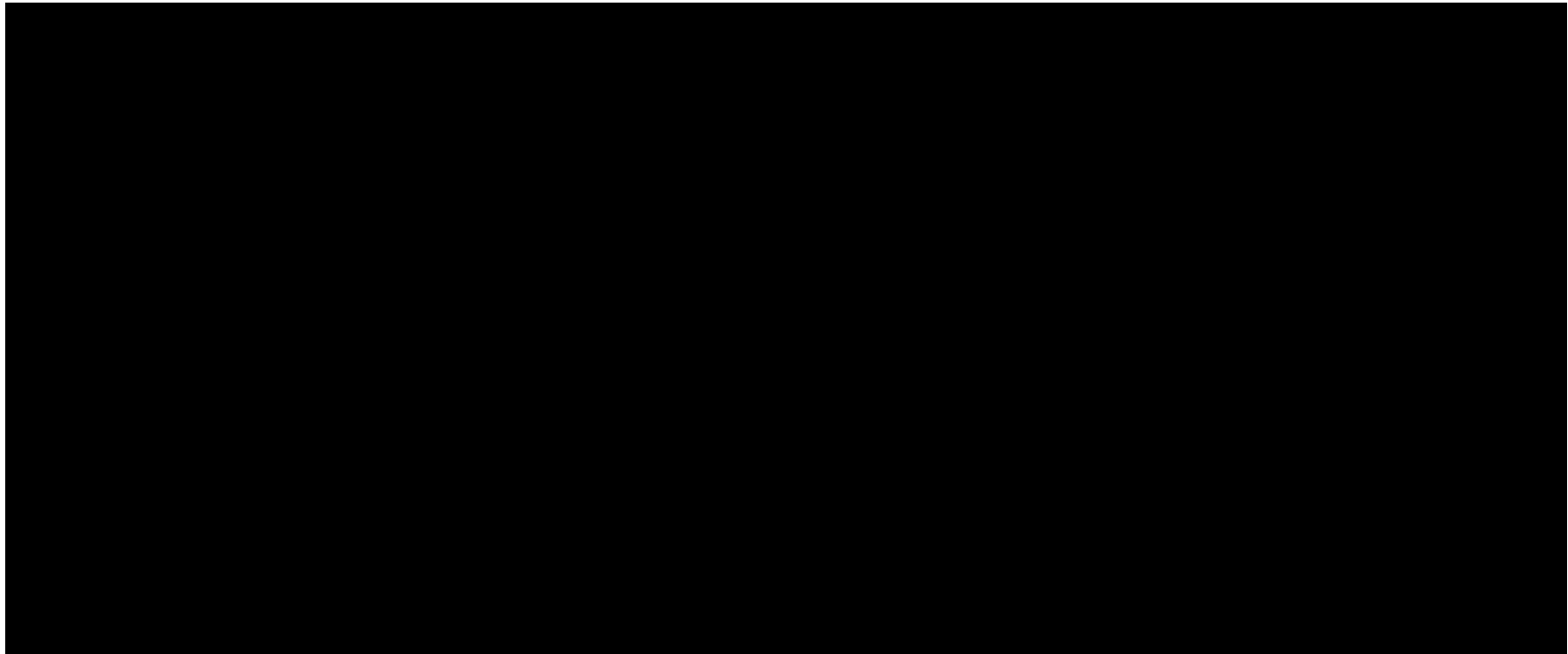


Table D: Optum Advisory Committee



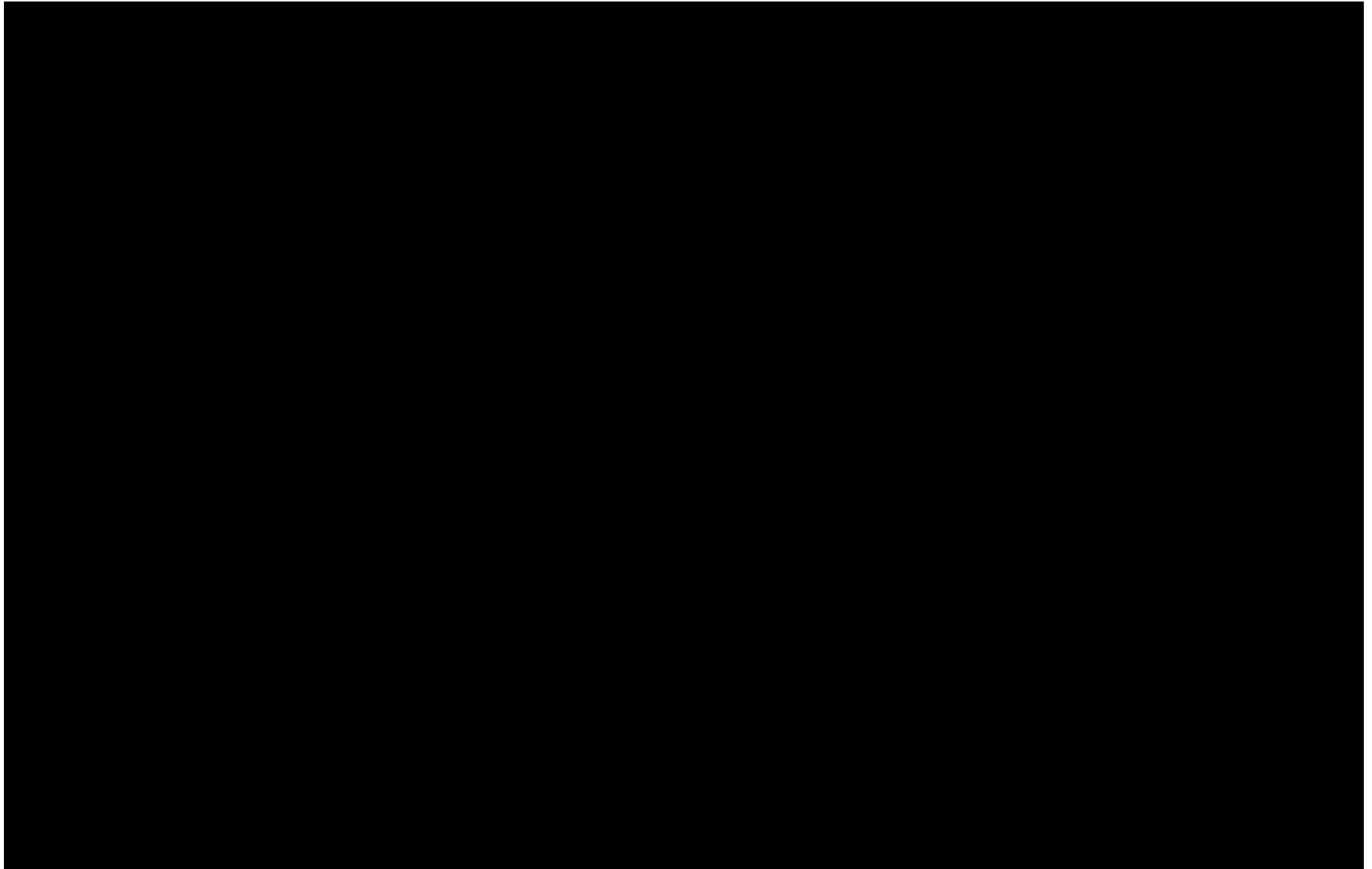


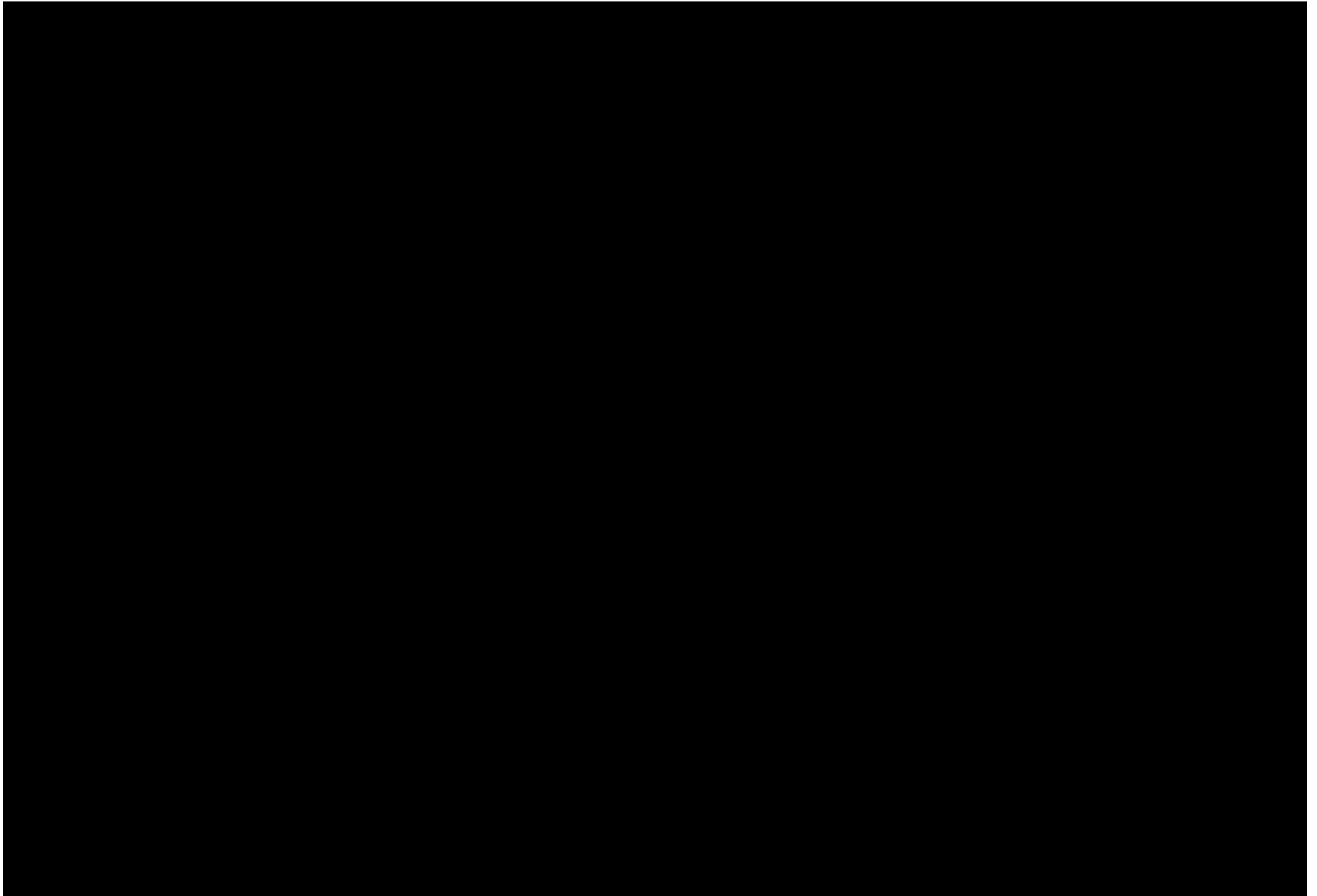
DHS DDI Personnel Roles, Skills and Responsibilities

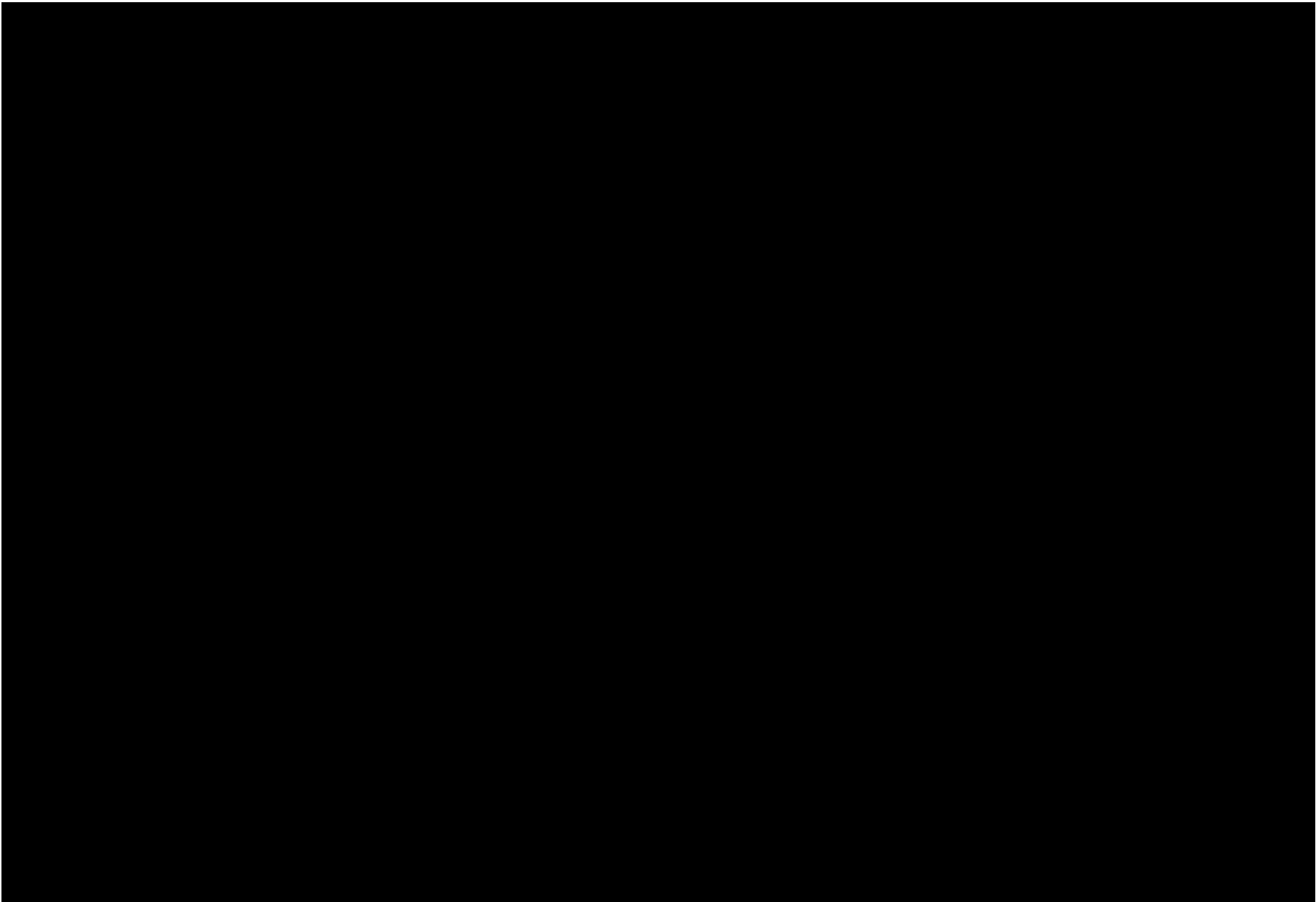
The following table summarizes the DHS personnel roles we anticipate will support the AR IE-BM project during DDI.

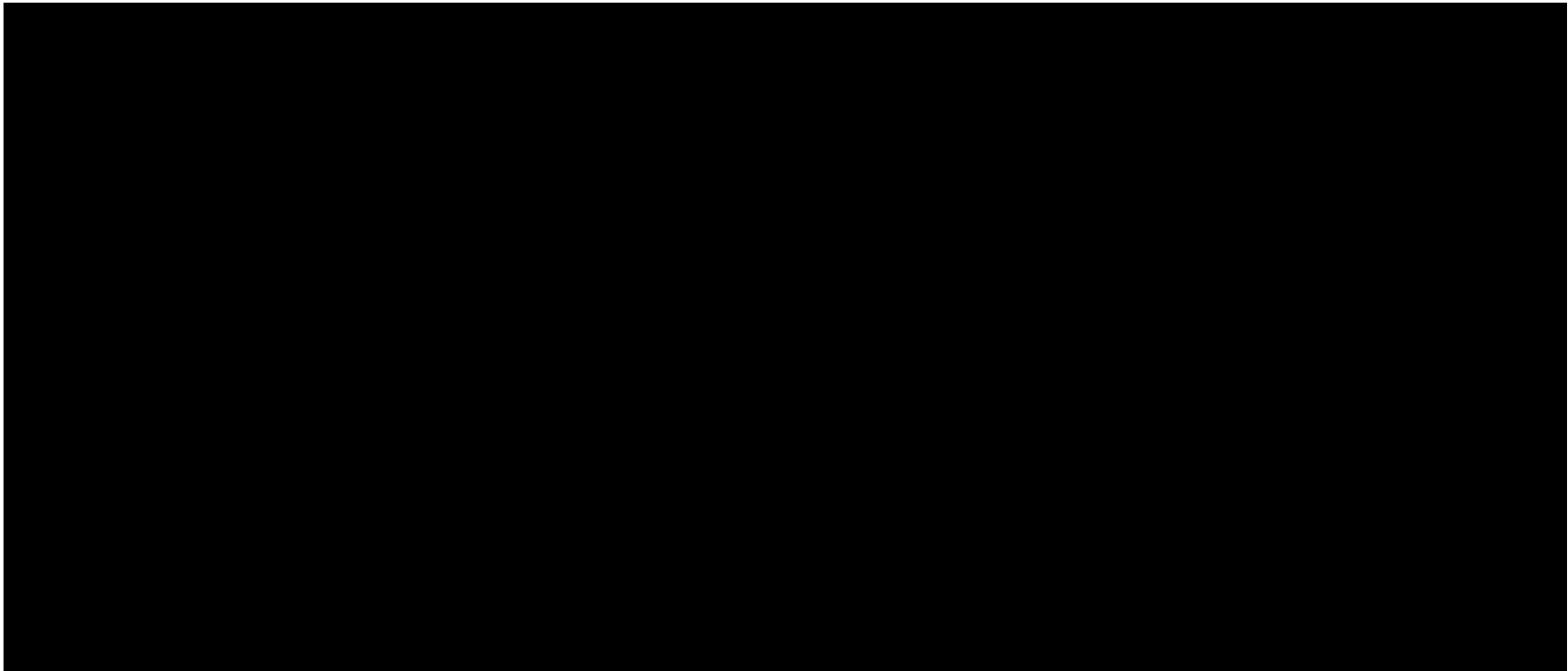
Table E: DHS DDI Personnel Roles, Skills and Responsibilities

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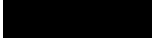
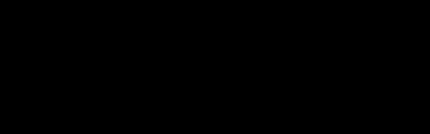




Optum M&O Key Personnel Roles, Qualifications and Responsibilities

The following table summarizes how each of our personnel meets the position qualification requirements stated in the RFP through education, certifications, and work experience for M&O.

Table F: Optum M&O Key Personnel Roles, Qualifications and Responsibilities

Staff Member and Role	RFP Qualification Expectation Requirements	Qualifications of Proposed Staff Member	RFP Roles and Responsibilities
 Engagement Director/Executive	<ul style="list-style-type: none"> ■ Minimum of five (5) years direct project oversight and authority over ongoing relationships with clients where its firm has 		<ul style="list-style-type: none"> ■ Serves as the primary point of contact with DHS leadership, governance bodies and other State Executive Sponsors for

Staff Member and Role	RFP Qualification Expectation Requirements	Qualifications of Proposed Staff Member	RFP Roles and Responsibilities
	implemented enterprise solutions <ul style="list-style-type: none"> ■ Previously managed ongoing M&O for a HHS account 		activities related to contract administration, overall engagement management and scheduling, correspondence between DHS and the Vendor, dispute resolution, and status reporting to DHS for the duration of the Contract <ul style="list-style-type: none"> ■ Is authorized to commit the resources of the Vendor in matters pertaining to the performance of the Contract ■ Is responsible for addressing any issues that cannot be resolved with the Vendor’s Project Manager ■ Is responsible for all subcontractor relationships
[REDACTED] Operations Manager	<ul style="list-style-type: none"> ■ Ten to fifteen (10 to15) years, 7 of these should be in management ■ Five (5) years managing a M&O team for an enterprise solution within a public sector client 		<ul style="list-style-type: none"> ■ Serves as a liaison with DHS for M&O activities ■ Is available and responsive to State requests for consultation and assistance ■ Is responsible for establishing and maintaining a positive client relationship ■ Provides timely and informed responses to operational and administrative inquiries that arise ■ Manages staff assigned to all

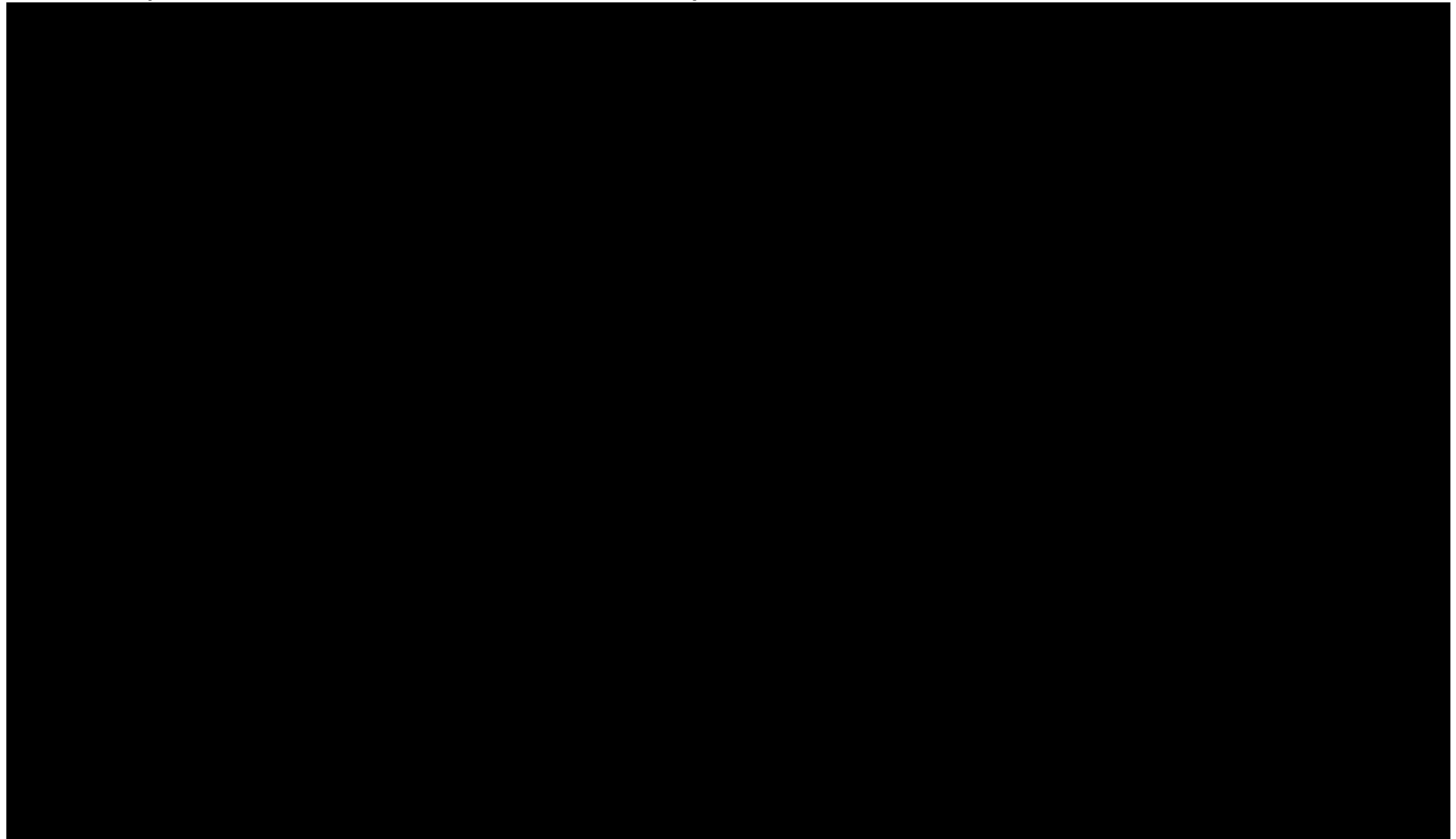
Staff Member and Role	RFP Qualification Expectation Requirements	Qualifications of Proposed Staff Member	RFP Roles and Responsibilities
			day-to-day M&O activities <ul style="list-style-type: none"> ■ Coordinates and manages any enhancement requests/changes to the solution ■ Plays an active role in day-to-day management of the Account so as to be knowledgeable and aware of all issues, concerns and requirements ■ Meets with DHS staff or such other person DHS may designate on a regular basis to provide oral and written status reports and other information as required ■ Manages the relationships with subcontractors and partner vendors
[REDACTED] Technical Lead	<ul style="list-style-type: none"> ■ Five (5) years of experience architecting/designing enterprise solutions 	[REDACTED]	<ul style="list-style-type: none"> ■ Provides detailed applications knowledge in support of complex application issues/incidents ■ Reviews all potential changes (e.g. configuration, warranty fixes, enhancements) to the Solutions from a technical perspective and provides technical design/assessments ■ Is available to the Project team for consultation on future

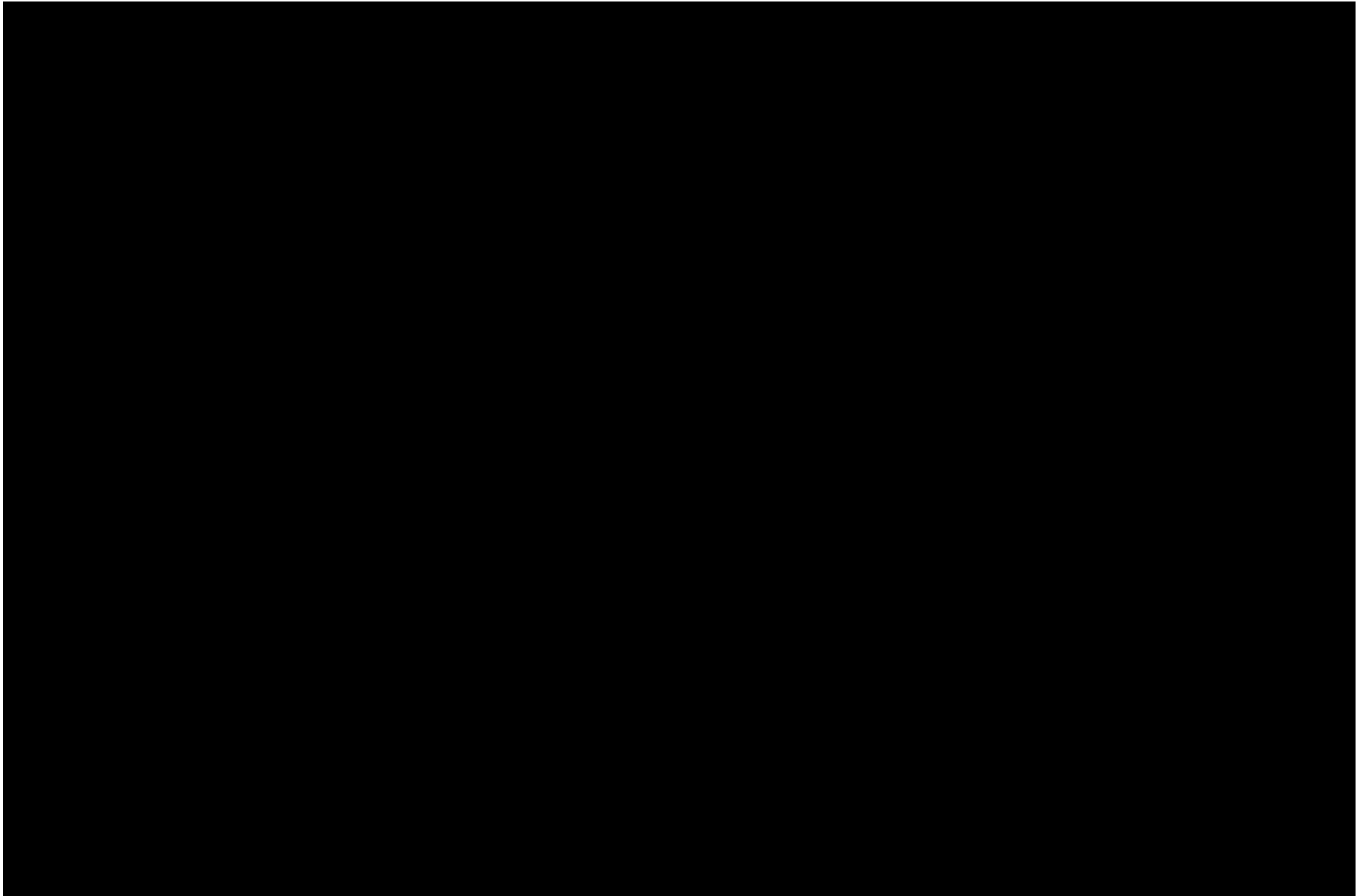
Staff Member and Role	RFP Qualification Expectation Requirements	Qualifications of Proposed Staff Member	RFP Roles and Responsibilities
			enhancements (e.g. changes to achieve strategic objectives, implement a new program)
<div style="background-color: black; width: 100px; height: 15px; margin-bottom: 5px;"></div> Security Expert	<ul style="list-style-type: none"> ■ CISSP or similar security certification ■ Ten(10) years of experience implementing/managing security in enterprise solutions 		<ul style="list-style-type: none"> ■ Architects all elements of the Solution's security ■ Maintains all security documentation ■ Ensures Solutions meets all applicable security regulations

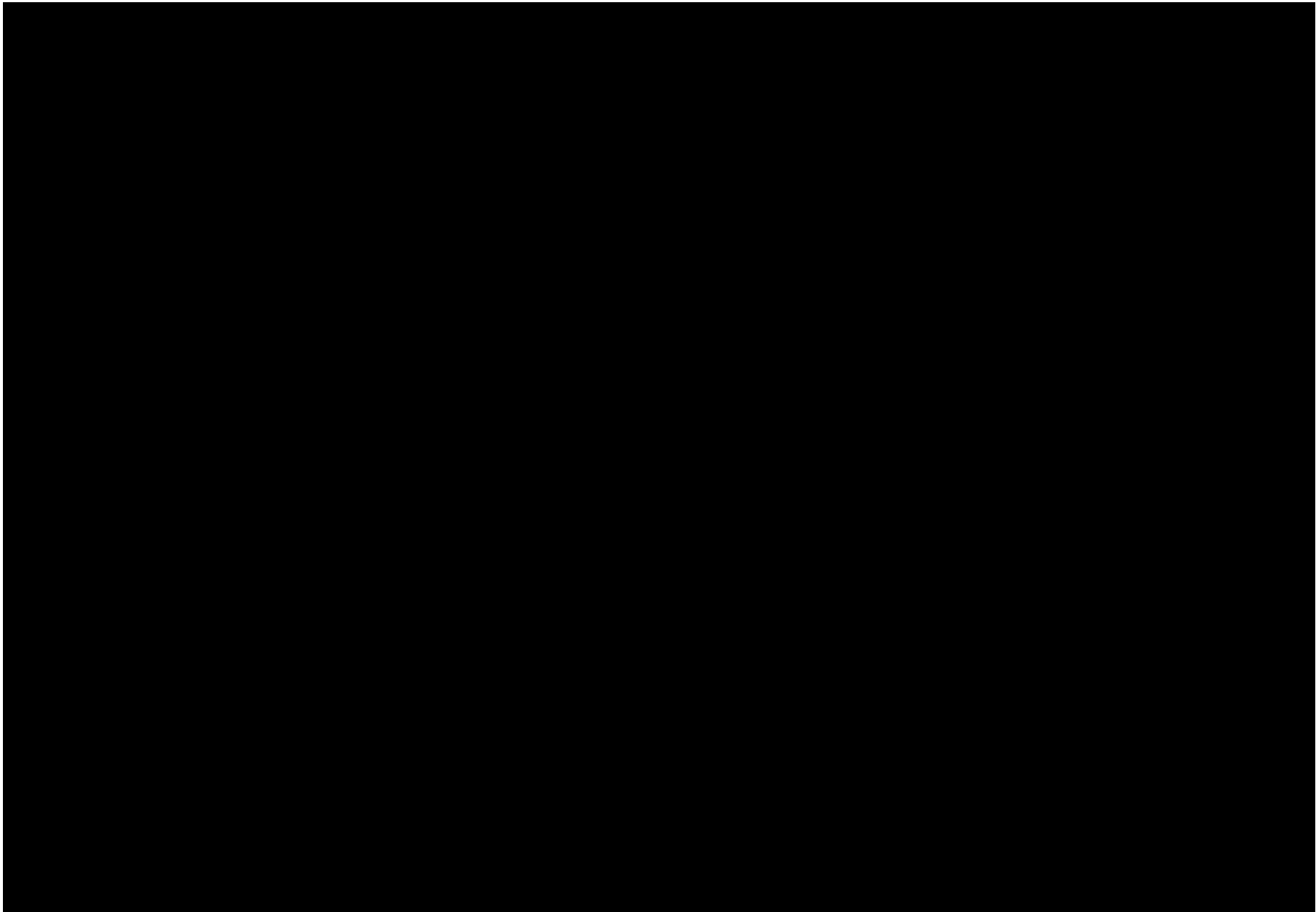
Optum M&O Additional Personnel Roles, Skills and Responsibilities

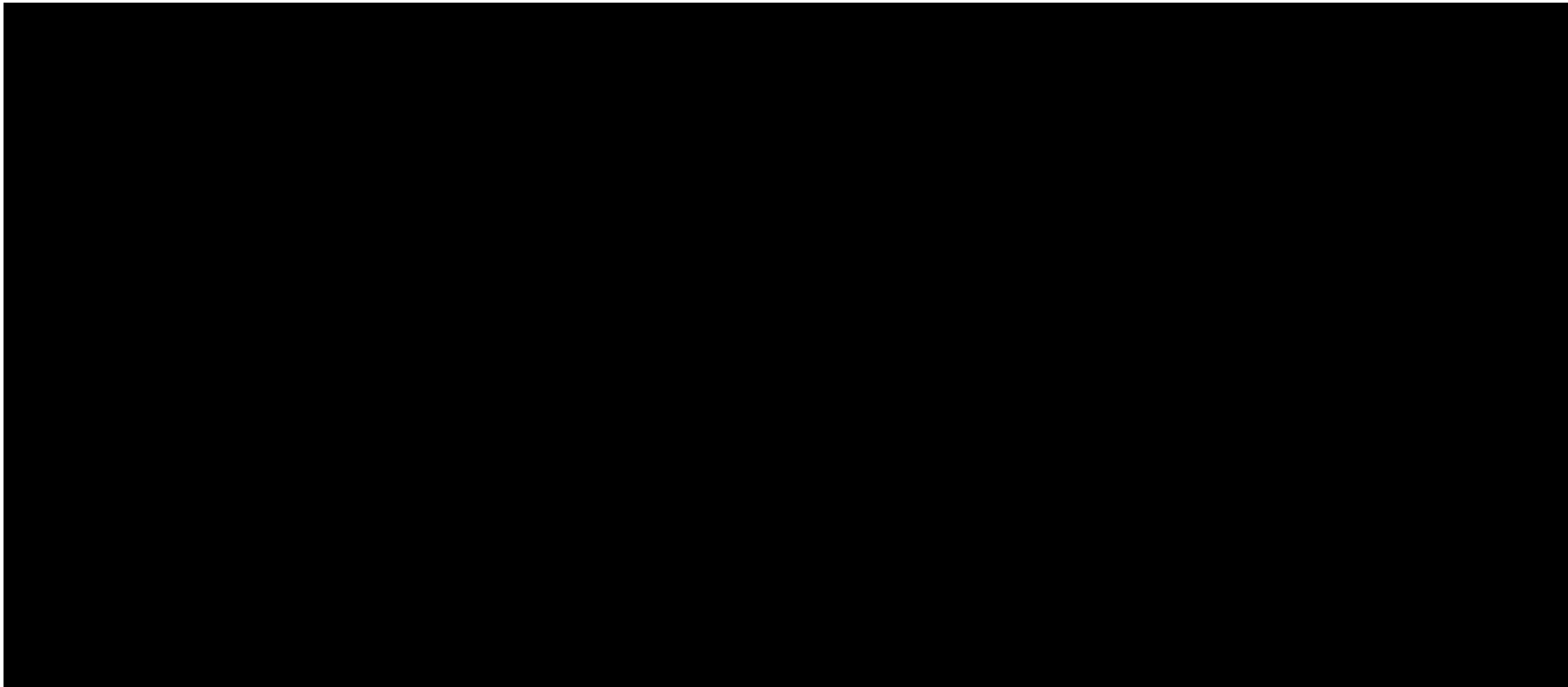
The following table summarizes the additional personnel roles we recommend for the AR IE-BM project during M&O. These roles are in addition to other personnel from the DDI Phase that may be retained for M&O.

Table G: Optum M&O Additional Personnel Roles, Skills and Responsibilities







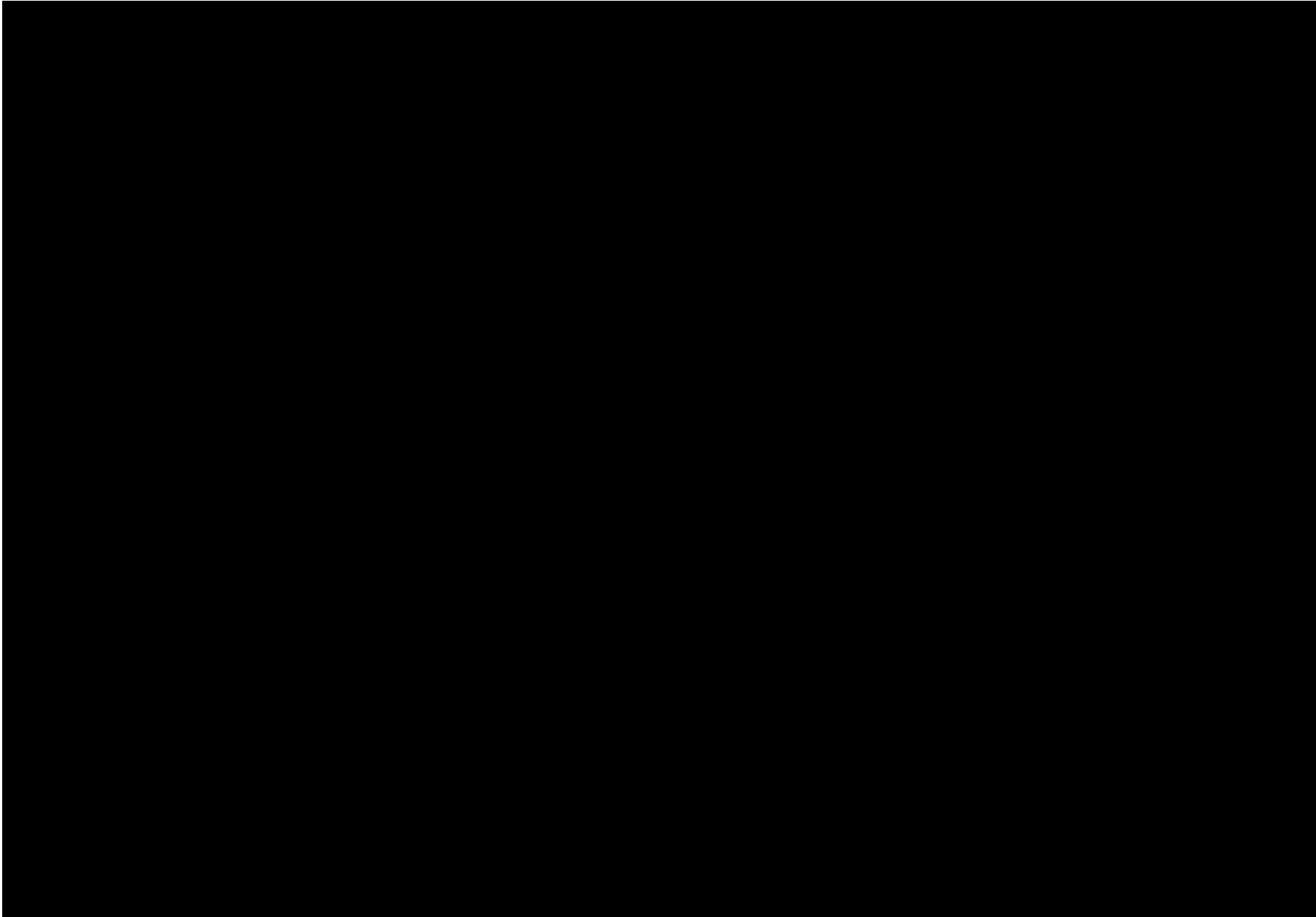


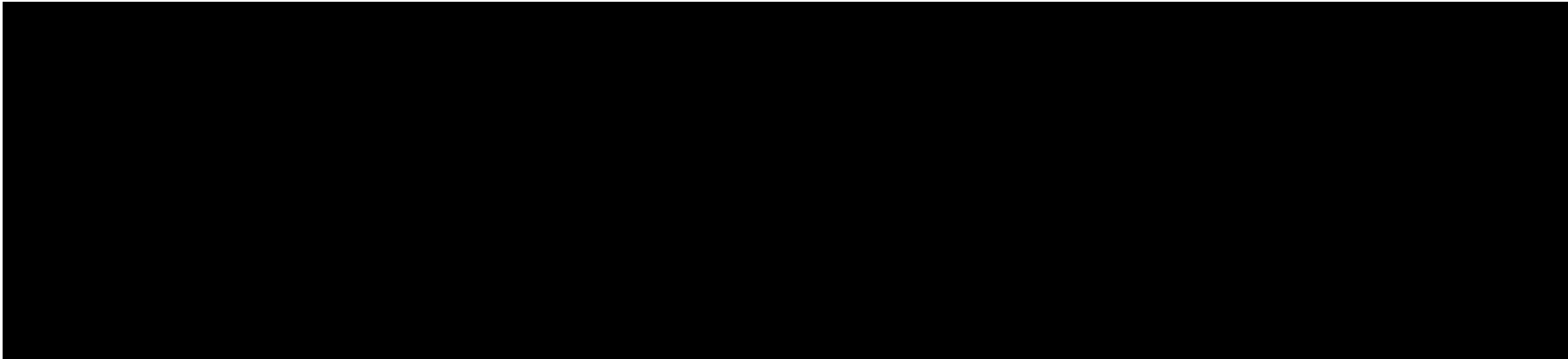
DHS M&O Personnel Roles, Skills and Responsibilities

The following table summarizes the DHS personnel roles we anticipate will support the AR IE-BM project during M&O.

Table H: DHS M&O Personnel Roles, Skills and Responsibilities

The table content is completely redacted with a solid black box, preventing any data from being viewed.





Subcontractors

We will use Connvertex as the subcontractor for the AR IE-BM Project. We describe our subcontractor management approach in more detail in Section 3.0 below under Subcontractor Management sub-heading.

DHS Staffing Plan Assessment

We have carefully reviewed the DHS Staffing Plan as presented in the RFP. In general, we find that the plan aligns well with the goals for this project. We respectfully offer the following suggestions for improving the Staffing Plan:

Formal Stakeholder Engagement

We have found that when we involve key stakeholders at appropriate levels in a project, roadblocks are reduced, the time to resolve issues decreases, and the number of surprises that must be communicated to leadership declines significantly.

We note from the RFP (Section 3.6.1) that the Governance Body “will be comprised of senior management personnel from DHS and representation from the IE-BM Engagement, facilitated by [a] chairperson appointed by DHS executive leadership.” These roles are generally considered Stakeholders. We recommend also including end users of the AR IE-BM system and representatives from the downstream recipients of process and data outputs from the solution. We have found that the insight of “process participants” has been valuable. They can provide input to potential efficiencies, caution with regard to possible process conflicts, and a proxy for the “voice of the customer” – the citizens of Arkansas who will be the ultimate beneficiaries of the person-centric system that is the goal of this project.

This Stakeholder engagement is in conjunction with the State’s intent to use an IV&V Vendor, as noted in the RFP (Section 3.6.1.1). Stakeholders should be welcome to provide input to the IV&V Vendor through the Governance Body.

Additional Technical Project Management

We note in the Staffing Plan that the Technical Project Manager is shared with M&O Activities. Optum believes that given the desire of the State to move aggressively on this project, there may be a need to provide additional Technical Project support with respect to M&O of, for example, the incumbent solution. The State may wish to consider assigning an additional resource to assist with Technical Project Management for this reason. We do not believe this would be a second full-time staff member.

Flexibility in use of Functional and Technical SMEs

We agree with the overall approach of the use of a combination of full-time and part-time functional and technical SME resources. We recognize that these SMEs also have their current responsibilities and we will do our best to accommodate these as long as it does not jeopardize the timing or quality of the solution deliverables. Therefore, we further encourage the State’s ability to be flexible to provide these resources when required.

2.0 Vendor Key Personnel

The Vendor should identify Key Personnel for the Engagement, as described in the RFP, including:

- Name
- Position in Vendor organization
- Proposed role on Engagement
- Focus of work effort
- % of time dedicated to the Engagement
- Experience in the proposed role
- Qualifications for the proposed role
- Role in the last three (3) projects

Instructions: Complete the following Table detailing the Key Personnel identified for this Engagement. Add rows as necessary. Do not change any of the completed cells. Any changes to the completed cells could lead to the disqualification of the Proposal.

We are providing our best and brightest professionals to meet your requirements for the AR IE-BM project. We have carefully crafted our organizational structure to meet your specific project needs. The team of experts we propose have substantial executive, management, design, development, implementation, reporting, analytics, operational, and enhancement experience. These professionals have worked for many years delivering comprehensive technical solutions for state governments and commercial customers. They have the experience required to develop the AR IE-BM to drive quality health care and cost efficiencies for Arkansas. The following table provides additional information about our key personnel.

Table 1. Vendor Key Personnel

NAME	POSITION IN ORGANIZATION	PROPOSED ROLE ON ENGAGEMENT	FOCUS OF WORK EFFORT	% OF TIME PROPOSED ON ENGAGEMENT	EXPERIENCE IN PROPOSED ROLE (Years)	QUALIFICATIONS FOR PROPOSED ROLE	ROLE IN LAST 3 PROJECTS
[REDACTED]	Vice President – Client Engagement	Engagement Director / Executive	Serves as the primary point of contact with DHS leadership and manages engagement Commits resources to the project Addresses issues that arise Manages subcontractor relationships	50%	10	[REDACTED]	[REDACTED]
[REDACTED]	Director of IT Project Management	Project Manager	Provides onsite day-to-day management of the project and manages DDI staff	100%	10	[REDACTED]	[REDACTED]

NAME	POSITION IN ORGANIZATION	PROPOSED ROLE ON ENGAGEMENT	FOCUS OF WORK EFFORT	% OF TIME PROPOSED ON ENGAGEMENT	EXPERIENCE IN PROPOSED ROLE (Years)	QUALIFICATIONS FOR PROPOSED ROLE	ROLE IN LAST 3 PROJECTS
			<p>Works and meets with DHS and stakeholders to understand their needs and address their questions or concerns</p> <p>Provides timely and informed responses to operational and administrative inquiries that arise</p> <p>Makes sure project management processes are followed</p> <p>Develops and maintains project planning documentation</p>				

NAME	POSITION IN ORGANIZATION	PROPOSED ROLE ON ENGAGEMENT	FOCUS OF WORK EFFORT	% OF TIME PROPOSED ON ENGAGEMENT	EXPERIENCE IN PROPOSED ROLE (Years)	QUALIFICATIONS FOR PROPOSED ROLE	ROLE IN LAST 3 PROJECTS		
██████████	Associate Director, Payer Consulting	Integration Manager/ Functional Lead	Leads team the configures and develops the solution Understands the functional design of solution components and verifies they address functional requirements and use cases Validates the configured solution addresses functional requirements Provides the guidance on the methodology and approach to build the solution Validates the solution meets business requirements	100%	15				
██████████	Associate Director of Training	Training Lead	Leads and oversees training and knowledge transfer planning, material development and delivery Prepares for the	100%	11				

NAME	POSITION IN ORGANIZATION	PROPOSED ROLE ON ENGAGEMENT	FOCUS OF WORK EFFORT	% OF TIME PROPOSED ON ENGAGEMENT	EXPERIENCE IN PROPOSED ROLE (Years)	QUALIFICATIONS FOR PROPOSED ROLE	ROLE IN LAST 3 PROJECTS
			deployment of the Solution to the full organization				
██████████	Test Lead	Testing Lead	Leads testing activities including planning, documentation and execution Validates test plan and process is coordinated with stakeholders Validates documentation and resolution of issues Serves as the point of contact for UAT concerns	100%	5		

NAME	POSITION IN ORGANIZATION	PROPOSED ROLE ON ENGAGEMENT	FOCUS OF WORK EFFORT	% OF TIME PROPOSED ON ENGAGEMENT	EXPERIENCE IN PROPOSED ROLE (Years)	QUALIFICATIONS FOR PROPOSED ROLE	ROLE IN LAST 3 PROJECTS
██████████	Associate Director, Health Care Consulting	Technical Lead	Responsible for technical aspects of the solution Consults with DDI team on future enhancements Oversees the development of technical documentation Understands the technical design of solution components	100%	14		

NAME	POSITION IN ORGANIZATION	PROPOSED ROLE ON ENGAGEMENT	FOCUS OF WORK EFFORT	% OF TIME PROPOSED ON ENGAGEMENT	EXPERIENCE IN PROPOSED ROLE (Years)	QUALIFICATIONS FOR PROPOSED ROLE	ROLE IN LAST 3 PROJECTS
	Enterprise Architect	Architect Lead	Lead solution architecture and mapping of required functionality Oversee architectural design and documentation at a technical reference model level Maintain knowledge on topics that include application and data modeling, building block design, applications and role design	100%	14		

NAME	POSITION IN ORGANIZATION	PROPOSED ROLE ON ENGAGEMENT	FOCUS OF WORK EFFORT	% OF TIME PROPOSED ON ENGAGEMENT	EXPERIENCE IN PROPOSED ROLE (Years)	QUALIFICATIONS FOR PROPOSED ROLE	ROLE IN LAST 3 PROJECTS
[REDACTED]	Information Security Advisor	Security Expert	Implement and manage the security in enterprise solutions	100%	10+	[REDACTED]	[REDACTED]
[REDACTED]	Senior Director Information Technology	Operations Manager	Serves as a liaison with DHS for M&O activities Provides timely and informed responses to operational and administrative inquiries that arise Manages staff assigned to all day-to-day M&O activities	100%	15		

2.1 Subcontractor Key Personnel

The Vendor should identify the Subcontractor Key Personnel for the Engagement including:

- Name
- Position in subcontractor organization
- Proposed role on Engagement
- Focus of work effort
- % of time for that work effort
- Experience in the proposed role
- Qualifications for the proposed role
- Role in the last three (3) projects

This section should also detail the past work each listed person has had with the Vendor or their staff.

Instructions: Provide a listing of the Subcontractor Key Personnel. This Table should be replicated for each Subcontractor used. Add rows as necessary. Do not change any of the completed cells. Any changes to the completed cells could lead to the disqualification of the Proposal.

We will not be filling any key personnel roles with Connvertex staff.

Table 2. Subcontractor Key Personnel

NAME	POSITION IN ORGANIZATION	PROPOSED ROLE ON ENGAGEMENT	FOCUS OF WORK EFFORT	% OF TIME FOR THAT WORK EFFORT	EXPERIENCE IN PROPOSED ROLE (Years)	QUALIFICATIONS FOR PROPOSED ROLE	ROLE IN LAST 3 PROJECTS
N/A							

3.0 Staff Management

The Vendor should describe internal standards, policies and procedures regarding hiring, professional development and human resource management, including processes for ensuring that the Engagement will not be affected by fluctuations in Vendor staffing and other assignments. The response should also include a discussion of the Vendor's management of subcontractor staffing.

Instructions: Provide descriptions of the Vendor's Staff Management approach.

Hiring Resources

As a leading provider of health and human services for government agencies, we have a record of accomplishment. It demonstrates our ability to recruit, hire and retain employees with the skills and talent required to fulfill your requirements. To bring the best and brightest talent to Optum, we depend on our professional human resources organization, our IT leadership, and talented employees. We have human capital professionals dedicated to employee services throughout the United States. We position our teams strategically to meet the staffing requirements of each engagement. Working with our human capital professionals, we will hire staff for the AR IE-BM project whose education, experience and background meet contract requirements. We will prioritize qualified talent in the Little Rock area based on recommendations from our local staff and local staffing organizations. We will only assign staff to the project with your advance approval. We will submit resumes to you and make candidates available for interviews.

Our Commitment to Arkansas

We will dedicate to the AR IE-BM project a senior key staff team with deep functional technology expertise. We will partner with you to nimbly meet your needs.

We will only assign experienced staff to the AR IE-BM. If DHS or Optum identifies a staff member whose work is unacceptable, we will work with you to get the individual back on track. If that is not possible and we need to remove an individual from the project, we will notify you in writing in advance. We understand that removing key staff, assigning replacements, changing staffing levels or skill levels can only happen with your advance written permission.

Professional Development

Our commitment to excellence in staffing extends to our attention to detail in training and development. We provide many types of employee training that will benefit you. This includes new hire training, ongoing system and business knowledge training, project management training, and mandatory annual training on topics such as privacy and security. Our employee training will help us provide knowledgeable and effective support for the AR IE-BM project while protecting your information assets and the confidentiality of your private information.

Our approaches for staffing and development include training, collaboration, and communication within the project team. We will provide project staff with the tools, resources, and mentors required to perform at advanced levels throughout the life of the project. They include project-specific vendor or product training, project-specific functional training, certification training, and our Web-based training portal. We also require annual training on topics including privacy and security.

Human Resource Management

Human capital can make or break any engagement. Our staffing plan for your project will provide the resources needed to accomplish your goals within the required timeframes. We will make sure that proper resources are allocated to the project and effectively manage relationships with contributors and stakeholders. Our project manager will consider other human resource factors that may influence or alter project performance. These include the geographical locations of team members, communications among stakeholders, internal and external politics, cultural issues and the working environment.

AR IE-BM Project Staffing

Our key personnel will be dedicated to the project as required by the RFP. We will make sure to keep any required licenses or certifications current. We understand that removing key staff, assigning replacements, changing staffing levels or skill levels can only happen with your advance written permission. We will make staff replacement candidates available to you for interviews and approval. We understand you reserve the right to reject replacement candidates. Proposed substitutes of key personnel will have qualifications that are at least equal to those of the individual initially proposed and accepted by DHS. The qualifications of initial key staff will become the minimum requirements for the qualifications of all subsequent key personnel for the duration of the contract term.

If DHS requests removal of an AR IE-BM project staff member, we will remove the individual within two weeks of receiving the request. We will provide you with notification of anticipated vacancies of key personnel within two business days of receiving the resignation notification, the vendor's notice to terminate, or other indication the position will become vacant. We will provide you with weekly status updates on the replacement recruitment until we hire a qualified replacement with your approval. We will have an approved, qualified replacement in the position within sixty days of the written notification of anticipated vacancies. During the recruitment and training period, we will shall provide an interim replacement so that the project work is unaffected by the change.

Staff Performance Monitoring: One of our employee focused management practices is performance management. Optum management conducts annual employee performance reviews that include input from employee peers and managers. Management also monitors employee work throughout the year. We stay in touch with project team members, the customer, and stakeholders to make sure employee performance is acceptable.

Succession Planning, Staff Replacement, and Backup: As part of our standard operating procedures, we will require all staff assigned to the AR IE-BM to participate in job rotation and cross training. This will help us maintain continuity in the event of planned and unplanned absences. We will augment this cross training with support from our corporate training staff as needed. This will keep applicable information and training documentation current and minimize the impact of staff changes throughout the contract.

Additional Staff Support: Optum has established relationships with many subcontractors and staffing organizations in the Little Rock area. If Optum and DHS decide that additional staff is needed to support the AR IE-BM project, we will follow our standard staffing procedures to obtain qualified staff and maintain adequate staffing levels.

Knowledge Transfer: The AR IE-BM project team will build on our close relationships with DHS. We will determine your specific needs for knowledge transfer at the individual DHS staff member level. We will make sure your technical staff members have knowledge they need to be

successful. Knowledge transfer is an ongoing process that starts during DDI and continues through the life of the project. We achieve this by working collaboratively with you; being transparent in all that we do; keeping accurate, updated documentation and artifacts available to authorized users; and by conducting routine end user training. A comprehensive knowledge transfer plan will guide the implementation of our structured knowledge transfer methodology. This approach will enable DHS to absorb knowledge and use lessons learned associated with your AR IE-BM business processes and community stakeholders.

Maintaining Staffing Levels

We will achieve and retain qualified staffing levels to provide effective project control and support the AR IE-BM project during all project phases. To make sure the engagement is not affected by fluctuations in vendor staffing and other assignments, we will make sure that qualified staff are working on their project assignments as required.

Subcontractor Management

We will use Connvertex as a subcontractor. We will also develop a detailed statement of work that outlines AR IE-BM project roles and responsibilities for Optum and the subcontractors. The agreement will outline the content of the eventual subcontract and the process for concluding it if (and to the extent) that DHS selects Optum as the prime contractor and consents to our use of the applicable subcontractors. We will include the Connvertex project manager name and contact information in the subcontract. The subcontractor project manager will be a direct report to the AR IE-BM deputy account manager/operations manager.

As the prime contractor, we will ultimately be held accountable by DHS for the success of this project. Through our formal subcontractor agreement, we will maintain project leadership and appropriate coordination and oversight of our subcontractors. To demonstrate this understanding and make sure that all parties are invested in the success of the project, we will incorporate necessary flow-down provisions in our subcontractor agreements, as shown in Figure 4.

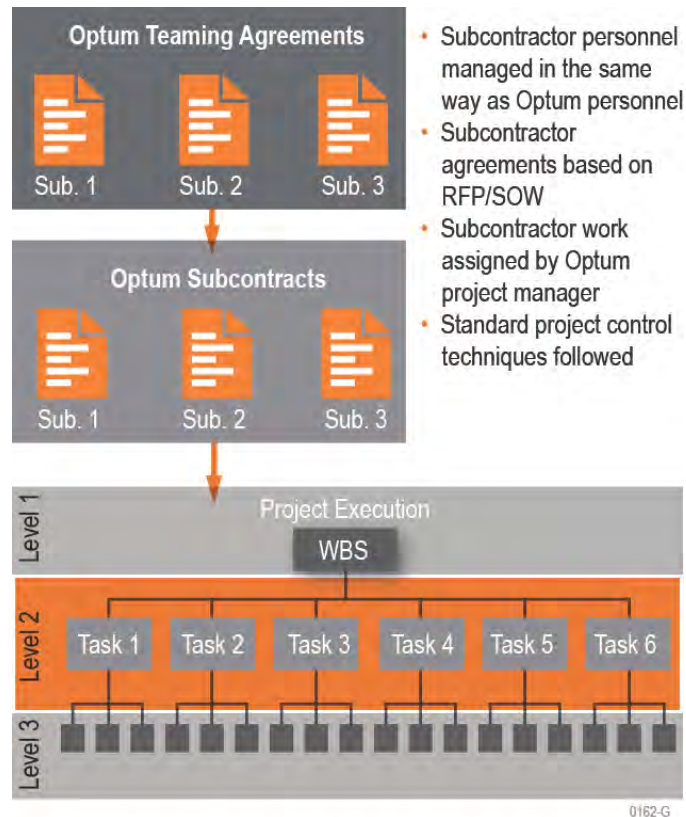


Figure 4. Subcontractor Management.

Optum subcontracting agreements provide clear definition of work and lines of authority. The agreements incorporate flow-down provisions to make certain of compliance with all State requirements.

4.0 Training Policies and Procedures

The Vendor should describe its policies and procedures for providing education and training for its personnel, both initially and ongoing.

Instructions: Describe Vendor's approach for training and ongoing education of its personnel.

Developing the skills of our employees helps to attract and retain talented staff and provides high-quality information management services. We offer several training venues that promote career development and job satisfaction. Optum training opportunities include project-specific vendor or product training, project-specific functional training, corporate training programs with instructor-led classes, certification programs for technical and functional disciplines, and LearnSource Web-based training where employees can select from a variety of courses to enhance their skills and knowledge, as described below:

Project-specific vendor or product training: This training will develop the skills necessary to meet AR IE-BM project requirements, expose employees to new technologies and enhance opportunities for new assignments and career advancement. Any new hires for the AR IE-BM project will receive the necessary project-specific training required for their job function.

Project-specific functional training: Employees working on specific projects need the opportunity to continually hone and advance their functional skills to provide our customers with the best service possible. This training may include:

- **Periodic refresher education and training.** We provide education and training to project staff periodically to serve as refresher courses on all existing program aspects. In addition to these periodic opportunities, we provide training and education to individual employees who need it, as identified through supervision and monitoring activities.
- **Ongoing training:** The observations of leaders as they monitor the performance of individuals and the whole workgroup will trigger ongoing training. When leaders report deficiencies, the Optum training team, in collaboration with workgroup leaders, will define the learning objectives and agree on the format and delivery method. Design and deployment will follow the Instructional Systems Design (ISD) methodology, and staff will participate in customized learning experiences. The leaders will determine and report the effectiveness of training as they continue to monitor the staff's performance. The Optum training team will be available to follow up with more learning activities.

Corporate training programs with instructor-led classes: Optum offers a variety of training classes that are best conducted as instructor-led classes. Generally, we offer these classes in a central location that can last up to a week in duration.

Certification programs for technical and functional disciplines: Attaining certification in a particular discipline enhances many technical, management and health care functional career paths. Examples include receiving PMI certification as a project management professional, or receiving technical certification as a Microsoft security professional. Optum offers employees a variety of certification venues to enhance their job skills.

LearnSource: We provide continuous professional development, and learning is fundamental to a career fit at Optum. We encourage our employees to take advantage of the extensive knowledgebase for professional development and functional skill enhancement offered through Optum LearnSource, our Web-based training tool. Through the LearnSource course catalog, Optum staff members can choose from an extensive list of courses, such as building strong working relationships, driving change, communicating with impact, advocating for the customer, and promoting innovation. LearnSource also offers a variety of technical courses and technical certification programs for technical staff. Professional development promotes a culture of learning to challenge individuals to grow; as a result, the organization continually revitalizes.

Privacy training: All Optum employees and contractors must receive training on privacy to include in their responsibilities of safeguarding the confidentiality of private information. We require staff members to complete annual training on protected health information policies and required procedures, Optum security requirements, and the Optum ethics program. We monitor participation in this training. We offer training through corporate integrity and compliance training (privacy overview modules) and through their business area's training program. In addition, various resources, including policies and procedures and the Privacy Office, are available to employees to provide guidance and address issues to support ongoing compliance with privacy requirements. We also hold privacy seminars at our different locations to promote awareness.

New hires and security awareness: All users of Optum information assets and information technology systems are made aware of and must fully comply with our information security policies. As part of new hire training, employees and contractors must acknowledge their understanding and acceptance of our information security policies. Annually, employees and contractors must acknowledge a continued obligation to abide by these policies.

Ongoing security-related training: All employees and contractors receive mandatory, ongoing security-related training. We tailor these training programs to the appropriate audiences.

Secure coding practices: The application development team has documented coding standards that all developers must follow. Adherence to coding standards is an aspect that team leads check during code reviews, which they perform for all code. The development team has also received training on secure coding practices. Senior-level developers schedule code reviews with a focus on programming standards during each software release. They schedule these code reviews early enough in the SDLC so that there is enough time to adjust programming, if necessary.

IT training: Our IT departments tailor and align their teams' training to match current needs and future strategy. Additionally, based on job responsibilities, certain employees obtain technical and security-related professional certifications, such as CISA, CISM, CISSP and CNE. Based on their job function, employees must also take various mandatory training courses each year through our learning management system, LearnSource.

5.0 Staff Retention

The Vendor should provide assurances that it will retain the appropriate level of staff to complete the scope of this engagement throughout the contract period. The Vendor should describe its approach to staff retention, with specific attention to ensuring staff consistency throughout the duration of the Engagement.

Instructions: Describe Vendor's process and methodology for retaining Vendor personnel and ensuring that Key Personnel are consistently engaged on this Engagement. The Vendor should also discuss steps they have/will take to minimize staff turn-over to avoid costly re-training of Engagement resources.

Optum will achieve and maintain qualified staffing at appropriate levels throughout the AR IE-BM project. We have deep bench strength in all areas of delivery and have a reputation for delivering our projects on time and on budget. We have been able to retain staff in a challenging IT and health and human services environment by providing extensive opportunities for professional development and responsive and effective management. This effort has historically made us an industry leader in staff retention and responsiveness to staffing needs. As such, we have a comprehensive staff retention program to help keep critical knowledge working on the AR IE-BM project.

Every fall, Optum asks employees to complete the Vital Signs survey, our employee feedback and satisfaction tool. We have had up to a 95 percent participation rate in these surveys. One of the main measurements we look at within the survey is the employee engagement score. As a follow-up to the survey results, we have an employee action group that works throughout the year to improve areas identified in the survey. The goal is to improve the employee experience and the overall engagement of our employees. The following Figure 5, shows our employee engagement model.

Promoting an environment of employee engagement helps employee retention. Optum goes to great lengths to promote this in job functions and as part of a superior service organization. As a critical component of retaining high-quality personnel, employee engagement focuses on the five areas illustrated in Figure 5.

Meaningful work: All employees want to believe their work is valuable and meaningful. Optum focuses on assigning skilled resources to positions that allow them to use their skills and talents in meaningful ways to support our customers.

Linked rewards: Employees need appropriate compensation for the value they bring to the organization and for their performance. Optum offers competitive salaries and incentive/bonus programs linked to employee performance. Annual performance reviews include input from employee peers and managers, and annual bonus programs link to performance review results.

Effective teams and leaders: In any organization, it is important to have effective teams and leaders to engage employees fully. Optum assesses personnel in leadership roles continuously and provides ongoing leadership training opportunities and programs that promote our culture of service to our customers. Annually, all employees have the opportunity through the Vital Signs survey to provide feedback on the effectiveness of company leadership, corporate direction and their immediate management. We share the results of these surveys with all employees.

Company vision: Optum operates in a dynamic health care and human services environment. Additionally, as part of our growth strategy, we seek to expand market presence through a growing number of strategic acquisitions. These factors make it critically important that Optum leadership shares the company vision with employees in both the short term and long term, and that Optum leaders bring employees of newly acquired companies into the Optum fold quickly. Optum leadership provides information to all employees periodically through employee town hall and web-based meetings.

Personal potential: Employees need a certain level of challenge and change to remain engaged and have an opportunity to maximize their potential and level of contribution to the company. Optum encourages all employees to maximize their potential through training opportunities and opportunities for advancement.

Other methods through which Optum promotes employee retention include the following:

Training: Optum recognizes that in today's highly technical world, training is a key factor in retaining employees. Consequently, our performance management program challenges our employees to perform at higher levels so that they can continue with project assignments that will lead to more training. Using this approach, employee performance becomes a driver to training, and people who perform the most and continually enhance their skills find that they receive rewards with more opportunities. The link to an employee's performance verifies that the employee accomplished the training objective—using the employee's skills to support customer requirements.



Figure 5. Employee Engagement.

Optum proactively promotes employee engagement as a means to develop personnel and enable them to realize their full potential.

Salary: We monitor our rewards program continually. Each year, we review the programs against surveys and industry benchmark data. We also review compensation programs against surveys and benchmark data as part of our annual salary planning process. We use salary surveys to verify that our compensation stays consistent with local and national market conditions. Optum management also uses employee feedback—obtained through formal surveys and focus groups—to evaluate each element of the compensation program. This approach emphasizes employee involvement and enhances employee morale and motivation.

Benefits: Our benefits program is commensurate with a standing as one of the best employers in the industry. We offer a comprehensive, flexible benefits program that allows employees to select from a variety of options to meet their needs and their family members' needs. The flexible benefits program provides a tax-effective way to share the cost of coverage by taking contributions from each pay period on a before-tax basis. The benefits program applies to all regular FTEs in the United States and to eligible part-time employees. Regular FTEs are eligible immediately to participate in the benefits plans. New employees are required to make their individual benefit elections and, during the annual enrollment period, they can adjust their benefits selections if needed.

Employee focused management practices: We use the following management practices and programs to attract and retain skilled employees with diverse needs:

- Performance management
- Employee communications
- Soliciting employee opinions
- Opportunities for career growth and challenge
- Programs to build and maintain a diverse and respectful work force
- Special programs to bring organizations or individuals back on track when problems exist
- Flexible work arrangements
- Employee assistance program
- Community involvement
- Employee discount program

Career growth and progression: Our pay-for-performance approach focuses on skill growth. We remove the barriers of narrow hierarchy salary grades and promote cross-functional career movement within salary bands. Career growth comes primarily from gaining extensive experience by moving from role to role within or across salary bands. We integrate performance management, skill building and career development with the process of managing pay. Training and development programs focus on the training paths (a core set of courses and skills) necessary for employees' roles at Optum.

Employee recognition: Effective employee recognition includes timely acknowledgment of a behavior or business result supporting an organization's goals and values. It lets employees know their good work is noticed and appreciated. We are committed to recognizing and rewarding employees whose exceptional behavior and achievement positively affect our business success. Bravo! is our corporate global employee recognition program for acknowledging individuals who demonstrate excellence in leadership or performance. Through this internal social media forum, managers and employees recognize others and receive

recognition themselves for demonstrating our corporate values of integrity, compassion, relationships, innovation or performance in their work. Rewards range from a personalized note of thanks to monetary gifts awarded by management.

6.0 Engagement Organization and Staffing Assumptions

Instructions: Document all assumptions related to the response for Engagement Organization and Staffing in the following Table. Add rows to the Table as necessary. Do not change any of the completed cells. Any changes to the completed cells could lead to the disqualification of the Proposal.

Table 3. Engagement Organization and Staffing Assumptions

ITEM #	REFERENCE (Section, Page, Paragraph)	DESCRIPTION	RATIONALE
1.	Section 1.0, Page 5, Figure 2– DDI Organization Chart	Organization chart is proposed; we will work with the State to finalize the organizational chart as part of our startup activities.	Optum would like the opportunity to refine the organization chart to best represent the project needs and optimize staffing alignments at the time of the project start.
2.	Section 1.0, Page 6, Figure 6- M&O Organization Chart	Organization chart is proposed; we will work with the State to finalize the organizational chart as part of our startup activities.	Optum would like the opportunity to refine the organization chart to best represent the project needs and optimize staffing alignments at the time of the project start.
3.	Section 1.0, Page 20, Table E, DHS DDI Personnel Roles, Skills and Responsibilities	The State has resources available to staff the roles listed in the RFP and reproduced in the table that meet the recommended minimum requirements shown; these resources will be available at project start or at the appropriate time afterwards.	This will enable the “shoulder to shoulder” work environment which the State envisions.
4.	Section 1.0, Page 31, Table H, DHS M&O Personnel Roles, Skills and Responsibilities	The State has resources available to staff the roles listed in the RFP and reproduced in the table that meet the recommended minimum requirements shown; these resources will be available at the start of M&O or at the appropriate time afterwards.	This will enable the “shoulder to shoulder” work environment which the State envisions.

Template T-5
Staff Experience
Response Template
RFP #: SP-17-0012

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1.0 Staff Experience

The Vendor should provide a completed Staff Experience reference form (see Table 1) for each proposed Key Personnel as indicated in the RFP (includes both the Vendor and subcontractor staff).

Instructions: For each reference listed, indicate the client name and client contact information, whether the engagement was for a public sector agency, project name, start and end dates the team member performed the role, duration of the experience and an overview of the project scope, focused on how it relates to the scope of this RFP. Duplicate Table 1 in its entirety, once per Key Personnel. Do not change any of the completed cells. Any changes to the completed cells could lead to the disqualification of the Proposal.

We have assembled a team of dynamic individuals with extensive knowledge of Integrated Eligibility (IE) and Health and Human Services (HHS) programs and operations. They are the foundation of our 100 percent success rate in implementing and managing complex projects for state HHS programs and commercial entities. As the current vendor for your data warehouse, Optum is familiar with your culture, systems, people, and goals. Our key personnel understand and share your vision for the AR IE-BM. They know that Optum is more than a vendor or a technology provider. We will work shoulder-to-shoulder with you as long-term partners you can trust.

The following table describes the experience of our proposed key personnel and demonstrates how they exceed the RFP requirements for the AR IE-BM.

Table 1. Staff Experience

Team Member Name:	
Description of Skill Sets and Experience	<ul style="list-style-type: none"> ■ PMP-certified vice president at Optum responsible for foundation health care payer clients and the development and delivery of transformational technology solutions ■ 24 years of similar, relevant experience in professional services, development, and client support ■ Manages and delivers large-scale technology initiatives in the federal, state, and private sectors ■ Extensive knowledge across public health programs that includes including IE, Medicaid, health insurance exchanges (HIX) and federal health programs ■ Background includes leading client engagements at 16 different federal and state agencies across 15 states, most recently leading a portfolio of 10 private sector clients ■ Four years of IE experience and extensive experience with Medicaid Management Information Systems (MMIS) ■ Five years direct project oversight and authority over ongoing client relationships implementing enterprise solutions in excess of 10 million dollars ■ Experience includes managing two design, development and implementation (DDI) projects and one transition to ongoing M&O operations

Proposed Project Role for RFP #: SP-17-0012	Engagement Director / Executive		Subcontractor (Y/N)?	N
Years' Experience in Role:	10			
REFERENCES				
REFERENCE 1				
Client Name	[REDACTED]			
Client Point of Contact	[REDACTED]			
Client Address	[REDACTED]			
Client Phone	[REDACTED]			
Client Email	[REDACTED]			
# of Employees	40	Public Sector (Y/N)?	Y	Project Name and Description
				Kentucky MMIS Implementation, which included developing Program Management Office (PMO) processes to manage and monitor Kentucky Medicaid initiatives such as the Medicaid Management Information System (MMIS)
Date/Duration of Staff Involvement	Start (MM/YYYY)	03/2005	End (MM/YYYY)	12/2007
Project Scope	Served as the primary point of contact with leadership for the project. Established and managed resources across three subprojects: transition of fiscal agent operations; design, build, test and implementation of the MMIS; and delivery of the decision support system/data warehouse. Worked with more than 250 stakeholders and a core project team of more than 100 staff, including subcontractors, resulting in successful transition of the MMIS.			
Staff Role on the Project	Overall Program Manager			
REFERENCE 2				
Client Name	[REDACTED]			
Client Point of Contact	[REDACTED]			
Client Address	[REDACTED]			
Client Phone	[REDACTED]			
Client Email	[REDACTED]			
# of Employees	40	Public Sector (Y/N)?	Y	Project Name and Description
				NC FAST Medicaid Eligibility System
Date/Duration of	Start	03/2010	End	11/2011

Staff Involvement	(MM/YYYY)	(MM/YYYY)
Project Scope	As engagement lead, served as the primary contact with State leadership for the following scope of work: Medicaid, Welfare and special assistance. Replaced legacy case management and eligibility systems that administer public assistance benefits to North Carolina citizens and delivered core functions for the NC FAST programs. Managed resources across the scope of work, including subcontractors, and worked with the State to address issues as needed.	
Staff Role on the Project	Engagement Lead for Medicaid, TANF, Special Assistance, Refugee Assistance	
REFERENCE 3		
Client Name	[REDACTED]	
Client Point of Contact	[REDACTED]	
Client Address	[REDACTED]	
Client Phone	[REDACTED]	
Client Email	[REDACTED]	
# of Employees	5	Public Sector (Y/N)? Y
Project Name	Medicaid Readiness and Description Initiative	
Date/Duration of Staff Involvement	Start (MM/YYYY) 01/2013	End (MM/YYYY) 10/2013
Project Scope	As the agile product owner, served as the Subject Matter Expert (SME) and key liaison between business users and the Scrum team building the MAGI Medicaid eligibility rules engine. Oversaw supporting system and technology changes to upgrade the existing Medicaid/public assistance eligibility system resulting from changes related to health care reform. Assigned resources to work as needed and worked with the State as the key point of contact, addressing issues and making sure work as completed on time and within budget.	
Staff Role on the Project	Agile Product Owner	
INDIVIDUAL QUALIFICATIONS		
Certifications (if applicable)		
PMI/PMP	Member ID#: PMP® #1380783	
	Earned Date: 12/30/10	Expiration Date: 12/30/17
Other	Accenture System Integration & Technology – Certified Delivery Lead	
	Earned Date: 05/2010	Expiration Date: N/A

Team Member Name:		[REDACTED]
Description of Skill Sets and Experience	<ul style="list-style-type: none"> ■ PMP-certified senior director at Optum experienced managing all life cycles of system development projects ■ 11 years of integrated eligibility experience and extensive knowledge of Medicaid Management Information System (MMIS) and various other interfaces ■ Serves as the engagement advisor for the West Virginia IE Maintenance and Operations project ■ Follows Project Management Body of Knowledge (PMBOK) processes for project financials, risk management, quality control, people management, customer relationship, and status reporting at various leadership levels ■ Experienced in business operations, budgeting, project planning, cost analysis, risk assessment, quality assurance, quality control, resource planning, system development life cycles, scope / contract management, management reports, executive level presentations ■ Delivers enterprise-wide solutions using Rational Unified Process (RUP), Agile, COTS and various custom methodologies and experienced managing and delivering large scale Capability Maturity Model (CMM) projects ■ Strong customer relationships in support of customers' strategic interests and benefits ■ Led a team of 45 technical professionals on a \$60 million, custom state agency implementation project. Responsibilities included providing direction to database administrators, technical architects, infrastructure staff, data conversion and development leads for a J2EE-based solution using IBM servers, Oracle database, FileNet, and Business Objects (Crystal Reports) 	
	Proposed Project Role for RFP #: SP-17-0012	Project Manager
Years' Experience in Role:	10	
REFERENCES		
REFERENCE 1		
Client Name	[REDACTED]	
Client Point of Contact	[REDACTED]	
Client Address	[REDACTED]	
Client Phone	[REDACTED]	
Client Email	[REDACTED]	

# of Employees	200	Public Sector (Y/N)?	Y	Project Name and Description	Vermont Health Connect (VHC)/ Health Insurance Exchange (HIX) System Integration projects, which was a phased implementation of Vermont's integrated system supporting automated renewals, Change of Circumstances, self-service capabilities, and automated notices for both qualified health plans and Medicaid customers
Date/Duration of Staff Involvement	Start (MM/YYYY)	04/2015	End (MM/YYYY)	06/2016	
Project Scope	<p>Led the phased implementation of an integrated system that supports automated renewals, change of circumstances, self-service capabilities and automated notices for both qualified health plan QHP and Medicaid customers. Provided day-to-day management of the project, maintaining knowledge and awareness of all issues, concerns and requirements. Managed various aspects of project execution activities for multiple teams for Vermont that numbered more than 200 staff, including business, development, technical architecture, quality assurance, maintenance and operations (M&O), and PMO teams. Demonstrated responsiveness to operational and administrative inquiries and followed standard project management processes to organize the project and manage project activities in support of the approved work plan. Collaborated with the State, stakeholders and all parties to help Vermont establish full integration with insurance carriers and payment processors. Contributed to the Vermont exchange receiving the rating as the best exchange in the country by the Government Audit Office.</p>				
Staff Role on the Project	Engagement Manager				
REFERENCE 2					
Client Name	[REDACTED]				
Client Point of Contact	[REDACTED]				
Client Address	[REDACTED]				
Client Phone	[REDACTED]				
Client Email	[REDACTED]				

# of Employees	185 (Vendor employees); 20 (client-interaction employees)	Public Sector (Y/N)?	Y	Project Name and Description	Illinois Integrated Eligibility System (IL IES), which is the Implementation of a modernized statewide integrated eligibility system (IES)
Date/Duration of Staff Involvement	Start (MM/YYYY)	01/2013	End (MM/YYYY)	04/2015	
Project Scope	Served as project manager for the IES, which implemented a modernized statewide IES for several programs operated by the Department of Healthcare and Family Services (HFS) and the Department of Human Services (DHS) of the State of Illinois. The programs focus on the medical programs benefiting individuals and households, as well as two key human services programs: Supplemental Nutrition Assistance Program (SNAP, formerly known as Food Stamps) and Cash Programs including Temporary Assistance for Needy Families CASH and Aid to Aged, Blind and Disabled. The work included overseeing data conversion from multiple legacy systems and all state and federal interfaces/data exchanges. Established strong working relationships with customer staff, providing guidance and expertise to make sure all customer requirements were met. Followed PMBOK and established project management processes for organizing, managing, controlling and reporting on the project.				
Staff Role on the Project	Project Manager (Chicago Location)				
REFERENCE 3					
Client Name	[REDACTED]				
Client Point of Contact	[REDACTED]				
Client Address	[REDACTED]				
Client Phone	[REDACTED]				
Client Email	[REDACTED]				
# of Employees	80 (Vendor employees); 10 (client-interaction employees)	Public Sector (Y/N)?	Y	Project Name and Description	New Mexico Unemployment Insurance Tax System Modernization Project (NM UITSM), which involved implementing a modernized Unemployment Tax System in New Mexico
Date/Duration of Staff Involvement	Start (MM/YYYY)	01/2011	End (MM/YYYY)	02/2012	

Project Scope	The system was implemented in two phases. The first phase included Employer Self Service functionality, which was implemented in February 2011. The second implementation phase covered the remaining core UI Tax functionality and the UI Claims functionality, which was implement in March 2012. The work included data conversation from multiple legacy sources and data synchronization between Phase 1 and Phase 2. As the PMO for the engagement, was responsible for supporting the project using established project management processes and best practices. Responsibilities included effective management of the project and project documentation and advising the customer on project management best practices and process improvements.	
Staff Role on the Project	PMO Manager	
INDIVIDUAL QUALIFICATIONS		
Certifications (if applicable)		
PMI/PMP	Member ID#: 1221470	
	Earned Date: 11/12/08	Expiration Date: 11/11/20
Other	Member ID#:	
	Earned Date:	Expiration Date:

Team Member Name:	[REDACTED]	
Description of Skill Sets and Experience	<ul style="list-style-type: none"> ■ 20 years of experience leading health care technology projects ■ 12 years of experience leading the implementation of enterprise solutions on technologies similar to those used in Arkansas ■ Eight years of experience implementing solutions of similar functional scope to Arkansas ■ Diverse domain experience in health care from payers, providers/clinical systems, ACA state exchanges, Medicare, and Medicaid ■ Core specialties include solution architecture, program and project management of systems integration projects, commercial off-the-shelf (COTS) implementations including extensive integration work with Cúram, custom development and enterprise-wide IT assessments ■ Experience in project management, solution architecture, core systems implementations, conversions, new product development, interface development, data management, business intelligence, infrastructure, IT operations support and security assessment management ■ Hands-on leadership with a record of successful engagements, which include organizational start-up, solution architecture, core systems implementations, conversions, new product development, interface 	

	development and data management ■ Served as project manager for an implementation team to develop an online Patient Care Opportunity Report Portal with Healthcare Effectiveness Data and Information Set (HEDIS)		
Proposed Project Role for RFP #: SP-17-0012	Integration Manager/Functional Lead	Subcontractor (Y/N)?	N
Years' Experience in Role:	15 plus		
REFERENCES			
REFERENCE 1			
Client Name	[REDACTED]		
Client Point of Contact	[REDACTED]		
Client Address	[REDACTED]		
Client Phone	[REDACTED]		
Client Email	[REDACTED]		
# of Employees	15	Public Sector (Y/N)?	Y Project Name Minnesota ACA Implementation, which involved working with Minnesota DHS and IT and Description to define the Medicaid Eligibility determination and plan selection process
Date/Duration of Staff Involvement	Start (MM/YYYY) 04/2012	End (MM/YYYY)	04/2014
Project Scope	As part of the Medicaid Eligibility and Plan Selection Solution for the State of Minnesota related to the ACA implementation, participated in discovery and business requirements activities of the eligibility process (FFS and Managed Care) for Medicaid members for the purposes of configuring into the rules engine. Managed expectations of the business units and led the product integrations between Cúram's eligibility determination software and Connecture's plan selection system. Responsible for the integration designs between Cúram's eligibility determination engine, Connecture's plan selection process and integrations into the State's MMIS system for purposes of eligibility determination and enrollment. Led joint application development (JAD) sessions with DHS and vendor representations to understand current and future eligibility requirements and processes.		
Staff Role on the Project	Program Lead		
REFERENCE 2			
Client Name	[REDACTED]		

Client Point of Contact	[REDACTED]		
Client Address	[REDACTED]		
Client Phone	[REDACTED]		
Client Email	[REDACTED]		
# of Employees	14	Public Sector (Y/N)?	Y Project Name and Description Encounter Submissions Project, which involved the assessment and remediation of the encounter submission process from DHS to a commercial payer
Date/Duration of Staff Involvement	Start (MM/YYYY)	01/2016	End (MM/YYYY) 03/2017
Project Scope	For the encounter submission process assessment and remediation, led the assessment of the business and technical integration processes from the DHS clinical systems, financial systems and data warehouse. The goal was to determine missing or incomplete encounters and validate the remediation aligned with State's quality requirements for Medicaid encounters. Worked with the customer and business units to understand the requirements and remediate the data warehouse scripts to provide clarity and resolution of encounter quality issues		
Staff Role on the Project	Program Lead and Solution Architect		
REFERENCE 3			
Client Name	[REDACTED]		
Client Point of Contact	[REDACTED]		
Client Address	[REDACTED]		
Client Phone	[REDACTED]		
Client Email	[REDACTED]		
# of Employees	15	Public Sector (Y/N)?	Y Project Name and Description MNsure Implementation, State health insurance exchange (HIX) implementation for the ACA
Date/Duration of Staff Involvement	Start (MM/YYYY)	04/2012	End (MM/YYYY) 04/2014
Project Scope	For the MNsure implementation, led the plan selection, rating engine and QHP plan management implementation. Integrated Cúram's eligibility determination engine with Connecture's plan selection, rating engine and plan		

	management solution. The project scope of work included integrating the plan selection process into the engagement's financial management system and enterprise service bus (integration layer).	
Staff Role on the Project	Program Lead	
INDIVIDUAL QUALIFICATIONS		
Certifications (if applicable)		
PMI/PMP	Member ID#:1439774	
	Earned Date: August 2011	Expiration Date: August 2020
Other	Member ID#:	
	Earned Date:	Expiration Date:

Team Member Name:	[REDACTED]	
Description of Skill Sets and Experience	<ul style="list-style-type: none"> ■ Training leader with 11 years of experience providing training services in the health care and academic fields ■ Eight years of experience as a training lead for projects similar in size and complexity to Arkansas ■ Experienced in the government space with an understanding of government program and policy requirements ■ Leads, develops and supports a team of divisional managers, client training managers and trainers ■ Validates adequate training resources are in place to deliver effective training for a variety of clients across the Optum organization ■ Partners with business leaders across the organization to implement new programs and interface with new and existing clients on both government and non-government accounts ■ Focuses on client satisfaction and training metric results in process improvement and continual business growth for the businesses supported ■ Works closely with senior leaders to develop new processes and procedures to provide structure and standardization 	
Proposed Project Role for RFP #: SP-17-0012	Training Lead	Subcontractor (Y/N)? N
Years' Experience in Role:	11	

REFERENCES	
REFERENCE 1	
Client Name	[REDACTED]
Client Point of Contact	[REDACTED]

Client Address	[REDACTED]		
Client Phone	[REDACTED]		
Client Email	[REDACTED]		
# of Employees	We employ 52 agents dedicated to the State of Massachusetts	Public Sector (Y/N)? Y	Project Name and Description Commonwealth of Massachusetts Training, which involves providing operational training to the onsite team
Date/Duration of Staff Involvement	Start (MM/YYYY) 03/2016	End (MM/YYYY)	Current Optum Engagement
Project Scope	As the training director for the Optum Operations Training team for the Commonwealth, oversees the development of curriculum and training material updates. Responsible for the deployment of training as needed by the Commonwealth and our operational partners. Provides full-time support of the training manager/lead. In this role, supported two separate Commonwealth of Massachusetts implementations across three sites. Partners with trainers to validate they are in place to develop and deliver training as needed based on client or operational needs, system updates and metric based needs. Served as part of the initial deployment of this account and the secondary deployment in October of 2016.		
Staff Role on the Project	Training Director		
REFERENCE 2			
Client Name	[REDACTED]		
Client Point of Contact	[REDACTED]		
Client Address	[REDACTED]		
Client Phone	[REDACTED]		
Client Email	[REDACTED]		
# of Employees	3,000-9,000	Public Sector (Y/N)? N	Project Name and Description: Medicare Open Enrollment and Welcome Season Ramps, which involved Sales and services training deployment in preparation for Medicare open enrollment and Welcome Season ramp
Date/Duration of Staff Involvement	Start (MM/YYYY) 03/2013	End (MM/YYYY)	04/2017

Project Scope	Led training for the sales and services training deployment in preparation for Medicare Open Enrollment and Welcome Season ramp up of 5,000-7,000 new agents on an annual basis. Oversaw a team of 11 training managers, 24 full-time trainers and 137 rotational specialist-trainers that supported more than 22 different clients across 12 different sites. Partnered with workforce management, workforce planning, talent acquisition, human capital and quality teams to verify deployment plans were in line with work force needs. Created end-to-end training process for new hires and conducted culture training for front-line leaders.		
Staff Role on the Project	Director of Training		
REFERENCE 3			
Client Name	[REDACTED]		
Client Point of Contact	[REDACTED]		
Client Address	[REDACTED]		
Client Phone	[REDACTED]		
Client Email	[REDACTED]		
# of Employees	Approx. 9,000	Public Sector (Y/N)? N	Project Name and Description [REDACTED]
Date/Duration of Staff Involvement	Start (MM/YYYY) 03/13	End (MM/YYYY) Current Optum Projects	
Project Scope	As associate training director, leads, develops and supports a team of divisional managers, client training managers and trainers. Verifies adequate training resources are in place to deliver effective training for a variety of clients across the Optum organization. Partners with business leaders across the organization to implement new programs and interface with new and existing clients on both government and non-government accounts.		
Staff Role on the Project	Associate Director of Training		
INDIVIDUAL QUALIFICATIONS			
Certifications (if applicable)			
PMI/PMP	Member ID#: N/A		
	Earned Date:	Expiration Date:	
Other	Member ID#:		
	Earned Date:	Expiration Date:	

Team Member Name:		[REDACTED]	
Description of Skill Sets and Experience		<ul style="list-style-type: none"> ■ Testing lead with more than eight years of software testing experience specializing in testing health care, telecommunication and e-commerce applications ■ More than five years of experience in test planning; test strategies; risk mitigation; test execution; UAT; integration and connectivity testing; 508 testing; test data management; defect management; defect tracking and reporting; testing SOAP/REST-based Web Services; verification of XML, electronic funds transfer (EFT), XPATH, X12, 820, 834, PSV files and experience in verification of Layer 7 implementation and Tivoli Workload Scheduler (TWS) jobs ■ Certified Scrum Master with four years of Scrum master experience, including experience leading and coaching multiple Scrum teams and applying best practices for Agile development ■ Experience managing and leading a staff of 15 testers ■ Specializes in backlog grooming, iteration planning, tracking team velocity, and burn down charts for teams ■ Skilled in different Agile methodologies and approaches, including Extreme Programming, Test-Driven Development and Scrumban ■ Led the systems connectivity and integration testing of the Data Services Hub (DSH) with Federally Facilitated Marketplace (FFM) and other government agencies like the Social Security Administration (SSA) and the Department of Human Services (DHS) ■ Background includes testing applications built in a 2-tier, 3-tier, and Service Oriented Architecture (SOA) environment 	
Proposed Project Role for RFP #: SP-17-0012	Testing Lead	Subcontractor (Y/N)?	N
Years' Experience in Role:	5		
REFERENCES			
REFERENCE 1			
Client Name	[REDACTED]		
Client Point of Contact	[REDACTED]		
Client Address	[REDACTED]		
Client Phone	[REDACTED]		
Client Email	[REDACTED]		

# of Employees	180	Public Sector (Y/N)?	Y Project Name and Description: Data Services Hub (DSH), which provides an single interface point for the State based Exchanges to all federal agency partners, and provide common functional service support
Date/Duration of Staff Involvement	Start (MM/YYYY) 02/2012	End (MM/YYYY) 02/2016	
Project Scope	<p>To build the technical solution and support the operations of the DSH that serves the needs as described within the ACA, enables consumers to obtain affordable health care coverage, and allows employers to offer health care coverage to their employees. The DSH requirements support common services and provide a common interface to federal agency information. Responsibilities included:</p> <ul style="list-style-type: none"> ■ Design, development, implementation, and delivery of the eligibility and enrollment, plan management, and financial management Hub services ■ Lead the Performance and delivery of DSH nationwide integration testing and training as necessary for stakeholders including federal partner agencies, states, U.S. territories, and third parties (e.g., brokers and issuers) ■ Provide technical support during the course of the development of Exchanges and the interactions required with the DSH ■ Support troubleshooting and tracking issues to resolution ■ Lead the testing and validation efforts of all major and minor releases prior to completing implementation ■ Perform unit, functional, integration and UAT testing of all functional deliverables ■ Coordinate test plan, test schedule and processes for integration testing internal to the DSH and externally with all relevant DSH stakeholders ■ Serve as primary point of contact for coordinating the state integration and UAT testing efforts between exchanges and federal agencies. ■ Established state IT profiles, stage gate reviews, design reviews, implementation support, integration/interface support with the FX, SBE, and Medicaid/CHIP systems, test plan reviews and testing support, and other related application life-cycle activities ■ Provide maintenance and operations M&O support of the DSH systems ■ Lead the testing support for deployed Electronic Data Interchange (EDI), Electronic File Transfer (EFT), Tivoli Workload Scheduler (TWS) products, and Mark Logic functionality 		
Staff Role on the Project	IT Specialist – Division of Project Management & Governance (DPMG), Rapid Program Deployment Group (RPDG), and Office of Technology Solutions (OTS)		

REFERENCE 2			
Client Name	[REDACTED]		
Client Point of Contact	[REDACTED]		
Client Address	[REDACTED]		
Client Phone	[REDACTED]		
Client Email	[REDACTED]		
# of Employees	180	Public Sector (Y/N)?	Y
Project Name and Description	Data Services Hub (DSH), which provides a single interface point for the State-based exchanges to all federal agency partners, and provide common functional service support		
Date/Duration of Staff Involvement	Start (MM/YYYY)	03/2013	End (MM/YYYY) 10/2016
Project Scope	<p>To build the technical solution and support the operations of the DSH that serves the needs as described within the ACA, enables consumers to obtain affordable health care coverage, and allows employers to offer health care coverage to their employees. The DSH requirements support common services and provide a common interface to federal agency information. Responsibilities included:</p> <ul style="list-style-type: none"> ■ Design, development, implementation and delivery of the eligibility and enrollment, plan management, and financial management Hub services ■ Lead the performance and delivery of DSH nationwide integration testing and training as necessary for stakeholders including federal partner agencies, states, U.S. territories and third parties (e.g., brokers and issuers) ■ Provide technical support during the course of the development of Exchanges and the interactions required with the DSH ■ Support troubleshooting and tracking issues to resolution ■ Lead the testing and validation efforts of all major and minor releases prior to completing implementation ■ Perform unit, functional, integration and UAT testing of all functional deliverables ■ Coordinate test plan, test schedule and processes for integration testing internal to the DSH and externally with all relevant DSH stakeholders ■ Serve as primary point of contact for coordinating the state integration and UAT testing efforts between exchanges and federal agencies. ■ Established state IT profiles, stage gate reviews, design reviews, implementation support, integration/interface support with the FX, SBE, and Medicaid/CHIP systems, test plan reviews and testing support, and other related application life-cycle activities 		

	<ul style="list-style-type: none"> ■ Provide maintenance and operations M&O support of the DSH systems ■ Lead the testing support for deployed Electronic Data Interchange (EDI), Electronic File Transfer (EFT), Tivoli Workload Scheduler (TWS) products, and Mark Logic functionality 		
Staff Role on the Project	State Testing Government Task Lead, Division of Office of Technology Solutions (OTS) and Rapid Program Deployments Group (RPDG)		
REFERENCE 3			
Client Name	[REDACTED]		
Client Point of Contact	[REDACTED]		
Client Address	[REDACTED]		
Client Phone	[REDACTED]		
Client Email	[REDACTED]		
# of Employees	180	Public Sector (Y/N)?	Y
Project Name and Description	Data Services Hub, which provides a single interface point for the State based Exchanges to all federal agency partners, and provide common functional service support		
Date/Duration of Staff Involvement	Start (MM/YYYY)	06/2016	End (MM/YYYY) Current Optum Project
Project Scope	<p>To build the technical solution and support the operations of the DSH that serves the needs as described within the ACA, enables consumers to obtain affordable health care coverage, and allows employers to offer health care coverage to their employees. The DSH requirements support common services and provide a common interface to federal agency information. Responsibilities include:</p> <ul style="list-style-type: none"> ■ Design, development, implementation and delivery of the eligibility and enrollment, plan management, and financial management Hub services ■ Lead the performance and delivery of DSH nationwide integration testing and training as necessary for stakeholders including federal partner agencies, states, U.S. territories and third parties (e.g., brokers and issuers) ■ Provide technical support during the course of the development of Exchanges and the interactions required with the DSH ■ Support troubleshooting and tracking issues to resolution ■ Lead the testing and validation efforts of all major and minor releases prior to completing implementation ■ Perform unit, functional, integration and UAT testing of all functional deliverables ■ Coordinate test plan, test schedule and processes for integration testing internal to the DSH and externally with all relevant DSH stakeholders 		

	<ul style="list-style-type: none"> ■ Serve as primary point of contact for coordinating the state integration and UAT testing efforts between exchanges and federal agencies. ■ Established state IT profiles, stage gate reviews, design reviews, implementation support, integration/interface support with the FX, SBE, and Medicaid/CHIP systems, test plan reviews and testing support, and other related application life-cycle activities ■ Provide maintenance and operations M&O support of the DSH systems ■ Lead the testing support for deployed EDI, EFT, TWS products, and Mark Logic functionality
Staff Role on the Project	Independent and State Testing Government Task Lead - Division of Center for Consumer Information and Insurance Oversight (CCIO), Marketplace Information Technology Group (MITG), Division of Marketplace IT Operations (DMITO)
INDIVIDUAL QUALIFICATIONS	
Certifications (if applicable)	
PMI/PMP	Member ID#: N/A
	Earned Date: Expiration Date:
Other	Certified SAFe Agilist
	Earned Date: 10/23/2014 Expiration Date: 10/23/2017
Other	Certified Scrum Master
	Earned Date: 01/29/2013 Expiration Date: 01/29/2018

Team Member Name:	[REDACTED]
Description of Skill Sets and Experience	<ul style="list-style-type: none"> ■ More than 20 years of health care management and leadership experience in system selections, systems engineering, custom software development, software package implementation, systems integration, reporting, operations, and general project management ■ 20 years of experience as a technical lead on complex projects ■ 14 years of experience in management and architecting and designing enterprise solutions ■ Coordinates multiple projects to define requirements, solution development, and support quality assurance (QA) and testing activities both payer and provider markets with multiple years of experience in each domain ■ Contributes to systems and software selection for solutions, including performing features comparison analysis ■ Develops and manages technical teams focused on designing and implementing creative solutions to complex technical problems ■ Experience managing system integration for HL7, NCPDP pharmacy claims and X12 health care and materials

	management transactions	
	<ul style="list-style-type: none"> ■ Knowledgeable in Agile, waterfall, electronic health records (EHRs)/electronic medical records (EMRs), HIPAA, HP Quality Center, SDLC and Six Sigma 	
Proposed Project Role for RFP #: SP-17-0012	Technical Lead	Subcontractor (Y/N)? N
Years' Experience in Role:	14	

REFERENCES

REFERENCE 1

Client Name	[REDACTED]
Client Point of Contact	[REDACTED]
Client Address	[REDACTED]
Client Phone	[REDACTED]
Client Email	[REDACTED]

# of Employees	200 plus	Public Sector (Y/N)?	N	Project Name and Description	Harken Health – Implementation of new Health Plan in two major cities
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Date/Duration of Staff Involvement	Start (MM/YYYY)	04/2015	End (MM/YYYY)	02/2016
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Project Scope	Responsible for implementing a new health plan in major cities. Duties included: <ul style="list-style-type: none"> ■ Developing interface documentation template for all integration points ■ Reviewing documentation for all integration prior to implementation ■ Helping test developed interfaces to validate they met specification requirements ■ Negotiating design elements between internal departments and external vendors ■ Overseeing team of analysts and was responsible for timely, quality deliverables
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Staff Role on the Project	Manager of Integration Team
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REFERENCE 2

Client Name	[REDACTED]
Client Point of Contact	[REDACTED]
Client Address	[REDACTED]
Client Phone	[REDACTED]
Client Email	[REDACTED]

# of Employees	100+	Public Sector (Y/N)?	N	Project Name and Description	Venus Project – Implementation of new Health Plan in two major cities
Date/Duration of Staff Involvement	Start (MM/YYYY)	04/2015	End (MM/YYYY)	02/2016	
Project Scope	As in the Harken Health project, responsible for implementing a new health plan in major cities. Duties included: <ul style="list-style-type: none"> ■ Developing interface documentation template for all integration points ■ Reviewing documentation for all integration prior to implementation ■ Helping test developed interfaces to validate they met specification requirements ■ Negotiating design elements between internal departments and external vendors ■ Overseeing team of analysts and was responsible for timely, quality deliverables 				
Staff Role on the Project	Manager of Integration Team				
REFERENCE 3					
Client Name	[REDACTED]				
Client Point of Contact	[REDACTED]				
Client Address	[REDACTED]				
Client Phone	[REDACTED]				
Client Email	[REDACTED]				
# of Employees	500+	Public Sector (Y/N)?	N	Project Name and Description	ConnectiCare – Migrate Medicare population from Q-Care to Amisys
Date/Duration of Staff Involvement	Start (MM/YYYY)	08/2016	End (MM/YYYY)	12/2016	
Project Scope	For the migration of the Medicare population from Q-Care to Amisys, he was responsible for: <ul style="list-style-type: none"> ■ Resolving design issues and documented solutions for issues encountered during implementation ■ Establishing policies and procedures for documenting design issues and solution alternatives ■ Finalizing the solution ■ Serving as integration lead and release manager for claims processing release ■ Serving as technical lead for pharmacy benefit management (PBM) implementation 				

Staff Role on the Project	Technical Architect, Integration Lead, Release Manager, PBM Technical Lead	
INDIVIDUAL QUALIFICATIONS		
Certifications (if applicable)		
PMI/PMP	Member ID#:614618	
	Earned Date:9/15/2005	Expiration Date:9/15/2018
Other	Member ID#:	
	Earned Date:	Expiration Date:
Other	Member ID#:	
	Earned Date:	Expiration Date:

Team Member Name:	[REDACTED]	
Description of Skill Sets and Experience	<ul style="list-style-type: none"> ■ Security professional with more than 30 years of experience in the health care industry ■ More than 10 years of direct experience focused on information security management ■ Primary areas of expertise include contracting, vendor management, disaster recovery, acquisition integration, risk and compliance assessments, consulting, policy review and creation, risk mitigation, architecture reviews, and security awareness activities ■ Responsible for the day-to-day operation of the information risk management program ■ Provides support of information security processes and programs ■ Functions as a central point of contact for security process issues and questions ■ Validates company personnel (business and IT) understand information security and risk processes and procedures ■ Holds CISSP, CISM, CISA, CRISC and CIPP/US certifications 	
Proposed Project Role for RFP #: SP-17-0012	Security Expert	Subcontractor (Y/N)? N
Years' Experience in Role:	11	

REFERENCES	
REFERENCE 1	
Client Name	[REDACTED]
Client Point of Contact	[REDACTED]
Client Address	[REDACTED]

Client Phone	[REDACTED]		
Client Email	[REDACTED]		
# of Employees	100 plus	Public Sector (Y/N)? N	Project Name and Description Acquisition Integration of a business with more than 10,000 employees
Date/Duration of Staff Involvement	Start (MM/YYYY) 01/2014	End (MM/YYYY) 04/2017	
Project Scope	<p>Project involved security integration to external systems and implementation of internal systems to establish a common security approach for an acquired company of more than 10,000 employees. This is experience is relative to the State of Arkansas as we will use a similar approach for integrating with you to meet your security requirements. Responsible for security management, oversight, and integration that included:</p> <ul style="list-style-type: none"> ■ Management of acquired entity security personnel and functions, which included: <ul style="list-style-type: none"> ○ Incident response ○ Compliance ○ Logging and monitoring of security activities ○ Security baselines and vulnerability scanning ■ Oversaw the development of security documentation ■ Participated in security risk assessment and prioritization ■ Coordinated security activities with internal audit and investigative requests ■ Participated in exception analysis and review ■ Contributed to corrective actions and remediation management (technology, process, people) ■ Served as stakeholder during integration/migration phases ■ Led integration of all security functions into enterprise standards and processes 		
Staff Role on the Project	Information Security Advisor		
REFERENCE 2			
Client Name	[REDACTED]		
Client Point of Contact	[REDACTED]		
Client Address	[REDACTED]		
Client Phone	[REDACTED]		
Client Email	[REDACTED]		

# of Employees	20 plus	Public Sector (Y/N)?	N	Project Name and Description	Acquisition integration of a business with more than 5,000 employees
Date/Duration of Staff Involvement	Start (MM/YYYY)	09/2016	End (MM/YYYY)	Current Optum Project	
Project Scope	Project involved security integration to external systems and implementation of internal systems with a common security approach of an acquired company of more than 5,000 employees. Responsible for security management, oversight, and integration that included: <ul style="list-style-type: none"> ■ Security risk assessment and prioritization ■ Implementation and standardization of security policies to our enterprise policies, as will be required for the State of Arkansas to comply with your standard security policies ■ Coordination of security activities with internal audit and investigative requests ■ Exception analysis and review ■ Participating in corrective actions and remediation management (technology, process, people) ■ Serving as stakeholder during integration/migration phases 				
Staff Role on the Project	Information Security Advisor				
REFERENCE 3					
Client Name	[REDACTED]				
Client Point of Contact	[REDACTED]				
Client Address	[REDACTED]				
Client Phone	[REDACTED]				
Client Email	[REDACTED]				
# of Employees	20 plus	Public Sector (Y/N)?	N	Project Name and Description	Information Security Advisor on various projects
Date/Duration of Staff Involvement	Start (MM/YYYY)	2005	End (MM/YYYY)	Current Optum Project	
Project Scope	Serves as information security advisor to multiple business segments comprising multiple distinct business units in support of various projects. As will be required for the State of Arkansas, engaged in the following security activities: <ul style="list-style-type: none"> ■ Risk assessments ■ Architecture and compliance reviews ■ Remediation oversight 				

	<ul style="list-style-type: none"> ■ Consulting ■ Monitoring ■ Contract and RFP review, response, redline ■ Vendor due diligence escalations ■ Special projects ■ Escalation point ■ Security status report to leadership
Staff Role on the Project	Information Security Advisor

INDIVIDUAL QUALIFICATIONS		
Certifications (if applicable)		
CISSP	Member ID#:361253	
	Earned Date: 2010	Expiration Date: February 2019
CISM	Member ID#:1013961	
	Earned Date: 2010	Expiration Date: Annual
CISA	Member ID#:1087409	
	Earned Date: 2010	Expiration Date: Annual
CRISC	Member ID#:1112146	
	Earned Date: 2011	Expiration Date: Annual
CIPP/US	Member ID#:912911	
	Earned Date: 2011	Expiration Date: Annual

Team Member Name:	[REDACTED]
Description of Skill Sets and Experience	<ul style="list-style-type: none"> ■ IT executive with more than 20 years of IT management experience ■ 18 years of experience in the health care industry ■ Areas of focus include maintenance and operations (M&O), program management, project planning, portfolio management, and client relationship management ■ Responsible for application operations and maintenance for the Massachusetts Health Insurance Exchange (HIX) Information Technology ■ Leads IT staff in supporting the exchange's application and hosting ■ Supports and follows industry standards that include the Project Management Body of Knowledge (PMBOK), Software Engineering Institute Capability Maturity Model (SEI CMM), and the IT Infrastructure Library/IT Service Management (ITIL/ITSM) ■ Skilled in best practices for Strategic Implementation Planning (SIP), Business Continuity Planning (BCP), Project Management Office (PMO) operations, process

	improvement planning, software business analysis, and system integration ■ Establishes and baselines key performance metrics and manages to service level agreements (SLAs)		
Proposed Project Role for RFP #: SP-17-0012	Operations Manager	Subcontractor (Y/N)?	No
Years' Experience in Role:	15		
REFERENCES			
REFERENCE 1			
Client Name	[REDACTED]		
Client Point of Contact	[REDACTED]		
Client Address	[REDACTED]		
Client Phone	[REDACTED]		
Client Email	[REDACTED]		
# of Employees	55 (Optum Employees/Contractor); 20 (client employees)	Public Sector (Y/N)?	Y
Project Name and Description	MAHIX Massachusetts Healthcare Exchange hosting and operations and maintenance The project is for the healthcare exchange in MA with connections to ConnectedCare and MASSHealth MMIS		
Date/Duration of Staff Involvement	Start (MM/YYYY) 4/5/2016	End (MM/YYYY)	Current Optum Project
Project Scope	Massachusetts Health care exchange <ul style="list-style-type: none"> • Operations and maintenance leader, responsible for infrastructure hosting and break-fix application maintenance. • Team size: 55 employees and contractors • Responsible for AOM (Applications Operations Management), and managing within State of MA specified service level agreements • Management of the State of MA Healthcare Exchange Enrollment Applications in order to provide healthcare insurance for the State of MA constituents 		
Staff Role on the Project	Leader of Maintenance and Operations		

REFERENCE 2			
Client Name	[REDACTED]		
Client Point of Contact	[REDACTED]		
Client Address	[REDACTED]		
Client Phone	[REDACTED]		
Client Email	[REDACTED]		
# of Employees	200 (total Optum Employees/contractors); 20 (Client employees)	Public Sector (Y/N)? N	Project Name and Description Pharmacy applications, which involved production support for pharmacy claims applications and home delivery pharmacy
Date/Duration of Staff Involvement	Start (MM/YYYY) 02/2012	End (MM/YYYY) 03/2016	
Project Scope	<p>Served as point of contact with the customer for M&O activities. Met with State staff and stakeholders, as needed, to maintain close working relationship and collaborate on project activities. Provided direction for pharmacy application project work, which involved production support for pharmacy claims applications and home delivery pharmacy. Activities included:</p> <ul style="list-style-type: none"> ■ Established dedicated production support organization in order to in-source pharmacy services within UnitedHealth Group ■ Responsible for application operations for more than 30 pharmacy services ■ Oversaw the management of claims processing platforms, data warehouse platforms, and mail order fulfillment applications ■ Validated pharmacy applications were used to provide pharmacy benefits to UnitedHealthcare members and stand-alone pharmacy benefits 		
Staff Role on the Project	Sr. Director Operations and Maintenance		
REFERENCE 3			
Client Name	[REDACTED]		
Client Point of Contact	[REDACTED]		
Client Address	[REDACTED]		
Client Phone	[REDACTED]		
Client Email	[REDACTED]		

# of Employees	250(Optum Employees/Contractors); 50 (Client employees)	Public Sector (Y/N)?	N	Project Name and Description	Portal and Constituent Services, which involved M&O activities for applications
Date/Duration of Staff Involvement	Start (MM/YYYY)	12/2007	End (MM/YYYY)	02/2012	
Project Scope	Oversaw the M&O activities for Portal and Constituent Services, which involved M&O activities for applications for the UHG external portal application, UHC call center applications, and Optum call center applications. The support provided included the following activities: <ul style="list-style-type: none"> ■ Management of 250 employees and contractors ■ Management of applications and maintenance for constituent external portals ■ Providing self-service for UHG members, providers, brokers ■ Call center applications utilized across major UHG and Optum Enterprise 				
Staff Role on the Project	Sr. Director Operations and Maintenance				
INDIVIDUAL QUALIFICATIONS					
Certifications (if applicable)					
PMI/PMP	Member ID#: N/A				
	Earned Date:		Expiration Date:		
Other	Member ID#:				
	Earned Date:		Expiration Date:		

Team Member Name:	[REDACTED]
Description of Skill Sets and Experience	<ul style="list-style-type: none"> ■ Lead Solution Architect for the integrated eligibility (IE) solution product that will be implemented in the State of Arkansas ■ Trained in The Open Group Architecture Framework (TOGAF), an industry leading architecture framework ■ More than 26 years of experience in software engineering, including more than 15 years architecting and designing enterprise solutions and more than 11 years in health care, medical insurance and health and human services ■ Maintains architecture skills that are capability focused and business driven ■ Experienced establishing technology standards and governance practice ■ Skilled and knowledgeable in data modeling, Unified Modeling Language (UML) modeling, role design, system integration, and integration patterns,

	<ul style="list-style-type: none"> ■ Collaborates with delivery teams, product management, and business leaders to create strategic architecture designs and road maps ■ Maintains effective communication skills to interact with all levels and departments, from executive management to developers, and from business to technical teams 	
Proposed Project Role for RFP #: SP-17-0012	Architect Lead	Subcontractor (Y/N)? N
Years' Experience in Role:	13 years	

REFERENCES

REFERENCE 1

Client Name	[REDACTED]		
Client Point of Contact	[REDACTED]		
Client Address	[REDACTED]		
Client Phone	[REDACTED]		
Client Email	[REDACTED]		
# of Employees	100	Public Sector (Y/N)? Y	Project Name and Description Integrated Eligibility, Social Determinates of Health (SDoH) Platform (myConnections), Core Admin BPO
Date/Duration of Staff Involvement	Start (MM/YYYY) 05/2011	End (MM/YYYY)	Current Optum Project
Project Scope	Serves as the lead solution architect for the IE solution product that will be implemented in the State of Arkansas. Scope and responsibility includes the basic building blocks of the solution, data model, systems integration and user interface presentation layers, which are key requirements for the State of Arkansas. Oversees the overall design for the Social Determinates of Health platform. This experience will be vital in providing an exemplary IE solution for the State of Arkansas. Serves as the solution architect for many "ready-for-market" products, providing stability and usability for both the public and internal staff users.		
Staff Role on the Project	Solution Architect		

REFERENCE 2

Client Name	[REDACTED]		
Client Point of Contact	[REDACTED]		
Client Address	[REDACTED]		
Client Phone	[REDACTED]		

Client Email	[REDACTED]		
# of Employees	300	Public Sector (Y/N)?	N
Project Name and Description	Core Administration for Government Claim Processing		
Date/Duration of Staff Involvement	Start (MM/YYYY)	11/2010	End (MM/YYYY) 05/2011
Project Scope	As the solution architect for the Core Administration Claim Processing platform, oversaw the basic building blocks of the solution, data model, systems integration and user interface presentation layers, which are key requirements for the State of Arkansas.		
Staff Role on the Project	Solution Architect		
REFERENCE 3			
Client Name	[REDACTED]		
Client Point of Contact	[REDACTED]		
Client Address	[REDACTED]		
Client Phone	[REDACTED]		
Client Email	[REDACTED]		
# of Employees	30	Public Sector (Y/N)?	N
Project Name and Description	Core Administration for Commercial Claim Processing		
Date/Duration of Staff Involvement	Start (MM/YYYY)	06/2006	End (MM/YYYY) 11/2010
Project Scope	As the solution architect for the Core Administration Claim Processing and Claim Payments platform, oversaw the basic building blocks of the solution, data model, systems integration and user interface presentation layers, which are key requirements for the State of Arkansas.		
Staff Role on the Project	Solution Architect		
INDIVIDUAL QUALIFICATIONS			
Certifications (if applicable)			
PMI/PMP	Member ID#: N/A		
	Earned Date:	Expiration Date:	
The Open Group Architecture Framework	Member ID#:		
	Earned Date: Coursework complete/Test pending	Expiration Date: N/A	

2.0 Resumes

The Vendor should attach professional resumes of all proposed Key Personnel to this section of the Proposal.

Each resume should demonstrate experience germane to the position proposed. The resume should include work on projects cited under the Vendor's corporate experience, and the specific functions performed on such projects.

Instructions: Provide a resume for each proposed Key Personnel.

Our success on the AR IE-BM Project will rely on our ability to effectively mobilize the right team of skilled staff. Our proposed key staff has extensive business and technical experience in the complete life cycle of government and commercial implementations. This helps reduce project risk. The resumes we provide in this response demonstrate that our proposed key personnel have the skills and experience required to deliver your AR IE-BM Solution on time and within budget. Please refer to the end of this section for our key personnel resumes.

3.0 Collaboration

Instructions: Provide evidence that the Vendor's proposed team (including subcontractor(s), if proposed) has a proven track record of successfully collaborating in a similar environment to the environment outlined in the RFP. This should include experiences working with a team to improve maintenance and operations efficiency and effectiveness. Describe how the Vendor (including subcontractor(s)) will ensure that the proposed team will achieve the required team dynamics.

A key tenet of Optum culture is our relationships. Long-standing and positive customer relationships within a collaborative environment are important to us. In fact, many of our Medicaid and HHS customers are long-term collaborations. They rely on us for our comprehensive Medicaid program experience and operational efficiency in order to help their programs provide the highest level of service to their stakeholders.

Our relationship with the California Department of Health Care Services (DHCS) is a good example of our record of successful collaboration in an environment similar to the AR IE-BM project. We have provided IT services, along with M&O, for DHCS since February 2007. We have worked with DHCS to successfully operate and improve the California Management Information System/Decision Support System. This is the largest Medicaid/CHIP data warehouse in the nation by membership, with more than 10 million members enrolled in 2016. DHCS has exercised its option to extend our contract two times in order to keep us working as a trusted collaborator in administering its Medicaid program.

As your chosen vendor, we will approach your business in a way that fosters and promotes an environment of trust, transparency, cohesiveness, and collaboration. Our experience has taught us that every successful project is built on communication and listening. To build the foundation of a long-term collaboration to support you and enhance our mutual effectiveness as team, we will focus on the following key areas.

Communicate expectations. You have communicated your business issues, goals and expectations to us. Once we are awarded your business, we will have a project kickoff meeting

to reinforce those expectations. We will include our extended team along with your team. Jointly, we will provide a clear overview of the project, the associated deliverables, and expectations. We will make it evident that collaboration is a key to our common success.

Set team goals. Another essential component to our success is establishing goals and milestones for our team—both individual and collaborative team goals. Once we communicate our expectations, we will establish goals that align to your Key Performance Indicators (KPIs) and contractual milestones. We will post and track these goals for your team and Optum team members to view. This will help the team define an identity by working toward a common vision and outcomes. We have found this approach establishes a true collaborative team instead of several independent individuals merely supporting a project.

Foster a creative atmosphere. A major reason for our success comes from encouraging great ideas from our teams. In the pursuit of creativity and innovation, we have found that establishing an environment that allows for team members to speak freely promotes concrete ideas that solve problems. Our collective teams are recognized for that creativity and doing so in a collaborative setting. We have found this approach promotes energy within the team that is utilized to achieve our goals in the most effective way possible.

Build project and team cohesion. Our experience has shown us that when we communicate expectations, set goals and allow team members to be creative, they work together and rely on one another. We have found it is important to have ongoing team-building activities to support the team and their efforts. By enabling this collaborative process in a setting outside the normal office work environment, team members work together more effectively and learn to rely on each other. These activities also serve as an opportunity to reinforce how value each individual's effort contributes to the overall team. Finally, team collaboration increases and improves when team members have an opportunity to learn about individual strengths and gaps.

Leverage team member strengths. We have assembled a strong team to support your initiatives. Our team is made up of Optum and Connvertex employees who will interact together and learn from each other as we perform your implementation and M&O deliverables. Our structure promotes the development of our team not only through various training opportunities about your business but also through mentoring and learning from each other. We have hand-selected individuals that complement each other to field a true team. Finally, we have assembled our Optum Advisory Committee with knowledgeable experts, enabling ideas, knowledge, and insight to flow from the highest levels of our organization into the various teams supporting you directly. In addition to being long-term highly experienced individuals in their particular areas within HHS, the members of the Optum Advisory Council fully support our collaborative efforts. They can call upon both their personal expertise and their network of professionals within Optum to facilitate our success on this project.

We reinforce these ideas throughout our enterprise. The Optum Cultural Values—integrity, compassion, relationships, innovation and performance—enable strong collaboration, building on these common themes. Culture workshops, our culture ambassador program, numerous webinars throughout the year, and ad hoc meetings in facilities all over our corporate landscape strengthen and broaden these values.

Our collaborative work actually began with this proposal. We brought together subject matter experts from across the organization to fully comprehend and develop our response to your requirements. As just one example of how we have collaborated, the security, compliance, privacy, and application teams partnered to validate that proposed solutions are secured to corporate, customer, and regulatory standards, policies, and requirements. The development

life cycle process requires continued teaming and collaboration through the implementation phase to perform performance, compliance and vulnerability testing. Post implementation, continuous monitoring, risk assessments, vulnerability scanning and remediation require the engagement of the same teams to verify ongoing security and compliance, and that impact analysis and change control are performed in advance of any proposed changes.

Optum has more than two decades of experience in delivering complex implementations for our customers, many of which have involved multiple vendors. Our goal is to cultivate a collaborative environment with all stakeholders, including subcontractors. As the current Arkansas data warehouse vendor, we will bring our knowledge, experience and understanding of your culture, values, programs and goals to the AR IE-BM Project. This will help lessen the learning curve found with any new relationship and allow us to establish a working collaboration with you earlier than other vendors might be able to accomplish. Open and transparent communication is the cornerstone of project success for the Arkansas data warehouse project and will be for the AR IE-BM Project as well. We understand the challenges of inter-department and inter-vendor coordination, and we have adapted our project management processes to include best practices for these exact situations.

In a multi-stakeholder environment like yours, we understand tasks often require participation from multiple groups. Our team will work with you to establish procedures for collaboration and communication during project planning, which is critical for project success. Our staff has extensive experience working with clients and stakeholders to foster open communications, a spirit of cooperation and a positive working environment.

All our eligibility projects have been successfully delivered by collaborative, multi-vendor teams.

Optum has established strong working relationships with the vendors our customers often engage. For example, we have worked with Xerox and Cognosante in multiple states and DXC (previously Hewlett Packard Enterprise Services) in Arkansas and Indiana. Our collaborative relationships with other vendors have resulted in us receiving work based on their recommendations, including from IV&V vendors who do not have conflicts of interest in the areas of work. State government clients appear to regard these references as unbiased opinions. When we implemented the Indiana data warehouse, Cognosante was the IV&V vendor for the project. Cognosante was so impressed with our implementation work that they recommended us for a MARS project in New York, which we were ultimately awarded.

While we believe that our culture, experience and background make us uniquely qualified in our space, this is really not meaningful without results. Below are just a few relevant examples of success stories in which our team has been involved.

Engagement Director/Executive [REDACTED] has more than 20 years of experience directing client engagements, building collaborative relationships within and across teams, and influencing program stakeholders and thought leaders through keen insights and proactive advocacy. He has led client engagements at 16 different federal and state agencies across 15 states, most recently leading a portfolio of 10 private sector payer clients. Each engagement and client has had unique requirements and involved exceptional problem solving, analytical, communication and listening skills that he will leverage on the AR IE-BM. Steve prides himself on establishing a unified engagement mission and vision between his clients and teams, honing that vision over time, and then executing flawlessly to ultimately achieve success for his clients.

Project Manager [REDACTED] has more than 20 years of experience working collaboratively across teams, customers and vendors. In his engagement director and advisor work for public sector clients, such as the West Virginia IE M&O project, he routinely establishes

close relationship with State staff, department staff and vendors. He routinely works with these different teams and stakeholders to complete project work, address issues, and meet project objectives through close collaboration and communication.

Technical Lead [REDACTED] experience with integration always has him working with multiple vendor teams and business groups within the client’s business. He has led vendor teams and blended teams with the client. For each engagement, he builds consensus and establishes open dialog to work through issues and collaborate successfully on the project.

Testing Lead [REDACTED] has worked for approximately five years as a test lead of the DHS Test Team. In this role, he has provided test support services to State Marketplaces (SBMs) and Federally Facilitated Marketplaces (FFMs), working collaboratively with CMS, Trusted Data Sources (TDSs), SBMs, and FFMs to coordinate time-sensitive test activities. Many of these collaborations spanned the entire life cycle of the project, requiring him to work closely with each during test planning, test execution, troubleshooting, tracking defects to resolution, and test reporting for successful project completion.

Training Lead [REDACTED] partners extensively with both internal Optum departments and the client base to make sure training plans are aligned with the customer workforce needs—no more and no less. [REDACTED] takes into account the different levels of training required by a client team, which can often vary considerably. She works directly with trainers who deliver the training sessions and provide the training artifacts.

Key Personnel Resumes

AR IE-BM Engagement Director/Executive

Experience Summary

██████████ is a PMP-certified vice president at Optum responsible for foundation health care payer clients and the development and delivery of transformational technology solutions. His focus is managing and delivering large-scale technology initiatives in the federal, state, and private sectors. ██████████ has led client engagements at 16 different federal and state agencies across 15 states, and has most recently lead a portfolio of 10 private sector clients. He has four years of integrated eligibility experience and extensive experience with Medicaid Management Information Systems (MMIS). Additionally, at Accenture he served as the subject matter expert for the Idaho Modified Adjusted Gross Income (MAGI) Medicaid eligibility rules engine, and oversaw the system enhancements required to upgrade the eligibility system to handle health care reform changes.

For the North Carolina NC FAST Medicaid Eligibility System, ██████████ managed the replacement of the legacy case management and eligibility systems that administer public assistance benefits to North Carolina citizens. For the new system, the State selected Curam software for case management and eligibility. ██████████ exceeds the RFP requirements for this position and has:

- More than 20 years of direct project oversight and authority over ongoing relationships with clients where the firm has implemented enterprise solutions and in excess of \$10 million
- Managed a DDI project and transition to an ongoing M&O in a similar environment for Kentucky
- Managed integrated eligibility accounts that included both DDI for North Carolina
- More than 20 years of relevant experience in professional services, development, client support and project management

██████████ demonstrates effective leadership of multi-disciplined teams and complex stakeholder groups. He is knowledgeable in the full system development life cycle in enterprise-wide IT environments. His background includes initiating innovative program management organizations using repeatable design to achieve high efficiency. He produces and presents compelling written and oral executive-level communications and works to generate improved business performance for customer projects.

Work Experience

Vice President – Client Engagement, Optum Global Solutions and Optum Connect, Texas and Minnesota, 2014-Present

- Client executive responsible for foundation health care payer clients and the development and delivery of transformational technology solutions
- Manages internal and external partner relationships to develop, implement and operate efficient, high-quality solutions, leveraging global workforce across India, the Philippines, and the U.S.
- Responsible for translating prospective client business requirements into pragmatic, value-based solutions using a broad set of product offerings and people resources
- Responsible for developing the client engagement organization, including business process, organizational design, recruitment of internal and external resources, stakeholder engagement and communication, team management, and adoption across the enterprise

Accenture, Texas, Kentucky, Washington, D.C., 1998–2014

Senior Executive, Accenture Health Insurance Exchange (HIX)

- Developed a software strategy for a HIX product and the successful technology solution delivery of product releases
- Provided leadership to differentiate the company's competitive position in the HIX marketplace; ongoing alignment with the global Accenture Software foundational programs
- Responsible for a \$10 million budget and more than 100 resources

Senior Executive, Public Service Practice

- Responsible for the sale and delivery of technology transformation programs

- Served as the lead client relationship partner for engagements ranging from \$15 to 50 million in revenue
- Led complex sales campaigns, managed diverse teams, and attained high client satisfaction while delivering on time and on budget
- For the Idaho Department of Health and Welfare Medicaid Readiness Initiative:
 - Served as the subject matter expert and key liaison between business users and Scrum team building the Modified Adjusted Gross Income (MAGI) Medicaid eligibility rules engine and other supporting system and technology changes
 - Oversaw the upgrade of Idaho’s existing Medicaid and public assistance eligibility system resulting from health care reform change
 - Responsible for a \$2 million budget and six resources
- For the North Carolina NC FAST Medicaid Eligibility System:
 - Serving as the Medicaid/TANF senior project manager, was responsible for delivering core functions for the NC FAST implementation of Curam for Medicaid, TANF, special assistance, and refugee assistance; functions included primary case management and eligibility application, reports, interfaces, forms/communication, rules engine, and conversion
 - Led the project from start-up through analysis, Fit-gap, functional design, and detailed design
 - Managed a team of State staff, State subcontractors, Accenture staff, Accenture subcontractors, and Curam staff, producing all deliverables on time and within budget with no scope changes
 - Replaced legacy case management and eligibility systems that administer public assistance benefits to North Carolina citizens with Curam software the State selected for case management and eligibility
 - Delivered core functions for the NC FAST programs, including Medicaid, Welfare, and special assistance programs
 - Responsible for a \$51 million budget with more than 40 State, Accenture and subcontractor staff
- For the Kentucky Medicaid Operational Support Services for the Cabinet for Health and Family Services (CHFS):
 - Served as account/program manager to develop the Program Management Office (PMO) processes to manage and monitor Kentucky Medicaid initiatives, including the Medicaid Management Information System (MMIS), utilization management, pharmacy benefits management, and provider service center functions on behalf of the Kentucky cabinet; the PMO managed the successful transition of MMIS, with minimal disruption, and successfully implemented a decision support system, fully training staff to manage the system
 - Led a team working with more than 250 stakeholders at CHFS and a core MMIS project team of about 100
 - Assessed program performance issues to develop corrective recommendations across programs
 - Grew scope to encompass the Kentucky Access, Accuracy, and Accountability Project, implementing a single sign-on capability for workers and citizens
 - Led an Accenture and Avanade team through scoping, requirements, design, build, test, and deployment
 - Responsible for a \$6 million budget and 10 resources

Senior Manager, Technology Growth Platform

- Responsible for delivery of project-based technology initiatives to Accenture clients ranging from \$2 to 11 million
- For the New Kentucky MMIS Project:
 - Established and managed the PMO across three subprojects: transition of fiscal agent operations; design, build, test and implement the MMIS; and delivering the decision support system/data warehouse
 - Worked with more than 250 stakeholders and a core project team of more than 100 resources, responsible for a \$11 million budget and 40 resources
- For the Internal Revenue Service (IRS) Health Coverage Tax Credit project:
 - Created systems and processes to enroll eligible participants in state health plans, collect and report payment information, resolve payment disputes, answer calls, and provide responses for program inquiries
 - Ran support sessions providing more than 4,000 in-person tax consultations
 - Managed relationships with stakeholders, health plans, and other constituent groups, including the White House, Treasury, Health and Human Services, Department of Labor, and other state agencies

- Responsible for a \$5 million budget and 12 resources
- For the Maryland Department of Health and Mental Hygiene (DHMH) eMedicaid Services:
 - Developed a strategy to assess current business practices, identified strategic opportunities, and delivered a staged roadmap to implement findings
 - Delivered several strategic quick-win Web services, transitioning paper-based, manual state Medicaid service transactions to an online model
 - Responsible for a \$3 million budget and eight resources
- For the United States Postal Service Year 2000 Remediation - End User Computing Team:
 - Implemented practices for field staff to identify non-compliant documents, data, and software, and promote them for resolution
 - Managed complex organizational and technical issues in an environment with more than 100,000 end users, employing best practices from other countries
 - Responsible for a \$2 million budget and four resources

Manager, Price Waterhouse, Washington, D.C., 1997-1998

- Drove data and process-related projects modernizing systems for the U.S. Department of Education

Team Lead, American Management Systems, Inc., Virginia, 1993-1996

- Managed initiatives implementing large credit-related systems for the finance industry

Education

- Bachelor of Business Administration with distinction, Computer Information Systems, James Madison University, Harrisonburg, Virginia

Technical Skills

Hardware/Software

- Microsoft Office Suite, Microsoft Project, Program and IT Governance Software Packages

Certifications

- PMI certified Project Management Professional (PMP)

Training

- Completed one-year intensive Accenture Leadership Development Program within the U.S. Public Service Practice
- Asked to serve as Faculty Lead for Value Driven Program Management and Senior Manager Development schools
- 20 years of professional training in leadership, human behavior, business development, relationship management, large scale IT management, health care, and general consulting topics

Memberships

- Board Member of Interapt, a high tech start-up company providing mobile products, strategy, and development
- Past board member of Mission Lexington, a free health and dental clinic serving uninsured working adults
- Honored by Fort Peck, Montana Assiniboine & Sioux Tribes for bringing economic development to their nation
- Issued inventor patent for Medicaid High Performance Medicaid Capability Assessment (Patent 10022-1637), demonstrating cutting-edge thinking in a well-established business process area

AR IE-BM Project Manager

Experience Summary

██████████ is a PMP-certified senior director at Optum, where he leads the design, development and implementation of large-scale information systems projects. He follows various Project Management Body of Knowledge (PMBOK) processes for project financials, risk management, quality control, people management, customer relationship, and status reporting at various leadership levels. ██████████ is experienced managing all life cycles of system development projects.

He has 11 years of integrated eligibility experience and extensive knowledge of Medicaid Management Information System (MMIS) and various other interfaces. His expertise includes business operations, budgeting, project planning, cost analysis, risk assessment, quality assurance, quality control, resource planning, professional staff development, scope/contract management, management reports, executive level presentations, and contract negotiation. ██████████ exceeds the RFP requirements for this position and has:

- 11 years of experience leading the implementation of enterprise solutions on technologies similar to Arkansas's
- 11 years of experience implementing solutions of functional scope similar to Arkansas's
- More than 20 years of relevant experience in professional services and client support, including more than 12 years of IT Project Management experience with Big 4 Management Consulting companies and 11 years of project management experience delivering large solutions in multiple technology environments

██████████ is skilled at managing Capability Maturity Model (CMM) level engagements varying from 40 to 200 staff, with revenue ranging from \$20 million to \$150 million. He delivers enterprise-wide solutions using Rational Unified Process (RUP), Agile, COTS and various custom methodologies. He has a consistent record of successfully delivering IT Implementation projects on time and within budget. ██████████ establishes strong customer relationships in support of customers' strategic interests and benefits. He has excellent communication, team-building and people management skills that result in high staff retention and customer satisfaction.

Work Experience

Senior Director, Optum, Minnesota, 2015-Present

- Serves as the engagement advisor for the West Virginia Integrated Eligibility (IE) Maintenance and Operations project
- Serves as the engagement director for the Massachusetts Long Term Services and Support (LTSS) project
- Serves as the IT engagement director for the Technology areas of the Arkansas LTSS project
- Served as the engagement director for the Vermont Health Insurance Exchange (HIX) integration projects
- Contributed to the phased implementation of Vermont's integrated system supporting automated renewals, Change of Circumstances, self-service capabilities, and automated notices for both qualified health plans and Medicaid customers
- Helped Vermont establish full integration with insurance carriers and payment processors
- Contributed to the Vermont exchange receiving the rating as the best exchange in the country by the Government Audit Office
- Managed various aspects of the project execution activities for multiple teams for Vermont that numbered more than 200 staff, including business, development, technical architecture, quality assurance, maintenance and operations (M&O), and PMO teams

Senior Manager, Deloitte, Minnesota, 1994-2015

- Focused on providing system integration services to public sector clients
- Led the integrated eligibility and child care projects for health and human services (HHS) departments in Illinois, Minnesota, New Hampshire, and Wisconsin
- Led the project for the Illinois Integrated Eligibility System (IL IES), a modernized eligibility system for several HHS medical programs and two key human services programs, Supplemental Nutrition Assistance Program (SNAP) and Temporary Assistance for Needy Families (TANF)

- Served as an engagement manager of the Minnesota Child Care project; project included functionality for case management, eligibility determination, fund management, and payments processing for child care subsidies
- Led the implementation of a full functional IE system and one of the largest, most complex IT systems within the State of New Hampshire; solution coordinates policy, eligibility, and benefits determination for SNAP, Medicaid, and TANF programs
- Led the delivery of the first statewide Child Care system in Wisconsin:
 - Worked on the Client Assistance and Re-employment System (CARES) project for the Wisconsin Department of Health and Human Services, a large-scale, online mainframe family assistance information system (FAMIS) that supports SNAP, TANF, Medicaid, Child Care, and the JOBS programs in the State of Wisconsin
 - Served as one of the original designers of the system and directed the development and implementation activities of the project team.
- Delivered \$40-150 million custom development state government projects, using his project management and client relationship management skills to deliver profitable projects on time and on budget with high client satisfaction
- Managed all aspects of project execution activities of multiple teams, including the quality management and scope management frameworks that instilled disciplined processes and resulted in timely delivery of quality work products and effective change control
- Oversaw multiple teams of a \$20 million implementation project, maintaining profit and loss (P&L) responsibilities of the new system
- Led the maintenance and operations (M&O) team of 30 professionals engaged in maintaining the existing system
Led a team of 45 technical professionals on a \$60 million, custom state agency implementation project
- Provided direction to database administrators, technical architects, infrastructure staff, data conversion and development leads for a J2EE-based solution using IBM servers, Oracle database, FileNet, and Business Objects (Crystal Reports)
- Mentored team members on the firm's system development life cycle (SDLC) methodology to help them leverage repeatable processes and delivered consistent and reliable results
- Coordinate development of C-level sales presentations and participated in the delivery
- Engaged with prospective clients to negotiate statements of work (SOW) and terms and conditions of new contracts

Education

- Master of Science, Indian Institute of Technology (IIT), India; ranked second in the university
- Bachelor of Science, Science, Calcutta University, India; ranked third in the university

Technical Skills

Hardware/Software

- Microsoft Office Suite, Microsoft Project

Certifications

- PMI certified Project Management Professional (PMP)
- Capability Maturity Model (CMM)

AR IE-BM Integration Manager/Functional Lead

Experience Summary

██████████ is an associate director of payer consulting at Optum with more than 20 years of experience leading health care technology projects. He has diverse domain knowledge and experience related to health care from payers, providers and clinical systems, Affordable Care Act (ACA), state exchanges, Medicare, and Medicaid. Mr. ██████████ core areas of specialization include solution architecture, program and project management of systems integration projects, commercial off-the-shelf (COTS) implementations, custom development and enterprise-wide IT assessments. ██████████ exceeds the RFP requirements for this position with:

- 12 years of experience leading the implementation of enterprise solutions on similar technologies
- 8 years of experience implementing solutions of similar functional scope

██████████ is a hands-on leader with a record of successful engagements, which include organizational start-up, solution architecture, core systems implementations, conversions, new product development, interface development, data management, business intelligence, infrastructure, IT operations support and security assessment management.

Work Experience

Associate Director of Payer Consulting, Optum, Georgia, 2014-Present

- Serves as program manager and solution architect for a consulting engagement with Health Net
- Led an assessment and PMO team for Health Net to determine low encounter submission for their Medicaid population from one of their provider groups, Los Angeles (LA) County Department of Human Services (DHS) (involving four hospitals and more than 50 clinics):
 - Assessment included review of operations and technology processes in Cerner Millennium, Quadramed Affinity Revenue Cycle Only (RCO) systems, data warehouse and the 837 process
 - Provided recommendations and solutions to remediate issues
 - Established a project management office (PMO) for the Los Angeles County DHS for encounter data governance
 - Three-phase engagement resulted in a 140 percent increase in encounter submissions by LA County DHS to Health Net
- Served as project manager for an implementation team to develop an online Patient Care Opportunity Report Portal with Healthcare Effectiveness Data and Information Set (HEDIS) and State measure for the UnitedHealthcare (UHC) Community & State (Medicaid) providers to assist in resolution of gaps in care
- Served as project manager for a team to migrate more than 30 STARS Data Warehouse reports and extracts for UHC Medicare & Retirement to a new Cisco Data Virtualization platform for security compliance, industry best practices and automation
- Performed as a Payer subject matter expert and solution designer for the commercialization of Optum security and infrastructure solutions offering; participated in go-to-market and Cisco partnership activities
- Worked as a solution architect for developing an enterprise data strategy approach in preparation for a Data Strategy Assessment and Architecture Roadmap engagement for a Blue Cross Blue Shield plan
- Served as an infrastructure consultant for the infrastructure planning and solutioning for a new health plan (Harken)
 - Recommended solutions for network and communications infrastructure, including multi-media communications, collaboration tools, contact center software, knowledge management, Net Promoter Score (NPS) survey solutions, eLearning, domain names and overall IT desktop support
 - Provided guidance on IT operations and help desk support processes
- Worked as an infrastructure consultant for the selection process of a call center software solution for a new health plan (Harken); technologies included IVR, augmentative communication device (ACD), computer telephony integration (CTI), and multi-media capabilities such as voice, email, video and live chat

- Coordinated the security assessment for a new health plan (Harken), including security architecture reviews, Vendor Risk Assessment (VRA), Business Associate Agreements (BAA), data release governance (DRG), source code analysis (SCA), Web application vulnerability, and penetration testing

Director of Client Services for State Programs, Connecticut, Georgia, 2012-2014

- Managed the start-up of a more than \$20 million professional services team to support the implementation of a state-based exchange product to support health care reform (HCR)/Affordable Care Act (ACA) in Minnesota, Washington D.C., and Maryland
- Provided executive oversight and program management of product implementations and integrations into state-based exchange environments; product functionality included plan management, plan shopping, member enrollment, and provider directory implementation for both individual and small group (SHOP)

Senior Manager of Health Care Consulting, Computer Sciences Corporation (CSC), Georgia, 2008-2012

- Managed the technical development team for a \$7 million systems implementation of a consolidated membership management system for a national health plan to support Medicare Part D
- Played a key role in developing the Health Benefit Exchange (HBE) architecture and solution
- Managed conversions, integrations, and reporting for a \$50 million Medicare Part D membership reconciliation system engagement
- Served as program manager for a core systems implementation; oversaw configuration, interfaces, conversions, data warehouse, reporting and training
- Led ANSI X12 5010 and ICD-10 solution development for the health plan practice

Senior Manager for Health Plans, First Consulting Group, Georgia, 2005-2008

- Managed a portfolio of IT projects integrating into Facets for a regional Blue Cross Blue Shield health plan
- Led the development of business functional requirements for a sales and underwriting project for a national health plan
- Built a Business Processing Outsourcing (BPO) operation in Bangalore, India, resulting in reduced operational costs for a national health plan
- Managed the initial implementation of the firm's Business Process Automation (BPA) solution in the enrollment area of a national health plan
- Trained a health plan practice on the Rational Unified Process

Director of Development in Software Development, Paragon Solutions, Georgia, 2000-2008

- Managed and provided executive oversight of multiple client project teams in various domains, such as health care, telecommunication, and independent software vendors (ISV) with more than \$5 million in annual revenues and with more than 80 staff
- Managed the start-up and build of offshore teams in India and Vietnam, assessed at Capability Maturity Model Integration (CMMI) Level 5

Education

- Bachelor of Arts, Computer Information Systems, Georgia State University, Atlanta, Georgia

Technical Skills

Hardware/Software

- Facets, QNXT, McKesson HPF, Microsoft Office Suite and Microsoft Project

Certifications

- Project Management Professional (PMP)

Training

- Scaled Agile Framework, Rational Unified Process, Leadership Effectiveness Training

AR IE-BM Training Lead

Experience Summary

██████████ is a training professional with 11 years of experience providing training services in the health care and academic fields and establishing client support from implementation to long term relationship management. She is experienced in the government space with an understanding of government program and policy requirements. As an associate director of training at Optum, ██████████ leads, develops and supports a team of divisional managers, client training managers and trainers. She verifies adequate training resources are in place to deliver effective training for a variety of clients across the Optum organization. An important element of her job is partnering with business leaders across the organization to implement new programs and interface with new and existing clients on both government and non-government accounts.

██████████ exceeds the RFP requirements for this position with eight years of experience as a training lead for projects similar in size and complexity to the proposed project.

She brings a focus on client satisfaction and training metric results in process improvement and continual business growth for the businesses supported. ██████████ background includes managing a team of training managers and trainers to meet the needs of learners while upholding a high standard for training effectiveness. She is skilled at working across teams to collaborate with business partners, including operations and quality, to make sure we identify and address any performance gaps quickly.

Work Experience

Associate Director of Training, Optum, Minnesota, 2013-Present

- Responsible for leading, developing and supporting a team of divisional managers, client training managers and trainers
- Verifies adequate training resources are in place to effectively deliver training for a variety of clients across the Optum organization
- Partners with business leaders across the organization to implement new programs and interface with new and existing clients on both government and non-government accounts
- Collaborates with internal partners to forecast needs, develop and deliver training and resources, create training solutions
- Works closely with senior leaders to develop new processes and procedures to provide structure and standardization
- Experienced implementing and leading training for sales, service and health exchange programs across 26 sites
- Oversees the support of state exchange training needs for multiple state exchanges
- Leads the development and delivery of training on Medicaid program delivery for the residents of Rhode Island, including the completion of applications, eligibility determination and processing of required documentation for Medicaid eligibility
- Uses future and historical data to develop internal forecasting tools to determine the number of trainers needed
- Leverages quality scores during the on-the-job period to determine the need for targeted coaching sessions with new agents
- Offers training curriculum modification suggestions when applicable

Associate Dean of Academic Affairs, Education Management Corporation, Kentucky, 2006-2012

- Managed, supervised, motivated and trained a team of department chairs across multiple disciplines
- Provided leadership and support in the management of the education department
- Led multiple implementations of new degree programs, including initial deployment and verifying alignment with complex accreditation requirements for each programs' governing body and state accreditation requirements
- Implemented and coordinated faculty hiring process
- Created conflict management in-service for campus-wide training and integration
- Monitored progress and development of 2,000 students

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- Responsible for the evaluations of department chairs and program-specific faculty
 - Provided administrative supervision in the registration, advising and clearance of students
 - Validated compliance with the accreditation and licensing requirements
 - Created innovative activities and processes to enhance student retention and persistence
 - Participated in executive committee meetings where campus-wide policies and processes are created and executed
 - Established and maintained the campus-wide Institutional Effectiveness Plan

Education

- Master of Arts, Forensic Psychology, Argosy University, Chicago, Illinois
- Bachelor of Science, Business Management, Indiana Wesleyan University, Marion, Indiana

Technical Skills

Hardware/Software

- Microsoft Office Suite, Microsoft Project
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AR IE-BM Testing Lead

Experience Summary

██████████ is a performance-driven test lead, quality analyst and Certified Scrum Master with extensive experience leading and coaching multiple Scrum teams and applying best practices for Agile development. His experience includes managing and leading a staff of 15 testers. With approximately four years of Scrum master experience, ██████████ specializes in backlog grooming, iteration planning, tracking team velocity, and burn down charts for teams using different Agile methodologies and approaches, including Extreme Programming, Test-Driven Development and Scrumban.

As a test lead with QSSI and Optum, ██████████ led the systems connectivity and integration testing of the Data Services Hub (DSH) with Federally Facilitated Marketplace (FFM) and other government agencies like the Social Security Administration (SSA) and the Department of Human Services (DHS). His extensive background in software testing includes functional, end-to-end, integration, system, regression, performance, connectivity and acceptance levels of testing for client-server applications, database management and Web services such as Simple Object Access Protocol (SOAP) and Representational State Transfer (REST). He also has experience testing applications built in a 2-tier, 3-tier, and Service Oriented Architecture (SOA) environment.

██████████ exceeds the RFP requirements for this position with 10 years of experience as a testing lead for projects similar in size and complexity to the proposed project within the public sector. This includes more than eight years of software testing experience specializing in testing health care, telecommunication and e-commerce applications.

He is knowledgeable analyzing business requirements, user stories, defect management, and troubleshooting synchronous and asynchronous Web services. ██████████ has a record of success building and managing teams while serving as the technical lead in dynamic environments.

Work Experience

Test Lead, QSSI/Optum, Virginia, 2012-Present

- Successfully served as a lead for systems connectivity and integration testing of the Data Services Hub (DSH) with Federally Facilitated Marketplace (FFM) and other government agencies like the Social Security Administration (SSA), Internal Revenue Service (IRS), Department of Human Services (DHS), Veterans Health Administration (VHA), Medicare, Medicaid and Equifax as part of the Affordable Care Act (ACA)
- Served as release coordinator responsible for coordinating change requests, pre-deployment and post-deployment activities, including go-no-go meetings and verification of property files for more than 300 deployments and 20 releases
- Managed and coordinated the day-to-day operations of the DSH sprint development and testing activities as a Scrum Master while working closely with management and multiple external stakeholders
- Served as Scrum Master in full capacity for 45 sprints; responsible for leading multiple teams and refining product backlog, tracking team velocity and managing burn down charts
- Conducted pre-sprint planning, sprint planning, and backlog grooming sessions; responsible for assigning story points and sprint tasks to the Scrum teams
- Served as a coach to the Scrum teams and shared best practices for Agile software development
- Solely responsible for overseeing and coordinating the 508 compliance testing for Eligibility Support Desktop Change Utility (ESD-CU) application; created 508 test plan, Voluntary Product Accessibility Template (VPAT), test cases, executed 508 test cases using Job Access With Speech (JAWS), Wave, and color contrast analyzer tools
- Led the testing team and served as the subject matter expert (SME) while coordinating tasks needed for providing end-to-end electronic file transfer (EFT) capabilities for asynchronous bulk web services for the DSH test team and the Managed Testing Services (MTS) team
- Served as primary point of contact and liaison between the EFT engineering and DSH test team for hub services that use EFT/Network File System (NFS)
- Served as primary point of contact for connectivity between Hub/EDI and external interfaces
- Responsible for maintaining and coordinating the creation of more than 3.5 million records of test data in the test harness, which is used for end-to-end testing by states and all federal agencies

- Responsible for maintaining and coordinating the execution of the regression suite, which contains more than 3,800 test cases
- Served as the lead and technical advisor for managing, coordinating, and supporting change utility development, testing and deployment activities
- Led the transition of the DSH test team, taking a more active role in the verification of ESD-CU application
- Played a lead role in developing and implementing process improvement measures to increase test coverage, surge productivity, and enhance the quality of test artifacts and deliverables
- Played a lead role in troubleshooting issues reported during integration and end-to-end testing; verified issues were resolved on time in planned testing activities with stakeholders
- Played a critical role in leading the test activities to make sure that all of the hub synchronous services were operational for the disaster recovery exercise in the production environment
- Assisted with triaging and troubleshooting issues and defects identified in the production visible environment; involved in planning hot fix deployments
- Consistently identified alternative options for improving test execution challenges across test regions, especially for bulk services
- Helped the test manager develop the project schedule and identify project tasks and milestones, including duration-based levels-of-effort based on Agile methodology
- Worked closely with the test manager to develop and monitor DSH test plans, test strategies, and risk mitigation plans for internal and external test activities
- Served as a mentor for junior tester by performing knowledge transfer and providing training on test processes, test tools, and hub services
- Performed administrative tasks, such as keeping track of employee work hours, approving timesheets, and provide input for the tester's performance reviews
- Interviewed prospective test engineers to staff testing efforts at QSSI/Optum
- Received a STAR Award for three consecutive years and was the 2016 Optum Super Hero Winner

QA Analyst, CS Acquisition Corporation, Maryland, 2012

- Created and executed automated integration, functional and regression test suites in SoapUI/Ready API
- Participated in troubleshooting and resolving data issues with XML files
- Reviewed and participated in peer review of schema (XSD) using Oxygen XML Editor
- Participated in data driven testing using data source (Excel) and data loop test properties
- Created a request and response for each Web service using Test Harness to execute mock scenarios
- Developed test scenarios, test cases, and test data for functional, integration and end-to-end testing
- Performed command line testing of middleware and back-end systems
- Created testing defect reports and tracked them to resolution by escalating issues and risks in a timely manner
- Responsible for defect management cycle and maintaining the traceability matrix using CALT (CMS Project Management tool)
- Executed Xquery in Marklogic database to query the data and verify the status of data
- Performed peer review of test cases and test scenarios developed by members of the test team
- Participated in joint requirement sessions, system-related walkthroughs, and overview sessions
- Assisted Scrum team with story point estimation and track team velocity
- Participated in peer reviews of requirements documents, reverse walkthrough documents, test scenarios, test cases, test summary reports, and prepared test scenarios for monthly releases
- Prepared weekly status reports, monthly test execution reports, and test summary reports
- Performed user acceptance testing (UAT) and gave demonstrations to business users for monthly Sprint release

Associate Radio Frequency Engineering Engineer, MobileComm Professionals, Texas, 2001-2011

- Scheduled and coordinated user training

- Coordinated meetings between technical teams to understand overall scope, risk, issues and maintained effective communication
- Managed technical teams responsible for implementing project tasks by conducting regular work meetings and managing conflicts
- Guided technical teams throughout the project; heavily involved in troubleshooting and tracking issues related to low frequencies
- Generated project performance metrics, including weekly and monthly metrics for schedule, change management, testing, progress and requirements
- Used strong organizational skills to validate assignments completed on time and information was organized and readily available

Graduate Assistant, Louisiana Tech University, Louisiana, 2008-2010

- Worked as a graduate assistant in the Center of Information Technology
- Graded tests and assignments for various engineering and management courses
- Prepared the course materials for students and led group discussions
- Served as the Public Relations Officer (PRO) in the Association of Indian Students
- Volunteered and organized events at Louisiana Tech University

Junior Quality Analyst, Housing Development Finance Corporation (HDFC) Limited, India, 2007-2008

- Created test cases/scripts according to organization specifications and requirements
- Tested the workflow of the application using SoapUI in addition to functional and user interface testing
- Collaborated with requirements and application development teams to make sure the testing process was successful
- Reviewed project business specifications and technical specification documents
- Developed the test cases used for manual testing in HP Quality Center
- Verified the business workflows and related functional specifications complied with applicable regulations
- Developed reports for analyses and recommendations, including data analysis, gap analysis, quality assurance (QA), and content validation
- Designed and implemented basic SQL queries for QA testing and report and data validation

Education

- Master of Science., Engineering and Technology Management, Louisiana Tech University, Ruston, Louisiana
- Bachelor of Mechanical Engineering, Indore Institute of Science & Technology, Indore, MP, India

Technical Skills

Hardware/Software

- REST, SOAP, XML, XSD, XQUERY, Tortoise SVN, Jenkins, Splunk, Maven, CI-CD, GitHub, SOAPUI-NG, Oxygen XML, JAWS, WAVE, Color Contrast Analyzer, Selenium, Ready API, CALT, MS Office, SharePoint, JIRA, HP Quality Center, Confluence, HipChat, Camp Fire, Internet Explorer, Firefox

Certifications

- Scrum Alliance Certified Scrum Master (CRM), Scaled Agile Academy Certified SAFe Agilist (CSA)

AR IE-BM Technical Lead

Experience Summary

██████████ is an associate director with more than 20 years of health care management and leadership experience in system selections, systems engineering, custom software development, software package implementation, systems integration, reporting, operations, and general project management. As an associate director with Optum, he coordinates multiple onshore and offshore projects to define requirements, solution development, and support quality assurance (QA) and testing activities both payer and provider markets with multiple years of experience in each domain. ██████████ contributes to systems and software selection for solutions, including performing features comparison analysis. He is a proven leader skilled at developing and managing technical teams focused on designing and implementing creative solutions to complex technical problems. Mr. ██████████ exceeds the RFP requirements for this position with:

- More than 20 years as a technical lead on complex projects, with 14 of these years in management
- More than 14 years of experience architecting and designing enterprise solutions

Mr. ██████████ performs cost benefit analysis, infrastructure design, meeting facilitation, requirements definition and testing and quality assurance (QA) activities. He is skilled in system implementation, core administrative systems, clinical systems, system connectivity, and system integration. ██████████ oversees development and monitoring, risk and issue management, plan definition and management, project planning, resource management, and schedule and scope management. He has managed system integration for HL7, NCPDP Pharmacy Claims and X12 health care and materials management transactions. ██████████ is skilled and knowledgeable in Agile, Waterfall, electronic health records (EHRs)/electronic medical records (EMRs), HIPAA, HP Quality Center, SDLC and Six Sigma.

Work Experience

Associate Director, Health Care Consulting, Optum, Minnesota, 2015-Present

- Served as technical architect for system migration of Medicare population from Q-Care to Amisys:
 - Resolved design issues and documented solutions for issues encountered during implementation
 - Established policies and procedures for documenting design issues and solution alternatives; finalized solution
 - Performed as integration lead and release manager for claims processing release and technical lead for pharmacy benefit management (PBM) implementation
- Served as manager of integration for implementation of new health plan in two major city markets
 - Developed and implemented architecture to support integration of internal and external applications to deliver key business functions such as enrollment, claims processing, payments, provider maintenance and portals
- Coordinates projects to define requirements, develop solutions, and support quality assurance (QA) and testing activities

Senior Manager, CSC Consulting, Virginia, 2008-2015

- Served as project manager and technical architect for integration components associated with the implementation of the core processing system and the Medicare add-on solution for a 600,000-member Blue Cross and Blue Shield plan
- Managed the team that performed design, development and implementation activities for conversion from a legacy system to a new core processing platform
- Served as a senior member of the technical team responsible for the design and development of a service oriented architecture (SOA) to support real-time and batch transaction components; included request/response electronic data interchange (EDI) transactions (270/271, 276/277, 278), Web portal integration, transaction routing to multiple claims management systems, and integration of a third party customer relationship management (CRM) system

- Served as project manager and technical architect for all technical work streams associated with the implementation of a new core processing platform at a small regional health plan
- Managed teams responsible for infrastructure development and maintenance, conversion, integration, correspondence, data warehousing, reporting, and batch claim processing

Manager, First Consulting Group, Texas, 1997-2008

- Performed assessments of integration infrastructure at multiple hospital systems
- Architected high-level designs for system implementation and migration strategies
- Developed high-level budgets, including startup costs and ongoing cost of ownership
- Developed and presented findings at board-level and department-level presentations
- Served as project manager and technical lead for projects that involved multiple business units at a large health plan
- Projects included claim process enhancements, claim audit process implementation, fraud investigation application, and laws and regulations tracking application
- Served as project manager and technical architect for multiple integration projects with health plans and providers performing system selection, implementation planning, system design, standards development, implementation, and operational support

Senior Programmer, The Children’s Hospital, Colorado, 1995-1997

- Served as lead integration analyst responsible for the design and development of new interfaces and operational support of existing interfaces
- Designed data repository for radiology transcription results using keyword indexing software that allowed for trend tracking and historical research of results

Education

- Bachelor of Science, Computer Science, University of Kansas, Lawrence, Kansas

Technical Skills

Hardware/Software

- Microsoft Office Suite, HP Quality Center, CA Agile, Rational Unified Process, SharePoint

Certifications

- PMI Project Management Professional (PMP)

AR IE-BM Security Expert

Experience Summary

██████████ is a security professional with more than 10 years of direct experience focused on information security management. With more than 30 years in the health care industry, his primary areas of expertise include contracting, vendor management, disaster recovery, acquisition integration, risk and compliance assessments, consulting, policy review and creation, risk mitigation, architecture reviews, and security awareness activities. ██████████ exceeds the RFP requirements for this position with:

- Earning multiple security and privacy certifications for ongoing security knowledge and awareness and to support of his role. The security certifications are:
 - (ISC)² Certified Information Systems Security Professional (CISSP)
 - ISACA Certified Information Security Manager (CISM)
 - ISACA Certified Information Security Auditor (CISA)
 - ISACA Certified in Risk and Information Systems Control (CRISC)
 - IAPP Certified Information Privacy Professional (CIPP/US)
- More than 10 years implementing/managing security in enterprise solutions

In his current position with Optum, ██████████ serves as information security advisor for two business segments encompassing multiple business units, and supports commercial and government opportunities. The regulatory burdens associated with these business include HIPAA, FISMA, MARS-E, PCI, FDIC, IRS-P1075 and operating under ISO27001/2, HITRUST, NIST, and FEDRAMP security frameworks.

Work Experience

UnitedHealth Group/Optum, Minnesota, 1981-Present

Information Security Advisor

- Collaborates in the development of documentation for security processes and procedures
- Works with appropriate audit and compliance teams to validate solutions meets applicable security regulations
- Performs security and privacy risk assessments, identifying high risk areas and communicating those areas to executives across the enterprise
- Manages customer and regulatory audits, vulnerability remediation, and disaster recovery plans for the business segment
- Reviews and advises on contract language related to security and disaster recovery
- Participates in security architecture reviews
- Develops security incident responses
- Perform vendor risk assessments and onsite audits of internal and external business partners

Senior IT Consultant/Architect

- Responsible for oversight, design, consulting, and implementation of contact center and related technology across the business segment

Project Manager

- Reported to the senior vice president of service operations
- Managed a geographically distributed team of 12 business and technical resources focused on technology enhancements and process improvements
- Led the team to transform call centers into contact centers, which involved introducing new tools, technologies, processes and procedures
- Provided business oversight and IT guidance in an integration, architectural design, and coordination role for multiple strategic projects; overall corporate initiative included the developing and implementing a new desktop application, computer-telephony integration (CTI) implementation, integrated voice response (IVR)

enhancements, and workforce management implementation; overall project was part of a more than \$40 million initiative

Senior LAN Analyst

- Provided daily technical support of UnitedHealth Group locations in the Southeast
- Responsibilities included hands-on support and troubleshooting major operating systems, applications, desktops, laptops, server hardware, and LAN/WAN equipment and infrastructure; Avaya PBX, automated call distribution (ACD), IVR, and voice mail systems were also in scope

Lead Operator – IBM Mainframe Operations

- Responsible for IBM 308X/309X prime shift mainframe operations

Education

- Business, California University of Pennsylvania, California, Pennsylvania
- Sports Medicine, Pennsylvania State University, State College, Pennsylvania

Technical Skills

Hardware/Software

- Microsoft Office Suite, Microsoft Project

Certifications

- (ISC)² Certified Information Systems Security Professional (CISSP)
- ISACA Certified Information Security Manager (CISM)
- ISACA Certified Information Security Auditor (CISA)
- ISACA Certified in Risk and Information Systems Control (CRISC)
- IAPP Certified Information Privacy Professional (CIPP/US)

AR IE-BM Operations Manager

Experience Summary

██████████ is an information technology (IT) executive with more than 20 years of IT management experience, including 18 years in the health care industry. His areas of focus include maintenance and operations (M&O), program management, project planning, portfolio management, and client relationship management. As a senior director of IT at Optum, ██████████ is responsible for application operations and maintenance for the Massachusetts Health Insurance Exchange (HIX) Information Technology. In this role, he leads IT staff in supporting the exchange's application and hosting. He establishes and baselines key performance metrics and manages to service level agreements (SLAs). ██████████ exceeds the RFP requirements for this position with:

- 18 years of IT management experience in the health care industry, including 11 years in maintenance of operations (O&M)
- 10 years managing an M&O team for an enterprise solution, including 9 years of experience internal to Optum and one year managing the M&O team for the Massachusetts Health Insurance Exchange (HIX)

██████████ supports and follows industry standards that include the Project Management Body of Knowledge (PMBOK), Software Engineering Institute Capability Maturity Model (SEI CMM), and the IT Infrastructure Library/IT Service Management (ITIL/ITSM). He is skilled in best practices for Strategic Implementation Planning (SIP), Business Continuity Planning (BCP), Project Management Office (PMO) operations, process improvement planning, software business analysis, and system integration. He has a record of success delivering effective programs to improve quality, increase efficiency, control costs, and enhance service. ██████████ uses his proven communication and team-building skills to build highly effective teams for customer projects.

Work Experience

Senior Director Information Technology, Optum Technology Commercial Services–IT, Massachusetts, 2016-Present

- Responsible for application operations and maintenance for the Massachusetts Health Insurance Exchange (HIX)
- Leads IT staff in support of the Massachusetts HIX application and hosting
- Builds and develops the technical staff's knowledge and expertise while instilling a customer care philosophy that promotes customer satisfaction
- Implements staffing and scheduling models in support of systems to meet business requirements at the lowest possible cost
- Establishes and baselines key performance metrics and manages to service level agreements (SLAs)
- Drives adoption of standard processes and procedures
- Establishes and maintains budget for application support

Senior Director Information Technology, Optum Technology–IT, California, 2012-2016

- Responsible for application operations and maintenance for OptumRx segment applications
- Led IT staff reorganization to build dedicated application support team
- Drove change to adopt enterprise support processes and procedures
- Under his leadership, the OptumRx segment experienced the following results:
 - Planned and implemented dedicated IT operations and maintenance organization supporting OptumRx business segment, which resulted in a 41 percent increase in application availability increased in one year
 - Established performance metrics discipline for performance goals and measuring impacts of process change, which resulted in a 30 percent improvement in service level goals in one year
 - Implemented cost controls and accountability for OptumRx application operations and maintenance budget, which resulted in a 17 percent reduction in application support costs in the first year

Senior Director Information Technology, UnitedHealth Group–IT, California, 2007-2012

- Responsible for application operations and maintenance for constituent applications

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- Directed application support for enterprise portal applications (approximately 100 applications across the enterprise) and controlled support costs
 - Led innovations to decrease support costs and increase efficiencies
 - Maintained application performance SLAs and managed internal customer relationships
-

Manager Information Technology, UnitedHealth Group–IT, California, 2006-2007

- Responsible for application operations and maintenance for PacifiCare systems
 - Managed application support teams for PacifiCare distributed application services, eSystem, document management/workflow, medical management, and shared services
-

Service Delivery Manager, Keane, Inc., California, 2004-2006

- Responsible for application development for imaging/document management system
 - Managed application development team and programs for imaging/document management systems
 - Maintained performance service levels and managed delivery schedules
-

Product Manager, Blue Cross & Blue Shield of WNY, New York, 2002-2004

- Developed subscriber contracts and coordinated vendor implementations
 - Facilitated Department of Insurance (DOI) approvals
 - Supported sales to meet client requirements and managed implementation of products
 - Reengineered product delivery process
 - Developed project management tools and managed cross-departmental work teams
 - Implemented knowledge management system
 - Redesigned Corporate Project Steering Committee
 - Established performance metrics and management system
-

Project Manager/Principal Consultant, Keane, Inc., Massachusetts, 1999-2002

- Served as primary on-site client contact
 - Managed the client relationship and maintained client and user satisfaction
 - Managed technical staff and facilitated work sessions
 - Initiated and maintained SEI CMM key process areas and developed strategic implementation plans
 - Performed project planning, management and project status reporting
 - Analyzed business workflow, implemented process improvements, and developed business continuity plans
 - Defined and tracked project performance metrics resolved and mitigated risks and issues, confirmed SLA commitments and maintained client and user satisfaction
-

Project Manager/Business Analyst, Cotelligent, Inc., Florida, 1996-1999

- Worked in project delivery for client projects, including Year 2000 upgrade for Dime Savings Bank; Project Management Office (PMO) for Dime Savings Bank; Vermont Federal Bank acquisition conversion for Vermont National Bank; Alltel Real Estate (RE) application upgrade for Chase Manhattan Mortgage Company

Education

- Bachelor of Science, Business Management and Finance, State University of New York at Fredonia, Fredonia, New York

Technical Skills

Hardware/Software

- Microsoft Office Suite, Microsoft Project
-

AR IE-BM Architect Lead

Experience Summary

██████████ is an enterprise architect with more than 26 years of software engineering experience, including more than 15 years architecting and designing enterprise solutions and more than 11 years in health care, medical insurance, Medicaid and health and human services. He serves as the lead solution architect at Optum for the integrated eligibility (IE) solution product that will be implemented in the State of Arkansas. He is skilled and knowledgeable in data modeling, Unified Modeling Language (UML) modeling, role design, system integration, and integration patterns. He collaborates with delivery teams, product management, and business leaders to create strategic architecture designs and road maps while maintaining architecture skills that are capability focused and business driven. ██████████ exceeds the RFP requirements for this position with:

- More than 15 years of experience architecting/designing enterprise solutions
- More than 11 years of experience with the technology to be implemented at DHS
- Training in The Open Group Architecture Framework (TOGAF), an industry leading architecture framework

██████████ background includes establishing technology standards and governance practice for the enterprise. He has experience mentoring technical and architectures teams on enterprise-wide best practices, guidelines and principles. ██████████ maintains effective communication skills to interact with all levels and departments, from executive management to developers, and from business to technical teams.

Work Experience

Enterprise Architect, Optum, Minnesota, 2011-Present

- Contributed to the definition and startup of the strategic/domain architecture practice by developing and defining goals, objectives, processes, and deliverables
- Assigned and supported the Payer—Operational and Administrative Efficiency pillar, validating the more than 70 applications align to the business goals, enterprise architecture standards and road maps, and other strategic visions
- Established the technology standards and governance practice
- Served as lead architect on several large-scale program initiatives, including Core Admin BPO and One Collections
- Collaborated with delivery teams, product management, and business leaders to create strategic architecture designs and road maps
- Developed the Reporting Reference Architecture document to provide a blueprint for light-weight reporting solutions
- Mentored and governed delivery teams in the development of solution architecture documents

Enterprise Architect Consultant, Concord, Minnesota, 2010-2011

- Provided architectural leadership, guidance and support to the Dean Health Plan (DHP) for the government programs system migration
- Mentored the DHP architecture team on enterprise-wide best practices, guidelines and principles; guided them to create a solution architecture vision and design documents
- Mentored the architecture team in architecture and integration patterns, Unified Modeling Language (UML) modeling and other architecture topics

Senior Solution Architect, Blue Cross Blue Shield of Minnesota, 2006-2010

- Responsible for technical solution designs and architecture documentation
- Effectively communicated to leadership, management and development teams on solution designs and documentation
- Defined and published enterprise application standards and guidelines for development teams
- Governed technical solutions and their adherence to enterprise architecture standards

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- Responsible for mentoring development teams during the software planning and development process on subjects that included JavaEE application security and integration and design patterns
 - Performed technical analysis of vendor solutions and advised leadership on their strategic use in the enterprise
 - Collaborated to define design artifacts and established the roles, responsibilities and content of these documents for the enterprise
 - Co-authored the paper, Leveraging SAS® Enterprise BI Server for an Operational Reporting Workflow, with Paul Christenson; presented the paper at the SAS GLOBAL FORUM 2008 in San Antonio, Texas
 - Developed proof-of-concept solutions to prove and verify the viability of technologies for the enterprise
-

Enterprise Architect, Thrivent Financial for Lutherans, Minnesota, 2004-2006

- Responsible for enterprise application integration, which included defining the opportunities for integration, selecting the tools, specifying the shared data and code resources, defining the interfaces and data flows, and monitoring the success of each implemented solution
 - Performed design and code reviews across departments within the organization
 - Led the technical evaluation and recommendation of vendor software targeted for possible integration into the systems or environment, including strategic applications, application development tools, utilities, and open source technologies
 - Defined best practices and strategies for application development (e.g., application security, HIPAA, unit testing, exception handling, AJAX, Really Simple Syndication [RSS]); mentored application development personnel and presented on these best practices and strategies
 - Defined a four-year strategic technical road map to enhance, re-architect, or replace with a third party vendor solution for current systems that supported the sales business processes
-

Application Architect, Retek, Minnesota, 2003-2004

- Led a team that designed and developed an enterprise application framework and services for use on all future applications developed at Retek
 - Conducted and participated in formal architectural design and code reviews
 - Designed and implemented solutions that included:
 - Implementation of prescription limitations
 - Rules engine that executed configurable business logic
 - Alerting system that triggered actions based on specific events
 - HP support for audits and investigations, including the development of fraud detection services
 - Security authentication components using Java Authentication and Authorization Service (JAAS) and Java Cryptography Extension (JCE)
 - Security authorization components based on custom user permissions
-

Senior Software Engineer, Firepond, Minnesota, 1997-2003

- Led the design and development of new and existing modules to be integrated into Firepond's product suite, such as multi-currency support, import/export data, approval process, quote and pricing
 - Performed software engineering activities to support an application suite that assists with selling configurable products within the health care and manufacturing industries
 - Gathered requirements from internal and external clients for Firepond's product suite
 - Mentored team members and external clients on using Firepond's product application programming interfaces (APIs) and framework; also mentored them on the setup, administration and load testing of clustered Web application servers
 - Participated in creating the implementation and user guides distributed with Firepond's product suite
 - Conducted application performance reviews and optimizations
-

Technical Consultant, Analysts International Corporation (AIC), Minnesota, 1995-1997

- Gathered requirements and designed, implemented and maintained applications for financial advisors; the applications included Disability Income Insurance, Wealth Management Services, Lump Sum Rollover, Performance Tracker, 1035 Exchange, Competitor Encyclopedia, and Advisor Business Plan

Software Engineer, Cenex/Land O'Lakes Agronomy Company, Minnesota, 1993-1995

- Designed, implemented and maintained an application for soil sampling and nutrient and fertilizer management
- Maintained application modules that manage farm coop information; modules included Customer Information, Farm/Field Information and Accounting

Software Engineer, Applied Systems, Minnesota, 1991-1993

- Designed, implemented and maintained modules used for customer relationship management (CRM)
- Maintained a system for comparative ratings of auto, home and commercial insurance companies
- Designed and developed an application to test all possible user input combinations for a comparative rating system

Software Engineer, University of St. Thomas, Minnesota, 1988-1994

- Designed and implemented an application that simulated logistics management of raw materials and finished products in a bicycle manufacturing industry

Software Engineer, Prior Lake Elementary School District, Minnesota, 1983

- Designed and implemented an educational application that helped children in second and third grades with reading comprehension

Education

- Master of Science, Software Engineering, University of St. Thomas, St. Paul, Minnesota
- Bachelor of Arts, Quantitative Methods (Computer Science), University of St. Thomas, St. Paul, Minnesota
- Operations Specialist 'A' School, U.S. Navy, Virginia Beach, Virginia

Technical Skills

Methodologies	<ul style="list-style-type: none"> • Agile, Waterfall, Prototyping, Object Oriented, Unified Process, Method/1
Modeling Tools	<ul style="list-style-type: none"> • Sparx Enterprise Architect, Rational Software Architect, Poseidon for UML, ERwin Data Modeler, Microsoft Visio, Microsoft PowerPoint
Software Technologies	<ul style="list-style-type: none"> • IBM WebSphere (WAS, WMB, WTX, WDP, WMQ, IIB), IBM ODM, WebLogic, Apache Tomcat, Red Hat JBoss EAP, Pegasystems PRPC, SilverStream, WebMethods, Global360 Case 360, Oracle UCM, Tableau, Cognos, EMC xPressions, Salesforce, IBM InfoSphere MDM
Database Technologies	<ul style="list-style-type: none"> • Oracle, Microsoft SQL Server, MySQL, Apache Derby, DB2 UDB, ODBC/JDBC, SQL/OQL/PLSQL, Hibernate/EJB3/JPA, Object Relational Bridge (OBJ)
Software Development	<ul style="list-style-type: none"> • JavaEE, JavaScript, DOM, HTML, XML/XSL/cXML/SOAP/TXLife/XMLife, ASC X12 EDI, REST, JSON
Other Expertise	<ul style="list-style-type: none"> • Architectural Design Patterns, Analysis & Design Patterns, Object Orientated Analysis & Design (OOAD), Service Oriented Architecture (SOA), MicroServices, UML, Enterprise Service Bus (ESB) Pattern, Zachman, The Open Group Architecture Framework (TOGAF)
Training	<ul style="list-style-type: none"> • TOGAF, MuleSoft MuleESB

Introduction

This document captures the Functional Requirements for the State of Arkansas's Integrated Eligibility-Benefits Management (IE-BM) Solution Project. These requirements are focused on meeting the full lifecycle of DHS's business processes needs, as well as enhancing the currently implemented Medicaid E&E Solution. This document should be read in conjunction with the Business Process Analysis (BPA) report which documents the Process Flows and Use Cases associated with these requirements and the Medicaid E&E Solution documentation, which captures the capabilities already implemented. DHS envisions the IE-BM Vendor will leverage Medicaid E&E Solution functionality already implemented, if possible. As such, if the DHS functionality enhances the capabilities of the already implemented Medicaid E&E Solution the capabilities should be implemented across the solution. These requirements and the supporting detail in the BPA must be used to create cost and schedule estimates for the design, development, implementation and ongoing support for the Integrated Eligibility and Benefit Management Engagement (IE-BM) RFP.

The Functional Requirements document contains the following sections:

- 1) Instructions
- 2) Functional Requirements
- 3) Use Case List
- 4) Process Flow List

Within the Functional Requirements, the requirements are categorized by area as detailed below. Each category has its own tab in this workbook.

Introduction

ID	Section Title
FR	Functional Requirement Section
FR1	General Requirements
FR2	Pre-Screening Requirements
FR3	Integrated Eligibility Application Requirements
FR4	Interview Requirements
FR5	Documentation Requirements
FR6	Eligibility Determination/Spend-Down Requirements
FR7	Benefit Issuance Requirements
FR8	Redetermination/Semi-Annual Reporting Requirements
FR9	Client Change Requirements
FR10	Medical Review Team Requirements
FR11	Overpayment, Audits and Appeals Requirements
FR12	Appointment and Caseload Management Requirements
FR13	Reporting and Business Intelligence (BI)

Instructions

State of Arkansas Department of Human Services
Integrated Eligibility and Benefit Management Engagement (IE-BM) RFP
RFP #: SP-17-0012
Template T-6 - Functional Requirements Traceability Matrix

Volume 1 - Technical Proposal

Instructions

This workbook contains functional requirements for the Integrated Eligibility and Benefit Management (IE-BM) Solution. The response codes below should be used by IE-BM Vendors to indicate the fit of their solution to the State Requirements specified in this workbook. This Template must be submitted as an Microsoft Excel file as part of the IE-BM Vendor's Proposal and should be thoroughly completed.

Field	Definition / Instructions
Req. #	Requirement Identification Number: This should be used to refer to requirements in correspondence. DO NOT EDIT THIS FIELD.
Requirement	Requirement: The detailed description of the requirement. DO NOT EDIT THIS FIELD.
Requirement Met	Vendor response to whether the Requirement will be met by the Vendor The Vendor will reply with a "Yes" to Indicate that the requirement, as currently written, will be met by the Vendor's Proposal without any modifications The Vendor will reply with a "Clarification" to indicate that the Vendor intends to propose a clarification and will clarify with proper justification

Instructions

Field	Definition / Instructions
Solution Method	<p>Vendor response to how the Functional Requirement will be met by the Vendor solution. Indicate how the requirement will be met by selecting one of: * Leveraged Functionality - The State Requirement will be met by leveraging/enhancing the EEF Solution functionality already configured and implemented for MAGI Medicaid at DHS * Configuration - The State Requirement will be met by configuring the proposed Solution and/or any existing DHS Enterprise assets already in production * Third Party Product - The State Requirement will be met by commercially available third-party software or hardware assets and is included in this proposal. Note: In the "Suggested Clarifying Comments" column, indicate the name of the proposed third-party software vendor and proposed components and indicate its compliance to DHS' technology or architecture standards. * New Development - The State Requirement will be met through development of new software code to provide specific business or technical services where there are no leverageable off-the-shelf functionality or software assets. Note: This column is not included on the Sections (worksheets) where it does not apply</p>
Proposed Phase	<p>The IE-BM Vendor's response to indicate the implementation phase the requirement will be met. Provide the proposed phase for meeting each requirement. <i>Note: The IE-BM Vendor must identify the number and schedule of proposed implementation phases in the Implementation Approach.</i></p>
Suggested Clarifying Comments	<p>If the Response Code is set to "Clarification" the Vendor must provide clarifying comments with appropriate justification</p>

Defined Terms

State of Arkansas Department of Human Services
 Integrated Eligibility and Benefit Management Engagement (IE-BM) RFP
 RFP #: SP-17-0012
 Template T-6 - Functional Requirements Traceability Matrix

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Defined Terms

Defined Term	Acronym (if used)	Description
Aid for Families with Dependent Children Medically Needy	AFDC MN	This is a medical necessity deprivation factor used by the Medical Review Team.
Aid to Families with Dependent Children	AFDC	A Federal assistance program in effect from 1935 to 1996 created by the Social Security Act (SSA) and administered by the United States Department of Health and Human Services that provided financial assistance to children whose families had low or no income.
Applicant		The Applicant is a person who wishes to apply for benefits and services for themselves and/or their family.
Arkansas	AR	
Arkansas Works	AR Works	This program is the Medicaid Expansion Waiver that Arkansas has which allows the citizens who qualify for the Medicaid Expansion program to have a private insurance provider with portions of the insurance premium subsidized by the government. Citizens who qualify to participate in the current Private Option Program are not qualified to receive Medicaid (Traditional or MAGI).
Arkansas Department of Health	ADH	Arkansas' principal agency for protecting and improving the health and wellbeing of all Arkansans' by providing public health services statewide
Child Care Development Fund	CCDF	Provides child care assistance to eligible low-income working families and students, TEA clients and individuals transitioning from TEA. CCDF also provides support to child care and early childhood education providers through contracts and grants for training, resource and referral activities, printed materials and online resources that promote high quality.
Children's Health Insurance Program	CHIP	A medical coverage source for individuals under age 19 whose parents earn too much income to qualify for Medicaid, but not enough to pay for private coverage.

Defined Terms

Defined Term	Acronym (if used)	Description	
Date of Birth	DOB		
Department of Aging and Adult Services	DAAS	Serves as the focal point for all matters concerning older Arkansans and adults with disabilities. DAAS' mission is to promote the health, safety and independence of these populations.	
Department of Finance Administration	DFA	Provides state income and business tax forms and information.	
Department of Human Services	DHS	Arkansas government's principal agency for protecting the health of all citizens and providing essential human services, especially for those who are least able to help themselves.	
Department of Workforce Services	DWS	Provides accessible employment related and support services responsive to the needs of employers, job seekers, and the community.	
Disaster Supplemental Nutrition Assistance Program	D-SNAP	Provides temporary food assistance for households affected by a natural disaster. A D-SNAP provides one month of benefits to eligible disaster survivors and can facilitate the issuance of supplemental SNAP benefits for ongoing households. To be eligible for D-SNAP, a household must live in the identified disaster area, have been affected by the disaster, and meet certain D-SNAP eligibility criteria.	
Division of County Operations	DCO	An Arkansas DHS Division that accepts and processes applications for nearly a dozen public assistance programs and enrolls consumers in the programs for which they have been approved.	
Division of Medical Services	DMS	A DHS Division that oversees the Medicaid, ARKids First, CHIP, and Long-Term Care systems in AR including the licensing and inspection of nursing homes. DMS' mission is to ensure that high-quality and accessible health services are provided to citizens of AR who are eligible for Medicaid and nursing home care.	
Electronic Benefit Transfer	EBT	A method of benefit distribution in the form of a "credit card". TEA and SNAP use the same card and process. TEA and SNAP benefits are distributed to the client's card on different timelines. WIC program also uses an EBT card, but it is not the same physical card used for TEA and SNAP. WIC and TEA/SNAP do not use the same EBT vendor.	

Defined Terms

Defined Term	Acronym (if used)	Description	
Employment and Training	E&T	The Arkansas DHS contracts with participating adult education centers, public schools, vocational schools, and community colleges to operate a voluntary Employment and Training (E&T) program in 14 of the state's 75 counties (including a single county program, "Workfare"). SNAP participant in counties that offer E&T or Workfare have the opportunities to participate in: Independent Job Search, Job Search Training, Education, Work Experience, On The Job Training and Job Retention activities.	
Enrollment and Eligibility	E&E		
Food and Nutrition Service	FNS	An agency of USDA's Food, Nutrition, and Consumer Services. * The numbering system behind "FNS" in FR13 refers to specific programs within the agency. FNS works to end hunger and obesity through the administration of 15 federal nutrition assistance programs including WIC, Supplemental Nutrition Assistance Program (SNAP), and school meals. In partnership with State and Tribal governments, these programs serve one in four Americans during the course of a year. Working with public, private and non-profit partners, the mission is to increase food security and reduce hunger by providing children and low-income people access to food, a healthful diet and nutrition education in a way that supports American agriculture and inspires public confidence.	
Home and Community-Based Services (HCBS) Waivers	HCBS Waivers	Medicaid programs that provide long-term services and supports to individuals in their home or elsewhere in the community, who would qualify for Medicaid if they lived in an institution like a nursing facility or an intermediate care facility for individuals with intellectual disabilities (ICF/IID). Currently Arkansas has three HCBS Waivers, 1) DDS Waiver for individuals with developmental disabilities; 2) Living Choices for individuals living in Assisted Living Facilities; and 3) ARChoices in Homecare for individuals age 65 and over, or individuals age 21 through 64 with a physical disability.	
Integrated Eligibility - Benefits Management	IE-BM	This is the name of the effort put forth by this RFP.	
Intentional Program Violation	IPV	Applicant or Client status for evaluation during IE-BM eligibility evaluation.	
Limited English Proficiency	LEP	An Applicant or Client language proficiency classification.	

Defined Terms

Defined Term	Acronym (if used)	Description	
Long Term Services and Support	LTSS	An umbrella term to refer to the group of categories of Medicaid that provides services to individuals who are in need of institutional care, but may receive these services in institutions, at home, or elsewhere in the community. Categories include Nursing Facility, ICF/IID, home and community-based waivers and PACE.	
Low Income Home Energy Assistance Program	LIHEAP	A United States Federal social services program first established in 1981 and funded annually through Congressional appropriations.	
Medicaid Management System	MMIS	An Arkansas system that processes all Medicaid claims and provides Medicaid data for program management and various research and care planning activities. AR Medicaid currently has an effort to replace the MMIS.	
Medical Review Team	MRT	The team responsible for evaluating applicant's medical status as part of the eligibility process.	
Modified Adjusted Gross Income	MAGI	<p>The figure used to determine eligibility for premium tax credits and other savings for Marketplace health insurance plans and for Medicaid and the Children's Health Insurance Program (CHIP). For many people, it's identical to or very close to adjusted gross income.</p> <p>Modified adjusted gross income is adjusted gross income plus untaxed foreign income, non-taxable Social Security benefits, and tax exempt interest.</p> <p>MAGI includes these income sources for all household members required to file a tax return. MAGI doesn't include Supplemental Security Income (SSI). MAGI does not appear as a line on your tax return.</p>	
Non-MAGI (not referred to as a non-acronym)	non-MAGI	<p>Non-MAGI refers to person classification group for Medicaid groups who exceed specified income levels but still qualify for pre-defined benefits. The details of non-MAGI qualification are defined by the Federal government.</p> <p>Medicaid provides a variety of medical services including health care coverage, long-term care, mental health services, hospice, orthotics, prescription drugs and various home-based and community-based services for certain eligible low-income and needy populations.</p>	
Optical Character Recognition	OCR	This is a technology that enables you to convert different types of documents, such as scanned paper documents, PDF files or images captured by a digital camera into editable and searchable data.	

Defined Terms

Defined Term	Acronym (if used)	Description	
Overpayment Accounting Services Information System	OASIS	<ul style="list-style-type: none"> - Used by DHS Accounts Receivable group to track Client and Provider overpayments. - Sends notices to clients and participants. - Interfaces with State and Federal Revenue services to intercept tax refunds for repayments. 	
Quality Control	QC	Activities conducted by various AR DHS staff.	
Semi-Annual Report	SAR	A process defined as part of Use Case 12 and 13.	
Short Message Service	SMS	This is a text messaging service component of phone, Web, or mobile communication systems. It uses standardized communications protocols to allow fixed line or mobile phone devices to exchange short text messages.	
Social Security Number	SSN		
Standard Form	SF-	As seen in FR13 "SF-" refers to a standard form with identifying numbers following the hyphen.	
Supplemental Nutrition Assistance Program	SNAP	A program that provides a nutritional safety net for low-income children, families and adults. Recipients receive their benefits on an Electronic Benefits Transfer (EBT) card that works at most grocery stores, approved farmers markets, and some smaller stores that sell food. SNAP recipients cannot get cash back from the cards. More than \$685.1 million in benefits were provided to 685,812 people during AR SFY'14.	
Tax Equity and Fiscal Responsibility Act	TEFRA	<p>The Tax Equity and Fiscal Responsibility Act of 1982 (Pub.L. 97–248), also known as TEFRA, is a United States law that rescinded some of the effects of the Kemp-Roth Act passed the year before. As a result of ongoing recession, a short-term fall in tax revenue generated concern over the budget deficit.</p> <p>TEFRA as used here refers to section 134 of the Act which allows states the option of providing Medicaid to children with disabilities who live at home, but would qualify in an institution. Some states refer to this as Katie Becket children.</p>	
Temporary Assistance for Needy Families	TANF	This program provides temporary financial assistance for pregnant women and families with one or more dependent children. TANF provides financial assistance to help pay for food, shelter, utilities, and expenses other than medical.	

Defined Terms

Defined Term	Acronym (if used)	Description	
Transition Employment Assistance	TEA	A program that provides time-limited cash assistance and employment-related services each month to low-income families with dependent children. There were 24,681 people receiving services in AR SFY'14.	
Veteran's Administration	VA		
Women, Infants and Children	WIC	The Special Supplemental Nutrition Program for Women, Infants, and Children provides Federal grants to States for supplemental foods, health care referrals, and nutrition education for low-income pregnant, breastfeeding, and non-breastfeeding postpartum women, and to infants and children up to age five who are found to be at nutritional risk.	

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General Requirements

Req. #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
General Requirements					
FR1.1	The System will use branching logic for all Client facing data input screens (e.g., applications and changes) to display questions based on the user responses to previous questions including, but not limited to: a. Type of assistance b. Income, expenses and health status	Y	C	Phase 1	
FR1.2	The System will, wherever possible, pre-populate documents being completed by the Clients with information already provided to DHS including, but not limited to: a. Information collected by DHS (e.g., from prior applications) b. Information provided using the Client's online account	Y	C	Phase 1	
FR1.3	The System will track all activity associated with a case and time stamp the receipt of all submissions including, but not limited to, the receipt of: a. Integrated eligibility applications b. Program specific applications (or program specific portions of the integrated eligibility application) c. Redetermination applications/Semi-Annual Reports d. Change submissions e. Additional documentation f. Other submissions as defined by DHS	Y	C	Phase 1	
FR1.4	The System will track Clients who complete an action via the self-service portal and those who complete the same action via a paper form/submission to identify common characteristics among these two populations to allow DHS staff to execute targeted outreach efforts aimed at increasing usage of self-service channels	Y	C	Phase 1	
FR1.5	The System will support tracking each program-specific application through the eligibility process including, but not limited to: a. Completing the application and providing all required documentation b. Interview process c. Additional program-specific steps as defined by DHS	Y	C	Phase 1	
FR1.6	The System will allow the Client to withdraw their application (integrated eligibility or redetermination application). The System will send the Client a confirmation/notification via their preferred method of communication indicating each program for which their application has been withdrawn	Y	C	Phase 1	

FR1. General

Req. #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
FR1.7	The System will cancel any eligibility interview appointments scheduled by the Client if he/she withdraws their application for all programs and provide confirmation to the Client through their preferred method of communication(s)	Y	C	Phase 1	
FR1.8	The System will support Client access through multiple on-line channels including computers and mobile devices (e.g. tablets and smart phones)	Y	C	Phase 1	
FR1.9	The System will support self-service capabilities which allow Clients to view their case information on-line through the entire Life of a Case to address the majority of their questions, including but not limited to: a. Their application, redetermination and any changes submitted b. Payments c. Overpayments d. Scheduled appointments	Y	C	Phase 1	
FR1.10	The System will provide a mechanism to change the eligibility status for multiple Clients at once	Y	C	Phase 1	
FR1.11	The System will allow DHS users with the appropriate rights to view a Client's information associated with any program, regardless of eligibility	Y	C	Phase 1	
FR1.12	The System will leverage information provided to other programs (e.g., Medicaid) to determine status of a Client's case by providing Eligibility Workers access to the available information and by flagging the case for additional review by an Eligibility Worker	Y	C	Phase 1	
FR1.13	The System will support authorized external organizations' read-only access to the System	Y	C	Phase 1	
FR1.14	The System will accept and track electronic and telephonic signatures at the appropriate points throughout the Life of a Case (e.g., application process)	Y	L	Phase 1	Optum will leverage the current State of Arkansas capability to collect, store and retrieve telephonic signatures.
FR1.15	The System will have rules-based access control at the data field level and display information based on the following: a. User role and program affiliation b. Consent provided by a Client c. Any other regulatory or policy-based restrictions	Y	C	Phase 1	
FR1.16	The System will maintain a record (e.g., audit trail) of all changes made to data in the System - including both System initiated changes or user initiated changes. This should be readily searchable by user ID, System ID or Client ID. This must include, but is not limited to: a. The user ID of the person who made the change or System ID if the change was System generated b. The date and time of the change c. The information that was changed d. The data before and after it was changed e. The data source if the change was System generated	Y	C	Phase 1	
FR1.17	The System will record the date, time, and name of users viewing Client information	Y	C	Phase 1	
FR1.18	The System will provide a real-time view of all users accessing a case	Y	C	Phase 1	

FR1. General

Req. #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
FR1.19	The System will allow DHS users to search for a Client's account when a Client calls a DHS facility and address the Client's needs including, but not limited to: a. Make a change to the Client's information b. Schedule an interview c. Look up the Client's case and answer any questions	Y	C	Phase 1	
FR1.20	The System will accommodate leap year processing and daylight savings time start/end dates as part of the design	Y	C	Phase 1	
FR1.21	The System will support communicating with Clients through a variety of methods including, but not limited to: a. Paper communications/mail b. Email c. Text	Y	C	Phase 1	
FR1.22	The System will support establishing and issuing emergency benefits, and issuing benefits resulting from court cases	Y	C	Phase 1	
FR1.23	The System will comply with the Americans with Disabilities Act	Y	C	Phase 1	
FR1.24	The System must support sanctioning a client for a specific time period	Y	C	Phase 1	
FR1.25	The System must track sanctions by individual client, not the household	Y	C	Phase 1	
FR1.26	The System will track the history of clients' data and provide access to authorized DHS workers, such as, but not limited to: a. Program status b. Status reason c. Denial closure reason d. Changes to the client's account information	Y	C	Phase 1	
FR1.27	The System will provide users capabilities to cleanse/manage master data/client information including, but not limited to, identifying potential duplicates within the system, mapping/analyzing data received from external interfaces	Y	C	Phase 1	
User Interface					
FR1.28	The System will provide menus that are understandable, and easy to navigate, by non-technical users	Y	C	Phase 1	
FR1.29	The System will provide secure access to all functional areas	Y	C	Phase 1	
FR1.30	The System will allow DHS workers to customize the user interface based on user rights and roles	Y	C	Phase 1	
FR1.31	The System will provide a user interface which allows for DHS workers to perform their tasks efficiently (e.g., providing wizards, hot keys, screen design to align with the user type's needs)	Y	C	Phase 1	
FR1.32	The System will provide the ability to incorporate a non-restrictive environment for experienced users to directly access a screen or to move from one screen to another without reverting to the menu structure	Y	C	Phase 1	
FR1.33	The System will use language (including warnings, notifications and user prompts) aligned with the educational level of the users and free of grammatical errors and typos	Y	C	Phase 1	

FR1. General

Req. #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
FR1.34	The System will provide the capability to capture an individual's language preference to be used on all notices, correspondence, user interface and other materials	Y	C	Phase 1	
FR1.35	The System will provide Clients and Applicants access to all self-service functionality in multiple languages including: a. English b. Spanish c. Marshallese Translations must be available for all static text and all drop down menus and conditional statements	Y	C	Phase 1	
FR1.36	The System will support users requesting translation services (on-line or via phone) and track and report on all requests	Y	C	Phase 1	
FR1.37	The System will allow the Eligibility Worker to view an English version of any translated notices and documents produced by the System	Y	C	Phase 1	
FR1.38	The System will be designed to minimize the effort required to add support for additional languages	Y	C	Phase 1	
FR1.39	The System will allow a user to navigate through screens (backwards or forwards) without losing data entered	Y	C	Phase 1	
FR1.40	The System will simplify the tasks required for users to independently complete intended actions (e.g., to apply for medical benefits and financial benefits) by providing an intuitive user interface with detailed instructions and additional help information	Y	C	Phase 1	
FR1.41	The System will provide context sensitive help (i.e., pop up text when the user positions the mouse over a specific field) through the user interface. These will refer to specific business rules and must be updated automatically when business rules or policies are amended or updated	Y	C	Phase 1	
FR1.42	The System will display the reference to the applicable policies/business rules, as appropriate, throughout the eligibility determination process (e.g., provide the Eligibility Worker with feedback)	Y	C	Phase 1	
FR1.43	The System will provide the user easy access to self-service help files or multi-media procedure documentation	Y	C	Phase 1	
FR1.44	The System will provide an online help system, available from any screen and any screen field, that provides a description of and the processing performed by a screen or window, data entry format and restrictions, explanation of error messages and other information helpful to the user	Y	C	Phase 1	
FR1.45	The System will provide Clients with access to a mapping tool with directions to DCO County offices	Y	C	Phase 1	
FR1.46	The System will provide the ability to generate drop-down lists to identify options available, valid values and code descriptions, by screen field	Y	C	Phase 1	

FR1. General

Req. #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
FR1.47	The System will conform to State and industry-recognized user interface standards for all System screens, windows, and reports. For example: a. All headings and footers standardized b. Current date and local time displayed c. All references to dates displayed consistently throughout the System d. All data labels and definitions consistent throughout the System and clearly defined in user manuals and data element dictionaries e. All generated messages should be clear and sufficiently descriptive to provide enough information for problem correction and be written in full text f. Specify user (name) with associated data input g. All dropdown lists displayed consistently throughout the System h. All search results displayed consistently throughout the System (i.e., name formats standardized)	Y	C	Phase 1	
FR1.48	The System will allow Users to see a list of, and review, past applications and other activities related to the Applicant and have the capability to filter access to information based on user permissions	Y	C	Phase 1	
FR1.49	The System will allow the Applicant to explore additional services available through the DHS portal	Y	C	Phase 1	
FR1.50	The System will provide real-time visibility to case information to all internal case workers and external Clients	Y	C	Phase 1	
FR1.51	The System will make all applicable forms available for users to download, pre-populated with the Client's information previously provided to any IE-BM Program (e.g., TANF/TEA, Medicaid or SNAP)	Y	C	Phase 1	
FR1.52	The System will make forms available on-line for specific time periods established through predefined business rules	Y	C	Phase 1	
User Account Management					
FR1.53	The System will support one Client account for all programs on the IE-BM Platform (e.g., the Client account is shared between Programs)	Y	C	Phase 1	
FR1.54	The System will allow users to create a new client record if a Client cannot be uniquely identified	Y	C	Phase 1	
FR1.55	The System will only allow one case per Client and provide safeguards to avoid Clients establishing multiple cases. This includes accounts for all programs running on the IE-BM System	Y	C	Phase 1	
FR1.56	The System will allow users to report duplicative records to the system administrator, where multiple matches correctly identify the same Client	Y	C	Phase 1	
FR1.57	The System will provide the ability for authorized third party representatives to support multiple Clients through the eligibility process with their own unique log-in information	Y	C	Phase 1	
FR1.58	The System will provide the ability to historically track changes to Client's information for all of the information collected during the redetermination and change submission processes	Y	C	Phase 1	
FR1.59	The System will time and date stamp all changes made to a Client record and maintain an audit trail that records what information was changed, when the change was entered and by whom	Y	C	Phase 1	

FR1. General

Req. #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
FR1.60	The System will create a user account for new users. Data elements may include, but are not limited to: a. First name b. Last name c. Account password d. Contact information (e.g., email address, phone number, etc.) e. Preferred method of communications f. Emergency contact	Clarification	L	Phase 1	Optum will leverage the Arkansas "CA Identity and Access Management (IAM)" solution to provide this functionality.
FR1.61	The System will grant and limit access to Clients, State staff, and authorized representatives to view/update information, based on user role, access rights and program rule	Y	C	Phase 1	
FR1.62	The System will assign a user the proper access role(s) and create a username and temporary password	Clarification	L	Phase 1	Optum will leverage the Arkansas "CA Identity and Access Management (IAM)" solution to provide this functionality.
FR1.63	The System will ensure that Applicants new to the IE-BM System applying online establish a user account before applying for benefits. The System will allow DHS staff with the appropriate permissions to create accounts for Applicants new to the IE-BM System if they apply through other means.	Y	C	Phase 1	
FR1.64	The System will allow users to update their username and password for those accounts that have not been flagged as potential or actual cases of fraud or abuse	Clarification	L	Phase 1	Optum will leverage the Arkansas "CA Identity and Access Management (IAM)" solution to provide this functionality.
FR1.65	The System will display options for users who have already created a user account but have forgotten their login credentials	Clarification	L	Phase 1	Optum will leverage the Arkansas "CA Identity and Access Management (IAM)" solution to provide this functionality.
FR1.66	The System will allow managing access rights through predefined user profiles	Y	C	Phase 1	
FR1.67	The System will allow the system administrator to create and customize predefined user profiles	Y	C	Phase 1	
FR1.68	The System will support multiple user profiles and roles. Authorized users must be able to define and change the functions, capabilities and data access rights associated with each role or profile	Y	C	Phase 1	
FR1.69	The System will capture the Client's preferred method of contact and will be able to capture multiple mailing and physical addresses for each person, including a primary mailing and physical address	Y	C	Phase 1	
FR1.70	The System will have the capability to automatically deactivate a user account based on business rules	Clarification	L	Phase 1	Optum will leverage the Arkansas "CA Identity and Access Management (IAM)" solution to provide this functionality.

FR1. General

Req. #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
FR1.71	The System will have the capability to lock out a user after a specified number of failed log-in attempts	Clarification	L	Phase 1	Optum will leverage the Arkansas "CA Identity and Access Management (IAM)" solution to provide this functionality.
FR1.72	The System will enforce minimum password requirements compliant with State security policies	Clarification	L	Phase 1	Optum will leverage the Arkansas "CA Identity and Access Management (IAM)" solution to provide this functionality.
FR1.73	The System will display all current user specified preferences (if existing) or default preferences (if none exist)	Y	C	Phase 1	
FR1.74	The System will allow a Client to specify or update their preferences. Preferences may include, but are not limited to: a. Preferred method of communication (e.g., e-mail, SMS, phone, etc.) b. Subscription to alerts and notifications (e.g., changes to Client record, new messages, referral changes, etc.) c. Notification types desired d. Preferred language	Y	C	Phase 1	
FR1.75	The System will allow authorized State users to disable external login for specific cases (e.g., if fraud is detected)	Clarification	L	Phase 1	Optum will leverage the Arkansas "CA Identity and Access Management (IAM)" solution to provide this functionality.
FR1.76	The System will automatically sign off external users (e.g., Clients and service providers) after a certain amount of inactive time	Clarification	L	Phase 1	Optum will leverage the Arkansas "CA Identity and Access Management (IAM)" solution to provide this functionality.
FR1.77	The System will allow an Authorized Representative to perform all functions available through the self-service Portal on behalf of the Client	Y	C	Phase 1	
FR1.78	The System will support establishing Authorized Representative(s) for each user account and capturing their contact information, preferred method of communication, and demographic information	Y	C	Phase 1	
FR1.79	The System will require an Eligibility Worker to verify, during an in-person appointment, that the Client approves adding an Authorized Representative prior to establishing an account	Y	C	Phase 1	
FR1.80	The System will provide the capability for a single Authorized Representative to represent multiple Clients	Y	C	Phase 1	
FR1.81	The System will send all correspondence to the Authorized Representative in addition to the Client	Y	C	Phase 1	
FR1.82	The System will support de-authorizing an Authorized Representative per Client's, Authorized Representative's or DHS staff's request and notify the parties of the change	Y	C	Phase 1	

FR1. General

Req. #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
FR1.83	The System will allow appropriate users to prevent normally-authorized users accessing and/or updating a case, including, but not limited to: a. Specific "high-profile" cases b. Employees' or relatives' cases	Y	C	Phase 1	
FR1.84	The System will support name structure including special characters and other symbols common to DHS	Y	C	Phase 1	
Validation Checks					
FR1.85	The System will validate information as the data is entered including, but not limited to: a. Required field completion b. Field content types (e.g., names must not contain numbers) c. Acceptable values (e.g., no birth dates before 1/1/1900, zip code must have 5 characters and valid for State of Arkansas, etc.) d. Prevent duplicate data (e.g., social security numbers)	Y	C	Phase 1	
FR1.86	The System will ensure that data is formatted (e.g., entered and presented) similarly for similar data fields including, but not limited to: a. Phone numbers b. Addresses c. Social Security Numbers d. Email addresses e. Other data fields as defined by DHS	Y	C	Phase 1	
FR1.87	The System will have a spell check function for all text (e.g., secure messages, case notes)	Y	C	Phase 1	
FR1.88	The System will validate that all mandatory data fields have been completed when a user attempts to submit a form	Y	C	Phase 1	
FR1.89	The System will validate address information including address, zip code, census tract, etc. and provide the capability for users to update their information to the validated information	Y	C	Phase 1	
FR1.90	The System will allow for a system administrator to indicate mandatory and optional fields in forms	Y	C	Phase 1	
FR1.91	The System will provide the ability for users to format text in the System (e.g., capitalization, special characters, highlight, bold, underline)	Y	C	Phase 1	
FR1.92	The System will ensure a Client's information (education level, income, household) is maintained and consistent between the different Programs within the scope of the IE-BM System	Y	C	Phase 1	
FR1.93	The System will standardize address information against an external database	Y	C	Phase 1	
FR1.94	The System will have the capabilities to upload images from a variety of media including, but not limited to, CDs, flash drives and scanners	Y	C	Phase 1	
FR1.95	The System will allow the Intake Worker with proper authorization to override the deadline before which additional actions must be taken	Y	C	Phase 1	
Alerts and Notifications					

FR1. General

Req. #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
FR1.96	The System will have the ability to manually or automatically generate alerts and notifications for users (Worker or Client) according to the rules defined by DHS including, but not limited to: a. Events that occur throughout the entire life of the case b. Actions that need to be taken c. Changes to a case (e.g., age threshold has been hit) d. Calendar-based events e. Events independent of case events (e.g., alerts related to emergencies)	Y	C	Phase 1	
FR1.97	The System will support sending global alerts/notifications to a broad user group based on a variety of factors including, but not limited to: a. User Role b. Profile (e.g., subscriptions preferences) c. Client consent provided d. Access rights	Y	C	Phase 1	
FR1.98	The System will support Client's selected preferred method of communication (e.g., SMS, email, paper, secure messaging)	Y	C	Phase 1	
FR1.99	The System will support requiring notifications be sent by a specific method (e.g., some documents must be mailed, some via certified mail, certain messages cannot be sent via SMS due to security reasons) and restrict notifications be sent through certain method (e.g., certain acknowledgements will only be sent electronically)	Y	C	Phase 1	
FR1.100	The System will send notifications based on the user's preferred method of communications and the notification's configured method of communication. Where possible, electronic delivery methods (email, SMS) will be selected.	Y	C	Phase 1	
FR1.101	The System will provide the capability to simultaneously send notices, correspondence or other materials to multiple Clients via various channels as per State policy	Y	C	Phase 1	
FR1.102	The System will have the capability to consolidate multiple, mandated communications into one mailing per predefined business rules (e.g., if multiple different communications are being sent to a Client on the same day they should be consolidated)	Y	C	Phase 1	
FR1.103	The System will allow Clients and other users to subscribe and unsubscribe to certain alerts and notifications, based on policy and role	Y	C	Phase 1	
FR1.104	The System will provide the ability for authorized users to generate and send mandatory alerts and notifications to all Clients and other users of the System	Y	C	Phase 1	
FR1.105	The System will allow the inclusion of hyperlink references within the content of the alert or notification	Y	C	Phase 1	
FR1.106	The System will save all notifications generated and sent to users	Y	C	Phase 1	
FR1.107	The System will support users producing printable versions of all notifications	Y	C	Phase 1	
FR1.108	The System will provide the ability for authorized users to direct notifications for deceased Clients to the emergency contact in the Client record	Y	C	Phase 1	
FR1.109	The System will send alerts/notifications to users who have: (1) subscribed or been assigned to these types of notifications, (2) the correct access rights, and (3) have a valid reason for viewing this data	Y	C	Phase 1	

FR1. General

Req. #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
FR1.110	The System will be able to generate reminder e-mail, text message or other notifications to remind Clients of required activities throughout the entire life of the case (e.g., eligibility review, Semi-Annual Report, medical evaluations, appointments, pended documents, etc.)	Y	C	Phase 1	
FR1.111	The System will track the status of each Program's eligibility status through the entire eligibility process and allow the Applicant to view the status from their account	Y	C	Phase 1	
FR1.112	The System will save un-editable versions of all notices and forms completed or submitted	Y	C	Phase 1	
FR1.113	The System will require the appropriate security is required to view sensitive information (e.g. rather than sending sensitive information via email or text, provide a link which requires the client to log in before viewing the notification)	Y	C	Phase 1	

**State of Arkansas Department of Human Services
 Integrated Eligibility and Benefit Management Engagement (IE-BM) RFP
 RFP #: SP-17-0012
 Template T-6 - Functional Requirements Traceability Matrix**

Pre-Screening

Req. #	Requirement Description	Use Case #	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
FR2.1	The System will allow the public to access the anonymous pre-screening tool (e.g., no login required) via the Internet and receive eligibility guidance (e.g., probably eligible for benefits, not eligible for benefits or not enough information to issue eligibility guidance) for user-selected programs based on predefined program rules	1	Y	C	Phase 2	
FR2.2	The System will display the various program options and program information with drill-down capability for detailed information and will prompt the user (e.g., the Client, Eligibility Worker) completing the pre-screening tool or application to select one or more of the following programs: a. All Programs b. Medicaid/CHIP (Traditional and MAGI) c. AR Works d. SNAP e. TEA f. WIC g. LIHEAP h. CCDF i. VA j. Other, as determined by the State	1	Clarification	D	Phase 2	Programs that are included in the base Optum IES product include: b, c, d, e, g, and h. Pre-screening capabilities for WIC, LIHEAP, and VA (f, g, and i) will be developed for the state specific requirements.
FR2.3	The System will allow the Applicant to complete one pre-screening questionnaire and get an eligibility assessment for all AR DHS benefits, regardless of whether the System supports the Program rules for final eligibility determination	1	Y	C	Phase 2	

FR2. Pre-Screening

Req. #	Requirement Description	Use Case #	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
FR2.4	<p>The System will provide a set of questions to capture Applicant data for use in providing guidance for programs or benefits and will only require the minimum information to issue eligibility guidance. The questions may include, but are not limited to:</p> <ul style="list-style-type: none"> a. Residency <ul style="list-style-type: none"> 1. Whether or not the Applicant is (or will be) in Arkansas temporarily or permanently. If temporarily, the Applicant’s anticipated duration in the State. b. Household demographics and composition(as detailed as needed) <ul style="list-style-type: none"> 1. Citizenship/alien status 2. Date of birth c. Living arrangement, which may include but not be limited to the following options: <ul style="list-style-type: none"> 1. Private dwelling 2. Homeless 3. Community program/nursing home 4. Live with others d. Income <ul style="list-style-type: none"> 1. Monthly salary, including all cash payments 	1	Y	C	Phase 2	
	<ul style="list-style-type: none"> e. Current benefits received <ul style="list-style-type: none"> 1. Program (SNAP, TANF/TEA, Medicaid, WIC, etc.) 2. State from which benefit is received f. Assets/Resources <ul style="list-style-type: none"> 1. Total value greater than a State-specified amount (yes or no answer) g. Expenses <ul style="list-style-type: none"> 1. Total monthly value 2. The System will provide guidance to the Applicant regarding which expenses to include in the calculation h. Health Status <ul style="list-style-type: none"> 1. Ability to work/perform activities of daily living 2. Disability 3. Pregnancy (current, delivered within last 60 days) 4. Referred by or need referral for mental health benefits i. Refugee status j. Benefits received during or after aging out of Foster Care 		Y	C	Phase 2	

FR2. Pre-Screening

Req. #	Requirement Description	Use Case #	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
FR2.5	If the Applicant chooses specific Program(s), the System will ask only those questions required to make a preliminary eligibility determination for the chosen Program(s)	1	Y	C	Phase 2	
FR2.6	The System will capture all current sources of gross income (estimated) and will calculate the monthly income if the Applicant does not know or cannot estimate their monthly income	1	Y	C	Phase 2	
FR2.7	The System will provide guidance to the Applicant regarding which assets/resources to include in the calculation for total value of the assets including, but not limited to, the following types of assets: a. Bank accounts b. Liquid assets c. Real estate d. Life insurance e. Other assets/resources as defined by DHS	1	Y	C	Phase 2	
FR2.8	The System will provide guidance to the Applicant regarding expenses criteria including, but not limited to, the following types: a. Medical expenses b. Living arrangement expenses c. Utility expenses d. Alimony/child support e. Dependent care expense f. Incapacitate adult expenses g. Shelter expenses h. Other expenses as defined by DHS	1	Y	C	Phase 2	
FR2.9	The System will determine and display, based on predefined eligibility business rules, the preliminary eligibility assessment for selected programs including, but not limited to, the following program specific determinations: a. The Applicant may be eligible for these benefits b. The Applicant may not be eligible for these benefits c. The Applicant did not provide enough information to determine whether or not the Applicant may be found eligible for benefits	1	Y	C	Phase 2	
FR2.10	The System will display text explaining how the eligibility guidance was made and any limitations (e.g., the guidance is not a guarantee of eligibility)	1	Y	C	Phase 2	
FR2.11	The System will provide the Applicant easy access to the online integrated application and provide instructions how to apply for benefits and receive an official decision about his/her (or household) eligibility, even if the pre-screening tool indicates that the Applicant may not be eligible	1	Y	C	Phase 2	
FR2.12	The System will provide easy access to the integrated application and the option of transferring the Applicant's data from the anonymous pre-screening tool to the self-service integrated application, even if the pre-screening tool indicates that the Applicant may not be eligible	1	Y	C	Phase 2	

FR2. Pre-Screening

Req. #	Requirement Description	Use Case #	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
FR2.13	The System will require the Applicant to create an account online and allow information to pre-populate pre-screening data entry fields into the integrated eligibility application, where appropriate, if the Applicant elects to apply in the same session	1	Y	C	Phase 2	
FR2.14	The System will allow pre-screening queries from potential Applicants who currently reside in other states besides Arkansas	1	Y	C	Phase 2	
FR2.15	The System will alert the Applicant of their rights and options for voter registration	1	Y	C	Phase 2	
FR2.16	The System provides the Applicant a list of community action agencies at which the Applicant can apply if the Applicant appears eligible for LIHEAP	1	Y	C	Phase 2	
FR2.17	The System will provide any available information regarding actions the Applicant may take such as seeking assistance from supplemental resources, if the Applicant does not appear to qualify for a specific Program	1	Y	C	Phase 2	
FR2.18	The System will provide the Applicant the available options for receiving and completing an application, including but not limited to: a. Contacting a DCO County Office b. Mailing a paper application c. Accessing the online application if they choose to apply at a later time	1	Y	C	Phase 2	
FR2.19	The System will allow the Applicant to re-start the process and enter a new set of information at any time	1	Y	C	Phase 2	
FR2.20	The System will allow the Applicant to erase all entered information at any time prior to final submission of the pre-screening questionnaire	1	Y	C	Phase 2	
FR2.21	The System will allow the Applicant to exit the pre-screening process at any time before final submission without formal application to any Program	1	Y	C	Phase 2	
FR2.22	The System will allow the Applicant to complete an application to get an official decision about his/her (or household) eligibility even if the Pre-screening tool indicates that the Client may not be eligible	1	Y	C	Phase 2	
FR2.23	The System will provide the Applicant a PDF version of the information presented and the preliminary eligibility determination that can be printed or emailed to the Applicant (i.e. a receipt)	1	Y	C	Phase 2	
FR2.24	The System will allow Arkansas staff to easily update/add/modify the rules applied to and Programs included in the pre-screening application	1	Y	C	Phase 2	
FR2.25	The System will provide context sensitive help (i.e., pop up text when the Applicant positions the mouse over a specific field)	1	Y	C	Phase 2	
FR2.26	The System will display the DHS contact number(s) throughout the application process	1	Y	C	Phase 2	
FR2.27	The pre-screening questionnaire will be written in such a way that complies with Limited English Proficiency (LEP) requirements as defined by Program policy	1	Y	C	Phase 2	

FR2. Pre-Screening

Req. #	Requirement Description	Use Case #	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
FR2.28	The pre-screening questionnaire and instructions will be available per State language requirements (for example Spanish and Marshallese in addition to English), and the Applicant will be offered the choice of language at the beginning	1	Y	C	Phase 2	

State of Arkansas Department of Human Services
 Integrated Eligibility and Benefit Management Engagement (IE-BM) RFP
 RFP #: SP-17-0012
 Template T-6 - Functional Requirements Traceability Matrix

Integrated Eligibility Application

Req. #	Requirement Description	Use Case #	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
Application General Requirements						
FR3.1	The System will support the following application submission approaches: a. On-line via the portal b. Fax c. Email d. Mail e. In person f. Drop off g. On the telephone	2, 3, 4	Y	C	Phase 2	
FR3.2	The System will prompt the Applicant to select one or more of the following: a. All Programs b. Medicaid/CHIP (Traditional and MAGI) c. AR Works d. SNAP e. TEA C39 f. WIC g. CCDF h. VA i. Other, as determined by the State	2	Y	C	Phase 2	
FR3.3	The System will pre-populate the information fields whenever available, including, but not limited to information from the Applicant's DHS account and pre-screening application: a. Name b. SSN c. DOB d. Address e. Household members f. Income g. Assets/Resources h. Others to be defined by the State	2, 3, 4	Y	C	Phase 2	
FR3.4	The System will search the Client's existing IE-BM case record and link it to the new application if the Applicant has submitted an application or received benefits for any DHS, DWS and/or ADH (WIC) Program	2	Y	C	Phase 2	
FR3.5	The System will present the Applicant the option to start a new application or continue a previous application, if one is available	2	Y	C	Phase 2	

FR3. Application

Req. #	Requirement Description	Use Case #	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
FR3.6	The System will capture the Applicant's consent to share and use their information according to State policy	2, 3, 4	Y	C	Phase 2	
FR3.7	The System will present the history of any disability to the Applicant including, but not limited to: a. Whether the Applicant has previously been evaluated for a disability b. History of closures to benefits, especially recent closures c. Information regarding treatment compliance (e.g., proof of compliance)	2	Y	C	Phase 2	
FR3.8	The System will determine if the Applicant must be reviewed by the Medical Review Team (MRT) to verify the disability. If this is the case, the MRT will be notified by the System	2, 3, 4	Y	C	Phase 2	
FR3.9	The System will determine and display the list of documentation required for the application to be considered complete	2	Y	C	Phase 2	
FR3.10	The System will allow the Applicant to proceed with the application process (i.e., to schedule and attend the interview, if applicable), but will prevent the Applicant from receiving benefits until the Applicant submits the required documents and the Eligibility Worker has verified the documents and completed the required interview	2	Y	C	Phase 2	
FR3.11	The System will display the summary of the information collected and allow the Applicant to make final changes/updates to all data elements	2	Y	C	Phase 2	
FR3.12	The System will start the timer for the deadline against which the application must be processed, according to State and Federal guidelines, if the Applicant has completed the minimum requirements (i.e., Applicant name, address, electronic signature)	2, 3, 4	Y	C	Phase 2	
FR3.13	The System will capture key information required to prioritize, route and track the application (at the Program specific application level). This may include, but is not limited to: a. Presumptive eligibility for Medicaid b. Expedited SNAP benefits c. Disaster SNAP (D-SNAP)	2, 3, 4	Y	C	Phase 2	
FR3.14	The System will require the Applicant to complete additional data fields, to be defined by the State, for the State to conduct child support enforcement activities. The System will provide the Applicant's furnished information to the Child Support System	2	Y	C	Phase 2	
FR3.15	The System will determine the Program specific deadline by which outstanding items must be completed	2, 3, 4	Y	C	Phase 2	
FR3.16	The System will validate information based on available real-time and stored data sources	2, 3, 4	Y	C	Phase 2	
FR3.17	The System will flag information for review by the Eligibility Worker if the results of the verifications are different than what is reported by the Applicant (If the person is only applying for programs that are not administered by IE-BM (WIC, VA Benefits, Child Care) the data will be flagged and sent to the appropriate system.)	2, 3, 4	Y	C	Phase 2	
FR3.18	The System will allow the Applicant to schedule the appointment for their eligibility interview if the System determines an interview is required	2	Y	C	Phase 2	
FR3.19	The System will generate a formal notification, reporting each Program for which the Applicant has submitted an application (or for all DHS/DWS Programs) and send the notification to the Applicant via their preferred method of written contact	2, 3, 4	Y	C	Phase 2	

FR3. Application

Req. #	Requirement Description	Use Case #	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
FR3.20	The System will provide the Applicant with the ability to withdraw the application at any point in the application process	2	Y	C	Phase 2	
FR3.21	The System will send the Applicant a notification reporting each Program for which the Applicant has withdrawn the application	2	Y	C	Phase 2	
FR3.22	The System will cancel the appointment scheduled if the Applicant has withdrawn all of their Program specific applications	2, 21	Y	C	Phase 2	
FR3.23	The System will allow Applicants to leverage documents and information submitted across divisions (e.g., Applicants do not need to submit information and documents required for DHS if they have already been submitted)	2, 3, 4, 9, 11, 12, 13, 15, 17	Y	C	Phase 2	
FR3.24	The System will allow appropriate State users to leverage documents and information submitted across agencies		Y	C	Phase 2	
FR3.25	The System will support one Applicant account for DHS, DWS, ADH (WIC) and DFA Programs. The system will not allow users to establish multiple accounts within the system	2	Y	C	Phase 2	
FR3.26	The System will prevent the submitted application from being edited until the eligibility interview	2	Clarification	D	Phase 2	Preventing the submitted application from being edited up until the eligibility interview will be custom-built for Arkansas.
FR3.27	The System will track the information required to establish the Program specific application's priority (e.g., expedited applications for faster processing)	2, 3, 4	Y	C	Phase 2	
FR3.28	The System will provide a PDF version of the information presented that can be printed or emailed to the Applicant	2	Y	C	Phase 2	
FR3.29	The System will send a State-defined message to the Applicant using email or SMS/text based on their preferred method of communication if an application remains in "draft" state for a predefined time period	2	Y	C	Phase 2	
FR3.30	The System will assign priority and track deadlines to comply with State and Federal guidelines	2, 3, 4	Y	C	Phase 2	
FR3.31	The System, user interface, and Application will minimize the use of complex language and terms (i.e., fourth grade level), as defined by Program policy	all	Y	C	Phase 2	
FR3.32	The application and instructions will be available per State language requirements (for example Spanish and Marshallese)	all	Y	C	Phase 2	
FR3.33	The System will track all historical actions taken on a case	all	Y	C	Phase 2	
FR3.34	The System will allow State staff (those with proper authorization only) to easily add, remove, and edit questions in the eligibility application	2, 3, 4	Y	C	Phase 2	
FR3.35	The System will provide the capability to capture multiple addresses for each person and select different mailing address for notices, correspondence and other materials by type and/or by period of time	all	Y	C	Phase 2	
FR3.36	The System will allow appropriate staff (e.g., site supervisors, unit supervisors, Program administrators) to access case files and review the eligibility determinations made by Intake Workers	3	Y	C	Phase 2	

FR3. Application

Req. #	Requirement Description	Use Case #	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
FR3.37	The System will support receiving applicatoins from the Federally Funded marketplace, confirming they are complete, alerting eligibilty workers if they are not complete and processing the applications through a flow similar to applicatoins received on line if they are complete	all	Y	C	Phase 2	
Application Completed Online						
FR3.38	The System will allow the Applicant to select the "Integrated Eligibility Application" on the DHS internet portal in order to begin the application process	2	Y	C	Phase 2	
FR3.39	The System will require the Applicant to enter their credentials to log in if the Applicant has already created a user account for DHS	2	Y	C	Phase 2	
FR3.40	The System displays options to recover the Applicants credentials if the Applicant has already created a user account but has forgotten their login credentials. Options include but are not limited to: a. Correctly answering their security questions b. Contacting a help line c. Asking to have a new, temporary password emailed to their email address on file	2	Y	C	Phase 2	
FR3.41	The System will allow the Applicant to create a new account if the Applicant has not yet created a user account	2	Y	C	Phase 2	
FR3.42	The System will display the various Program options and Program information including the ability to review additional details about each Program, the benefits it provides, and the primary eligibility criteria	2	Y	C	Phase 2	
FR3.43	The System will display a step-by-step form with branching logic requesting required and optional data elements (as defined by State and Federal policy) about themselves and all household members	2	Y	C	Phase 2	
FR3.44	The System will provide context sensitive help (e.g., knowledge repository, procedure documentation, etc.) through the user interface	2	Y	C	Phase 2	
FR3.45	The System will provide the option to attach electronic documentation	2	Y	C	Phase 2	
FR3.46	The System will present the preliminary eligibility determinations by Program to the Applicant and display additional actions by Program that the Applicant will need to complete before they can receive benefiits	2	Y	C	Phase 2	
FR3.47	The System will be designed for Applicants to enter their data into the System once	all	Y	C	Phase 2	
FR3.48	The System will support users submitting the required approvals (consents) to share their information between Programs	2	Y	C	Phase 2	
FR3.49	The System will allow the Applicant to restart the process and enter a new set of information at any time prior to final submission of the application	2	Y	C	Phase 2	
FR3.50	The System will allow the Applicant to save the application and exit at any time before final submission without formal application to any Program	2	Y	C	Phase 2	
FR3.51	The System will allow the Applicant to resume saved applications from the most advanced location of the application	2	Y	C	Phase 2	
FR3.52	The System will allow the Applicant to give access to their draft or completed applications to an Intake or Eligibility Worker	2, 3	Y	C	Phase 2	
FR3.53	The System will archive or remove applications in un-submitted, approved or denied status in accordance with record retention and other state policies	2, 3, 4	Y	C	Phase 2	

FR3. Application

Req. #	Requirement Description	Use Case #	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
FR3.54	The System will accept electronic/telephonic signatures at the appropriate points in the application process	2	Y	L	Phase 2	Optum will leverage the current State of Arkansas capability to collect, store and retrieve telephonic signatures.
FR3.55	The System will display DHS contact numbers throughout the application process	2	Y	C	Phase 2	
Application Completed with an Intake Worker						
FR3.56	The System will provide a User Interface configured for use by Intake Workers to complete the application with the Applicant	3	Y	C	Phase 2	
FR3.57	The System will allow the Intake Worker to create a new record for the Applicant if the Applicant does not exist in System	3	Y	C	Phase 2	
FR3.58	The System will support Intake Workers searching for an Applicant across all Programs on the System	3	Y	C	Phase 2	
FR3.59	The System will allow the Intake Worker to record any notes taken	3	Y	C	Phase 2	
FR3.60	The System will allow the Intake Worker to see a list of, and review, past applications for the Applicant	3	Y	C	Phase 2	
FR3.61	The System will allow the Intake Worker to confirm, deny and add comments to information collected from external database queries and search results	3	Y	C	Phase 2	
Application Completed by Applicant on a Paper Form						
FR3.62	The System will utilize bar coding and Optical Character Recognition (OCR) to read the application and pre-populate information whenever possible	4	Y	C	Phase 2	
FR3.63	The System will display the scanned application in order for the Intake Worker to confirm any pre-populated fields	4	Y	C	Phase 2	
FR3.64	The System will pre-populate the information fields from the Applicant's DHS account and pre-screening application where the information is not available from the scanned image	4	Y	C	Phase 2	
FR3.65	The System will allow the Intake Worker to review the pre-populated fields and enter in corrected or new information	4	Y	C	Phase 2	
FR3.66	The System will display the application information in the same sequence as on the paper application in order to facilitate data verification and entry	4	Y	C	Phase 2	
Authorized Representatives						
FR3.67	The System will support account registration of third parties who are authorized to help Applicants complete the application in the field, including hospitals certified by the State to support a client's presumptive eligibility for Medicaid	all	Y	C	Phase 2	
FR3.68	If the application is completed with the help of a third party, the System will record the user (third party) who helped the Applicant complete the application	all	Y	C	Phase 2	
FR3.69	The System will allow the Intake Worker to associate an Applicant with an Authorized Representative	3	Y	C	Phase 2	
FR3.70	The System will capture the Authorized Representative's relationship to the Applicant	all	Y	C	Phase 2	
FR3.71	The System will display a list of Applicants for whom the individual can act as an Authorized Representative. An Authorized Representative is an individual empowered to act on behalf of another Applicant	all	Y	C	Phase 2	

FR3. Application

Req. #	Requirement Description	Use Case #	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
FR3.72	The System will capture the Authorized Representative's contact information and preferred method of contact	all	Y	C	Phase 2	
FR3.73	The System will send all correspondence to the Authorized Representative in addition to the Applicant until the Authorized Representative is de-authorized	all	Y	C	Phase 2	
FR3.74	The System will allow the Applicant or the Authorized Representative to de-authorize the Authorized Representative from viewing and acting on behalf of the Applicant, when the Authorized Representative is not a legal guardian, under specified conditions	all	Y	C	Phase 2	
FR3.75	The System will notify both parties of authorization or de-authorization of an Authorized Representative to act on behalf of an Applicant	all	Y	C	Phase 2	

Interviews

Req. #	Requirement Description	Use Case #	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
FR4.1	The System will allow authorized users to search for Applicants/Clients and completed applications using fuzzy logic	all	Y	C	Phase 3	
FR4.2	The System will present relevant information to the Eligibility Worker related to the Applicant that is already in the System, as allowed by State policy, including previous applications, determinations, flags, determinations of fraud, and existing overpayments	5, 14	Y	C	Phase 3	
FR4.3	The System will issue a request to the Applicant to contact the DCO County Office to reschedule the required interview if the Applicant does not attend a scheduled appointment if required by the Program policy	5, 14	Y	C	Phase 3	
FR4.4	The System will display the steps (i.e. a script) for the Eligibility Worker to conduct the interview	5, 14	Y	C	Phase 3	
FR4.5	The System will associate interview notes with the specific Program for which the interview is being conducted	5, 14	Y	C	Phase 3	
FR4.6	The System will record the Applicant's worker classification (e.g., mandatory, voluntary, not work eligible) and make it available to the E&T or DWS Systems	5, 14	Y	C	Phase 3	
FR4.7	The System will display all information required to complete the interview and prompts the interviewer to collect any additional content	5, 14	Y	C	Phase 3	
FR4.8	The System will record which data the Eligibility Worker has validated and confirmed during the interview	5, 14	Y	C	Phase 3	
FR4.9	The System will present a list of the documents still outstanding for each Program applied	5, 14	Y	C	Phase 3	
FR4.10	The System will record any additional documentation requested by the Eligibility Worker	5, 14	Y	C	Phase 3	
FR4.11	The System will allow the Eligibility Worker to override data fields if the Applicant indicates the pre-populated application data is not correct or current and the System will record both the original data as well as the modified data	5, 14	Y	C	Phase 3	
FR4.12	The System will alert the authorized approver of the change to the original data and will require approval of the override, if required by policy	5, 14	Y	C	Phase 3	
FR4.13	The System will validate the information provided by the Eligibility Worker during the interview based on available real-time and stored data sources	5, 14	Y	C	Phase 3	
FR4.14	The System will display the summary of the collected information and allows the Eligibility Worker to make final changes/updates after reviewing the collected information with the Applicant	5, 14	Y	C	Phase 3	

FR4. Interviews

Req. #	Requirement Description	Use Case #	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
FR4.15	The System will save a summary of all the documents provided, any outstanding actions, and actions taken during the interview	5, 14	Y	C	Phase 3	
FR4.16	The System will allow the Eligibility Worker to record any notes taken while conducting the interview	5, 14	Y	C	Phase 3	
FR4.17	The System will track documents — electronic and paper — received and/or verified	5, 14	Y	C	Phase 3	
FR4.18	The System will send interview appointment reminders to Applicants, using the Applicants preferred electronic communications method and at a frequency and timeframe determined by the State	5, 14	Y	C	Phase 3	
FR4.19	The System will prompt the Eligibility Worker to ask any IE-BM Program-specific application and interview questions the Client has not already answered if the Client is interested in receiving benefits from an IE-BM Program in which they are not yet enrolled	5, 14	Y	C	Phase 3	
FR4.20	The System must track tasks by type, deadline, and priority	5, 14	Y	C	Phase 3	

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 Template T-6 - Functional Requirements Traceability Matrix

Documentation

Req. #	Requirement Description	Use Case #	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
Electronic Documentation						
FR5.1	The System will display to the Applicant/Client any outstanding required documents when Applicant/Client logs into their online account	all	Y	C	Phase 4	
FR5.2	The System will display a list of documents, as defined by the State, that can be submitted by the Applicant/Client at any point	6	Y	C	Phase 4	
FR5.3	The System will allow the Applicant/Client to select the specific document type to be uploaded	6	Y	C	Phase 4	
FR5.4	The System will allow the Applicant/Client to upload the electronic version/picture of the required documents	6	Y	C	Phase 4	
FR5.5	The System will determine if the document(s) provided are readable and in a file format acceptable to the State	6	Y	C	Phase 4	
FR5.6	The System will allow the Applicant/Client to enter any additional information required including free form text comments	6	Y	C	Phase 4	
FR5.7	The System will associate all attachments with the Applicant/Client record and application and provide confirmation after saving the additional information successfully	6	Y	C	Phase 4	
FR5.8	The System will create an itemized list of documents that have been provided. The itemized list will serve as a receipt and will be issued to the Applicant/Client in the manner chosen by the Applicant/Client (e.g., printed, emailed, mailed)	6	Y	C	Phase 4	
FR5.9	The System will support authorized DHS Workers uploading electronic documents (e.g. medical records) to an Applicant/Client's record	6	Y	C	Phase 4	
FR5.10	The System will allow Applicants/Clients to leverage documents and information submitted across divisions	all	Y	C	Phase 4	
FR5.11	The System will recognize that documents submitted for one benefits Program will also be applied to the same Applicant/Client's application to other benefits Programs when the other benefits Program requires the same document; the Applicant/Client will not be required to resubmit the same document	all	Y	C	Phase 4	
FR5.12	The System will recognize that a certain type of document may be required for some cases in order to render an eligibility determination whereas in other cases the same type of document will only be required to submit a change in circumstance	all	Y	C	Phase 4	

Documentation

Req. #	Requirement Description	Use Case #	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
Paper Documentation						
FR5.13	The System will provide a user interface configured to allow Document Processing Staff to upload imaged paper documents	7	Y	C	Phase 4	
FR5.14	The System will allow the Documentation Processing Staff Worker to upload documents to the Applicant's record	7	Y	C	Phase 4	
FR5.15	The System will identify if the document contains a DHS barcode, and the information about the form will be read from the barcode and uploaded with the document	7	Y	C	Phase 4	
FR5.16	The System will determine if the document(s) provided are readable	7	Y	C	Phase 4	
FR5.17	The System will recognize that a blank document has been submitted, delete the image and prompt the Documentation Processing Staff Worker to repeat the upload	7	Y	C	Phase 4	
FR5.18	The System will require the Documentation Processing Staff Worker to indicate the type of document if the document was not barcoded	7	Y	C	Phase 4	
FR5.19	The System will allow the Documentation Processing Staff Worker to enter additional information or comments in a free text box	7	Y	C	Phase 4	
FR5.20	The System will notify the Client/Applicant of receipt of the document and next steps the Client/Applicant must take	7	Y	C	Phase 4	
FR5.21	The System will begin the timer, upon successful upload, indicating when the paper documents should be destroyed	7	Y	C	Phase 4	
FR5.22	The System will time stamp the document entry and save the document in the repository of documents that were unable to be associated with a case record if the Document Processing Staff Worker is unable to identify the specific case to which the document should be associated	7	Y	C	Phase 4	
FR5.23	The System will make the documents searchable and able to be associated with a case record if more identifying information is associated with the document at some point in the future	7	Y	C	Phase 4	
FR5.24	The System will receive electronic versions of the paper documents (e.g., email or fax) and consider these similar to electronic documents	6, 7	Y	C	Phase 4	
FR5.25	The System will purge unassociated documents based on State policy	7	Y	C	Phase 4	

Eligibility Determination/Spend-Down

Req. #	Requirement Description	Use Case #	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
Eligibility Determination						
FR6.1	The System will continuously review all submitted applications and redeterminations to determine if all of the required documents and information for a Program specific application or redetermination have been submitted	8	Y	C	Phase 3	
FR6.2	The System will notify the Eligibility Worker that there are applications or redeterminations that require Eligibility Worker review if the System identifies an application/redetermination which, based on State or Federal policy, requires Eligibility Worker review in order to process the determination	8	Y	C	Phase 3	
FR6.3	The System will prioritize the work queue of eligibility determinations based on policy	8	Y	C	Phase 3	
FR6.4	The System will allow the Eligibility Worker to search for applications or redeterminations by a number of factors including, but not limited to: a. Date of application b. Expedited applications c. Program(s) d. Geography/DCO County Office e. Eligibility Worker conducting interview	8	Y	C	Phase 3	
FR6.5	The System will allow the Eligibility Worker to select an application that is ready for processing	8	Y	C	Phase 3	
FR6.6	The System will indicate that it has validated the information provided based on available real-time and stored data sources and allow the Eligibility Worker to view the information/documents provided to determine whether they satisfy the information/documentation requirements	8	Y	C	Phase 3	
FR6.7	The System will calculate the benefit amount	8	Y	C	Phase 3	
FR6.8	The System will allow the Eligibility Worker to authorize the benefits issuance, if required by policy	8	Y	C	Phase 3	
FR6.9	The System will incorporate existing overpayments information and any flags to the Client/Applicant's eligibility (e.g., IPV first offender, IPV second offender, or IPV third offender) into the eligibility determination and update overpayments information accordingly	8	Y	C	Phase 3	
FR6.10	The System will display the Program specific eligibility determinations and benefit amounts for each Program applied	8	Y	C	Phase 3	

FR6. Eligibility Determination

Req. #	Requirement Description	Use Case #	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
FR6.11	The System will make one of two determinations: a. Approved, whereby no actions are outstanding, a certification/eligibility period is established, and the benefits are approved b. Denied and/or closed (for redetermination/recertification), whereby the Program specific determination or redetermination application is denied or closed outright, respectively	8	Y	C	Phase 3	
FR6.12	The System will record why the application was denied	8	Y	C	Phase 3	
FR6.13	The System will allow the Client/Applicant to submit new information before a certain deadline as defined by Program policy if the application is denied	8	Y	C	Phase 3	
FR6.14	The System will not create a new case but will re-open the previously closed one if the Client Case was "closed" but then the Client was "approved" for benefits based on a subsequent case action	8	Y	C	Phase 3	
FR6.15	The System will generate a notification to the Client/Applicant indicating their application's status and any outstanding actions and send the notification via the Client/Applicant's preferred method of communication	8	Y	C	Phase 3	
FR6.16	The System will deny benefits or change the Client/Applicant's status to ineligible and terminate any benefits currently being issued to the Client/Applicant if all outstanding actions have not been completed within the predetermined time	8	Y	C	Phase 3	
FR6.17	The System will allow the Eligibility Worker to update the deadline on the System if the Eligibility Worker determines that the Client/Applicant is not at fault (e.g., the third party Service Provider has not yet scheduled or conducted the evaluation)	8	Y	C	Phase 3	
FR6.18	The System will provide the WIC eligibility information to the ADH WIC System for all applicants	8	Clarification	D	Phase 3	WIC eligibility will be customized and configured for Arkansas.
FR6.19	The System will provide the TEA eligibility information to the DWS Welfare-to-Work System	8	Y	C	Phase 3	
FR6.20	The System will receive information about the required participation for Able-Bodied Adults Without Dependents	8	Y	C	Phase 3	
FR6.21	The System will provide the SNAP referral information to the E&T Vendor System for appropriate participants	8	Y	C	Phase 3	
FR6.22	The System will capture E&T or Workfare participants who do not comply with mandatory participation requirements	8	Y	C	Phase 3	
FR6.23	The System will provide the Medicaid/CHIP/AR Works eligibility information and cost of care amount to the Division of Medical Services MMIS	8	Y	C	Phase 3	

FR6. Eligibility Determination

Req. #	Requirement Description	Use Case #	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
FR6.24	The System will produce a report of all Clients who are eligible for HCBS Waivers and the date and time of their eligibility. This report will include all Clients for whom a HCBS Waivers enrollment has not yet occurred (i.e. those waiting for a program slot)	8	Clarification	D	Phase 3	Functionality for full eligibility for HCBS waivers will be customized to verify the required capabilities are addressed for the State of Arkansas
FR6.25	The System will allow the Eligibility Worker to enter the date of the program placement upon placement of a Client in a HCBS Waivers program slot	8	Y	C	Phase 3	
FR6.26	The System will update the required annual review date to be the date of placement into a HCBS Waivers program	8	Y	C	Phase 3	
FR6.27	The System will allow, based on business rules, certain Program specific applications to be denied or payments to be authorized automatically based on the new information without a review by an Eligibility Worker	8	Y	C	Phase 3	
FR6.28	The System will monitor deadlines on a continuous basis and notify the Client/Applicant and Eligibility Worker at a predefined frequency per State policy, send communications reminding them of the missing information/documentation	8	Y	C	Phase 3	
FR6.29	The System will allow the Eligibility Worker to override the deadline before which additional actions must be taken	8	Y	C	Phase 3	
FR6.30	The System will allow DHS staff (e.g., site supervisors, unit supervisors, Program administrators) to access case files and review, override and approve the eligibility determinations made by Eligibility Workers	8	Y	C	Phase 3	
FR6.31	The System will allow the Eligibility Worker to request additional verifications and will notify the Client for each verification that has been requested and the deadline before which each verification must be provided	8	Y	C	Phase 3	
FR6.32	The System will generate reminders that a vendor payment is due	8	Y	C	Phase 3	
FR6.33	The System will re-run eligibility for all when the rules engine changes (for example annual April FPL table updates)	8	Y	C	Phase 3	
FR6.34	The System will not create a new case but will re-open the previously closed one if the Client case was "closed" but then the Client was "approved" for benefits based on a subsequent case action	8	Y	C	Phase 3	
Spend-Down						
FR6.35	The System will determine the spend-down amount by calculating the difference between the Applicant's countable income and the Medicaid countable income threshold upon determination of categorical eligibility with the exception of the countable income threshold for Medicaid (categorically eligible — Medicare/over 65, disabled, elderly, pregnant, U18) by the System	9	Y	C	Phase 3	
FR6.36	The System will notify the Eligibility Worker that there is an Applicant with a spend-down determination	9	Y	C	Phase 3	

FR6. Eligibility Determination

Req. #	Requirement Description	Use Case #	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
FR6.37	The System will allow the Eligibility Worker to enter each expense into the System	9	Y	C	Phase 3	
FR6.38	The System will calculate if the spend-down amount has been met for the spend-down period, any unmet liability, and the date that eligibility begins and ends for the period	9	Y	C	Phase 3	
FR6.39	The System will send a notification to the Client whether the spend-down amount has or has not been met	9	Y	C	Phase 3	
FR6.40	The System will inform the DMS MMIS of any unmet liability and the eligibility start date when the spend down amount has been met	9	Y	C	Phase 3	
FR6.41	The System will prevent duplicate expenses by warning the Eligibility Worker of expenses with matching date, type and amounts	9	Y	C	Phase 3	
FR6.42	The System will calculate and notify Eligibility Worker if bills were paid outside of the spend-down period	9	Y	C	Phase 3	
Processing the Semi-Annual Reports (SAR) or Annual Review						
FR6.43	The System will display to the Eligibility Worker a queue of submitted Semi-Annual Reports	13	Y	C	Phase 3	
FR6.44	The System will allow the Eligibility Worker to review the eligibility redetermination and benefit amount for each Program for which the Client submitted the Semi-Annual Report	13	Y	C	Phase 3	
FR6.45	The System will provide access to external databases for the Eligibility Worker to conduct any additional research that may be required	13	Y	C	Phase 3	
FR6.46	The System will identify if the verification differs from the information provided by the Client and issue a notification to the Client requesting additional information	13	Y	C	Phase 3	
FR6.47	The System will generate a notification for the Client with information regarding the status of their SAR or Annual Review	13	Y	C	Phase 3	
FR6.48	The System will assign the review to Eligibility Workers based on the business process defined by the State	13	Y	C	Phase 3	

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Benefit Issuance					
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Req. #	Requirement Description	Use Case #	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
FR7.1	The System will determine the appropriate benefit payment dates	10	Y	C	Phase 3	
FR7.2	The System will identify all payments that are due for the specific time period for all Clients based on approval status and issuing date (for recurring payments)	10	Y	C	Phase 3	
FR7.3	The System captures the information associated with these transactions, including, but not limited to: a. All funds to be transferred to an EBT account 1. The account number 2. The amount 3. The Program b. Client demographic information for 1. All new accounts (initial card) 2. Accounts that have updated information	10	Y	C	Phase 3	
FR7.4	The System will send the benefit issuance information to the EBT vendor's system	10	Y	C	Phase 3	
FR7.5	The System will update the Client's case to indicate that funds have been added when the EBT vendor's system acknowledges receipt of the file	10	Y	C	Phase 3	
FR7.6	The System will generate a notification for the Client of the availability of funds if the Client has provided an email address and indicated it as the preferred method of communication	10	Y	C	Phase 3	
FR7.7	The System will allow the authorized staff person to withdraw the issuance and will reflect issuances that are withdrawn via the IE-BM System and via the EBT system	10	Y	C	Phase 3	
FR7.8	The System will authorize Program specific funds to the same EBT card when the Client is receiving benefits from multiple Programs	10	Y	C	Phase 3	
FR7.9	The System will notify the EBT vendor of all changes of address, date of birth, name and other demographic information as defined by the State, regardless of benefit issuance date	10	Y	C	Phase 3	
FR7.10	The System will support the sending of emergency benefits issuance information to the EBT vendor outside of the normally scheduled payment schedule	10	Y	C	Phase 3	

FR7. Benefit Issuance

Req. #	Requirement Description	Use Case #	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
FR7.11	The System will identify benefits over a State-specified amount for approval prior to issuance	10	Y	C	Phase 3	
FR7.12	The System will include the capability for appropriate DHS staff to issue benefits as needed	10	Y	C	Phase 3	

Redetermination/Semi-Annual Reporting

Req. #	Requirement Description	Use Case #	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
Redetermination/SAR or Annual Review Submitted Online/Paper						
FR8.1	The System will indicate which review the Client is scheduled to complete when a Client logs-in to his/her account	all	Y	C	Phase 3	
FR8.2	The System will present the Client the option to start a new Eligibility Redetermination Application/Semi-Annual Report or continue a previous application, if one is available	11	Y	C	Phase 3	
FR8.3	The System will pre-populate the information fields whenever available	11	Y	C	Phase 3	
FR8.4	The System will display a step-by-step questionnaire which collects data that has changed and is required to issue Program specific preliminary eligibility redeterminations	11	Y	C	Phase 3	
FR8.5	The System will display the option to attach electronic documentation if the System determines documentation is required for the application to be considered complete	11	Y	C	Phase 3	
FR8.6	The System will display the summary of the collected information and allows the Client to make final changes/updates prior to submitting the redetermination or Semi-Annual Report	11	Y	C	Phase 3	
FR8.7	The System will assess whether the Client may be qualified to receive benefits from other Programs and will prompt the Client whether they would like to apply	11	Y	C	Phase 3	
FR8.8	The System will validate information based on available real-time and stored data sources	11	Y	C	Phase 3	
FR8.9	The System will display additional actions by Program that the Client will need to complete	11	Y	C	Phase 3	
FR8.10	The System will flag the appropriate Program specific redetermination application for an interview or appointment	11, 12	Y	C	Phase 3	
FR8.11	The System will provide the Applicant an option to withdraw the redetermination application	11	Y	C	Phase 3	
FR8.12	The System will send a notification to the Client, through their preferred communication mechanism, of receipt of the Eligibility Redetermination Application/Semi-Annual Report and provide a link to the updated case file	11, 12	Y	C	Phase 3	
FR8.13	The System will, upon request by an authorized user, generate a paper form pre-populated with the Client's information	11	Y	C	Phase 3	
FR8.14	The System will utilize bar coding and Optical Character Recognition (OCR) to read the completed redetermination application and populate information whenever possible	11	Y	C	Phase 3	

FR8. Redetermination

Req. #	Requirement Description	Use Case #	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
FR8.15	The System will display the scanned application in order for the Intake Worker to confirm any populated fields	11	Y	C	Phase 3	
FR8.16	The System will display the redetermination application information in the same sequence as on the paper application in order to facilitate data verification and entry	11	Y	C	Phase 3	
FR8.17	The System will generate a notification for the Client via their preferred method of communication reminding the Client to complete their eligibility redetermination application if the deadline by which the eligibility redetermination application must have been received passes	11, 12	Y	C	Phase 3	
FR8.18	The System will send a predefined number of notifications to Clients at various times before the eligibility redetermination application is due	11, 12	Y	C	Phase 3	
FR8.19	The System will provide a link to the eligibility redetermination application/Semi-Annual Report in the notifications sent to the Client	11, 12	Y	C	Phase 3	
FR8.20	The System will indicate missing information in the notifications sent to the Client	11, 12	Y	C	Phase 3	
FR8.21	The System will allow the Client to submit an incomplete eligibility redetermination application/Semi-Annual Report, as long as the minimum requirements have been submitted	11, 12	Y	C	Phase 3	
FR8.22	The System will immediately send notifications to Clients who submit incomplete applications and will specify the information that is missing	11	Y	C	Phase 3	
FR8.23	The System will allow the Client to restart the process and enter a new set of information at any time prior to final submission of the redetermination form	11	Y	C	Phase 3	
FR8.24	The System will allow the Client to delete all entered information and exit at any time prior to final submission of the eligibility redetermination application/Semi-Annual Report	11	Y	C	Phase 3	
FR8.25	The System will allow the Client to save the eligibility redetermination application and exit at any time before final submission without a formal redetermination request to any Program	11	Y	C	Phase 3	
FR8.26	The System will allow the Client to resume the saved eligibility redetermination application from the most advanced location of the redetermination form	11	Y	C	Phase 3	
FR8.27	The System will allow the Client to see a list of, and review, past applications and/or redetermination requests	11	Y	C	Phase 3	
FR8.28	The System will accept electronic signature at the appropriate points in the redetermination process	11	Y	C	Phase 3	
FR8.29	The System will not consider the redetermination application complete until the Client provides all of the information, which can occur any time before the Program specific deadline to complete the Redetermination (i.e., the eligibility redetermination application/Semi-Annual Report and, if necessary, the interview)	11, 12	Y	C	Phase 3	
FR8.30	The System will allow the redetermination application to be processed separately from any Program specific application for which the Client is applying and is not currently enrolled	11, 12	Y	C	Phase 3	

FR8. Redetermination

Req. #	Requirement Description	Use Case #	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
FR8.31	The System will allow Eligibility Workers to view partially completed and saved redetermination applications	11, 12	Y	C	Phase 3	
FR8.32	The System will allow the Eligibility Worker to override the deadline by which the Client must complete the eligibility redetermination application/Semi-Annual Report	11, 12	Y	C	Phase 3	
FR8.33	The System will notify the Client of the updated deadline by which the Client must complete the eligibility redetermination application/Semi-Annual Report	11, 12	Y	C	Phase 3	
FR8.34	The System will flag any updates to the Client's information for the Eligibility Worker to verify when reviewing the application, conducting the appointment, or conducting the redetermination interview	8, 11, 12	Y	C	Phase 3	
FR8.35	The System will allow administrators to easily update which fields are pre-populated and which fields require manual entry on the redetermination application/SAR or Annual Review	11	Y	C	Phase 3	
FR8.36	The System will not allow Clients to complete and submit redetermination applications after the deadline specified by Program policy	11, 12	Y	C	Phase 3	
FR8.37	The System will track cases for which a redetermination application has been submitted but a required interview has not been conducted	11, 12	Y	C	Phase 3	
FR8.38	The System will track all historical actions taken on a case	all	Y	C	Phase 3	
FR8.39	The System will synchronize the Semi-Annual Report and redetermination/recertification dates so that households with multiple Programs will receive a single Semi-Annual Report and a single Eligibility Review	11, 12	Y	C	Phase 3	
FR8.40	The System will, for Clients who apply to additional Programs during the redetermination process, synchronize interview dates for redeterminations and new applications to prevent the Client from attending multiple interviews	11, 12	Y	C	Phase 3	
Redetermination/SAR or Annual Review Completed by Intake Worker						
FR8.41	The System will provide a user interface for the Intake Worker to select the option to enter an Eligibility Redetermination application	12	Y	C	Phase 3	
FR8.42	The System will prompt the Intake Worker to validate the benefit amount and information previously submitted and to report any changes	12	Y	C	Phase 3	
FR8.43	The System will allow the Intake Worker to resume saved applications from the most advanced location of the application	12	Y	C	Phase 3	
FR8.44	The System will allow the Intake Worker to see a list of, and review, past applications for the Client	12	Y	C	Phase 3	
FR8.45	The System will allow the Intake Worker to continue in process applications that the Client has previously saved but not submitted	12	Y	C	Phase 3	
FR8.46	The System will provide a tool for the Intake Worker to verify the value of the Client's assets/resources when the value is required to render an eligibility determination	12	Y	C	Phase 3	
FR8.47	The System will allow the Intake Worker to override the deadline before which additional actions must be taken	12	Y	C	Phase 3	

FR8. Redetermination

Req. #	Requirement Description	Use Case #	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
FR8.48	The System will allow the Intake Worker to confirm, deny and add comments to information collected from external database queries and search results	12	Y	C	Phase 3	

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Client Change

Req. #	Requirement Description	Use Case #	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
FR9.1	The System will provide the option for a Client to report a change upon log-in to his/her account	15	Y	C	Phase 3	
FR9.2	The System will display the Client's information and prompt the Client to indicate the information that requires an update	15	Y	C	Phase 3	
FR9.3	The System will provide a user interface for the Client to enter the new information	15	Y	C	Phase 3	
FR9.4	The System will validate the information based on available real-time and stored data sources	15	Y	C	Phase 3	
FR9.5	The System will determine if documentation is required for the change to be considered submitted and display the option to attach electronic documentation	15	Y	C	Phase 3	
FR9.6	The System will generate a notice, resulting from reported changed, to the Client identifying the specific verifications necessary and the due date by which the verification must be provided and any action that will occur, based on State and Federal policy, if the verification is not provided	15	Y	C	Phase 3	
FR9.7	The System will display the summary of the collected information and allow the Client to make final changes/updates	15	Y	C	Phase 3	
FR9.8	The System will determine whether the change requires an Eligibility Worker to review the information, based on State and Federal policy, and add the case to the queue of cases that require the Eligibility Worker to review the Client's case file and change and redetermine eligibility	15	Y	C	Phase 3	
FR9.9	The System will generate a notification for the Client of the summary of the changes made	15	Y	C	Phase 3	
FR9.10	The System will allow the Intake Worker to access the Client's electronic case file and indicate on the System that the Client is self-reporting a change	15	Y	C	Phase 3	
FR9.11	The System will allow the Intake Worker to enter the updated information	15	Y	C	Phase 3	
FR9.12	The System will create a paper change form (currently Form 234) pre-populated with a Client's information to be mailed at the Client's request	15	Y	C	Phase 3	
FR9.13	The System will utilize bar coding and Optical Character Recognition (OCR) to read the completed change form and populate information whenever possible	15	Clarification	L	Phase 3	Will use the Arkansas Xerox DocuShare solution rather than the Optum solution.

FR9. Client Change

Req. #	Requirement Description	Use Case #	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
FR9.14	The System will display the scanned application or change form in order for the Intake Worker to confirm any populated fields	15	Clarification	L	Phase 3	Will use the Arkansas Xerox DocuShare solution rather than the Optum solution.
FR9.15	The System will display the change form information in the same sequence as on the paper form in order to facilitate data verification and entry	15	Clarification	L	Phase 3	Will use the Arkansas Xerox DocuShare solution rather than the Optum solution.
FR9.16	The System will identify changes to Client information based on data available on external systems	15	Y	C	Phase 3	
FR9.17	The System will alert the Eligibility Worker that a change has been identified by an external system	15, 16	Y	C	Phase 3	
FR9.18	The System will generate a notice to the Client of the change, the source of the change, and the next actions required, when requested by the Eligibility Worker	15, 16	Y	C	Phase 3	
FR9.19	The System will allow authorized DHS Staff to implement a mass change (i.e. a policy or benefit level change) to all relevant Client records	15, 16	Y	C	Phase 3	
FR9.20	The System will time and date stamp all changes made to a Client record	15, 16	Y	C	Phase 3	
FR9.21	The System will maintain a record of the case file before the change was submitted	15, 16	Y	C	Phase 3	
FR9.22	The System will maintain a record of the user who submitted the change	15, 16	Y	C	Phase 3	
FR9.23	The System will determine to which Programs the changes apply (i.e., relevant to all Programs for which the Client is enrolled) and flag the case for the appropriate actions	15, 16	Y	C	Phase 3	
FR9.24	The System will allow, based on business rules, certain Program specific changes to be redetermined automatically based on the new information without a review by an Eligibility Worker (e.g., death match, Notice to TPL/Estate Recoveries)	15, 16	Y	C	Phase 3	
FR9.25	The System will display to the Eligibility Worker the Client's electronic case file and the potential impact of the change that has been reported/identified	15, 16	Y	C	Phase 3	
FR9.26	The System will allow the Eligibility Worker to process the change and capture any ancillary information (e.g., effective date), updates to Client status and Program eligibility status	15, 16	Y	C	Phase 3	
FR9.27	The System will generate a notification for the Client of the impact of the change and send the relevant information to the appropriate external systems (e.g., E&T Vendors, ADH WIC) and DHS Staff (e.g., Overpayments Staff)	15, 16	Y	C	Phase 3	

FR9. Client Change

Req. #	Requirement Description	Use Case #	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
FR9.28	The System will accept and record a Client match file from the ADH WIC System to confirm participation in the WIC Program	15, 16	Clarification	D	Phase 3	The functionality to accept and record a client match from the ADH WIC system will be custom developed for the State of Arkansas to verify addressing the required capabilities.
FR9.29	The System will provide a mechanism to change the status for multiple Clients at once (e.g., all family members at the same address)	15, 16	Y	C	Phase 3	
FR9.30	The System will periodically query external databases to try and proactively identify where Client benefits may need to be adjusted	15, 16	Y	C	Phase 3	
FR9.31	The System will track Clients who have appeared on external databases in error to avoid future false positives	15, 16	Clarification	D	Phase 3	Optum will develop the ability to track clients who have appeared on external databases for the State of Arkansas.
FR9.32	The System will ensure a Client's information (education level, income, household) is consistent between the different benefits Programs	15, 16	Y	C	Phase 3	
FR9.33	The System will allow the Eligibility Worker to confirm, deny and add comments to information collected from external database queries and search results	15, 16	Y	C	Phase 3	
FR9.34	The System will send change notifications to DAAS Client Providers	15, 16	Y	C	Phase 3	
FR9.35	The System will send all DAAS Client notifications to Client Providers	15, 16	Y	C	Phase 3	
FR9.36	The System will be able to create a report to be used to match with WIC participants	15, 16	Clarification	D	Phase 3	A report to match WIC participants will be custom developed for the State of Arkansas.
FR9.37	The System will continuously monitor cases for critical updates including but not limited to: a. Periods of inactivity b. Turning a critical age (e.g., 18, 65, etc.) c. Expiration dates d. Change in household composition	15, 16	Y	C	Phase 3	

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Medical Review Team

Req. #	Requirement Description	Use Case #	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
FR10.1	The System will determine that a medical review of disability is required based on the Program to which the Applicant has applied. These Programs include but are not limited to: a. Aid to Disabled b. Aid to the Blind c. AFDC MN – establishing parental deprivation d. TEA – exemption from work requirement e. TEFRA f. Long Term Care g. Home Care Services h. Assisted Living i. Autism Waiver j. TEFRA Waiver k. Workers with Disabilities l. Program of All Inclusive Care for the Elderly	17	Y	C	Phase 4	
FR10.2	The System will alert the Medical Reviewer that an Applicant requires a review	17	Y	C	Phase 4	
FR10.3	The System will provide the Medical Reviewer a view of the Applicant's information	17	Y	C	Phase 4	
FR10.4	The System will, based on information entered by the Medical Reviewer, generate and issue requests for medical records electronically to the Provider(s) and will record the date the request is issued	17	Clarification	D	Phase 4	Medical review/disability certification functionality and workflows will be custom-developed to verify the required capabilities for the State of Arkansas are addressed.
FR10.5	The System will, upon receipt of the record from the Provider(s), allow the Medical Reviewer to indicate the document has been received and is to be used in the determination of disability, and associate it to the appropriate Applicant's file	17	Clarification	D	Phase 4	Medical review/disability certification functionality and workflows will be custom-developed to verify the required capabilities for the State of Arkansas are addressed.

FR10. MRT

Req. #	Requirement Description	Use Case #	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
FR10.6	The System will allow the Medical Reviewer to request additional medical records at any point in the process	17	Clarification	D	Phase 4	Medical review/disability certification functionality and workflows will be custom-developed to verify the required capabilities for the State of Arkansas are addressed.
FR10.7	The System will alert the MRT Physician identified by the Medical Reviewer of the need for a disability decision	17	Clarification	D	Phase 4	Medical review/disability certification functionality and workflows will be custom-developed to verify the required capabilities for the State of Arkansas are addressed.
FR10.8	The System will allow the MRT Physician to review the Application and all relevant records received and render a determination of: a. Approved – the medical evidence matches the Applicant’s stated condition or b. Denied – the medical evidence does not support the Applicant’s stated condition	17	Clarification	D	Phase 4	Medical review/disability certification functionality and workflows will be custom-developed to verify the required capabilities for the State of Arkansas are addressed.
FR10.9	The System will alert the MRT Supervisor when a decision has been made by the MRT Physician	17	Y	C	Phase 4	
FR10.10	The System will allow the MRT Supervisor to review the decision and the records for completeness and generate a notice to all appropriate parties (i.e. authorized representatives, DAAS, providers, etc.)	17	Clarification	D	Phase 4	Medical review/disability certification functionality and workflows will be custom-developed to verify the required capabilities for the State of Arkansas are addressed.
FR10.11	The System will track if the Provider fulfills the request for medical records within the time period established per State policy	17	Y	C	Phase 4	
FR10.12	The System will generate a notice to the Applicant when the Provider has not fulfilled the request for medical records	17	Y	C	Phase 4	

FR10. MRT

Req. #	Requirement Description	Use Case #	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
FR10.13	The System will notify the MRT Physician if the Applicant has been notified of the lack of information and the Provider has not provided the requested information	17	Clarification	D	Phase 4	Medical review/disability certification functionality and workflows will be custom-developed to verify the required capabilities for the State of Arkansas are addressed.
FR10.14	The System will allow the MRT Physician to review the available information and render the determination as 'Denied' due to lack of medical evidence if the Provider fails to fulfill the request for medical records within the time period established per State policy	17	Clarification	D	Phase 4	Medical review/disability certification functionality and workflows will be custom-developed to verify the required capabilities for the State of Arkansas are addressed.
FR10.15	The System will generate a notice to the Applicant when the Provider has not provided sufficient medical records, as recorded by the Medical Reviewer	17	Y	C	Phase 4	
FR10.16	The System will notify the MRT Physician if the Applicant has been notified of the lack of sufficient information and the Provider has not provided sufficient medical records, as recorded by the Medical Reviewer	17	Clarification	D	Phase 4	Medical review/disability certification functionality and workflows will be custom-developed to verify the required capabilities for the State of Arkansas are addressed.

Overpayment, Audits and Appeals

Req. #	Requirement Description	Use Case #	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
Overpayments						
FR11.1	The System will generate an alert for the Overpayments Staff that a potential overpayment has been calculated and send the information to the OASIS system	18	Y	C	Phase 3	
FR11.2	The System will collect the overpayment information from OASIS, including the amount of the overpayment and the method by which the collection will occur, and ensure the adjusted amount is provided to the EBT vendor	18	Y	C	Phase 3	
FR11.3	The System will stop payment of benefits of the Clients who have not responded to the Demand Letter, as documented on the System by the Overpayments Staff	18	Y	C	Phase 3	
FR11.4	The System will identify overpayments for Clients who re-apply for benefits and have an outstanding overpayment balance	18	Y	C	Phase 3	
FR11.5	The System will reflect the original amount and the net benefit amount resulting from an overpayment recoupment when calculating all benefit amounts	18	Y	C	Phase 3	
FR11.6	The System will notify the Client of ongoing recoupments and established overpayments at all case actions	18	Y	C	Phase 3	
FR11.7	The System will generate and send, via the Client's preferred communication method, the need for the Client to establish the payment plan when benefits have already expired or are set to expire before the entire overpayment can be recouped	18	Y	C	Phase 3	
FR11.8	The System will send information to OASIS about all recoupments made including, but not limited to: a. The amount of the recoupment b. The date of the recoupment c. The Client on whose behalf the recoupment was made d. The Program from which the benefit was recouped	18	Y	C	Phase 3	

FR11. Overpayments & Audits

Req. #	Requirement Description	Use Case #	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
Conduct Audit/Review						
FR11.9	The System will allow the Quality Control Supervisor to select one or more cases and assign them to a Quality Control Reviewer for audit/review for a specific sample month	19	Y	C	Phase 3	
FR11.10	The System will alert the Quality Control Reviewer that one or more cases have been assigned for review	19	Y	C	Phase 3	
FR11.11	The System will allow the Quality Control Reviewer to review actions taken by Eligibility Workers in the sample month	19	Y	C	Phase 3	
FR11.12	The System will generate an appointment request notice to the Client for the QC interview (if required e.g., SNAP based on business rules)	19	Y	C	Phase 3	
FR11.13	The System will allow the Quality Control Reviewer to conduct the audit/review interview following the established questionnaire in the System and to record the results	19	Y	C	Phase 3	
FR11.14	The System will generate an alert to the Eligibility Worker if the Client fails to respond to the interview appointment	19	Y	C	Phase 3	
FR11.15	The System will allow the Quality Control Reviewer to capture information related to their review and actions (interview and validation activities) in the System on a worksheet, as defined by the State for each Program and Review type	19	Y	C	Phase 3	
FR11.16	The System will present a comparison of the information provided during the QC interview and/or verification activities with the information contained in the Client's electronic case file	19	Y	C	Phase 3	
FR11.17	The System will store the information entered into the worksheet separately from the original information being verified, as per State and Federal policy	19	Y	C	Phase 3	
FR11.18	The System will recalculate the Client's eligibility based on the QC audit/review information recorded according to the Program policy	19	Y	C	Phase 3	
FR11.19	The System will allow the Quality Control Reviewer to create a Findings Report if the Quality Control Reviewer determines an error was made when eligibility and benefit amount was determined	19	Y	C	Phase 3	
FR11.20	The System will allow the Quality Control Reviewer to record the Findings Report as complete with no finding if no finding is identified (the eligibility and benefit amount was determined correctly)	19	Y	C	Phase 3	
FR11.21	The System will alert the Quality Control Supervisor that a case requires review upon completion of a Findings Report	19	Y	C	Phase 3	
FR11.22	The System will alert the Quality Control Reviewer to send missing documentation to the Quality Control Supervisor (or highlight the policy which is being interpreted differently) if the Quality Control Supervisor rebuts the finding	19	Y	C	Phase 3	

FR11. Overpayments & Audits

Req. #	Requirement Description	Use Case #	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
FR11.23	The System will notify the appropriate AR DHS/DWS staff if the Quality Control Supervisor accepts the error	19	Y	C	Phase 3	
FR11.24	The System will allow the Eligibility Worker to create the recommended Corrective Action specifically addressing each error in the finding report if the Quality Control Supervisor accepts the error	19	Y	C	Phase 3	
FR11.25	The System will require that Corrective Action Plan is reviewed by the authorized approver (based on business rules) and approved	19	Y	C	Phase 3	
FR11.26	The System will notify the Overpayments Staff if the audit/review finding has resulted in a potential overpayment	19	Y	C	Phase 3	
FR11.27	The System will track progress made against implementing the actions specified in the Corrective Action Plan and allow appropriate AR DHS/DWS Staff (e.g., Quality Control Supervisor) to monitor progress	19	Y	C	Phase 3	
FR11.28	The System will track the time taken to implement the Corrective Action Plan	19	Y	C	Phase 3	
FR11.29	The System will allow authorized users to document narrative of the case review to the case file (both if there was no Finding or Findings)	19	Y	C	Phase 3	
FR11.30	The System will add the audit/review to the file to send to the Federal oversight officer	19	Y	C	Phase 3	
FR11.31	The System will flag a case for review if an error is identified by the Federal oversight officer and adjustments are required	19	Y	C	Phase 3	
FR11.32	The System will allow the Quality Control Staff to have access to all case records and information to cases to which they have been assigned	19	Y	C	Phase 3	
FR11.33	The System will not disclose to AR DHS/DWS Staff which cases are being audited/reviewed and will allow Quality Control staff to capture notes which cannot be shared outside the Quality Control organization	19	Y	C	Phase 3	
FR11.34	The System will give the appropriate Federal oversight officer electronic access to the Audit/Review file and report, and to provide comment/feedback	19	Y	C	Phase 3	
FR11.35	The System will flag the audit/review for update and notify the Quality Control Supervisor if an error is identified by the Federal oversight officer and adjustments are required	19	Y	C	Phase 3	
FR11.36	The System will allow the Quality Control Supervisor to develop and edit the Quality Control Sampling Plan that defines the parameters that will govern the selection of cases for review.	19	Y	C	Phase 3	
FR11.37	The System will support developing the qualified universe that includes positive and negative eligibility cases from multiple programs including, but not limited to, MAGI, non-MAGI, SNAP and CHIP	19	Y	C	Phase 3	
FR11.38	The System will support creating multiple Quality Control Sampling Plans	19	Y	C	Phase 3	

FR11. Overpayments & Audits

Req. #	Requirement Description	Use Case #	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
FR11.39	The System will track the status of the audit/review (e.g., progress made between the time a case is selected to be audit/reviewed and the time the audit/review is closed)	19	Y	C	Phase 3	
FR11.40	The System will allow the Quality Control Supervisor to track performance against the Quality Control Sampling Plan (e.g., the Quality Control Administrator will track the number of cases that have been audit/reviewed and the status of outstanding audit/reviews against the targeted number of cases to be audited/reviewed during a year)	19	Y	C	Phase 3	
FR11.41	The System will allow an audit/review to be dropped. If dropped, the System will require the reason for the dropped audit/review to be recorded. Examples of reasons to drop an audit/review include, but are not limited to: a case file could not be located, a case selected to be audit/reviewed is already under investigation.	19	Y	C	Phase 3	
FR11.42	The System will track all historical actions taken against a case. For example, if the sample month is January, and a change has been made in February, the System must recall the file as of January and the specific information provided in January which formed the basis for the determination including the individual who made the changes/decisions.	19	Y	C	Phase 3	
FR11.43	The System will track all documents/notices sent to clients including the source document, aligned with Federal guidelines	19	Y	C	Phase 3	
FR11.44	The System will support third party performing Quality Control rather than the State	19	Y	C	Phase 3	
FR11.45	The System will capture error types and support analyzing Quality Control findings to enable continuous improvements	19	Y	C	Phase 3	
Appeal Tracking						
FR11.46	The System will allow authorized users to record that an appeal has been filed upon notification by the Appeals Staff. The information to be recorded will include, but not be limited to: a. The Client/Applicant submitting the appeal b. The action being appealed c. The Program under which the action occurred d. The date and time of the appeal hearing e. Others, as defined by the State	20	Y	C	Phase 3	
FR11.47	The System will allow authorized users to record that an appeal has been filed with State Court	20	Y	C	Phase 3	
FR11.48	The System will provide the authorized DHS Staff all information/documents relevant to the appeal (based on the checklist available in the System) in order to defend the Appeal	20	Y	C	Phase 3	

FR11. Overpayments & Audits

Req. #	Requirement Description	Use Case #	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
FR11.49	The System will allow authorized DHS Staff to enter the ruling into the System, including scanning the ruling and identifying where action is required (e.g., to reinstate, increase benefits, or lower benefits)	20	Y	C	Phase 3	
FR11.50	The System will alert the Eligibility Worker to take the action specified in the decision if the decision is against DHS	20	Y	C	Phase 3	
FR11.51	The System will track all actions specified in the decision until completed	20	Y	C	Phase 3	
FR11.53	The System will provide a report of the status of each Appeal	20	Y	C	Phase 3	
FR11.54	The System will track attributes about the Appeal to allow for analysis by authorized users. The attributes to be tracked include but are not be limited to the following: a. Program type b. Reasons for the appeal c. Program office d. Other attributes to be defined by the State	20	Y	C	Phase 3	
FR11.55	The System will support multiple eligibility actions resulting from an Appeal ruling	20	Y	C	Phase 3	
FR11.56	The System will limit access to each Appeal to the only those assigned to the Appeal	20	Y	C	Phase 3	
FR11.57	The System will provide checklists to the DHS Staff of the information/documentation to be gathered and provided to the Office of Appeals, based on Appeal type and Program	20	Y	C	Phase 3	

Appointment and Caseload Management

Req. #	Requirement Description	Use Case #	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
Appointments						
FR12.1	The System will allow the Applicant/Client to select the option to schedule an appointment upon log-in	all	Y	C	Phase 4	
FR12.2	The System will display a list of appropriate appointment types, appointment settings, and appointment times that are available to the client, based on business rules (e.g., certain programs do not allow telephone interviews)	21	Y	C	Phase 4	
FR12.3	The System will allow the Applicant/Client to select an appointment type and the language required	21	Y	C	Phase 4	
FR12.4	The System will require the Client to confirm the contact phone number or, if the phone number is not already in the System, the Client enters their phone number if the Client selects a telephone appointment	21	Y	C	Phase 4	
FR12.5	The System will present the available time slots, based on the options chosen for the appointment type and business rules (e.g., expedited SNAP must schedule within 24 hours, all SNAP must be performed by the 20th day)	21	Y	C	Phase 4	
FR12.6	The System will allow the Client to choose an appointment date and time	21	Y	C	Phase 4	
FR12.7	The System will update the availability of resources to reflect when an appointment has been scheduled	21	Clarification	D	Phase 4	Scheduling of individual resources for appointments requires integration with other email and scheduling systems so some development will be required.
FR12.8	The System will generate a notification for the Client via their preferred communications method confirming that an appointment has been scheduled	21	Y	C	Phase 4	
FR12.9	The System will track the instances in which a translator is requested	21	Y	C	Phase 4	
FR12.10	The System will allow the Client to reschedule an appointment as long as the rescheduled appointment is within the timeframe allowed by Program policy	21	Y	C	Phase 4	

FR12. Appt & Caseload

Req. #	Requirement Description	Use Case #	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
FR12.11	The System will be able to request the Client reschedule their appointment if AR DHS/DWS resource availability changes	21	Clarification	D	Phase 4	Scheduling of individual resources for appointments requires integration with other email and scheduling systems so some development will be required.
FR12.12	The System will alert the Eligibility Worker of "No show" for appointment	21	Y	C	Phase 4	
FR12.13	The System will allow clerical workers to schedule interviews on behalf of the client	21	Y	C	Phase 4	
Caseload Management						
FR12.14	The System will allow the needed work effort to be logged into the system, including capturing the type of request	all	Y	C	Phase 3	
FR12.15	The System will support initiating work effort requests through a variety of methods: a. Receptionists at regional offices log information regarding the work required b. Calls are received and are triaged. c. Paper applications/redetermination application (including faxed and emailed applications) and other documents (e.g., Semi-Annual Report, change requests) are received and scanned by processing centers and/or county offices d. Electronic applications/redetermination applications and other documents (e.g., Semi-Annual Report, change requests) are submitted by Clients	22	Y	C	Phase 3	
FR12.16	The System will identify the skills required based on the work effort request and constraints and route the work effort to the correct queue and identify available workers who can perform the work	22	Y	C	Phase 3	
FR12.17	The System will automatically route the work effort to the correct queue, based on a set of predefined rules, and then assign to an appropriate Worker or allow selection by the Worker to complete the entire process if Automatic Routing to Queue is employed	22	Y	C	Phase 3	
FR12.18	The System will automatically route the work effort to the correct Worker based on a set of predefined rules and the Worker is assigned to complete a specific task if Automatic Routing to Worker is employed	22	Y	C	Phase 3	
FR12.19	The System will automatically route all work effort to a central queue where a Worker performs initial triage and manually routes the case to the appropriate queue or Worker if Manual Routing is employed	22	Y	C	Phase 3	
FR12.20	The System will alert the assigned Worker's supervisor for review and possible reassignment if the current Worker is unable to complete the action within a predetermined timeframe, per State policy	22	Y	C	Phase 3	

FR12. Appt & Caseload

Req. #	Requirement Description	Use Case #	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
FR12.21	The System will support simultaneous updates of Client data	all	Y	C	Phase 3	
FR12.22	The System will have the ability to re-assign work automatically, based on State policy	22	Y	C	Phase 3	
FR12.23	The System will support tracking resource calendars/availability in order for current capacity, by skill set, to be available within the system	22	Clarification	D	Phase 4	Scheduling of individual resources for appointments requires integration with other email and scheduling systems so some development will be required.

FR12. Appt & Caseload

Req. #	Requirement Description	Use Case #	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
Establishing Calendar						
FR12.24	The System will display a calendar with options for different views (e.g., work week, full week, day, month)	22	Y	C	Phase 4	
FR12.25	The System will provide a structured and standard calendar form that includes but is not limited to: a) Appointment category (e.g., Application Interview, Redetermination Interview, MRT) b) Meeting type (e.g., phone call, in-person) c) Start and end date d) Start and end time	22	Y	C	Phase 4	
FR12.26	The System will allow for multiple attendees to be added to an appointment	22	Y	C	Phase 4	
FR12.27	The System will have access to User's calendar outside of the System (e.g., Microsoft Outlook) and sync appointments	22	Clarification	D	Phase 4	Integration with other email and scheduling systems is not standard for our customers so some development would be required.
FR12.28	The System will specify meetings created in the System versus meetings created in User's calendar outside of the System (e.g., Microsoft Outlook)	22	Clarification	D	Phase 4	Integration with other email and scheduling systems is not standard for our customers so some development would be required.
FR12.29	The System will save appointments	22	Y	C	Phase 4	
FR12.30	The System will allow attendees to include a message to State Staff	22	Y	C	Phase 4	
FR12.31	The System will notify appointment creator of scheduled appointment	22	Y	C	Phase 4	
FR12.32	The System will allow appointment creator to cancel an appointment	22	Y	C	Phase 4	
FR12.33	The System will electronically deliver a notification that an appointment has been cancelled to attendees listed	22	Y	C	Phase 4	
FR12.34	The System will delete a cancelled appointment from calendars	22	Y	C	Phase 4	
FR12.35	The System will log the time, date, and user ID of the User who cancelled the appointment	22	Y	C	Phase 4	
FR12.36	The System will allow for appointment creator to grant other User(s) access to modify/cancel appointment details	22	Y	C	Phase 4	

FR12. Appt & Caseload

Req. #	Requirement Description	Use Case #	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
FR12.37	The System will allow for appointment creator to grant other User(s) access to modify/cancel appointment details on behalf of creator	22	Y	C	Phase 4	
FR12.38	The System will allow for appointment creator to set appointments as a recurrence, with overall start and end dates	22	Y	C	Phase 4	
FR12.39	The System will allow Applicants/Clients to view scheduled appointments via the portal account	22	Y	C	Phase 4	
FR12.40	The System will allow Applicants/Clients to schedule appointments via their portal account	22	Y	C	Phase 4	
FR12.41	The System will limit "Appointment Type" to those identified by the State	22	Y	C	Phase 4	

Reporting and Business Intelligence

Req. #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
Reporting and Business Intelligence Functional Requirements					
FR13.1	The System will support generating static, parameter driven, dashboards, statistical and ad hoc reports (e.g., workload status, Client status, performance factors, outcome measures, etc.)	Y	C	Phase 4	
FR13.2	The System will have the capability for users to specify certain parameters for standard reports, including but not limited to: a. Date range b. DCO County Office c. Program	Y	C	Phase 4	
FR13.3	The System will provide the ability for users to filter data and extract the filtered data (including by Client, User, workflow), manipulate the extracted data, and specify the desired format and media of the output	Y	C	Phase 4	
FR13.4	The System will be capable of creating and saving reports in different file formats (.pdf, .xls, .csv), and formatting reports to be printer-friendly	Y	C	Phase 4	
FR13.5	The System will have the ability to produce charts, graphs, etc. in order to show progress, trends, etc.	Y	C	Phase 4	
FR13.6	The System will display a template for the user to specify report parameters	Y	C	Phase 4	
FR13.7	The System will provide the ability to upload external data sets for integrated reporting	Y	C	Phase 4	
FR13.8	The System will have the capability for a user to select specific metrics and allow drilling down to view more detailed information, where available	Y	C	Phase 4	
FR13.9	The System will display all applicable alerts and notifications, based on preconfigured business rules and policy, as part of the DHS Staff's dashboard	Y	C	Phase 4	
FR13.10	The System will provide multiple options to view data including, but not limited to: a. Bar chart b. Pie chart c. Line chart	Y	C	Phase 4	
FR13.11	The System will provide a process by which reports may be delivered by email in accordance with all appropriate regulations	Y	C	Phase 4	
FR13.12	The System will support reporting against multiple years (e.g. Federal Fiscal Year, State fiscal year, calendar year)	Y	C	Phase 4	

FR13. Reporting and BI

Req. #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
FR13.13	The System will provide the capability for reports to be automatically generated based on a predefined schedule and distributed to subscribed users on a periodic basis. Distribution may be as an electronic attachment or a notification, alerting user that the report is ready to be downloaded.	Y	C	Phase 4	
FR13.14	The System will provide a mechanism to archive and delete reports	Y	C	Phase 4	
FR13.15	The System will allow distribution of reports to authorized users and allow access to reports to be limited to authorized users	Y	C	Phase 4	
FR13.16	The System will create and maintain an auditable list of all users that accessed reports and which report(s) were accessed	Y	C	Phase 4	
FR13.17	The System will allow queuing of reports, upon notification of the user, to limit interruption of other System processes	Y	C	Phase 4	
FR13.18	The System will provide the ability to track and store detailed information regarding all reporting requests including, but not limited to: a. User requesting the information b. Date c. Time d. What the report included e. Report storage upon completion	Y	C	Phase 4	
FR13.19	The System will allow saving and attaching reports to a Client's record when data sharing rules allow	Y	C	Phase 4	
FR13.20	The System will provide the ability to generate a listing of all standard on-line reports available, the description of each report, and provide a link to the most recent generation of the report	Y	C	Phase 4	
FR13.21	The System will allow the DHS Staff to set a predefined report to rerun on a defined timeframe	Y	C	Phase 4	
FR13.22	The System will allow DHS Staff to customize and save views/reports for easy access and future use	Y	C	Phase 4	
FR13.23	The System will allow DHS Staff to share their customized views/reports with other DHS Staff	Y	C	Phase 4	
FR13.24	The System will allow reports to be assigned to and viewed by an individual user, a user type, an organizational unit or to all units	Y	C	Phase 4	
FR13.25	The System will be capable of running dashboards, summary reports and detailed reports with the capability to drill down/roll-up between the reports	Y	C	Phase 4	

FR13. Reporting and BI

Req. #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
FR13.26	The System will be able to track and report on data elements including, but not limited to: a. Client/Application/Case b. Program c. Time of action d. Case status e. Payments f. Overpayments g. Office Location/Individual h. Start and End date i. Eligibility period j. Address k. LEP/choice of language	Y	C	Phase 4	
FR13.27	The System will provide the capability to run historical reports to highlight trends, by program, including, but not limited to: a. Number of Clients b. Application processing statistics c. Total payments made to Clients by program (including all programs administered by DHS)	Y	C	Phase 4	
FR13.28	The System will provide comparison reports (e.g., year-over-year, month-over-month, etc.) to capture and analyze program changes/improvements including, but not limited to: a. Caseload - Number of cases/Clients b. Processing metrics c. Payments d. By location/DCO County Office	Y	C	Phase 4	
FR13.29	The System will have the capability to produce a report capturing all of a Client's information ensuring the appropriate privacy and security rules are followed	Y	C	Phase 4	
FR13.30	The System will be capable of projecting future case actions and requirements including, but not limited to: a. Upcoming determinations b. Scheduled interviews c. Projected, approved benefits/payments	Y	C	Phase 4	

FR13. Reporting and BI

Req. #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
FR13.31	The System will provide application processing reporting and analysis capabilities in real-time including, but not limited to: a. Volume of applications waiting for action to be taken b. Time spent processing application c. Application status/priority/type d. Interviews scheduled e. Available capacity f. Historical performance metrics g. Filter by office/Eligibility Worker h. By status/state (e.g., waiting for documentation)	Y	C	Phase 4	
FR13.32	The System will provide the ability to report and analyze performance metrics to identify opportunities to improve operational processing including, but not limited to: a. Time to perform an interview b. Average time to process an application c. Overtime d. By office location/DHS Staff Worker e. By type of application f. By program g. Time spent processing by type such as applications, ER, Semi-Annual Report, etc. h. By type of task	Y	C	Phase 4	
FR13.33	The System will provide different dashboards and reports by user type (e.g., supervisor vs. Eligibility Worker) and allow them to drill down to the details and roll-up to the summary level	Y	C	Phase 4	
FR13.34	The System will be able to collect, track, and report on individual staff performance	Y	C	Phase 4	
FR13.35	The System will support ad-hoc queries to try and identify causal relationships between inputs and operational performance	Y	C	Phase 4	
FR13.36	The System will have the ability to generate Federally/State required reports for the State of Arkansas in either paper or electronic formats	Y	C	Phase 4	
FR13.37	The System will generate all standard reports that need to be provided to Clients in either paper or electronic formats	Y	C	Phase 4	

FR13. Reporting and BI

Req. #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
FR13.38	<p>The System will have the ability to track, report, and support different types of analyses, including but not limited to:</p> <p>a. Cross Program Analysis:</p> <ol style="list-style-type: none"> 1. Analyze services provided to the population and identify opportunities to improve how services are delivered to improve outcomes 2. Typically this analysis is performed using powerful analytical tools (or statistical tools) on a specific data set <p>b. Performance Analytics – Leveraging Operational and Program Reporting and Cross Program Analysis to:</p> <ol style="list-style-type: none"> 1. Identify evidence based models of practice 2. Define opportunities for partnerships and coordinated efforts to enhance performance 3. Identify previously unknown pre-conditions impacting performance <p>c. Predictive Analytics – Leveraging Operational and Program Reporting, Cross Program Analysis and Performance Analytics to:</p> <ol style="list-style-type: none"> 1. Identify impact of proposed policy, practice or resource allocation changes (“What If” Scenarios) 2. Support anticipatory management and investment decisions 3. Prevent unintended consequences 	Y	C	Phase 4	
FR13.39	The System will be able to produce outreach reports (hot spotters by geography)	Y	C	Phase 4	
FR13.40	<p>The System will be able to produce action history (not just changes) reports and immediately display the results. These can be based on:</p> <ol style="list-style-type: none"> a. Inquiries b. Case/Client c. Client d. Other variables to be defined by DHS 	Y	C	Phase 4	
Mobile Reporting					
FR13.41	<p>The System will make real-time dashboards available to DHS Executives via mobile devices including, but not limited to, the following data elements:</p> <ol style="list-style-type: none"> a. Throughput b. Backlog c. Location d. Volume e. Wait time f. Time per application 	Y	C	Phase 4	
FR13.42	The System will provide the capability to drill-down into the details supporting the dashboard	Y	C	Phase 4	
FR13.43	The System will allow users to filter the data provided by predefined data elements	Y	C	Phase 4	

FR13. Reporting and BI

Req. #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
FR13.44	The System will allow users to sort the data provided	Y	C	Phase 4	
FR13.45	The System will support displaying the results graphically	Y	C	Phase 4	
FR13.46	The System will support providing time series reporting based on user defined time intervals	Y	C	Phase 4	
FR13.47	The System will generate pre-populated forms and notices (e.g., eligibility redetermination forms, Semi-Annual Reports, medical re-evaluation reminders) in support of the entire life of the case	Y	C	Phase 4	
FR13.48	The System will support generating notices based on a generic template (e.g., denial) and provide the capability to automatically populate based on predefined parameters (e.g., the specific rule)	Y	C	Phase 4	
Statutory Reports and Notices					
FR13.49	The System will provide all notices (or provide instructions to receive assistance) in the following languages: a. English b. Spanish c. Marshallese	Y	C	Phase 4	
FR13.50	The System will produce financial reports required to meet the needs of DHS and other agencies	Y	C	Phase 4	
FR13.51	The System will produce reports required to comply with State and Federal agencies overseeing the program	Y	C	Phase 4	
FR13.52	The System will produce SNAP reports including, but not limited to: a. SNAP Office Reports b. SNAP-D 292 Disaster Issuance c. FNS-101 Participation in SNAP By Race d. FNS-366B Program and Budget Summary Statement: Program Activity Statement e. FNS-388, FNS-388A, State Issuance and Participation Estimates f. SNAP Ed FNS-759 Education and Administrative Reporting System g. FNS-583 Employment and Training h. FNS-834 School Lunch Program Direct Certification	Y	C	Phase 4	
FR13.53	The System will produce fiscal reports including, but not limited to: a. SF 425 Federal Financial Report b. SF 425 (FNS-778/778A) Federal Financial Report (SNAP Worksheet for the SF-425) c. FNS-366A Program and Budget Summary Statement d. FNS-46 Issuance Reconciliation Report e. FNS-209 Status of Claims Against Households	Y	C	Phase 4	

State of Arkansas Department of Human Services
 Integrated Eligibility and Benefit Management Engagement (IE-BM) RFP
 RFP #: SP-17-0012
 Template T-6 - Functional Requirements Traceability Matrix

Volume 1 - Technical Proposal

Use Case List

#	Use Case Name	Description
1	Complete Self-Service Anonymous Pre-Screening	The Applicant answers a set of questions online to evaluate whether they may be eligible for benefits.
2	Apply for Benefits Online	The Applicant logs into the System, submits an application, and schedules an interview.
3	Apply for Benefits in Person	The Intake Worker meets with the Applicant, completes the application and submits it
4	Apply for Benefits with a Paper Application	The Intake Worker processes paper applications submitted by Applicants by entering the information from the paper application into the System and attaching any documents to the case record.
5	Conduct Eligibility Interview	The Eligibility Worker meets with the Applicant and performs the interview in person or via the phone (the Applicant has already been completed the application).
6	Submit Additional Electronic Documentation	The Client logs onto the System and submits documentation of any sort. The System then assesses the Client's case to identify the next actions.
7	Process Documentation Received in Hard Copy	The Documentation Processing Staff Worker scans paper documents, adds the documents to the electronic case file and the cases are flagged for appropriate action.
8	Process Eligibility Determination or Redetermination	Upon submitting an application or redetermination application and, if required, upon completion of the eligibility interview, the System will identify and prioritize for the Eligibility Worker all cases requiring worker review. The Eligibility Worker will review all information required and determine the application or redetermination disposition and complete any benefit amount calculation.
9	Determine Spend-Down and Submit Expenses	The System determines the spend-down amount and applies eligible expenses to offset the spend-down amount.

Use Case List

#	Use Case Name	Description
10	Send Authorized Benefits Information to EBT Vendor	The System identifies all payments made to Clients and Vendors and transmits financial transactions to the State Accounting System.
11	Complete the Redetermination Application/Semi-Annual Report online	The Client logs into the System and completes their redetermination application (Eligibility Review or Semi-Annual Report).
12	Complete the Redetermination Application/Semi-Annual Report with an Intake Worker	The Intake Worker assists Applicant to complete the redetermination application or Semi-Annual Report
13	Process the Semi-Annual Report (SAR) or Annual Review	The Eligibility Worker reviews and processes Semi-Annual Report or Annual Review
14	Complete the Redetermination Interview	The Eligibility Worker meets with the Applicant and performs the redetermination interview (the Applicant has already completed the redetermination application).
15	Submit a Client Change Online	The Client logs onto the System (or a paper Change Form has been processed) and submits a change.
16	Process Client Change	The Eligibility Worker processes a change (Client submitted or identified by the System), re-determines program specific eligibility and calculates new benefit amounts.
17	Medical Review Team	This Use Case will document the information necessary for the Medical Review Team (MRT) to establish disability for an Applicant where disability is an eligibility requirement.
18	Establish Overpayment Information	In this Use Case the System notifies the Overpayments Staff of a potential overpayment and the Collection Officer defines the overpayment collection method and total amount due.
19	Conduct Quality Control Audit/Review	The Quality Controls team audits eligibility determinations. This includes auditing all documentation, performing interviews, communicating audit results to business units that rendered the determinations, and providing documents to the Federal Government.

Use Case List

#	Use Case Name	Description
20	Track an appeal of an Eligibility Determination/Redetermination	Appellants may appeal these eligibility determination decisions. Upon receiving the Appeal, DHS commences the Use Case in which the required information is collected and the Appeal status is tracked through to resolution of the appeal.
21	Schedule an Appointment (Self-Service)	The Client schedules an appointment using the self-service portal.
22	Manage Caseload	In this Use Case, caseload management is the assignment of work to the appropriate resources for completion. Case is defined as a various stage of client record such as application, referral, and inquiry going through integrated eligibility process.

State of Arkansas Department of Human Services
 Integrated Eligibility and Benefit Management Engagement (IE-BM) RFP
 RFP #: SP-17-0012
 Template T-6 - Functional Requirements Traceability Matrix

Process Flow List

#	Process Flow Name	Description
1	Access/Intake	This diagram represents the flow of activities for the citizen to conduct anonymous pre-screening and to complete and submit an application for benefits.
2	Eligibility Determination	This diagram depicts the processes required to determine eligibility and interface with various systems to ensure the information collected during the application process is shared to limit redundancy of effort by Applicant and staff.
3	Eligibility Review	This diagram depicts the processes required to review eligibility and process changes
4	Program Management	This diagram depicts the processes required to re-determine eligibility, process changes that may affect a Client's eligibility or their benefit amount, and ultimately for a Client to be dis-enrolled from the identified programs.

Template T-7
Functional Requirements Approach
Response Template
RFP #: SP-17-0012

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[REDACTED]

Functional Requirements Approach

The Vendor should provide a narrative overview of how the System will meet the Integrated Eligibility and Benefit Management Engagement (IE-BM) RFP Functional requirements. The following questions pertaining to Functional Requirements are a required portion of the RFP response and will be evaluated by Arkansas DHS.

While responding, the Vendor should reference the IE-BM RFP as well as all other documentation provided as part of the Procurement Library, to gain an overall understanding of the required scope and functionality, as well as the future DHS vision.

Please use these response sections to provide specific details of the proposed approach to meeting DHS requirements in each area. Responses should, when necessary, reference requirements using the appropriate RFP Requirement Numbers from Template T-6 – Functional Requirements Traceability Matrix. Please refer to the Business Process Analysis Document in the Procurement Library for workflows, Use Cases and additional details on the selected functional areas.

Responses for the Functional Requirements Approach are strongly preferred to be highly focused on the specific requirements and should not simply provide generic or marketing descriptions of technology or product capabilities. Vendors should indicate how their proposed phased implementation may or may not impact functionality. Additionally, the Vendor should indicate exception handling processes where appropriate and any dependencies on existing systems or components of the new System to provide the specified functionality.

1.0 Functional Requirements Approach

1.1 Approach to Addressing Arkansas's Vision for IE-BM

Arkansas DHS has established a clear vision for the future IE-BM System. This includes new approaches to technology and moving from stand-alone silos to shared technology components and services. This Vision provides Arkansas with key benefits:

- Leverages IT Best Practices and National HIT standards/initiatives and technology trends including:
 - Service-Oriented Architecture (SOA)
 - Modularity
 - Reusability (Build Once Use Many Times)
 - Multi-channel Access
 - Cloud and Software-defined Infrastructure
 - Social Networking and Collaboration
- Leverages the capacity of current transactional applications and minimizes need to replace all legacy applications at one time
- Improves both the organization user, consumer and trading partners' experience
- Provides for improved data quality, standards and stewardship
- Strengthens Master Data Management — Identity Access Management, Master Index

Capabilities (Providers and Consumers), Consent Management, etc.

- Enhances Enterprise Content Management, Logical Data Warehouse, Business Intelligence and Shared Analytics (Performance and Predictive)

Instructions: Discuss how this System will provide the functionality required to deliver the business benefits outlined in the RFP, including:

- **Application and Enrollment/Redetermination:** Web-based, real-time eligibility determination through an integrated application that supports multiple programs (when possible)
- **Intake and Admission:** Collection, verification and processing of additional information needed prior to benefits issuance
- **Interviews/Assessments and Scheduling:** Scheduling appointments for interviews and making recommendation based upon information collected during an interview
- **Benefits Issuance, Redemption and Management for programs other than Medicaid:** Issuance of the correct benefits along with the creation and delivery of a welcome package describing pertinent details. Tracking benefits usages and investigating as well as rectifying potential discrepancies in benefits issued
- **Client Changes:** Managing changes or events affecting a client's eligibility to receive benefits that may result in immediate suspension, termination of benefits or require the client to go through the redetermination process
- **Client Look-Up and Query:** The "White Pages" for Clients (Master Person Index) summarizing a listing of unique Clients and demographic information; identification of program enrollment and current services for Clients as well as a Consent Registry that controls, based upon privacy and confidentiality rules, what information can be shared, when and with whom
- **Reporting and Business Intelligence:** A combination of standard, parameter-driven and ad hoc reports as well as complex analytic tools supporting what if analysis, alerts/notifications and other capabilities

The Optum Integrated Eligibility Solution (Optum IES) Design Principles

From the outset, we designed the Optum IES as a modular, flexible, and user friendly system that is easily configured and less complex than the traditional siloed and monolithic systems of the last twenty years. By leveraging COTS components and using a SOA architecture at the core, Optum has created a truly modular yet tightly coupled solution that can easily be upgraded, installed, and maintained complete with full documentation and industry standard integration points.

These design principles support the vision of the Arkansas Department of Human Services (DHS) to modernize and evolve your eligibility system for your Health and Human Services (HHS) programs. This will enable you to achieve the key benefits of reusability, modularity, and interoperability. Using the Optum IES, we are uniquely positioned to help you transition your manually intensive work to more automated business processes. This facilitates access to appropriate services for your citizens in a more efficient and effective manner.

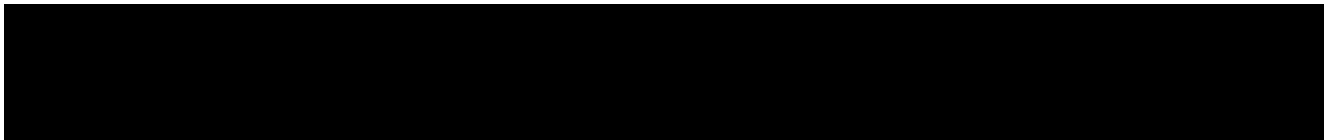
Optum has developed and implemented solutions that align with the Medicaid Information Technology Architecture (MITA) framework from its first version to the current version 3.0 framework. MITA provides a framework for states to establish modern Medicaid IT systems to address the CMS Triple Aim of cost, quality and efficiency. From our experience, each state has considerable variations in MITA readiness and maturity. Achieving higher levels of MITA maturity require states to implement operational and infrastructure changes. To help you achieve your project vision, we will deliver a solution that aligns with the CMS Seven Conditions and Standards as we highlight in the following table.

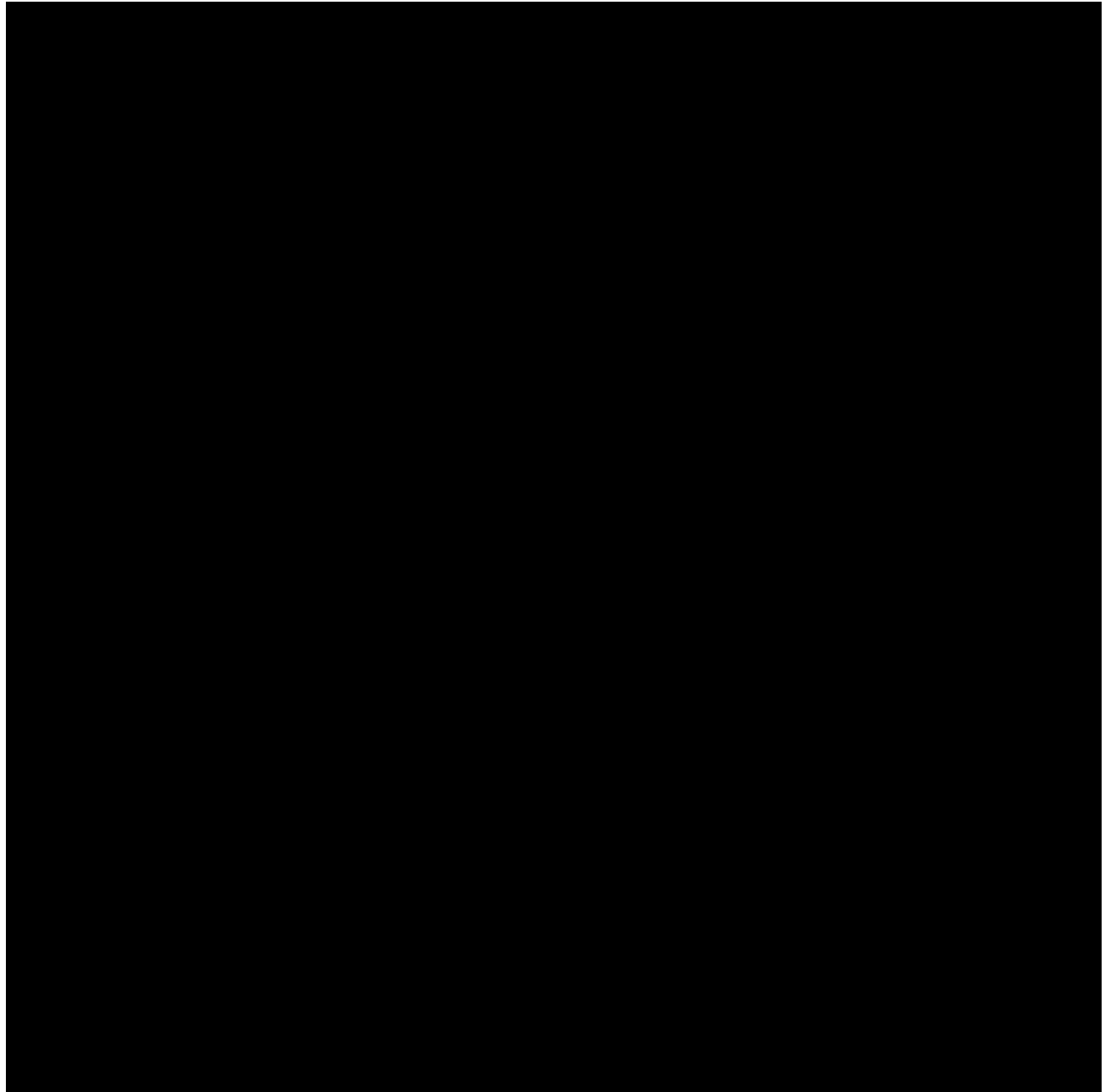
Table A: CMS Seven Conditions and Standards

CMS Seven Conditions and Standards	Optum AR IE-BM Solution Features
Modularity Standard	<ul style="list-style-type: none"> ■ Offers human and machine-readable business rules ■ Uses service oriented architecture (SOA) and application programming interfaces (APIs)
MITA Condition	<ul style="list-style-type: none"> ■ Assists the State of Arkansas in aligning with MITA to mature business, information and technical architectures
Industry Standards Condition	<ul style="list-style-type: none"> ■ Complies with HIPAA security and privacy regulations ■ Supports X12 health care transactions and HL7 standards
Leverage Condition	<ul style="list-style-type: none"> ■ Supports multiple programs and incorporates data across the enterprise to create a single master data record for each customer ■ Offers scalability to meet changing program enrollment as DHS matures Arkansas HHS programs
Business Results Condition	<ul style="list-style-type: none"> ■ Increases business productivity by making sure actions are performed efficiently through automated workflows in a Web-based environment
Reporting Condition	<ul style="list-style-type: none"> ■ Leverages leading business intelligence tools to provide automation from its foundational layer all the way to its knowledge delivery tools
Interoperability Condition	<ul style="list-style-type: none"> ■ Allows for a high degree of coordinated interaction to maximize value and minimize burden and costs to DHS stakeholders, clients and providers

In support of the CMS Seven Conditions and Standards, our Optum Integration Layer (OIL) implements a SOA that adds agility through various solution features. Agility is a desired outcome from any SOA implementation; however, the HHS-focused and MITA-compliant design of OIL adds unique value. The additional features of OIL will help DHS add efficiencies to change management, support maturing business processes, and reduce costs associated with ongoing requirement changes across multiple programs. The following table shows these solution features.

Table B. OIL Features





The Optum solution increases productivity by validating actions that are performed efficiently through automated workflows in a Web-based environment. Our solution is modular and COTS-based so it is less complex than proprietary systems in this space. It will increase job efficiencies through business process automation in the following functional areas:

- **Workload Management:** Queues, created in the embedded workflow management tool, provide the ability to efficiently delegate and track workloads among and between workers. You can accomplish this by automatically assigning workload tasks to workers using task queues.
- **Notice Management:** The rules engine helps to coordinate the notice creation and disbursement to current and intended clients. The notice predefined templates are reusable and help reduce manual processing. DHS staff and clients will receive event

notices for ongoing or completed transactions. Clients will have a notification preference to opt-in for email notices; otherwise, they will receive notices through the U.S. mail. We will distribute all legally required notifications to clients through the U.S. mail, including client workflow, agency and system events.

- **Alert Management:** The Optum solution will send online alerts to DHS staff and members when an action is required on the part of a client. Clients who have not opted in for electronic notification will receive these reminders in the form of a mailed notice.
- **Document Management:** Through an easy-to-use, on-demand process, DHS staff and clients will have the ability to upload documents through an online portal. Through the Client Portal, the client or applicant can also download forms and information, including completed and submitted applications. The Web portals handle protected health information (PHI) and personally identifiable information (PII) using authentication and encryption methods.
- **Electronic Signature Management:** Clients will have the ability to complete their self-service experience online using the electronic signature capability. This ability will reduce the client or applicant need to visit a local service center to sign hard copy documents. This will also streamline the benefit approval application process, reducing the steps required and frustration the client may encounter to complete this task.
- **Mailroom Management:** The automated barcode generation and address standardization feature for documents, notices or other client mailings reduces manual work time and errors.

Application and Enrollment/Redetermination

The Optum IES includes two integrated Web portals that provide separate and securely distinct access for clients and DHS staff – the Optum IE Client Portal and the Optum IE Agent Portal. We will replace your existing Cúram and ACCESS AR user interfaces (UIs) for application intake with a unified user experience for both client self-service (Client Portal) and DHS staff (Agent Portal). This will give your clients and DHS staff a new, unified look and feel for application intake. Your clients and DHS staff will realize the simplicity of having a single application intake UI rather than the current disjointed experience.

The Optum Web portals provide a streamlined approach that lightens administrative burden so DHS staff can focus on delivering the right services to clients when they need it.

We use a Role-Based Access Control (RBAC) methodology in the Web portals so that DHS can determine which user group can access which portal. Within each portal, DHS can then determine the granular level of security by user group, such as system administrator, supervisor (by functional workgroup), staff users (by functional workgroup) and other defined parameters. Each user session will be uniquely identified and all activities in the session will be tracked against a session ID. We will provide this tracking data in summary dashboards or detailed reports and we will maintain a comprehensive set of audit trails for all processes across the system.

Optum IE Client Portal: The Optum IE Client Portal is for clients and applicants to access up-to-the-moment information about Arkansas programs. Through a rich Web experience, the user will be engaged and empowered to use the self-service tools necessary for benefit program application and participation. Figure 1 provides an example of a Client Portal Web page where the applicant begins the program application process.

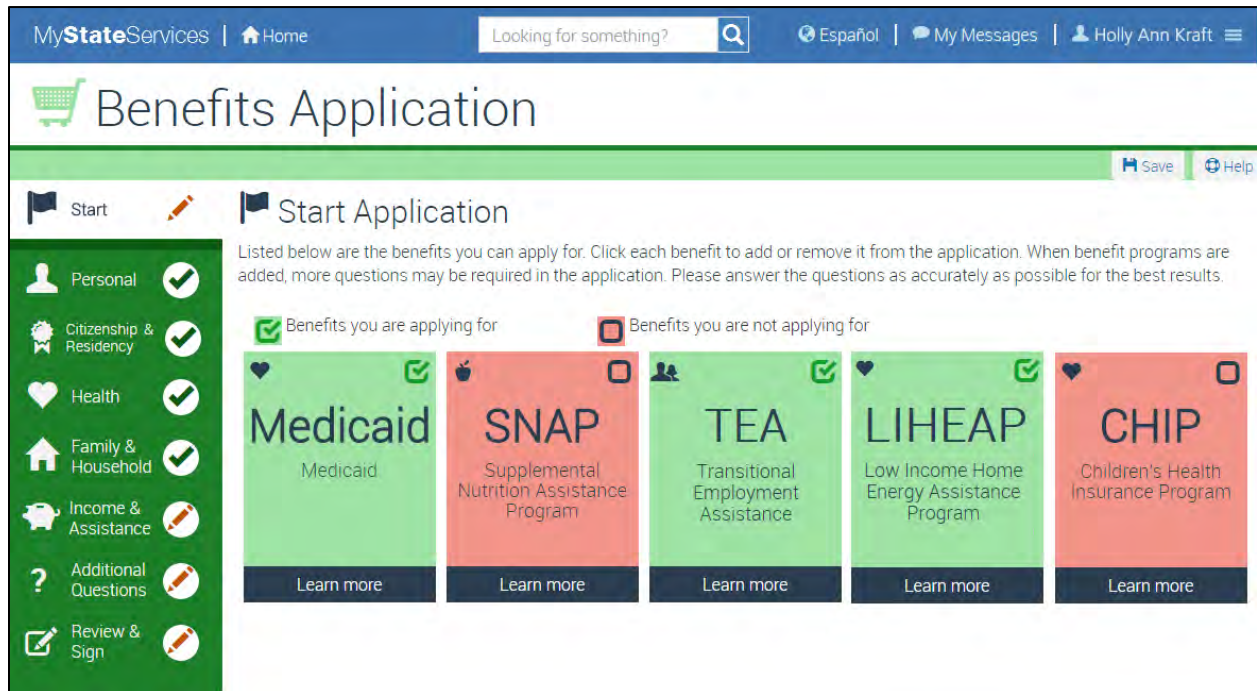


Figure 1. Client Portal Web Page Example.

We make it easy for applicants and clients to find the right information for initial program admission or pertaining to their current program benefits.

The Client Portal provides a single secure online stop for applicants to explore the benefits catalog and guide them through the application process. The online submission process helps reduce the amount of time between application completion and receipt of an eligibility determination. It enables clients to access features and be self-sufficient.

Optum conducted consumer research studies to understand the experiences of clients who interact with state social services programs in various ways. Our objectives were to understand:

- The mindset and world of the client, and how experience varies across consumer segments
- The challenges and barriers clients experience and how they progress through various systems
- What clients use as resources today and what would be ideal
- How to better support clients
- How client needs can align with our planned portal/website

We conducted in-home research studies with clients in New York City; Little Rock, Arkansas; and Billings, Montana. All participants interacted with multiple social services for themselves, their children, or another family member. Many participants shared similar values and priorities—the most common being their family, their faith, and their health. A participant’s journey with social services moves from understanding qualification for assistance to eventually managing and maintaining services over the long term, as Figure 2 depicts.

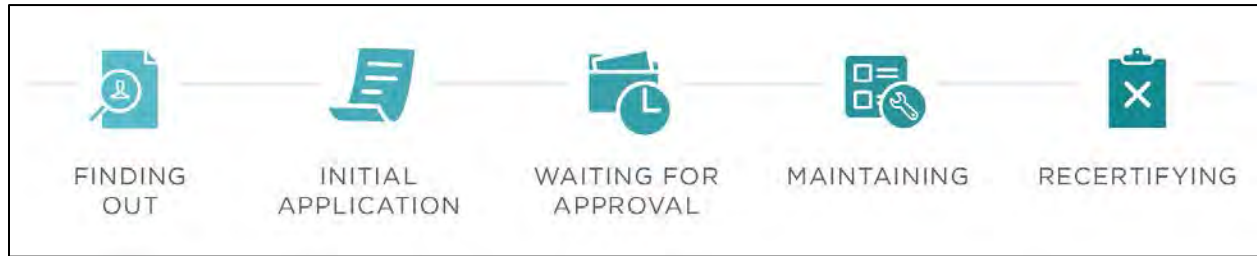


Figure 2. Social Services Journey: Overview.

Across this timeline, participants in the research studies said that they faced three major challenges: 1) the process was time-consuming, complex and redundant; 2) there was constant uncertainty, no communication, and no control; and 3) they experienced uncaring treatment.

Almost all research participants found the Optum portal concept extremely appealing. They saw it as an enhanced version of their own creations—a tool designed with their needs in mind. They reported that the Optum portal was streamlined and simple to follow. They liked the ability to track the status of their application, recertification and benefits. In short, the Optum portal addressed many of the challenges participants face with the current systems and aligned with their own identified needs.

Research participants said that the Optum portal was a tool designed with their needs in mind.

Optum IE Agent Portal: The Optum IE Agent Portal gives authorized DHS users the tools for managing and analyzing operations and performance at individual, group and organization levels. Figure 3 provides an example of an Agent Portal Web page.

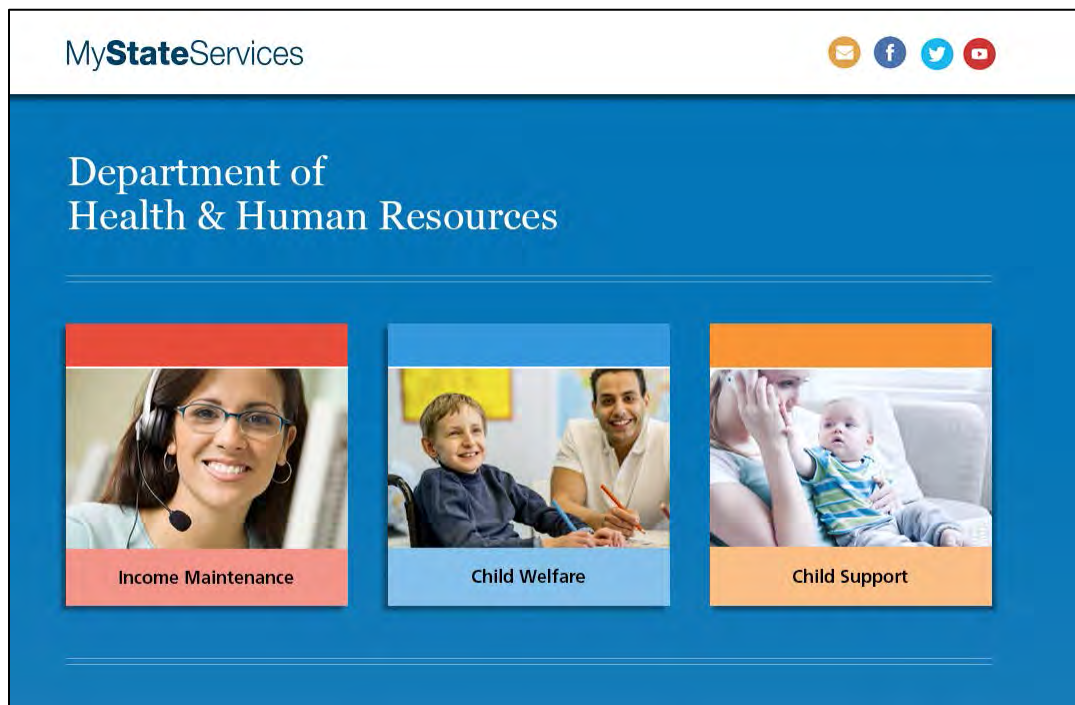


Figure 3. Agent Portal Web Page Example.

The Agent Portal allows authorized DHS users to manage and analyze operations and performance at individual, group and organization levels

DHS staff members will be able to accomplish their work through one portal instead of the multiple websites currently used. This will reduce the time DHS staff spends reviewing and acting on each application. The Agent Portal contains:

- **Eligibility case management:** Includes case notes, multiple case views, case worker lead reporting, case history and case or client search, and the ability to add worker comments to notices
- **Workload management:** Includes scheduling and tracking provider site visits and evaluation, managing provider outreach and campaigns, scheduling and tracking provider training, and child care provider termination workflow
- **Document and notice management:** Includes viewing, updating and deleting documents, uploading and labeling documents, and sort, filter and search functions
- **Dashboard views:** Provide insight into processes, patterns, changes, performance, problems, trends, oversight of business rules, financial management, auditing and security
- **Program eligibility views:** Help evaluate rule-based determination accuracy and consistency

Business Rules Engine: The Optum solution includes a COTS Business Rules Engine (BRE) product that we have used successfully for more than 10 years in health care projects across the country. We have used this BRE tool to solve our customer's most complex business challenges and are confident it will meet your current and ongoing business processing needs. Our solution increases efficiencies through automation in the following ways.

- **Multi-program capability:** The Optum solution provides a common and optimized exchange platform for your multiple program services. This includes standardization of information collection, data maintenance and business rule application to efficiently support a wide range of eligibility rules across multiple programs. The Optum BRE is pre-populated with more than 1,600 federal eligibility rules for Medicaid (MAGI and non-MAGI), CHIP, SNAP and TANF (or TEA). It enables you to stay in compliance with existing and evolving State and federal policies within a multi-program HHS enterprise. We have also created more than 650 test cases to confirm proper integration with existing systems and rule-sets to verify their accurate execution in eligibility determination. Both the real-time eligibility determination process during application intake and the eligibility redetermination processes that run on a scheduled basis throughout the year use the BRE.
- **Flexibility:** Our flexible BRE delivers time-saving configuration of business rules with a rich Web experience for authorized users. Business users can easily configure or modify business rules in human-readable format. This capability allows users to correlate the rules back to the originating policy. Business users are able to maintain the rules with minimal training. They do not require any programming skills to edit or update the rule set. Our BRE component includes a built-in controller to verify that changes are properly and safely rolled out, or rolled back if necessary.

One example of flexibility in our COTS-based BRE is that it can support state-specific business rules in an open manner. To address the challenges we have encountered in our work with states on their eligibility and enrollment systems, our approach is to extend the base set of federal rules with additional rules to meet specific state, county, or city situations. We can apply effective dates to each rule for retroactive and future eligibility determination. The internal logic and deployment process allows rules specific to Arkansas to be fully supported separately from

federal or other State systems. This will provide you the flexibility to implement specific eligibility rules and eligibility processes.

Intake and Admission

We designed the Agent Portal application intake and admission process to guide the worker through the process. Each of the eight tabs (Application Details, Program Request, Client Details, Additional Information, Income, Expenses, Assets, and Review and Submit) groups related data together and collects all relevant data needed for the programs for which the client is applying. The sequence of the tabs is streamlined and organized in a logical flow for optimal efficiency, whether workers are entering data from scanned paper applications, taking applications over the phone, or accepting applications face-to-face with clients. This greatly reduces the time to enter and process an application, especially when there are multiple programs involved. The process is client-centric because all of the necessary questions are asked just once in a single comprehensive process. Figure 4 provides an example of the Application Intake function.

Figure 4. Application Intake Page.

Predefined required fields will prompt the user to enter data in a logical sequence.

The first tab includes the entry of client data. This tab enables the worker to perform a client search or match across all benefit programs on the system and retrieve known client data. If a client is known to the system, data will populate in the appropriate fields of all tabs that follow.

When the worker completes entering application and client data in the Application Intake tabs, the worker is directed to review the program eligibility results. Any outstanding information, documents or verifications display. A request for this additional information generates and is sent to the client using their preferred communication method. When the outstanding information is returned, the worker updates the case and client data and re-runs eligibility. If all outstanding items have been satisfied upon reviewing the eligibility results, the worker can proceed to issue program benefits. Figure 5 provides an example showing that all of the required information has been satisfied.

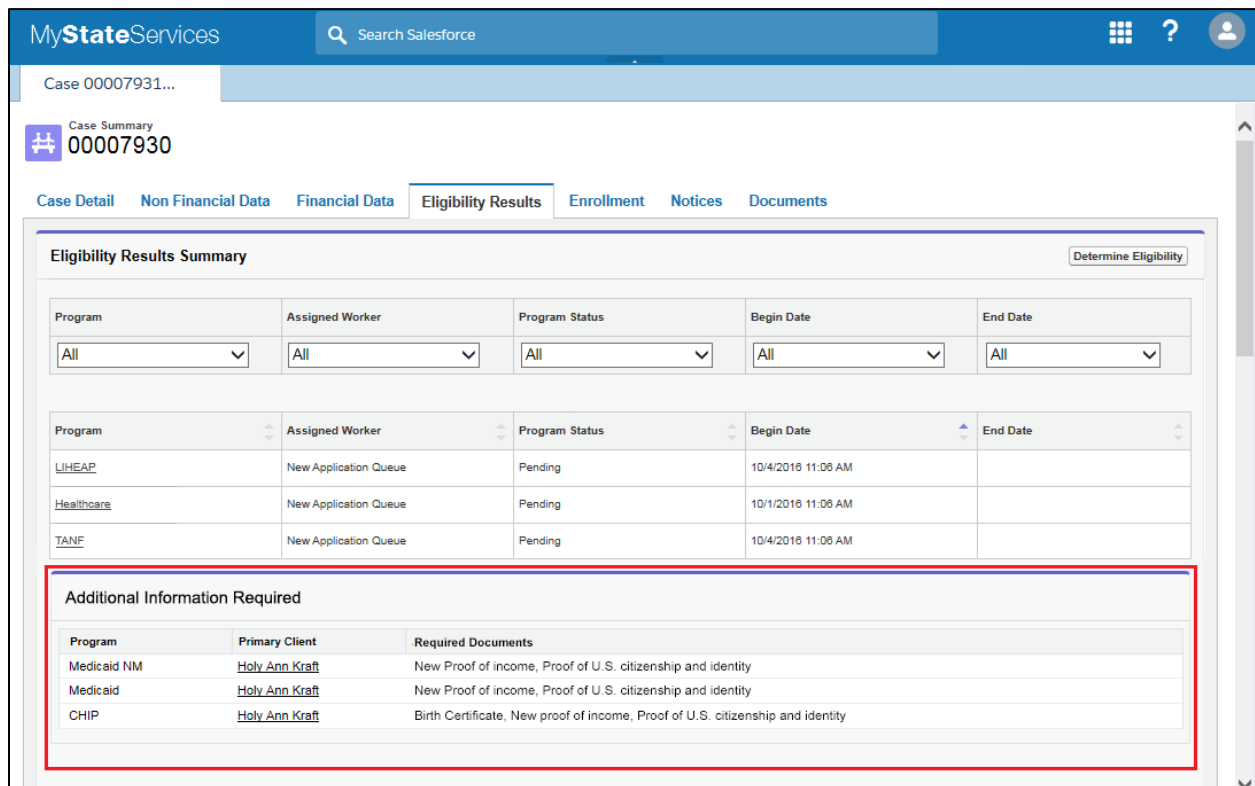


Figure 5. Eligibility Results.

Shows that all additional information required has been satisfied.

Interviews/Assessments and Scheduling

The worker (DHS staff member) can initiate the interview process from different menu options in the Agent Portal, depending on the type of interview (initial application, renewal, phone or in-person). In all cases, we can configure the system to meet the specific needs of the State for each type of interview. Data entry workflow begins by prompting for the data collection, such as household, demographic or income. Following data collection, the worker can submit an eligibility determination. This step generates output reflecting the programs for which the applicant is eligible. The final step in the interview process is to review and submit the data. This step records the applicants who signed the application and agreed to the program rights and responsibilities, verbally or in writing.

Following completion of an interview, intake or application/renewal submission, the workflow process can trigger the type of notification or documentation necessary to support the continuing business process. The default response currently generates a notice following submission.

Clients can schedule interview appointments with DHS staff through the Client Portal in the My Tasks—Book an Appointment section. Appointment options display for the client to select. Options vary based on predetermined business rules, including program type and the client's enrollment status. Clients can modify appointment settings, such as notification and language preferences. See Section 1.13.1, Appointments, for a more in-depth discussion of this capability.

Benefits Issuance, Redemption and Management

Our Agent Portal integrates with the State electronic benefit transfer (EBT) vendor through our integration layer to deliver electronic benefit issuance. This capability gives DHS an automated process for allocating program funds directly to clients. EBT cardholder information is tracked in the Agent Portal and program-specific funds can be added to the same EBT card when the client is receiving benefits from multiple programs. An authorized worker can designate, change and remove authorized cardholders as needed to make sure payment is made to the appropriate client.

Our solution supports benefit issuance for required programs on a daily, monthly, and emergency basis to meet the needs of DHS programs and your clients. We achieve this through daily and batch file payment requests and client information submitted in an EBT claim file from the Agent Portal. The claim file is applied to the designated program and account and stored in claim history. After payment is scheduled and authorized, a payment file disburses to a third-party EBT vendor to process the payment to a client's EBT account. Payment information is then received back from the third-party vendor to confirm payment, which is tracked in the client transaction history. Our solution can also authorize payments outside of the recurring schedule to support emergency benefit issuance to a client.

Our solution can identify overpayment and recoupment of SNAP, TEA or other program benefits from a client. The Agent Portal will interface with the State's Overpayment Accounting Services Information System (OASIS) system through OIL to provide an extract of all active SNAP cases on a monthly basis. Our solution can also send identified overpayment and recoupment amounts to the OASIS system. Through this interface, OASIS recoupment and overpayment referrals are matched to active cases. Any necessary adjustments can be computed and processed. We can receive any approved adjustments on overpayment and recoupment claims and apply those net benefit amount changes for deduction on a client's benefits through the EBT vendor, as required. This process reduces the need for manual collection processes and paperwork at the Department level.

Our solution supports tracking EBT card client demographic and account information. Client account balances can be viewed and tracked. This includes a benefit aging cycle that interfaces daily with a third-party EBT vendor to identify unused benefits and initiates an inactive account notification to a client at 45, 180, and 270 days. This information is shared with our Agent Portal module and includes expunging benefits for a client at 365 days of inactivity. These notification intervals can be configured by the State.

We will notify DHS staff and clients of ongoing or completed transactions using event notices. Clients will have a notification preference to opt-in for email notices; otherwise, they will receive

notices through the U.S. mail. We will distribute legally required notifications to clients through the U.S. mail, including client workflow, agency and system events.

Client Changes

Clients can report Change of Circumstances through the Client Portal. Upon logging in, clients navigate to the My Life Events section and choose the type of change they are reporting. The system displays the current information on file and enables the user to record any changes to it. Figure 6 shows an example of the My Life Events screen.

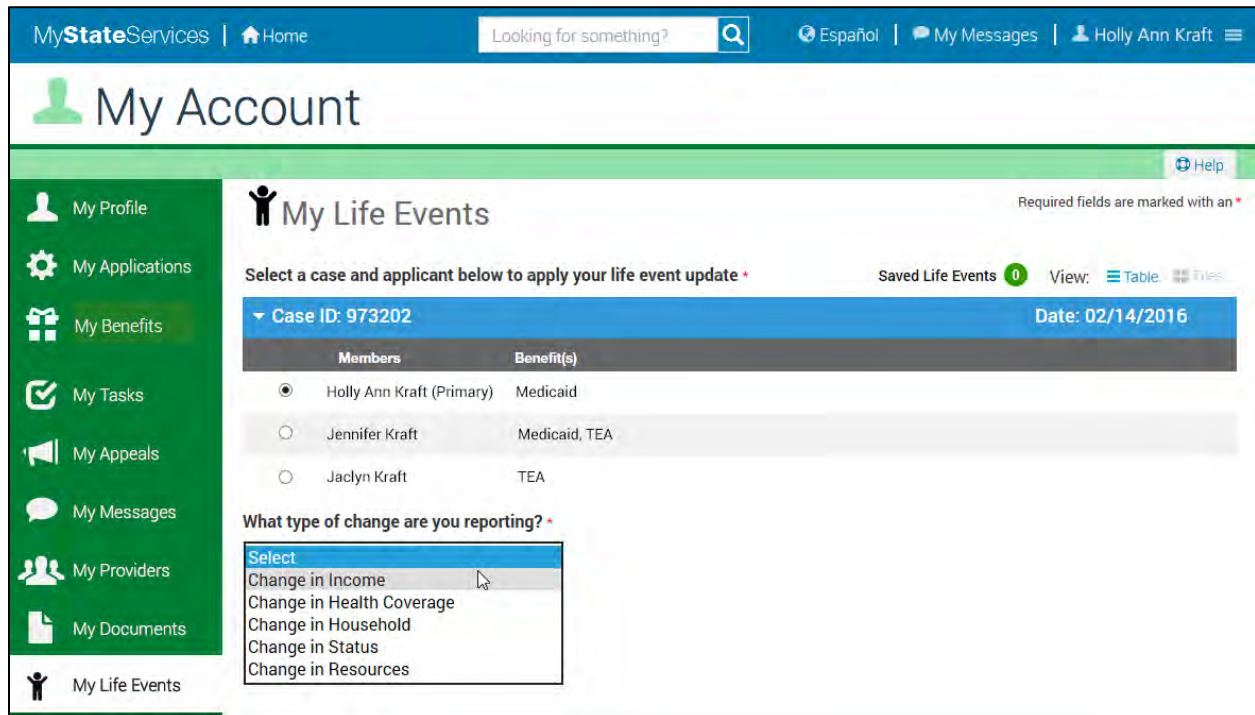


Figure 6. My Life Events.

The My Life Events screen enables a client to report a change of circumstance.

When clients submit changes through the Client Portal, predefined business rules determine whether the change requires a worker to review the information. If worker review is required, a task is created and routed to the appropriate worker, or to a queue pending worker follow-up. From the task, the worker can access the client's case, review the client's self-reported changes, and update or correct information, as necessary.

You can configure the solution to determine how client changes are applied to specific benefit programs changes. For example, you can run a redetermination through the rules engine, and the new eligibility results will display for the worker to review. The solution enables the worker to process any additional changes or make corrections, which updates the client status and program eligibility status. You can implement business rules to automatically manage new eligibility results without worker intervention.

Client Look-up and Query

The ability to track client history across time, eligibility spans, programs, delivery models, geographies, and agencies is central to meeting your project goals. It is also important to maintain accurate and comprehensive client profiles to improve continuity in communications

and enrollment, improving client quality of care. A Master Client Index (MCI) is key to these objectives.

It is common for clients seeking state benefits to receive multiple identification numbers (e.g., an individual applies for eligibility in different counties at different times using a new last name). It is also common for multiple clients to be assigned a single identification number in error (e.g., newborns temporarily receiving care under their mother's identification number). Therefore, the MCI is critically important for accurate program eligibility determination and enrollment.

Our solution incorporates a probabilistic matching algorithm that is highly flexible to avoid false positives. The complete client profile solution will be built around the business rules established in collaboration with your stakeholders during the project. This includes creating an information source hierarchy that aligns to your data governance determination where the source system provides the most accurate source for each data element.

Data quality is controlled through relationship constraints, triggers, and validation rules. Data will be isolated logically using horizontal partitioning, which controls data access at an instance or record level according to role permissions.

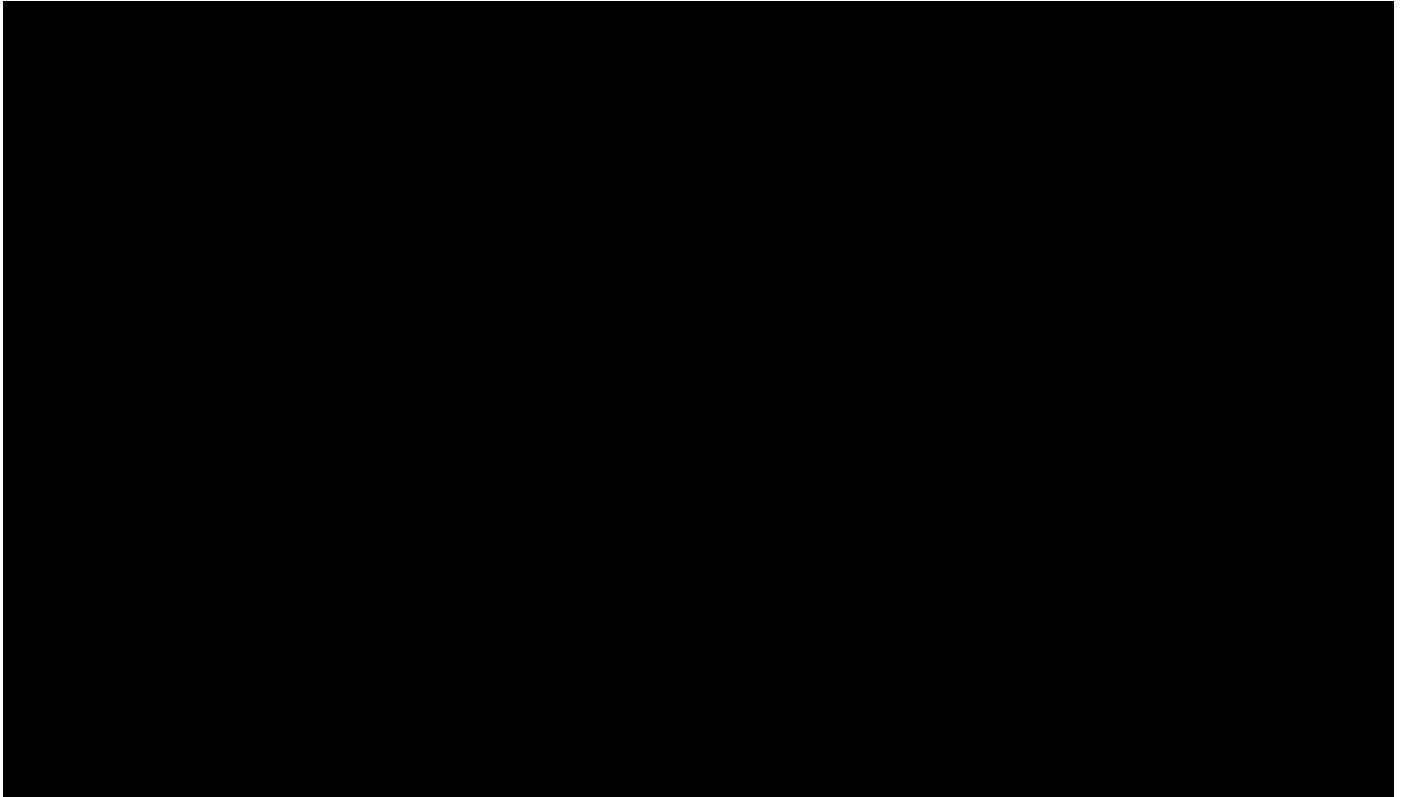
Arkansas rule-driven data processing constraints will help identify confidential records. System-wide data synchronization is automatically maintained. The Optum solution securely maintains eligibility information in order to provide access to these needed health care services.

Data constraints will verify an accurate, unduplicated count of clients receiving benefits for each Arkansas program. Arkansas business rule-driven data processing constraints will provide modified access, maintenance and processing of client records flagged as confidential.

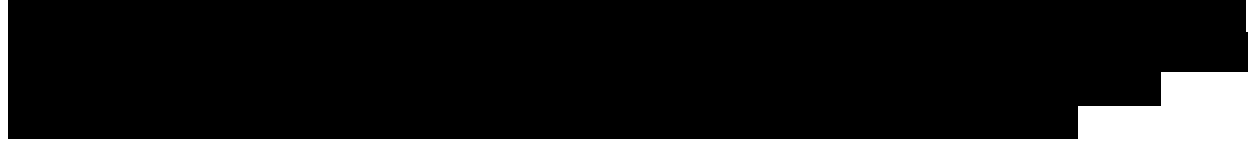
Reporting and Business Intelligence

Our Reporting and Analytic Service is a flexible Web-based solution designed to streamline reporting and business intelligence across HHS programs. Our services combine data from multiple sources to extrapolate analytic insights, which are used to drive key business decisions. Our services promote reusability by integrating existing DHS infrastructure and tools with our modernized and user-friendly solutions. Our comprehensive approach to reporting and business intelligence gives DHS the control to discover patterns in data and develop client-centric solutions to ongoing program and department challenges.

Our services generate flexible reports and real-time dashboards to keep up with evolving political and business demands. Authorized users can create, view, modify and save reports in various formats and visualize data in new and easy-to-understand ways. Figure 7 shows an example of a standard SNAP report used to monitor payment error rates across state counties by month.

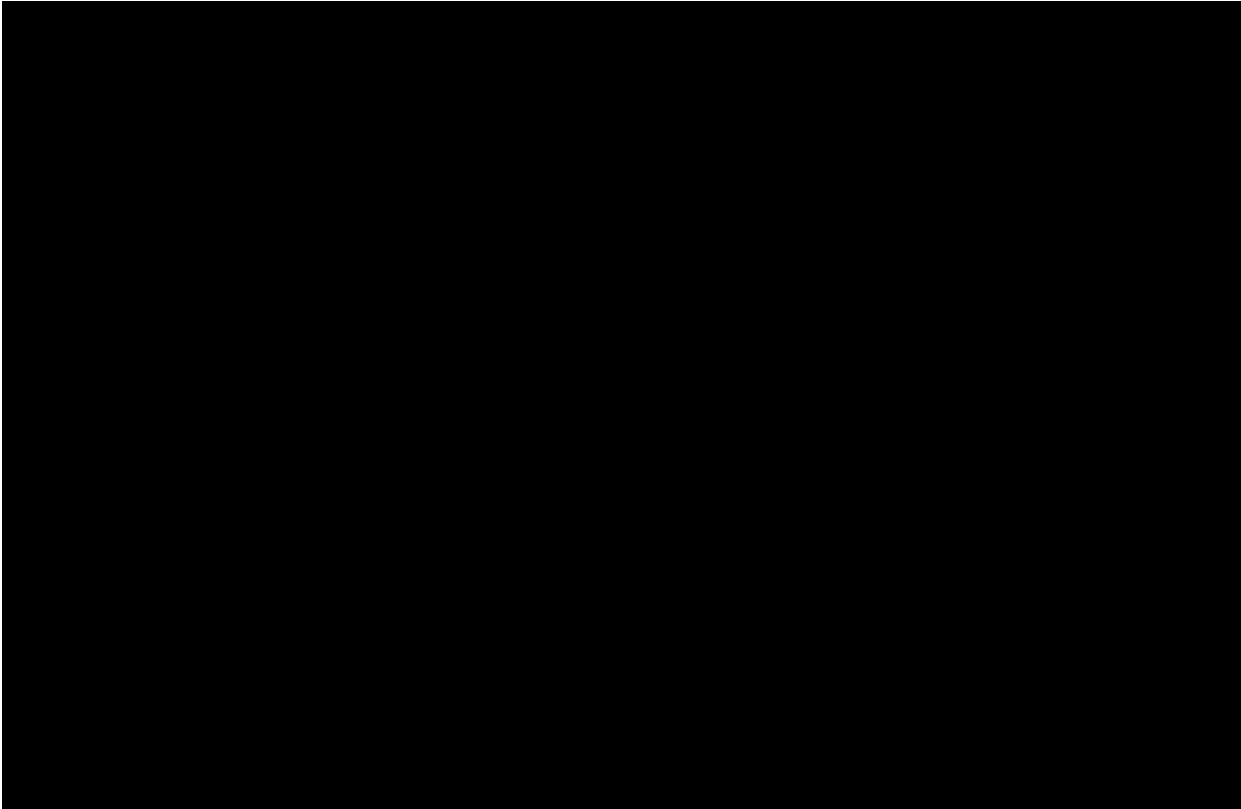


You can configure the layout and color schemes of the



We use parameters in dashboards and reports to compare measures and create calculations and filters to make views more interactive. The parameter control features enable authorized users to modify values and dissect data in multiple ways. All of our dashboards and reports include basic parameter controls and filters with drill-down and roll-up capabilities.

Our dashboards and reports include basic statistical calculations to track operations and performance across KPIs and other critical success measures. Users can tailor KPIs and measures to provide accurate and detailed reporting. Figure 8 illustrates a real-time dashboard with KPIs used to monitor application processing.



Our analytical capabilities provide State and county workers a more holistic view of their cases, including families who receive benefits from multiple programs such as SNAP, TEA, Medicaid, LIHEAP and Child Care. These capabilities help workers to view and analyze cases associated with multiple families and clients. Workers can better understand and address household needs resulting in a more client-centric approach to program service delivery.

As just one example, our ongoing work in the State of Michigan implementing evidence-based strategies and technologies demonstrates our extensive experience implementing reporting and analytic capabilities across HHS programs. Our partnership with Michigan began in 1994 when we developed the first Medicaid-centric data warehouse in the country used by approximately 50 users. Today, we operate a comprehensive reporting and business intelligence solution encompassing multiple departments, including the Department of Health and Human Services, Department of Treasury, and the State Court Administrative Office. Michigan now has the most extensive integrated HHS solution in the nation. The current number of users exceeds 10,000. The solution includes programs such as SNAP, TANF, Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), Child Support Enforcement, and Child Care.

Our Reporting and Analytic Services transformed Michigan’s data into actionable solutions resulting in more than \$200 million in cost savings and improved program outcomes. Michigan is nationally recognized by many third parties for their reporting and analytic successes. These organizations include the National Governors Association, National Association of State Chief

Information Officers (NASCIO) the Data Warehousing Institute and business and trade publications.

Section 1.14, Approach to Reporting and Business Intelligence, discusses our reporting and business intelligence capabilities in more detail. It also provides additional examples of the reporting and analytic capabilities we will deliver for DHS.

1.2 Approach to General Requirements

The Vendor should ensure that the responses to this section are in alignment with the requirements set forth in Template T-6 – Functional Requirements Traceability Matrix, Tab FR1 – General Requirements.

1.2.1 General Requirements

Significant System capabilities in this area include:

- Providing capabilities to cleanse/manage master data/client information
- Providing multi-lingual capabilities
- Tracking all Case actions

Instructions: The Vendor should describe its approach to addressing General requirements.

This response addresses requirements FR1.1-1.27 contained in Tab FR1 of the Functional Requirements Traceability Matrix. All but one of the twenty-seven (27) requirements will be met through configuration of the AR IE-BM. For FR1.14 we will leverage your current capabilities to collect, store, and retrieve telephonic signatures.

Introduction

DHS has many information systems that track clients and the program services they receive. Using Master Data Management (MDM) processes and tools, the AR IE-BM will construct a Master Client Index that will assign clients a unique identifying number that all information systems will use for the exchange of data. This Master Client Index will facilitate business intelligence reporting across programs. The State can report on an unduplicated count of clients after all information systems are using the Master Client Index. Similarly, Optum will help create a Master Provider Index to help facilitate their identification and services.

Cleanse and Manage Master Data and Client Information

To meet FR1.27, Optum uses Informatica® PowerCenter® as the foundation for our MDM solution to cleanse and manage data. Informatica PowerCenter Data Cleansing standardizes, validates and corrects name and address data. This maximizes the integrity and value of an organization's most important information assets and provides users with accurate business-relevant information. Using the Data Cleansing option, we are able to parse out separate data elements and standardize and cleanse address data at the lowest granularity using information from third-party sources (e.g., the U.S. Postal Service). The Data Cleansing option works seamlessly within the PowerCenter environment. It incorporates comprehensive data quality functionality into the PowerCenter Designer object-based, visual development environment. Optimized for performance, the option also uses the connectivity, metadata, parallel

performance and linear scalability of the PowerCenter platform to increase the number of data sources that may be cleansed and improve data quality in an organization.

Driving data quality requires a repeatable process that includes the following:

- Defining the specific requirements for quality data, wherever it is used
- Establishing rules for certifying the quality of that data
- Integrating those rules into an existing workflow to both test and allow for exception handling
- Continuing to monitor and measure data quality during its lifecycle (usually done by data stewards)

Because rules and needs change and new systems can be added to the mix, truly successful data quality initiatives need to be scalable to address those new requirements. To maintain accurate person information, our MDM conducts a search before establishing a new record. Our tools help to remove duplicates, standardize data (mass maintaining), and incorporate rules to eliminate incorrect data from entering the system by synchronizing with the single source of truth.

Data Quality and Privacy

The AR IE-BM controls data quality through relationship constraints, triggers, and validation rules. It isolates data logically using horizontal partitioning, which controls data access at an instance or record level according to role permissions.

The State's rule-driven data processing constraints are used to identify confidential records. System-wide data synchronization is automatically maintained. The Optum IES securely maintains eligibility information. Data constraints are used to verify an accurate, unduplicated count of clients receiving benefits for each State program. The State's business rule-driven data processing constraints allow for modified access, maintenance and processing of client records flagged as confidential.

We are committed to the data quality and the expectation of privacy of every citizen of the State who uses this system.

Data Integrity

We will create an audit trail for data usage, data creation, and any identity associated with data usage. We maintain client information in a master data repository to verify the single unique identifier. A master data record is maintained in an integrated repository, including a single unique identifier that is not a Social Security number (SSN). We use file maintenance processing constraints to detect duplicate files or records and isolate them for manual review and further processing. DHS rule-driven case data management constraints are used to verify that duplicate client and case records are merged or unmerged as appropriate. Standardized case data management constraints are also used to make sure duplicate clients and cases are handled similarly.

Master Client Index

The ability to track the experience of individual clients across time, eligibility spans, programs, delivery models, geographies, and agencies is central to meeting your project goals. It is also important to maintain accurate and comprehensive client profiles to improve continuity in

communications and enrollment, improving client quality of care. The creation and maintenance of a Master Client Index (MCI) achieves these objectives.

Clients seeking state benefits commonly receive multiple identification numbers (e.g., an individual applies for eligibility in different counties at different times using a new last name). It is also common for multiple clients to be assigned a single identification number in error (e.g., newborns temporarily receiving care under their mother's identification number). Therefore, the MCI is critically important to accurate program eligibility determination and enrollment.

The AR IE-BM will create and maintain the MCI table. The solution incorporates a probabilistic matching algorithm that is highly flexible to avoid false positives. The complete client profile solution will build around the business rules established in collaboration with your stakeholders during the project. This includes creating an information source hierarchy that aligns to your data governance determination of which source system provides the most accurate source for each data element.

Optum has created an MCI in many data warehouses with Medicaid and human services data. On a similar type project, we created an MCI that links data from 19 separate data feeds with plans to add still more sources. In that application, the MCI is also being used as the source file for MDM activities across the enterprise. In support of the CMS Multi-Payer Claims Database (MPCD) project, we are maintaining a Unique Client Identifier (UCI) that spans many payers, including Medicare and Medicaid data. These MCIs enable cross-program studies that facilitate analyses built upon a visibility to a client's benefits and experience across multiple programs and services.

Our work for the Michigan Department of Health and Human Services (DHHS) illustrates the near unlimited breadth of an MCI effort and the analytical power of an MCI. DHHS uses the enterprise data warehouse (EDW) as a broad-based business intelligence solution to manage its health care programs and outcomes. Optum has integrated 12 separate HHS related program areas and 34 separate data sources into a single EDW. This is a critical integration because many of DHHS' clients are enrolled in more than one program.

Our substantial experience will greatly simplify the process of creating an MCI for Arkansas. As we have accomplished for other states, we will:

- Standardize data and address data quality issues from disparate and often outdated legacy source systems before matching
- Use enhanced algorithms including use of match windows, hierarchical matching rules, grading, transposition allowance, phonetic character recognition and geocoding—the results should replicate a human review
- Establish a plan to manage large amounts of data on a population that tends to move often
- Develop matching rules for every data source
- Create an iterative analysis to search match results to identify all issues and achieve the best MCI results

Multi-lingual Capabilities

The Optum IES supports many HHS programs serving a highly diverse population. This demands that the system is flexible and user-friendly. One feature that highlights this characteristic is the solution's capability to support multiple languages across the entire platform. Language configurations are provided to all client-type users on the Optum IE Client

Portal, enabling the user to switch easily between English and Spanish. This provides ease of use to the client when using functions like dynamic online applications; self-service change reporting; and self-service access to eligibility, enrollment and benefit information. The multi-lingual solution can be scaled as needed to meet the business needs established in collaboration with your stakeholders during implementation. Currently, the Spanish language has been incorporated within the Client Portal. This could be scaled to include other languages in the future, such as Marshallese.

The agency worker uses the Optum IE Agent Portal to maintain and manage client and case data, submit applications, report changes, determine eligibility, and trigger notice generation amongst other things. Figure 9 shows the Spanish version of the Client Portal.



Figure 9. Spanish Version of our Client Portal.

Visitors to our Client Portal can easily switch between English and Spanish languages.

Case Action Tracking

In meeting requirements FR 1.3 and 1.9 among others, Optum will accurately track all activity and provide self-service capabilities with proper auditing.

Record and Maintain Client Data and Case Information

The AR IE-BM will use RBAC security methodology in the Web portals. This enables DHS to determine which user group can access which functions, such as system administrator, supervisor (by functional workgroup), staff users (by functional workgroup), and other defined parameters. Each user session will be uniquely identified and all activities in the session will be

tracked against a session ID. Summary dashboards or detailed reports will provide this tracking data. In addition, we will maintain a comprehensive set of audit trails for all processes across the system.

The audit tracking feature incorporated within the Agent Portal maintains a record of all the changes made to a case and a client. This includes case creation and status management, unique case and client identification, case assignment, forms tracking, client data management, eligibility status, and client communication. The audit tracking solution is dynamic. When stakeholders determine their business needs, we configure to track additional data required. Any actions taken by workers, clients, or the AR IE-BM are documented in an activity log so the solution reflects a permanent record of all services and contacts. The AR IE-BM captures step-by-step transactional records in chronological order, including destination and source information to provide documentary evidence of the sequence of activities taken by the client, worker or system. The audit trail contains high-level role-based security that tracks the ongoing events in a privileged mode so that it cannot be altered or modified.

Audit trails are associated with all transactional types of information performed on the AR IE-BM and other key transactional systems with which the AR IE-BM interacts. The solution tracks changes made to the BRE, Notices Management, and Report/Document Templates to verify these also provide documentary evidence of any changes.

The Agent Portal tracks client and case data across different domains:

- **Eligibility case management:** Tracks case notes, case history, and case search and ability to add worker comments to notices
- **Dashboard views:** Provide insight on processes, patterns, changes, performance, problems, trends, oversight of business rules, financial management, auditing, and security
- **Program eligibility:** Allows the user to evaluate and track rule-based determination accuracy and consistency

Forms Tracking

The AR IE-BM focuses on maximizing automation for all programs which it supports. Many forms, documents and notices will trigger automatically from the workflow or other automated process. In many cases, the client will be required to take some action with the form, document or notice to begin, maintain or renew eligibility. The AR IE-BM will maintain a tracking feature for any form, document or notice that requires return or response. Upon issuance of the form, document or notice, the system will establish an issuance or initiation date. A due date will also be established, based on the type of form, document or notice. These issuance and due dates will be included in the communication with the client.

As the due date for the client's response approaches, tasks and/or reminders can be issued to the client or worker as necessary to complete the process. The timing and format of the tasks and reminders are configurable. When the client completes the necessary actions, the worker can manually resolve tracking. Alternatively, the tracking can be auto-resolved based on data recorded in or derived by the AR IE-BM. For example, if a client has 90 days to verify his or her citizenship or immigration status, the clock can stop when the verification type is entered in the appropriate data field. If the client fails to complete the action by the due date, the expired timer will trigger the appropriate workflow to close the program, reduce benefits, or take the appropriate action.

Self Sufficiency and Outcome Tracking

Self-sufficiency plans can be configured as optional or mandatory for the related eligibility program. In most cases, a plan is mandatory for the TEA program; therefore, approval of benefits is conditioned on its completion. The self-sufficiency plan is part of the person record, but compliance feeds into the case record for TEA or a program such as Arkansas Works. Eligibility can be conditioned for as many plans as needed depending on the case.

The types of activities are fully configurable to meet the policy needs for the State. These can include job search, employment or work activities, training classes, or substance abuse treatment and counseling. Other options include orientation and assessment; approved educational activities; approved childcare or transportation activities; and medical or other referral activities.

Exceptions to the plan because of illness, emergency or other good cause can be recorded to allow continued participation without a sanction. Addition of activities to the plan can be automated (e.g., all plans include an orientation activity and any person without a high school diploma has a GED activity). Activities can also be added manually, as needed. The plan includes tracking the initiation date of the activity, expected and actual completion dates, and hours assigned or spent on the activity.

The plan status or program outcome is determined based on the recorded data. If the program is active, the plan status will be updated each time eligibility is re-determined to confirm that the household remains in compliance. A non-compliance reason is determined by the BRE, when appropriate, and the program benefits are modified accordingly. In each case, the outcome is reviewable and editable by the appropriate worker before benefits are reduced.

Employment Services Tracking

Employment activities are recorded and tracked in the case and person record for programs with employment participation requirements. The initial referral step is recorded with service referrals and linked to the more detailed employment service data.

Employment service data is configurable to meet the State's program requirements and includes exemption reasons and decisions, voluntary client referrals, work registration, Able-bodied Adults without Dependents (ABAWD) months and activity tracking. Workers can add and enter all necessary data to track client activities, including activity types (e.g., training, education and employment), hours of attendance, verification items and good cause determinations.

Using the collected data, the BRE determines exemption, participation and compliance as it relates to a specific program. The outcome of this determination is reflected in the program eligibility results displayed in the case record. All data collected in the case record, person record and/or eligibility result is available for reporting purposes.

1.2.2 User Interface Requirements

Significant System capabilities in this area include:

- Providing a user interface which allows for DHS workers to perform their tasks efficiently
- Providing Clients and Applicants access to all self-service functionality in multiple languages
- Providing context sensitive help information and decision-support tools

- Providing Clients with access to a mapping tool with directions to DCO County offices
- Conforming to State and industry-recognized user interface standards for all System screens, windows, and reports
- Making all applicable forms available for users to download, pre-populated with the Client's information previously provided to any Program
- Supporting Client access through multiple on-line channels including computers and mobile devices (e.g. tablets and smart phones)

Instructions: The Vendor should describe its approach to addressing User Interface requirements. The Vendor's response should include a discussion regarding access through multiple on-line channels (i.e. State workers should be able to access the system from PCs and tablets and the citizen's portal should be able to access the system from PCs Tablets and Mobile Phones)

This response addresses requirements FR1.28-1.52 contained in Tab FR1 of the Functional Requirements Traceability Matrix. All of the requirements in this section will be met through configuration of the AR IE-BM. For languages other than those provided natively within our standard product, Optum will leverage a third party product, Adobe Experience Manager (AEM), which conforms to Arkansas software standards as described in FR1.35.

DHS Worker User Interface

Efficient User Interface

We design our user interfaces for ease of use with little training or assistance required which allows us to conform to requirements FR1.28-1.33 among others. These guidelines help us design intuitive user interfaces for our solutions:

- We perform extensive analysis and user research to understand behavior and the way targeted users will engage with the product. This process helps us enhance the design and make the user experience complete, efficient and free of frustration.
- We follow best practices in design and consistency across all delivery channels.
- We use a common plain language, tone and appropriate readability level to match DHS user goals.
- We follow the Web Content Accessibility Guidelines 2.0 standards, which covers Section 508 guidelines.
- We use wireframes to visually depict the usability and navigation requirements related to the detailed functional requirements that have user interaction.

Our user experience design team works directly with the development team to configure the AR IE-BM user interface that is intuitive for users. Our collaborative, agile environment encourages good design and a strong process. This will enable us to continually evolve our suite of products and provide a positive user experience for your users. With our system, users can navigate without the need to move sequentially through excessive menus and screens that other systems may require.

Customizable User Interface

State and county staff will access the AR IE-BM through the Agent Portal. Access is differentiated based on the user's role or program responsibility. Each user has a unique login ID, which defines the workspace the user can access. This role-based distinction recognizes the uniqueness of the business processes, client data and program administration amongst business areas. The user interface provides the appropriate, secured access to data and processes necessary for determining eligibility, enrolling clients and families, managing client data, and managing cases and services. The configuration for user interface layout and access to data is customizable and can be configured as per the State's requirements. With a clear visual hierarchy for each level of navigation, users can move through the application with a minimum number of clicks. This will reduce the number of menus and screens needed to move through daily work tasks and will help to minimize the frustration of long navigation routes.

The Agent Portal drop-down on the upper left hand side guides agent workers through the portal. It allows workers to complete daily tasks efficiently and navigate quickly through different sections of the portal. Sections included in the menus can be customized based on need.

Figure 10 shows the Agent Portal drop-down navigation menu.

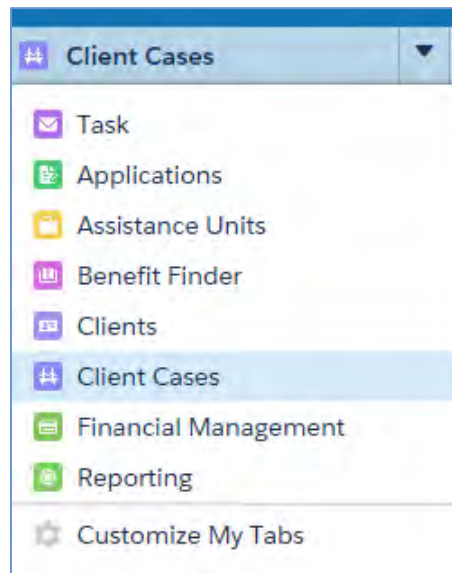


Figure 10. Agent Portal Drop-Down Navigation Menu.

The drop-down menu enables workers to complete daily tasks efficiently and navigate quickly through the portal.

The Agent Task section of the portal enables the worker to receive alerts for new applications, eligibility results, and messages to assist with eligibility determination and case management. In this section of the portal, workers can create personal tasks to help manage workloads. All tasks and content are configurable with options for sorting and filters to help prioritize tasks.

Figure 11 shows the Agent Task section of the Agent Portal.

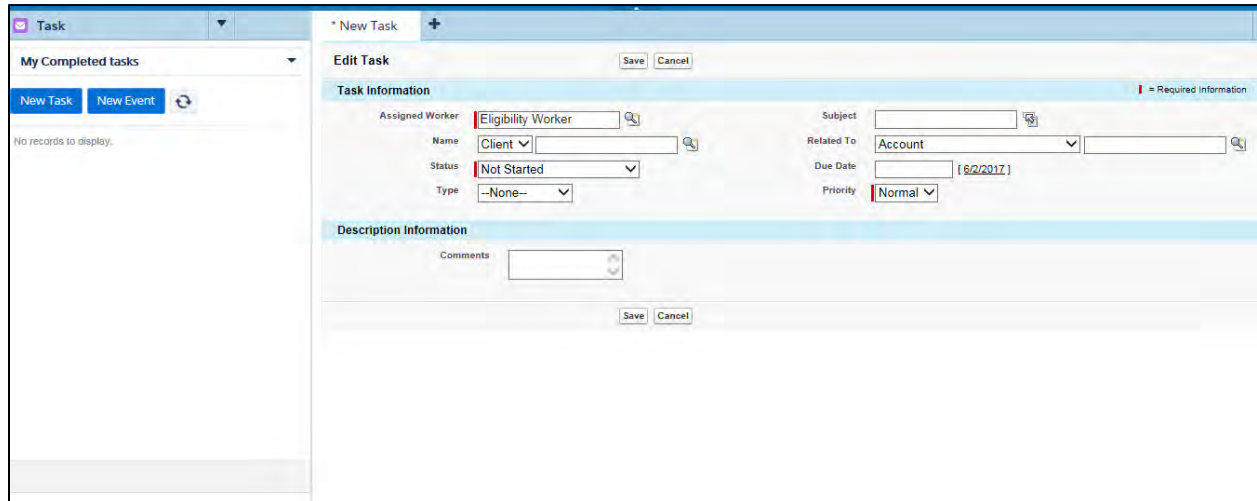


Figure 11. Agent Task Portal Section.

This section of the Agent Portal allows workers to create personal tasks to help manage workloads.

The Agency Applications section of the Agent Portal allows workers to create, edit and manage applications received by clients. Figure 12 shows this section of the portal.

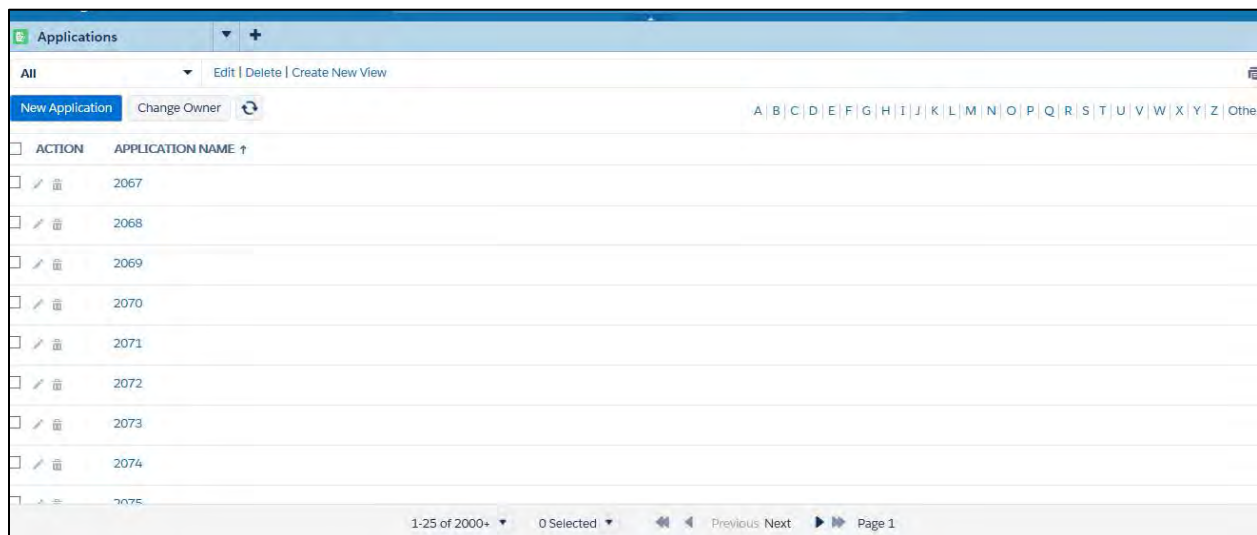


Figure 12. Agency Applications Portal Section.

Workers can use this section of the Agency Portal to manage client applications.

Single-click Navigation between Client and Case Records

The Agent Portal is designed taking into account the State and county staff's workflow to promote efficiency and ease of use for the worker. An example of this is that the AR IE-BM provides single-click navigation between client and case records providing the user quick access to data with little navigational burden. When clicking to view another record, a new tab opens enabling the user to toggle between multiple records. Clicking on a name opens the client's detailed record, clicking on "job" will open the client income record for the job. The navigation allows agency workers to toggle between client and case records with options to open multiple records simultaneously. This allows workers to manage case, program and client

tasks and information simultaneously without exiting pages. Figure 13 shows the navigation between client and case records.

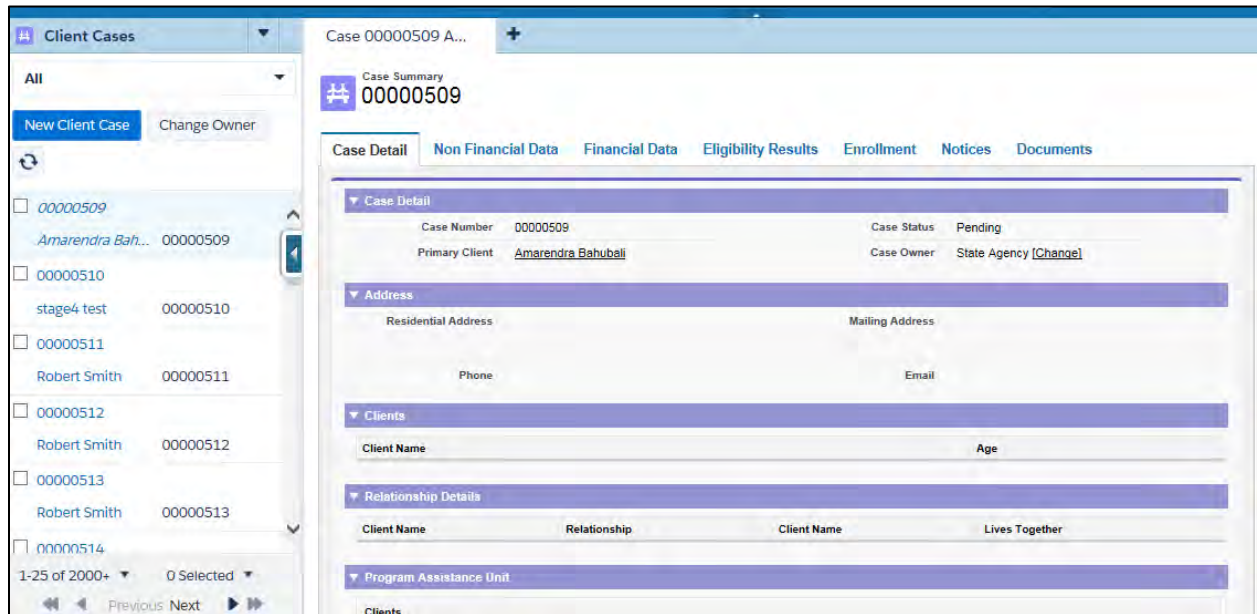


Figure 13. Navigation between client and case records.

Agency workers can manage case, program and client tasks and information simultaneously without exiting pages.

Client and Applicant Self-service Access

The AR IE-BM provides the capability of a self-service functionality to report changes, access eligibility, and enrollment and benefit information, as well as have access to notices. This eases the burden on case workers and allows the client to take to fulfill their role in the process online.

It is extremely important to make the self-service functionality intuitive and easy to use for the client. The AR IE-BM addresses this by keeping the diversity of the population in mind. The portals prioritize modularity and configurability. The multi-lingual solution is configurable. It will enable the State to configure the solution to meet the business requirements by adding any needed additional languages. Currently, the Client Portal supports Spanish. This can be scaled to include Marshallese, which we understand is required in Arkansas.

Context Sensitive Help Information and Decision-support Tools

We design our user interfaces prioritizing the ease of use for the client meeting requirements FR1.41-1.44. The Client Portal offers context-sensitive information to guide the user through the application process. This information is easily accessible when the client hovers over the fields in the eligibility application. This information provides more details guiding the user on how to proceed forward, as well as contains useful information like data entry format and any other restrictions.

We will configure the Agent Portal to use informational blurbs to help guide an agency worker through the case management lifecycle with all the decisions.

Mapping Tool Access for Clients

The Client Portal offers an interactive mapping tool that highlights all of the program providers in a given area. These providers are queried and their addresses are geocoded and displayed to the client based on inputs like address and ZIP code. This functionality will extend to include the list of Division of County Operations (DCO) County offices in the State of Arkansas and will function exactly like the provider search tool. For instance, it will generate a widget containing a map with all of the locations of the county offices in the client’s vicinity. Figure 14 shows a sample map.

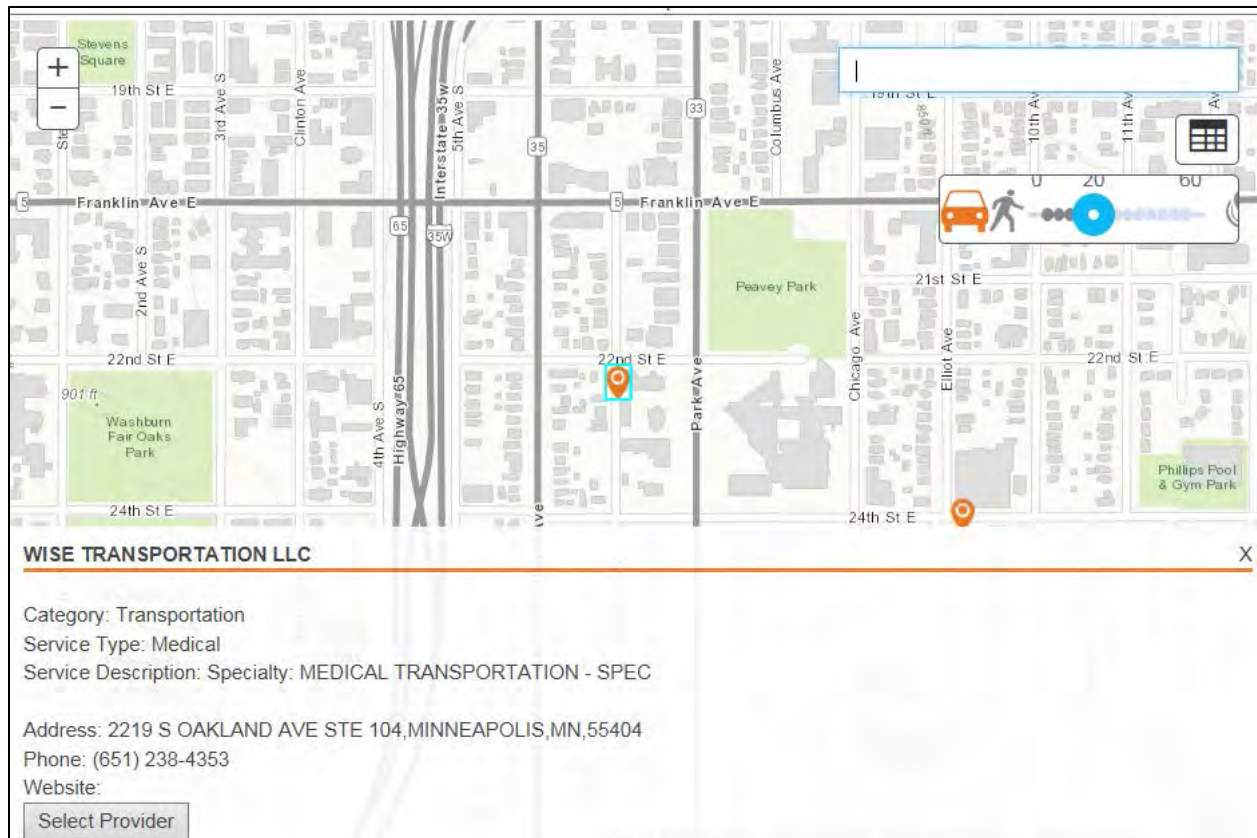


Figure 14. Client Portal Mapping Tool.

The Client Portal offers an interactive mapping tool that highlights all provider offices located in the state. Provides drive time, distance, search features and detailed provider information.

State and Industry-recognized User Interface Standards

Our user experience design team will work with the development team to configure the AR IE-BM so that it is intuitive for the State’s staff. Our collaborative, agile development methodology offers us the flexibility to accommodate changes based on your needs.

Optum will verify that all applications associated with this contract comply with Section 508 of the Rehabilitation Act of 1973. All the internal and external Web pages provided by Optum for the State of Arkansas will also be Section 508 compliant. Optum has an extensive process for accessibility testing as many of our customers have the same requirement for Section 508 compliance. Our process outline includes the following:

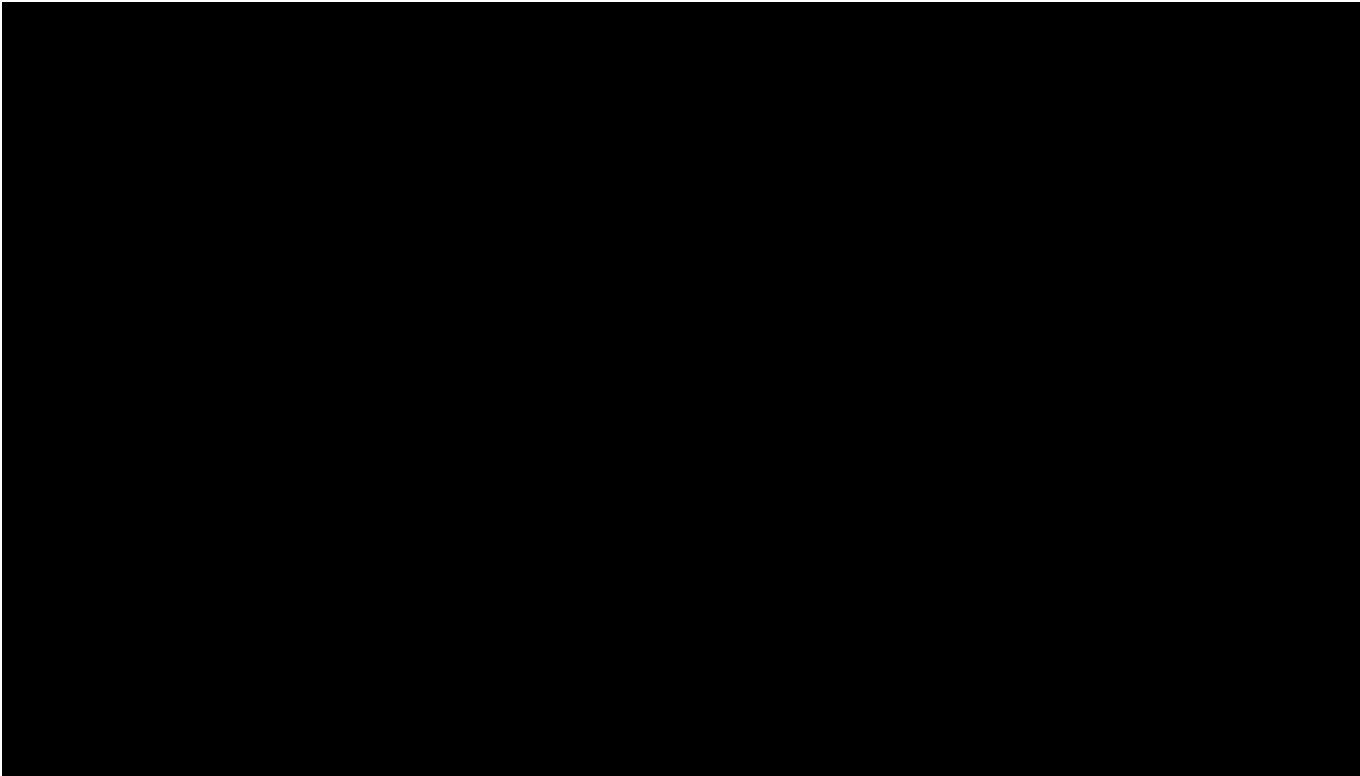
Definition: Accessibility is usability for the different ways people access the Web. Web accessibility means that people with disabilities can perceive, understand, navigate and interact with the Web, and that they can contribute to the Web.

Development: Optum has a dedicated center of excellence for user experience, the UX Design Studio (UXDS). UXDS is team of more than 150 designers, researchers, user interface developers, accessibility experts, and other professionals who provide guidance to developers on user experience and accessibility. Our developers have access to the latest tools, trainings, templates and frameworks recommended by experts to support accessibility.

Usability testing: Usability is the central focus of our approach to Web interface design. The U.S. Department of Health and Human Services Research-Based Web Design and Usability Guide is our blueprint during design. Following design, we will use automated and hands-on tests to test our user interface on key features of usability. These will include the ease in finding key information, page flow, print layouts, response time, ability to complete tasks and desktop browser/mobile usability.

During testing, we will follow a Usability Testing Protocol to perform hands-on testing of the AR IE-BM. The unit, regression and integration testing will cover all configuration changes and custom development to meet the State's needs. This will include identifying personas and fictional representative users who share attributes with your typical users. We will use these personas for multiple test scenarios throughout the testing process and will enumerate critical tasks, both for the user and stakeholder. From the task list, we will create a Usability Testing Protocol that contains the non-biased moderator script and testing criteria. In addition, we will usually perform testing as a one-on-one experience between a tester and a moderator, and we will record and analyze results and share with the development team.

This methodology will help us verify that the interface we deliver meets the needs of your users and stakeholders. Optum runs a dedicated User Interface Experience (UIX) lab to help project teams meet interface requirements. The AR IE-BM Project team will have access to the UIX and its personnel as needed. Figure 15 illustrates the type of quality testing we will perform on the AR IE-BM user interfaces.



We have a dedicated team that tests all Web pages for accessibility. Each page is evaluated against a list of almost 100 practical checkpoints covering WCAG 2.0 Levels A and AA success criteria and Section 508 guidelines (including Software and OS 1194.21, Web and Applications 1194.22, Video and Multimedia 1194.24, Functional Performance 1194.31). Each page is also evaluated with automated and manual checks of function, content, zoom/resizing, color and others using a combination of mouse with monitor, keyboard-only and screen reader with keyboard to represent a range of experiences.

Accessibility testing: Our accessibility testing will validate that the AR IE-BM we deliver is accessible to individuals with disabilities. It will also verify that they can interact with the system as needed. Beginning in design, we will perform Section 508 compliance reviews on the AR IE-BM user interfaces.

Our graphic designers understand the needs of users with visual disabilities. They know how to create a wide variety of accommodations for these users. After design, we will perform automated and manual testing of Web tools to further validate full accessibility compliance.

Downloadable Forms with Pre-populated Client Information

The AR IE-BM focuses on maximizing automation and enhancing user experience. It is common for clients seeking state benefits to apply for multiple programs. Thus, it is increasingly important to maintain accurate and comprehensive client profiles and case data across all programs. This is done by the master data management solution. Because all the user data is maintained and tied to a specific client profile, our solution pre-populates all new applications on both Client Portal and Agent Portal with the client's information if it exists in the system. The DHS agency worker can first search for a client when creating a new application. If the client already exists in the system, the client is selected by the agency worker and the application is pre-populated with all existing data as required in FR 1.51 and 1.52. This minimizes the effort required from the

agency worker, saving time and expense and reduces the total cost of ownership for DHS. Figure 16 shows the Agent Portal interface for a new application.

Application Details

Application Date: 11/07/2016
 Case Number:
 Application Identification Number:
 Auto Deny Date: 12/07/2016
 Application Method: Paper
 Withdraw Reason:

Primary Applicant

Add Primary Applicant

Search

Search fields required at least two characters

First Name: John | MI: | Last Name: Doe | SSN: - - | Birth Date: mm/dd/yyyy | Gender:

Results

Displaying 1 - 2 of 2

Select	Client ID	First Name	MI	Last Name	SSN	Birth Date	Gender	Alias
<input type="radio"/>	33019	John	James	Doe	187896000	1980-08-28		No
<input type="radio"/>	60582	John		doe	876553465		Female	No

View 10 Per Page

Selected From List Create New

Figure 16. Agent Portal Interface

The Agent Portal pre-populates new applications with existing case data to minimize the work effort for agency workers.

Client Access through Multiple Online Channels

Optum provides a secure portal to assist clients in managing the various aspects of each client's human service program needs. This includes benefit finder and online application for eligibility. We also provide a provider search capability.

In alignment with your business objective to increase system access, the Optum Client Portal is designed to simplify the process for individuals applying for benefits for programs such as Medicaid, SNAP, TANF and childcare. It can also support the request for other services, and cooperates with other social and human service programs. The solution empowers the client to securely and conveniently apply over the Internet by desktop, laptop, tablet or mobile device.

The Client Portal's responsive design lets users seamlessly switch between different devices like laptops, smart phones and tablets.

1.2.3 User Account Management Requirements

Significant System capabilities in this area include:

- Supporting one Client account for all programs on the IE-BM Platform
- Granting and limiting access to Clients, State staff, and authorized representatives to view/update information, based on user role, access rights and program rule
- Allowing users to update their username and password
- Capturing the Client's preferred method of contact
- Supporting Authorized Representative(s) for each user account

Instructions: The Vendor should describe its approach to addressing User Account Management requirements.

This response addresses requirements FR 1.53-1.83 contained in Tab FR1 of the Functional Requirements Traceability Matrix. For a number of the requirements in this section related to granting and limiting of access, as well as the deactivation and lockout of users, we will leverage the AR existing asset CA Identity and Access Management (IAM). This includes FR1.60, 2.62, 1.64-1.65, FR 1.70-72, and FR 1.75-1.76.

Supporting One Client account for All Programs on the AR IE-BM Platform

The AR IE-BM supports the administration for all programs on one client account, allowing programs to share that one account.

After an application for any or all programs is submitted, the AR IE-BM creates a new, unique case ID if the primary applicant does not already have an existing case in the system. If the primary applicant has an existing open case, the new programs are added to that case and retain the existing, unique case ID. If the primary applicant has an existing closed case, the programs are added to that case, retaining the existing ID, and the case is reopened.

A person record is used to manage information about program participants, whether they are applicants, enrollees, or individuals whose information is required to manage a program (e.g., a parent whose income is counted for an enrolled child). A person record captures basic demographic data and other information needed to determine program participation across the enterprise. Each person has a unique ID number assigned by the system. The person record interfaces with the MDM solution to maintain a single instance of the identity. The user can record multiple names, addresses, and phone numbers for each person involved in a case or associated with a case. Additional information such as background information, citizenship and immigration status, reference numbers, income and assets, adoption history, paternity, education, and medical information can also be recorded and updated over time.

The AR IE-BM platform is configurable for manual or system safeguards, specifically in restricting the primary client from establishing multiple cases for any programs. In addition to the ability to restrict primary clients from establishing multiple cases, the system also prevents duplicative person records to be created.

In addition to above safeguards, the agency worker is guided through the entry of client applications. The application intake process provides eight tabs organized with the entry of client data first, as fully described in Section 1.1 above. This allows the user to search and retrieve known clients, or to create a new client if one is not known to the system. This process helps to eliminate duplicate records.

Granting and Limiting User Access for Clients, State Staff and Authorized Representatives

Through the creation of configurable user roles, our solution provides access control at the modular level and all the way down to the individual data group level as required. The Agent Portal is used to map users to roles. This mapping can then be used to control user access to the portals, user access to screens within portals, user access to options within the screens, and user access to specific data groups. These controls help us to provide flexibility in role-based privileges, such as viewing and updating information. We can restrict levels of access between clients, State staff, authorized representatives, system administrators and other roles, if desired.

We have functionality that can both automatically and manually disable or delete inactive accounts programmatically, by workflow, or by batch processing. Our Identity Management solution can detect if the supplied user name is already in use. If so, the user will have the ability to recover the account credential. Additionally, during a periodic entitlement review of user access includes removing unused privilege, detecting and removing duplicate accounts as appropriate, and completing validation of privileges assigned.

Additional access control features of the solution include the following:

Role-based Security

We manage role-based security, the multi-factor authentication user access, using RBAC mechanisms from prevailing authorization and authentication technologies. RBAC, using existing roles and responsibilities, will enforce appropriate data segregation and isolation based on department, role or work effort. We invest significant resources in our information security program and use various network, security monitoring and encryption technologies to protect our environment and maintain the confidentiality and integrity of the data and information entrusted to us. Our information security policies, procedures, technical protocols and operations protocols help maintain the control of secured information. Encryption methods include encrypting all disk arrays, laptop disks and removable media, storing passwords and challenge responses using a one-way hashing algorithm rather than clear text. We also encrypt all data during transmission between the Web browser and the Web server using SSL 256-bit encryption validated as FIPS 140-2 Level 2 conformant. Our solution will encrypt data in motion and at rest in all parts of the system that will include all transfers from the data providers.

Security

We control access using role-based and field-based authorization, which limits access to applications and data by roles assigned to users through system security. Our security approach provides seamless user access across systems and leverages the solution's extensive security infrastructure to strictly enforce authorization and role-based access permissions. The solution includes single sign-on (SSO) capabilities across the entire AR IE-BM.

Portals can automatically log off any user after a set time period. This period of time will be agreed upon with DHS and is a configurable parameter. The portals can also be intentionally set to not force users off due to inactivity, if required, and post a pop-up warning message to the user before the session times out.

Username and Password Update Capabilities

All Client Portal users have the option to register and create an account through the self-service Create Account feature. In addition to creating the account, users can change passwords, retrieve forgotten passwords, and update account details. The Client Portal and the Agent Portal enable the user to change passwords following identity verification; however, the username change requires further configuration changes in the system. Configuration changes in the solution will allow it to provide the capability for accounts to be flagged to indicate potential fraud concerns. These accounts can then be prohibited from changing usernames and passwords. After registering, users can apply for programs, save incomplete applications, review current eligibility and enrollment details, contact agency staff, view notices, report changes and complete recertification processes.

The administrative module can retrieve lost account information and reset passwords online. Capabilities of the Optum IES include managing complex credential requirements, account lockout after defined failed login attempts, self-service account recovery and challenge response as secondary authentication.

Client-preferred Method of Contact Information

During the application process, applicants indicate their preferred method of contact. We capture and store this information in the system for both the client and authorized worker to view and modify. The Agent Portal offers the capability for the worker to capture and change the preferred method of contact for a client or an authorized representative. Since all the portals access a single database structure, we can maintain consistency and reduce duplications. This approach also enables the client to view changes made by the agency worker on the Client Portal in real time.

User Account Authorized Representative(s)

The My Account access allows clients to grant access to authorized representatives. Consistent with consent in a full-service environment, the authorized representative has the same access the client has to applications, cases or person data as allowed by program rules. Clients can withdraw this access through the self-service portal at any time.

Creating an account grants the user access to all applications, cases, and person data for which they are authorized for access. From the My Account section of the Client Portal, the authorized user can:

- View and modify the login profile
- View and print draft and submitted applications
- View eligibility and benefit information
- Make payments and sign up for direct deposit or automatic withdrawal
- View and respond to outstanding
- View notices, messages, reminders and other correspondence
- Select and view service providers
- Upload and view supporting documentation
- Report and view changes of circumstance

- action items
- Submit and view appeals information
- Add, remove and view authorized representative status

For more information on the solution’s capabilities for managing authorized representatives, please refer to Section 1.4.5, Authorized Representatives Requirements, in T7 Functional Requirements.

1.2.4 Validation Checks Requirements

Significant System capabilities in this area include:

- Validating information as the data is entered
- Validating address information
- Allowing for a system administrator to indicate mandatory and optional fields
- Providing the capabilities to upload images

Instructions: The Vendor should describe its approach to addressing Validation Checks requirements.

This response addresses requirements FR1.85-1.95 contained in Tab FR1 of the Functional Requirements Traceability Matrix and will be achieved through configuration of the AR IE-BM.

Information Validation During Data Entry

Input/output validation: We will perform input data validation on the portals to minimize malformed data entering the system. The following input data validation is factored into the AR IE-BM design:

- **Data type validation:** Verifies that individual characters provided by users are consistent with the expected characters of known primitive data types
- **Range and constraint validation:** Verifies the user input for consistency with a minimum or maximum range or consistency
- **Crosswalk validation:** Verifies the user input by cross-referencing it with a lookup table

Rules engine management: Our AR IE-BM business rules engine will facilitate business function processing between various technical components. Rules engines and workflow also provide greater levels of validation. For example, we can define automated validation criteria to detect errors and route work to a given work queue for resolution. Using workflows and rules engines effectively can help us detect errors early and increase quality and throughput. This approach helps us to resolve issues before they cause major downstream impacts.

Address Information Validation

Strict front-end standardization of addresses will improve the data quality, reduce work for back-end applications and potentially reduce mailing costs for notifications. All addresses, including client and provider addresses and others, will be standardized through a common process.

Address standardization will put addresses into a standard format, and validate that the address entered is a valid address by checking it against a postal or other valid database. It can also provide a Zip+4 code, if desired.

In addition to address standardization, geocoding can be applied to addresses entered into the system. This capability will help connect clients to the most appropriate providers and community resources.

Mandatory and Optional Field Determination

A system administrator can indicate the mandatory and optional fields through configuration settings for the Client Portal and Agent Portal. This custom feature of the Optum IES enables the system administrator to maintain different sets of mandatory and optional fields across both portals, as dictated by the business requirements.

Image Upload Capabilities

In addition to storage of system-generated notices, forms and other correspondence, the solution supports uploading, storage and retrieval of supporting documentation provided by the client or appropriate third parties. Like system-generated documents, manually uploaded documents will follow the retention schedule dictated by policy. Each type of document can have a distinct retention schedule, as dictated by policy or business process.

Client Portal document upload and management: Any client with a submitted application or open case can upload the document supporting that application or case. Clients select the application or case to which the document relates, the person who is supported by the document, and the type of document. The upload process automatically associates the document with the appropriate case, application and/or person. When accessing the account on a computer, the client can browse saved documents to select one to upload. On a mobile device, the client can take a picture of the document and upload from the device. After uploading the document, the client can return and view documents related to the client's case. Figure 17 shows the area within the Client Portal that supports uploading of documents.

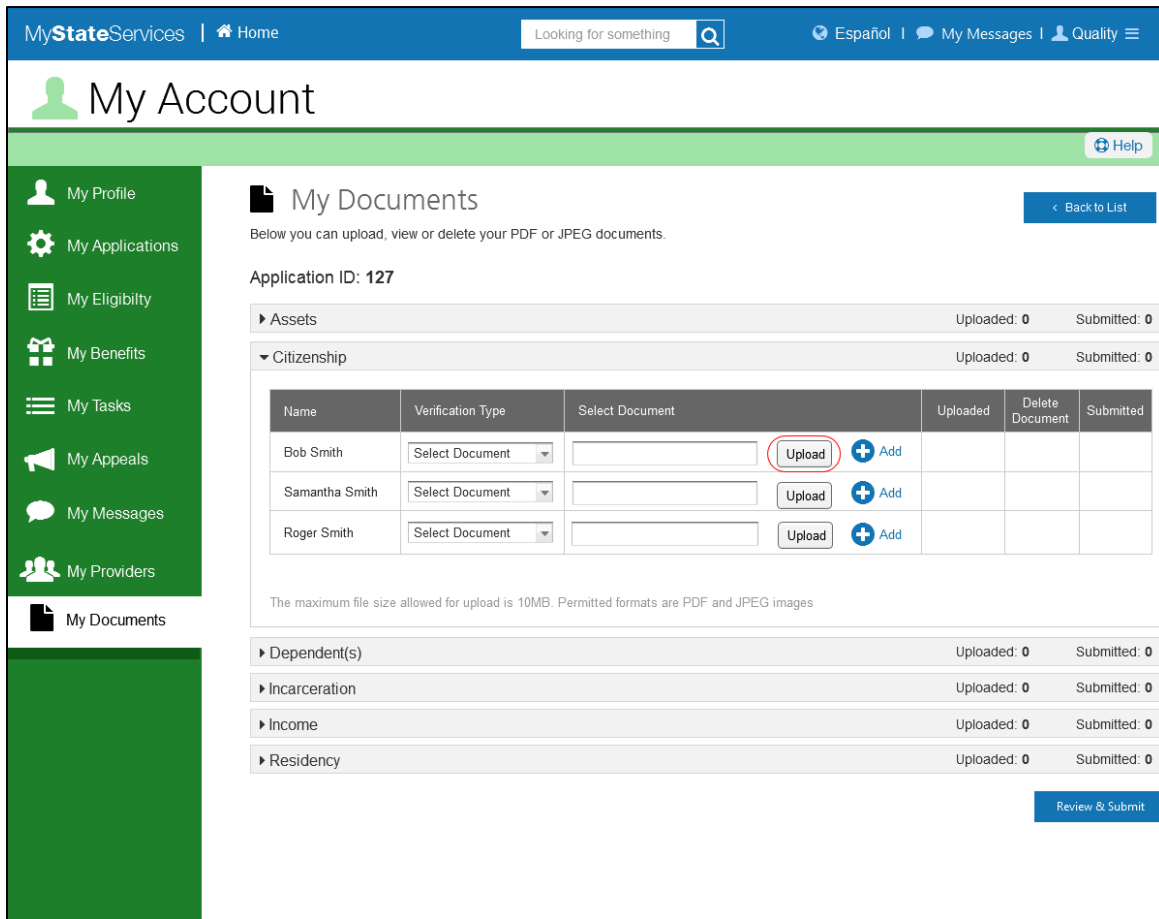


Figure 17. Uploading Documents from the Client Portal.

Clients can upload documents directly from the Client Portal. Uploaded documents are automatically tied to the appropriate case.

The uploaded document is stored with the case and person associations indicated by the client. Concurrently, the worker for that case, application, or person is notified of the uploaded document. The notification can be sent to many workers, if necessary. The document also becomes immediately accessible from the associated case, application or person record. In response to the notification, the worker can review the document and take the appropriate actions (e.g., clear verification or update a data value).

Agent Portal document upload and management: Similar to the client, the agency worker can utilize different devices like scanners, and laptops to upload documents and images received from the client. The worker has the option to upload files in several different formats including JPEG, PDF, BMP and PNG. The worker can also share the uploaded document with the client, who can then have the option to view the document on the Client Portal. The application allows the worker to specify the type of the document and to either associate a document to a case or to a specific client. Figure 18 shows the Agent Portal interface for uploading documents.

Holly Kraft Document Upload +

Client Name Holly Kraft
Client Id 4070

Document Upload Add Document

Action	Document	Type
Remove	Browse...	Bank Statement
Remove	Browse...	Passport

Cancel Upload

Figure 18. Uploading Documents from the Agent Portal.

Agency workers can upload documents directly from the Agent Portal and share them with clients, as needed.

1.2.5 Alerts and Notifications Requirements

Significant System capabilities in this area include:

- Providing the ability to manually or automatically generate alerts and notifications for users (Worker or Client)
- Sending global alerts/notifications
- Sending notifications based on the user's preferred method of communications
- Providing the capability to consolidate multiple, mandated communications into one mailing

Instructions: The Vendor should describe its approach to addressing Alerts and Notifications requirements.

This response addresses requirements FR1.96-113 contained in Tab FR1 of the Functional Requirements Traceability Matrix. Each of these requirements will be met through configuration of the AR IE-BM.

Alert and Notification Generation for Users

The AR IE-BM will closely regulate alerts and notification generation for clients and workers alike as required in FR1.96. The agency worker can generate notices for a specific client through the lifecycle of the client's case. The agency worker manually triggers a hard copy notice to mail to the user or triggers an electronic notice, which displays on the client's account on the portal. The client also automatically receives a notice of any changes to the account, eligibility, case, and benefits on the Client Portal under the My Messages section.

When a message is created on the portal representing a notice or form, an email is sent to the client’s email address on record. The email notifies the client that a piece of correspondence is available in the client’s account. Figure 19 shows the Client Portal messaging interface.

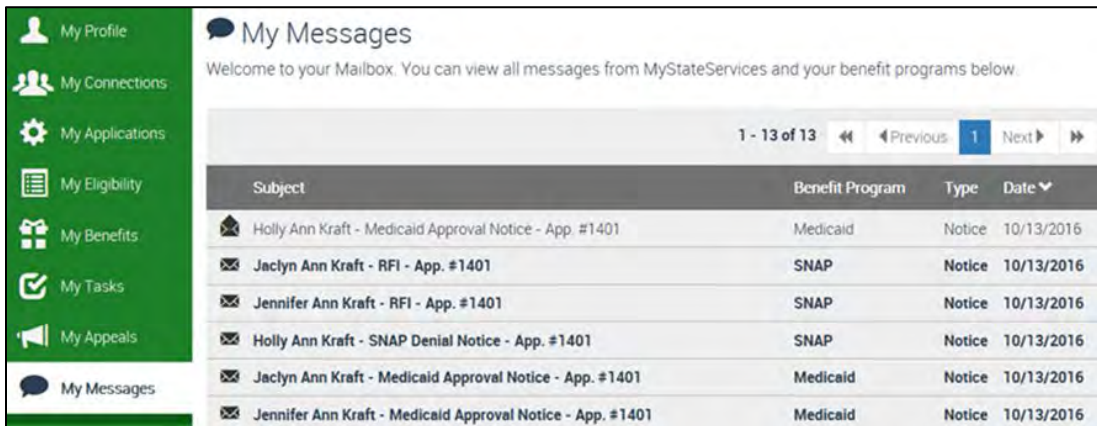


Figure 19. Client Portal Messaging Interface.
 Clients can receive electronic notices on the Client Portal.

Each message on the portal summarizes the information included in the notice or form. The content and format of the message display is configurable based on the business or program requirement. Figure 20 shows a Client Portal message.



Figure 20. Client Portal Messaging.
 Each message containing an attached document or form provides information related to the attachment.

Alert management: Similar to notices in terms of events, the AR IE-BM will send online alerts to DHS staff and clients when an action is required on the part of a client. Alerts generate according to metric milestones. This makes it easy to configure and support different users, processes, programs and changes as needs may change over time.

Workflows and Alerts

The AR IE-BM increases productivity by making sure actions are performed efficiently through automated workflows in a Web-based environment. It will increase job efficiencies through business process automation.

Workload management: Queues, created in the embedded workflow management tool, provide the ability to efficiently delegate and track workloads among and between workers. The task queue function delegates, tracks, and automatically assigns workload tasks to staff.

Automated Notifications and Tasks

Processing activities that require follow-up by DHS staff automatically generate and display a task. For example, a client application assigned to a worker automatically generates a task with details about the activities needed to complete the task. These details can include the type of task, client’s name and case number, due date, and status of task. The task display and details are configurable, filterable by status, sortable by column, and printable. Additional examples of activities that trigger tasks include the transfer of cases, change in a client or case circumstances, task reminders, and the receipt of a document or verification. Figure 21 shows an example of tasks for income maintenance programs.

ACTION	NAME ↑	TYPE	RELATED TO	DUE DATE	OVERDUE	STATUS	ASSIGNED TO
✓	Ambani, Dhirubhai	Verification	00000012	9/23/2016	🚩	In Progress	Worker1, Eligibility
✓	Ben, Kokila	Other	00000059	9/14/2016	🚩	Waiting on someone else	Worker1, Eligibility
✓	Kraft, Holly Ann	Application	00000055	10/18/2016	🚩	Not Started	Worker1, Eligibility
✓	Kraft, Holly Ann	Document	00000055	10/1/2016	🚩	Not Started	Worker1, Eligibility
✓	Smith, Robert	Reminder	00000062	10/1/2016	🚩	Not Started	Worker1, Eligibility
✓	Smith, Shawn	Informational	00000047	10/10/2016	🚩	Not Started	Worker1, Eligibility

Figure 21. Agent Portal Tasks.

Assigned tasks are visible in the Agent Portal for easy follow-up and action by DHS staff.

Global Alerts and Notifications

The AR IE-BM can send global alerts using the preferences or rules established for certain events. The global events can be controlled according to the role of the user (e.g., client or worker) as well as profile consent settings. Agency workers will have additional controls for access rights for targeted alerts/notifications.

Global alerts in the form of tasks or notices can trigger automatically and manually for both clients and workers alike. For example, when eligibility is accepted for multiple cases using a batch job, the primary applicants associated with those cases will receive notifications in My Messages section of the Client Portal. The AR IE-BM can also issue online alerts to DHS staff and clients when an action is required on the part of a client or the worker.

User-preferred Communication of Notifications

Clients can access the My Messages section of the Client Portal to view their correspondence. When a client requests delivery by regular postal mail, the electronic version displays on the portal, where it can be downloaded and printed, and the appropriate file is transmitted to print services for mailing. The mailing service receives the primary client’s preferred address to facilitate delivery to the correct address. The preferred method of communication is captured for

mailing, phone and email. All correspondence to the client is only performed using the preferred method of communication. The same process applies when program policy dictates a hard copy is mailed for correspondence.

The rules engine plays a role in coordinating notice creation and disbursement to intended clients. The pre-defined notice templates are reusable and help reduce manual processing. DHS staff and clients are aware of ongoing or completed transactions through event notices. Clients have a notification preference to opt-in for e-mail notices; otherwise, they will receive notices through the U.S. Postal Service (USPS). All legally required notifications will go out to clients through USPS, including the following:

- Assistance requests
- Follow-ups
- Legal notifications

Consolidation of Multiple, Mandated Communications

Notifications to a single client can be triggered by diverse processes, and eligibility results for each program will typically be accepted by the worker in separate actions. Because of this process, there may be multiple notices generated for the same client on a single day. We can work with the State's mailing facility to make sure that notice files sent to the mailing facility accommodate the need to combine various mailings to the same client into a single envelope.

1.3 Approach to Pre-Screening

The Vendor should ensure that the responses to this section are in alignment with the requirements set forth in Template T-6 – Functional Requirements Traceability Matrix, Tab FR2 – Pre-Screening.

Significant System capabilities in this area include:

- Allowing the public to access the anonymous pre-screening tool
- Providing a set of questions to capture Applicant data for use in providing guidance for programs or benefits
- Providing the Applicant easy access to the online integrated application and provide instructions how to apply for benefits and receive an official decision about his/her (or household) eligibility
- Providing easy access to the integrated application and the option of transferring the Applicant's data from the anonymous pre-screening tool to the self-service integrated application
- Providing the Applicant a PDF version of the information presented and the preliminary eligibility determination

Instructions: The Vendor should describe its approach to addressing Pre-Screening requirements.

This response addresses requirements contained in Requirements FR 2.1-2.28 Tab FR2 of the Functional Requirements Traceability Matrix. Nearly all of the of the requirements will be met

through configuration with the exception of four subSections FR 2.2 (a, f, I and j) that will require some development which is included in the cost of our proposal.

Public Access to Anonymous Pre-screening Tool

In the Optum IE Client Portal, individuals can browse program information and anonymously screen for benefits 24 hours a day from any Internet-connected device. Users do not have to log in or provide any personal information to learn more about the available programs. We designed the features in the Client Portal to be easy to follow and understand. The Client Portal Benefit Finder allows the public to access an anonymous browsing tool to determine potential program eligibility. By answering a series of questions, the user will receive a preliminary eligibility determination for programs in which the user may be eligible for benefits. Figure 22 shows an example of the Client Portal initial entry page.

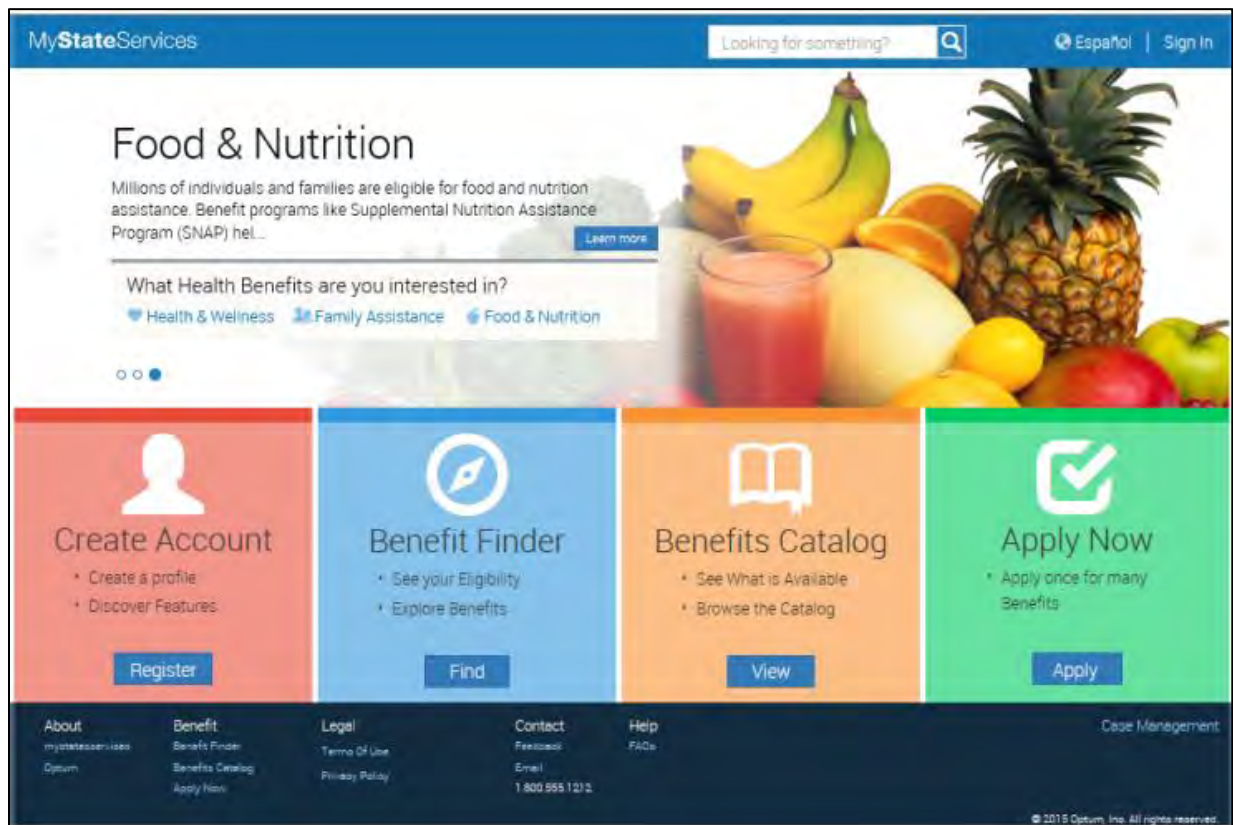


Figure 22. Client Portal.

The Client Portal is an easy to understand user interface that does not require a secure sign-on.

The standard programs supported by the Optum IES include Medicaid (MAGI and traditional), Medicaid Expansion Waiver (called Arkansas Works in Arkansas), CHIP, SNAP, TANF (TEA), LIHEAP and Child Care Development Fund. The anonymous pre-screening tool can be configured to support the addition of any State-specific program, as needed.

Figure 23 shows the processes that occur upon entering the Client Portal that do not require a secure sign-on (these are the Anonymous Browsing boxes). It also shows those functions that are secured for the applicant or client (these are the 'After Account Sign In' boxes).

Template T-7 – Functional Requirements Response Template

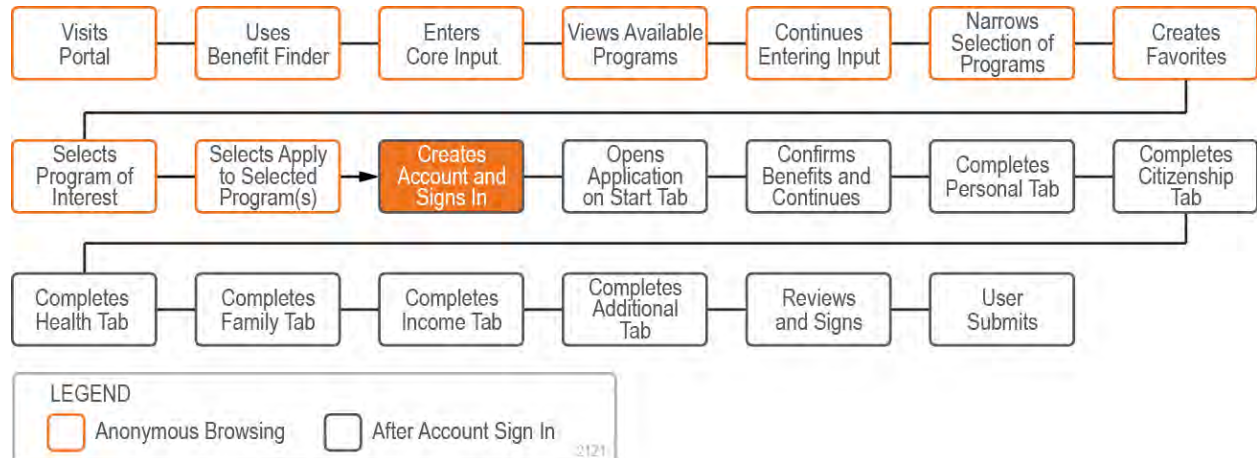


Figure 23. Client Entry into the Client Portal.

Users can perform multiple functions without a secure sign-on.

The Benefit Finder function provides the anonymous user answers to general questions to determine potential eligibility for selected categories. It provides a better understanding of available programs and types of information needed. The user can view and save results to My Favorites before applying for actual benefits. The Benefits Catalog feature also allows anonymous users to view detailed program information as illustrated. Suggested content includes information needed to enroll, general eligibility conditions, coverage and benefit details, and potential enrollment options. Figure 24 shows the Benefits Catalog feature.

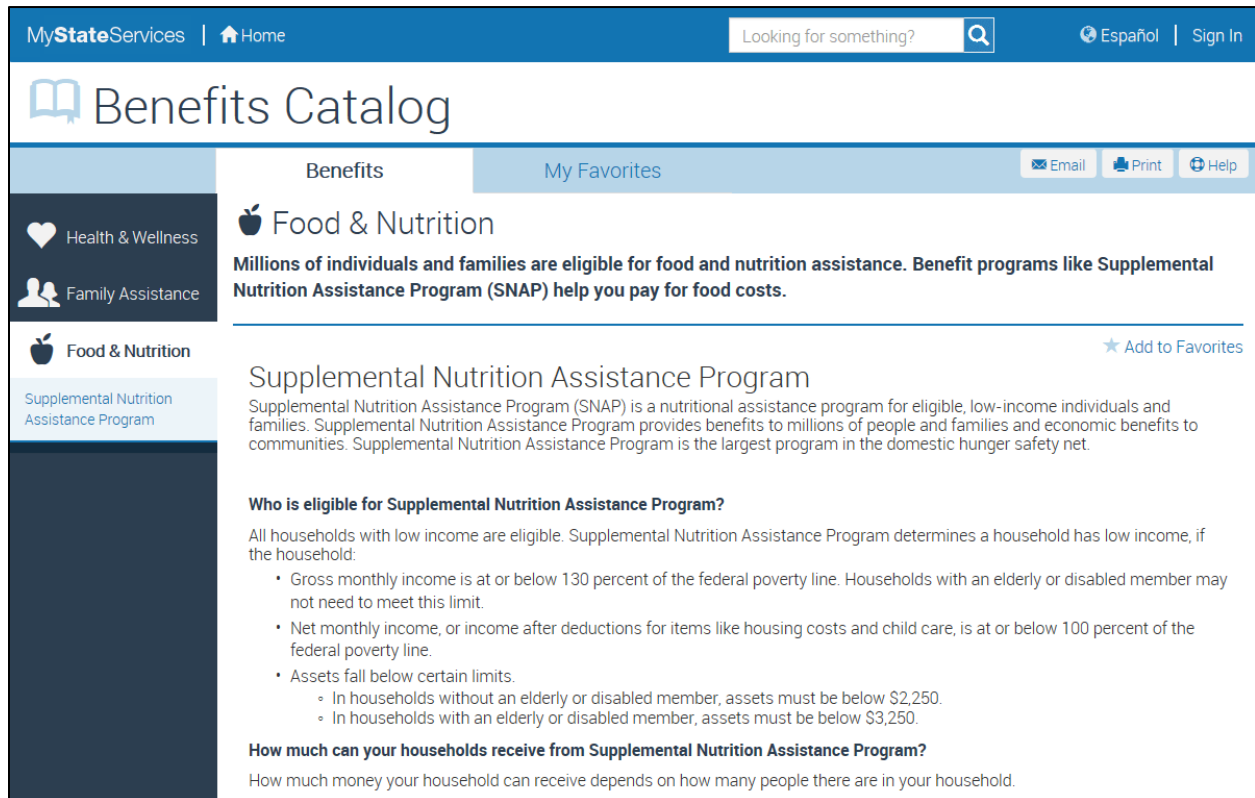


Figure 24. Client Portal Benefits Catalog.

You can configure the benefit information to meet your specific program details for applicant and client education.

Questions to Capture Applicant Data for Program or Benefit Guidance

The Client Portal provides a list of general categories (e.g., Health & Wellness, Family Assistance, and Food & Nutrition) for users to select the type of assistance they may need. After applicants select a category, they are guided through a series of pre-determined questions that help determine which program benefits the users may be eligible to receive.

Easy Online Integrated Application Access with Instructions

The Client Portal is accessible through a standard Internet browser. The applicant simply navigates to the portal and selects Apply Now to begin the online application process for all programs that are managed through the Optum IES. The applicant is guided through the series of questions. The questions cover subject areas such as names, addresses and contact information, citizenship and residency, health status, family and household make-up, income and any assistance currently received. After submitting the application, the applicant receives a preliminary eligibility determination, subject to validation of by the State eligibility worker. See Section 1.4, Approach to Integrated Eligibility Application, for an in-depth discussion of the application process.

Access to Data Transfer from Pre-screening Tool to Online Integrated Application

After users answer the preliminary anonymous questions in the Client Portal, they can view the programs for which they may eligible to apply. Even as users answer preliminary questions,

they have the option to Go To Application. Based upon the preliminary results, users then have the option to complete an application. When users select Go To Application, they go to a login screen where they can register securely with the creation of a user ID and password. After the registration is verified, the user's data is populated into the application for updating and completion.

Clients and applicants use the Client Portal to access up-to-the-minute information about State programs. Through a rich Web experience, the user has access to self-service tools for benefit program application and participation. Figure 25 shows a Client Portal Web page where applicants begin the program application process.

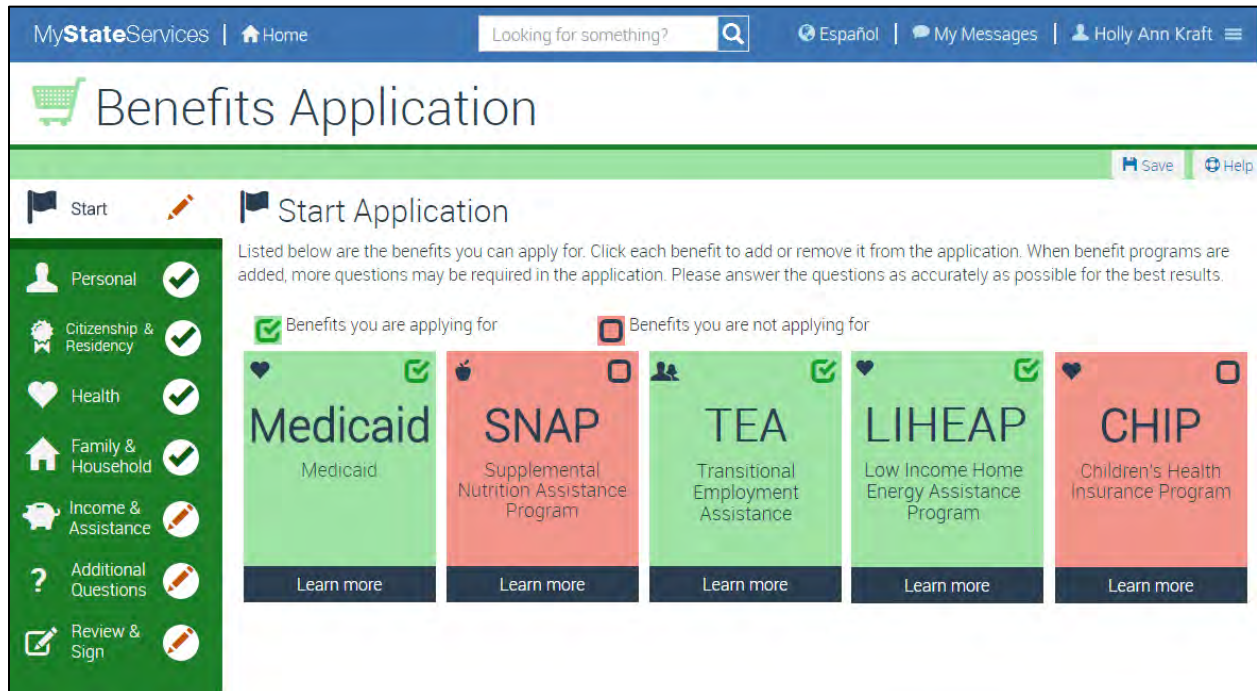


Figure 25. Client Portal Web Page Example.

We make it easy for applicants and clients to find the right information for initial program admission and their current program benefits.

The online application submission process helps reduce the amount of time between application completion and the applicant receiving an eligibility determination. The process promotes self-sufficiency and enables clients to access useful features.

PDF Version of Information and Preliminary Eligibility Determination for Applicant

The Client Portal allows users to print the anonymous browsing data that was entered and displayed on the View Results page. The View Results page also provides the ability to view and print the preliminary eligibility results. The View Results feature can be upgraded to provide a PDF version that shows the data entered and eligibility determination results.

1.4 Approach to Integrated Eligibility Application

The Vendor should ensure that the responses to this section are in alignment with the requirements FR 3.1-3.75 as set forth in Template T-6 – Functional Requirements Traceability Matrix, Tab FR3 – Application. Most of the requirements in this section will be met through

configuration of the AR IE-BM. For FR 3.54, we will leverage AR DHS's current telephonic signature solution.

Client Portal Functionality

The Optum IE Client Portal is a central component of the Optum IES that we will implement for Arkansas. Through a rich Web experience, the Optum IE Client Portal will allow clients and applicants to access up-to-the-minute information about Arkansas programs. Your users will be engaged and empowered to use the self-service tools they require for the State's benefit program application and participation.

The Optum IE Client Portal will improve operational efficiency and effectiveness for the State by:

- Enhancing self-service capabilities
- Improving the user interface and client experience
- Streamlining business processes and removing redundant tasks
- Improving workflow and integration between systems
- Decreasing training required

The following sections describe the key functionality of the Optum IE Client Portal.

Create an Account

All Optum IE Client Portal users have the option to register and create an account through the self-service Create Account feature. In addition to creating the account, users can change passwords, retrieve forgotten passwords and update account details. After registering, users can apply for programs, save incomplete applications, review current eligibility and enrollment details, contact DHS staff, view notices, report changes and complete recertification processes. The My Account access also allows clients to grant access to authorized representatives.

Application Intake

Application intake captures data for applicants and associated household clients for all programs currently supported by the AR IE-BM. Users navigate through a series of screens that asks questions about each person included on the application.

My Account

Creating an account grants the user access to all applications, cases, and person data for which they have security. From the My Account section of the Client Portal, the authorized user can:

- View and modify the login profile
- View and print draft and submitted applications
- View eligibility and benefit information
- Make payments and sign up for direct deposit or automatic withdrawal
- View and respond to outstanding action items
- Submit and view appeals information
- View notices, messages, reminders and other correspondence
- Select and view service providers
- Upload and view supporting documentation
- Report and view changes of circumstance
- Add, remove and view authorized representative status

Client Portal Notice View

Correspondence forms and notices are accessible from the self-service Client Portal. Clients can access the My Messages section of the portal to view their correspondence. When a client requests delivery by U.S. mail, the electronic version displays on the portal, where it can be downloaded and printed, and the appropriate file is transmitted to print services for mailing. This process also applies when program policy requires a mailed hard copy. Figure 26 shows the My Messages section of the Optum IE Client Portal.

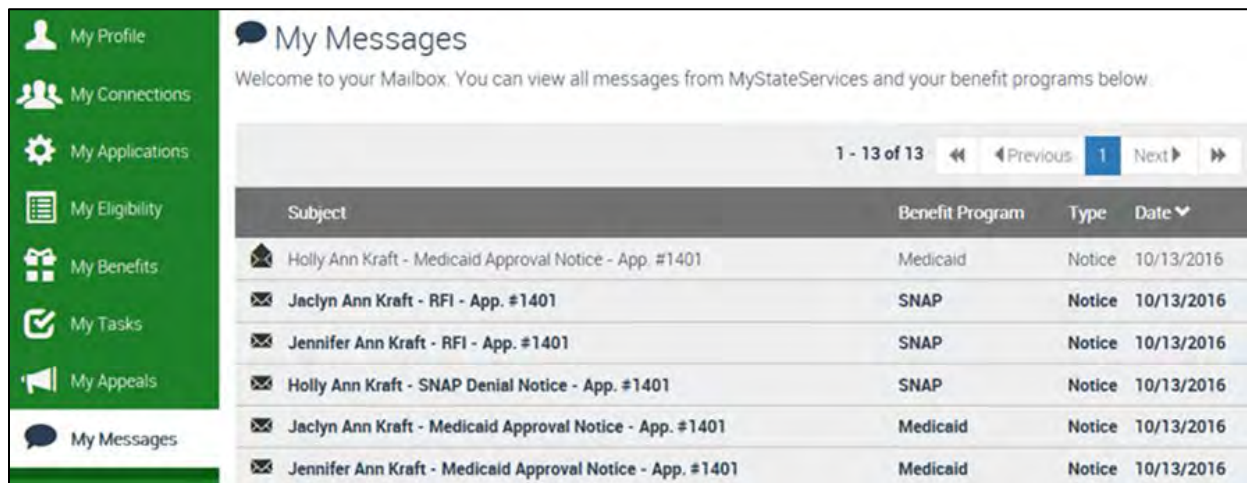


Figure 26. Access to Documents through the Client Portal.

Clients have online access to all of their program correspondence directly through the Client Portal.

When a message is created on the portal representing a notice or form, an email is sent to the client's email address on record. The email notifies the client that a piece of correspondence is available in their account. If the email address is invalid, the notice or form will be mailed instead. Each message on the portal contains the information included in the notice or form. The content and format of the message displayed is configurable based on the business or program requirement. Figure 27 shows a sample message.



Figure 27. Client Portal Messaging.

Each message containing an attached document or form provides information related to the attachment.

Client Portal document upload and management: Any client with a submitted application or open case can upload the document supporting that application or case. Clients select the application or case related to the document, the person who is supported by the document, and the type of document. The upload process automatically associates the document with the appropriate case, application or person. When accessing the account, the client can browse saved documents and select one to upload. On a mobile device, the client can take a picture of the document and upload it from the device. After uploading a document, the client can return and view documents related to their case.

Document management: Through an easy, on-demand process, clients have the ability to upload documents securely online through the Optum IE Client Portal. The client or applicant can also download forms and information, including submitted applications. The Web portals will handle PHI and PII using authentication and encryption methods described in Proposal Sections 2.6, Regulatory and Security, and 3.5, Security and Privacy Services Layer.

1.4.1 Application General Requirements

Significant System capabilities in this area include:

- Supporting multiple application submission approaches
- Pre-populating the information fields whenever available
- Determining the list of documentation required
- Validating information based on available real-time and stored data sources
- Providing the ability for Applicants to leverage documents and information submitted across divisions

Instructions: The Vendor should describe its approach to addressing Application General requirements.

This response addresses requirements FR 3.1-3.37 contained in Tab FR3 of the Functional Requirements Traceability Matrix. All but one of these thirty-seven (37) requirements will be met through configuration.

Multiple Application Submission Approaches

Optum understands the disparities of DHS clients and promotes multi-channel client benefit application approaches. Clients who have access to the Internet may apply for benefits online using the Optum IE Client Portal website. Others may apply in person at their local DHS office, they may submit a paper application, or they may initiate the application process through the Federally Facilitated Marketplace (FFM). The Optum IE Agent Portal that DHS staff will use supports the following application submission methods:

- Online through the Optum IE Client Portal
- Online via a technical interface to support the applications submitted through the FFM
- Telephone
- Fax
- Email
- Mail
- In person
- Drop off

Applications for benefits received through the Client Portal will electronically interface to the Agent Portal. The Optum IES is configurable to automatically assign the applications to case workers using predefined business rules, or route applications to work queues for supervisors to manually assign them to a case worker. Upon assignment, a task will be triggered to the assigned case workers to alert them of the application received.

Applications received through fax, email, mail, in person or dropped off can be scanned and uploaded to the Agent Portal for a worker to review and process. Agency staff taking applications over the phone may enter the application data directly into the Agent Portal using application intake screens. From that point, routing of applications would proceed as with electronic submissions.

Applications received as a result of a submission via the FFM will be received by the Optum IES electronically and will trigger a notification to the state agency to take the next appropriate action. Information passed by the FFM to the Optum IES will populate the Client and Agency Portals where applicable. If a client chooses to use the client portal to view or manage their application or case, they will have access to the information that was passed by the FFM once they create their client portal account.

Application Information Field Pre-population

Known client, application and case data will pre-populate into the appropriate fields, as available and as required in FR 3.3. The functionality enables workers to view or update the data as needed. The data includes the following:

- Client personal data, such as name, Social Security number (SSN), date of birth, gender, marital status, race and language
- Contact information, such as primary mailing address, phone number and email

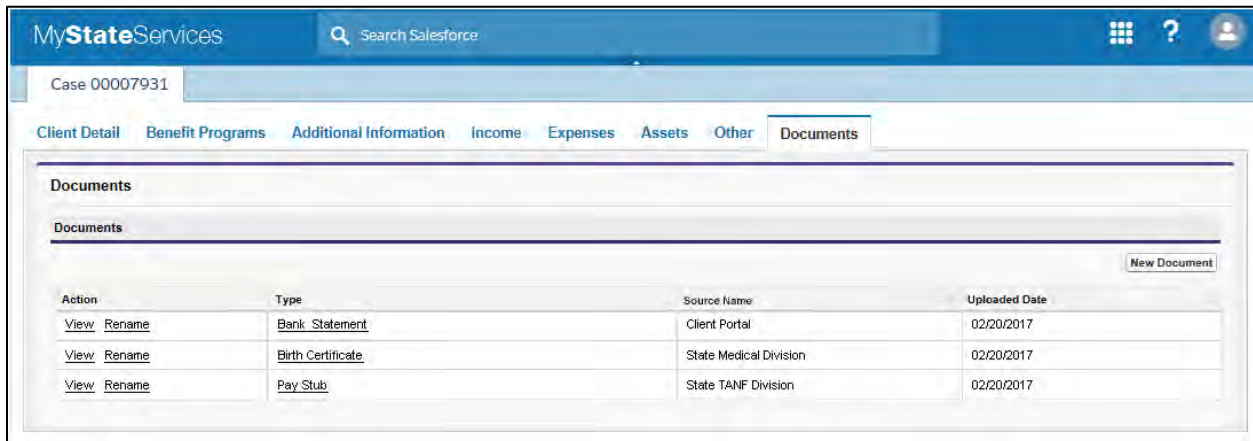
- Household members
- Income
- Assets and resources
- Expenses

Documentation Required for Application Process

When an application meets eligibility criteria, any outstanding documentation required to complete the application process will display for workers as required in FR 3.9. A Request for Information (RFI) will be triggered and sent to notify the client of the outstanding verifications, documents or information. Validating information is based on available real-time and stored data sources.

The system can provide real-time automatic and manual requests for electronic verifications of client data through third-party and stored data sources. The electronic verification processing requires prior consent from individuals for us to use their information to retrieve electronic verification. Information sources include the Federal Data Service Hub (FDSH), the Internal Revenue Service, and the Social Security Administration. These sources enable applicants to leverage documents and information submitted across divisions.

The Optum IES can leverage client documents and information across divisions, thus agency staff does not have to request previously provided client information. Documents clients submit through the Client Portal are available to them in the My Documents section of the portal. Figure 28 shows a sample Documents page from the Agent Portal.



Action	Type	Source Name	Uploaded Date
View Rename	Bank Statement	Client Portal	02/20/2017
View Rename	Birth Certificate	State Medical Division	02/20/2017
View Rename	Pay Stub	State TANF Division	02/20/2017

Figure 28. Agent Portal Documents Page.

The Documents page of the Agent Portal shows documents the client submitted through the Client Portal.

Validating Information

The system will provide real-time automatic and manual requests for electronic verifications of client data through third-party resources, as well through stored data sources as required in FR 3.16. The electronic verification processing is conditional upon the individual having earlier consented to having his or her information used to retrieve electronic verification. Sources include the FDSH, the Internal Revenue Service and the Social Security Administration.

Leveraging Documents and Information Submitted Across Divisions

Client documents and information can be leveraged across divisions so that agency staff is not requesting information from clients that was previously provided as expected in requirements FR3.23-3.25. Documents submitted by clients through the Client Portal are accessible to clients in the My Documents section. Figure 29 shows a sample My Documents screen from the Client Portal.

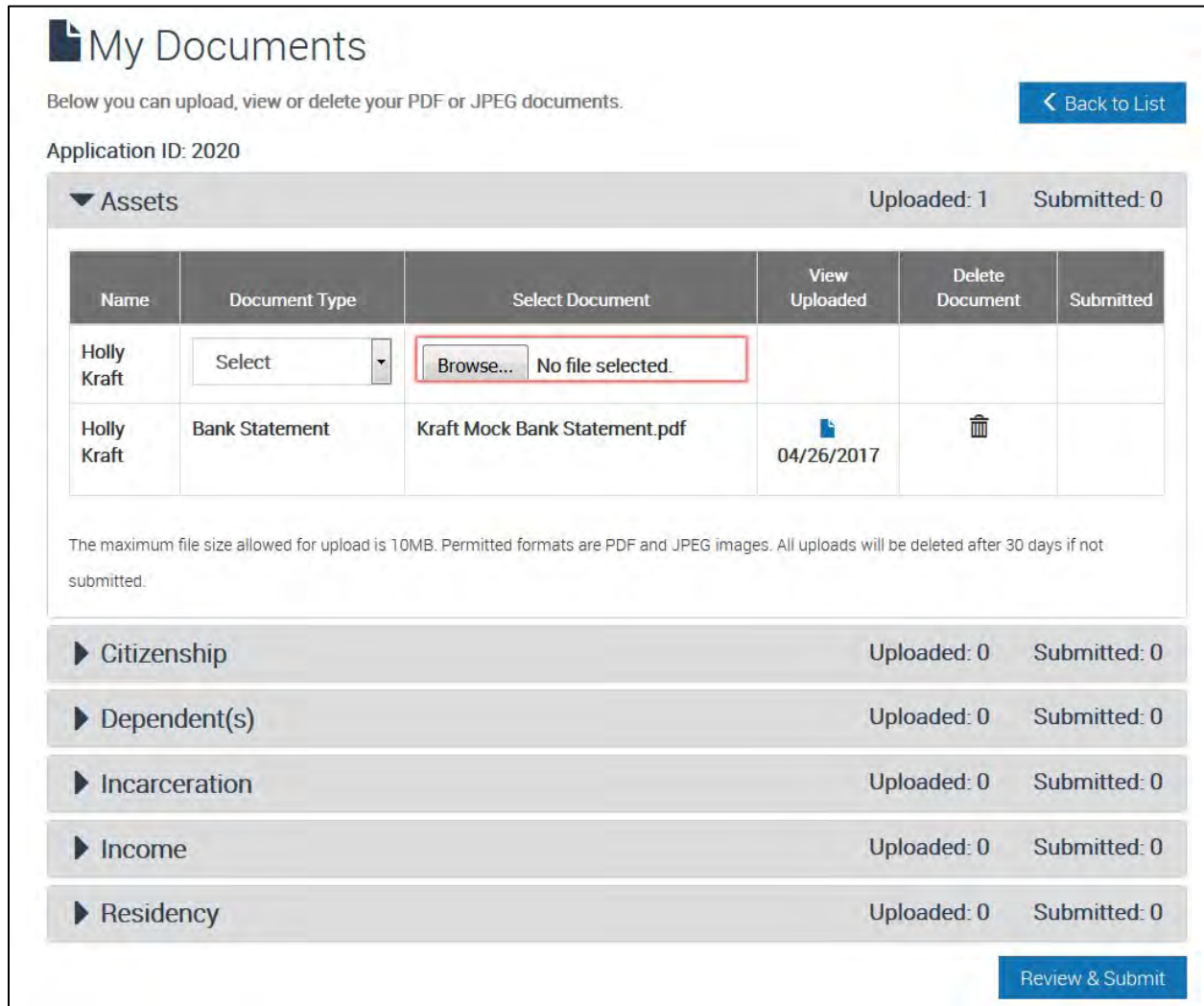


Figure 29. Client Portal My Documents.

The My Documents screen shows documents the client submitted through the Client Portal.

1.4.2 Application Completed Online Requirements

Significant System capabilities in this area include:

- Providing a step-by-step form with branching logic requesting required and optional data elements
- Providing context sensitive help
- Allowing the Applicant to save the application and exit at any time before final

submission

- Allowing the Applicant to give access to their draft or completed applications to an Intake or Eligibility Worker
- Accepting electronic/telephonic signatures at the appropriate points in the application process

Instructions: The Vendor should describe its approach to addressing Application Completed Online requirements.

This response addresses requirements FR 3.38-3.55 contained in Tab FR3 of the Functional Requirements Traceability Matrix. All but one of these requirements will be met through configuration while FR 3.54 will leverage the current AR DHS telephonic signature capability.

Step-by-step Application with Required and Optional Data Elements

The Optum solution provides a user-friendly approach to meet the State's desire to provide a better end-user experience as required in FR 3.37-3.42. The Client Portal requests required and optional information using a branching login in a step-by-step form. Users select the programs for which they want to apply, and the dynamic application process asks questions required for those programs. For example, if the applicant does not select the SNAP program, the application will not ask if the applicants purchase and prepare food together. The questions are also conditional to the application clients. For example, the application will not ask adults questions that are specific to children.

The application process checks for the application completion status and displays the status to the applicant. The application includes an indicator showing the applicant which sections are complete. Users can exit the application at any time before saving or save applications and return later to complete sections missing data. Users cannot submit an application with mandatory data missing; however, they can submit applications without optional data. The mandatory versus optional data designation is configurable based on the program or business need. The Optum IES also allows users to grant an intake or eligibility worker access to the application, whether it is a draft or completed application. Figure 30 shows the Review & Sign page of the Benefits Application.

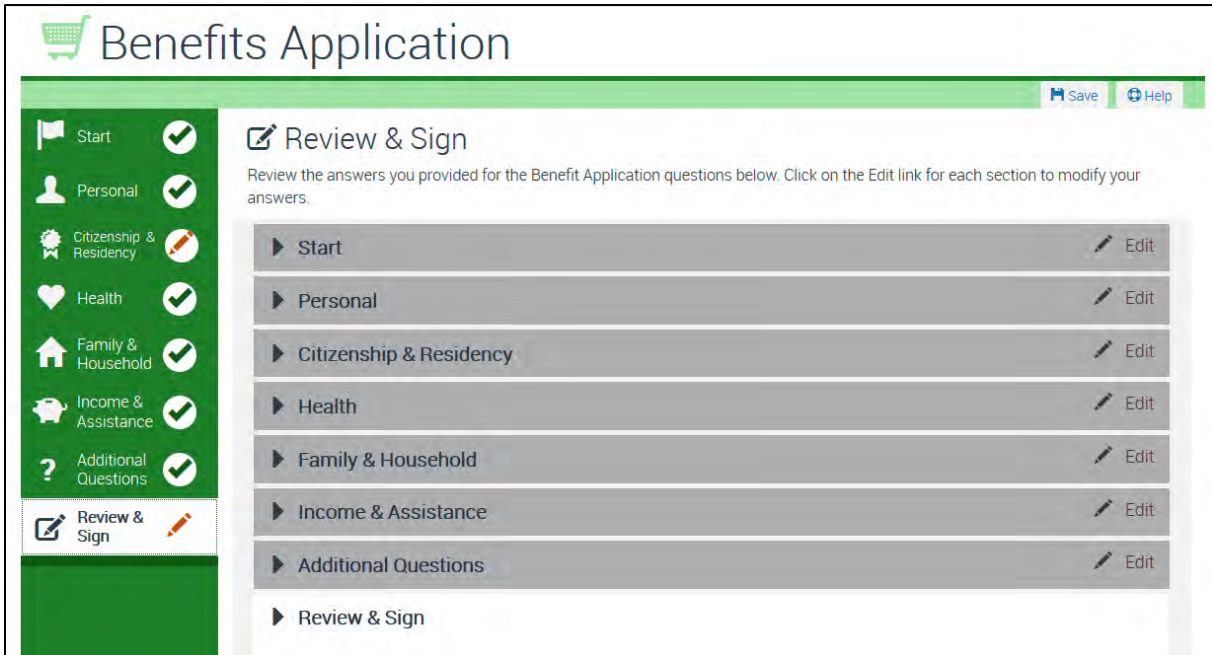


Figure 30. Benefits Application Review & Sign Page.

Users cannot submit an application with mandatory data missing; however, they can submit applications without optional data.

Context-Sensitive Help

Tool tips and help sections are available to assist users through the application process. Tool tips text is configurable and can provide users with helpful information. Figure 31 shows the tool tips functionality.

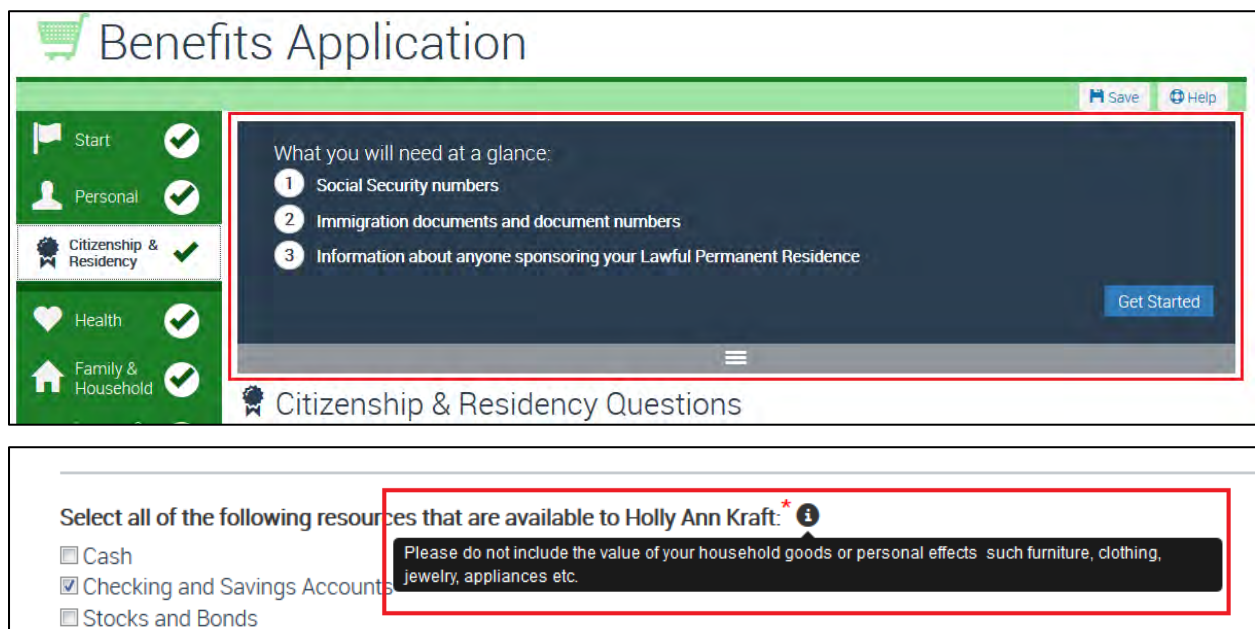


Figure 31. Tool Tips.

We can configure the tool tips text as needed to meet your requirements.

Ability to Save Application and Exit before Final Submission

Users may save and exit from the application process at any time without submitting the application. The Client Portal is configurable to maintain draft applications for a specific period of time before purging them. Users can log in to their account at a later date (within the State-specified time period) and retrieve the draft application for completion and submission.

Intake or Eligibility Worker Access to Application

We can configure the AR IE-BM to allow clients to grant workers or other agency staff access to their draft applications. This function enables agency staff to assist clients through their application process.

Electronic/Telephonic Signatures Acceptance in Application Process

Clients can complete their self-service application online using the AR IE-BM Solution electronic/telephonic signature capability. This feature will improve client satisfaction with the application process by reducing the need for clients to visit a local service center to sign hard copy documents in-person. The use of electronic signatures also streamlines the benefit approval application process, reducing the steps required and frustration the client may encounter to complete this task. The State of Arkansas currently has the capability to secure telephonic signatures. Optum will leverage this technology and interface it into the AR IE-BM Solution. By leveraging this capability, the State will have a consistent and stable methodology for securing, storing and retrieving telephonic signatures.

1.4.3 Application Completed with an Intake Worker Requirements

Significant System capabilities in this area include:

- Providing a user Interface configured for use by Intake Workers
- Allowing the Intake Worker to create a new record for the Applicant

Allowing the Intake Worker to override the deadline before which additional actions must be taken

Instructions: The Vendor should describe its approach to addressing Application Completed with an Intake Worker requirements.

This response addresses requirements FR 5.56-5.61 contained in Tab FR3 of the Functional Requirements Traceability Matrix. All of the requirements in this section will be met through configuration.

User Interface Configured for Intake Worker Use

We have designed the AR IE-BM to guide the worker during the entire application intake process. Each of the eight tabs will group like data together. The sequence of the tabs is organized in a logical flow for optimal efficiency for client-facing workers. The first tab includes entry of client data. This tab enables the worker to perform a client search/match across all programs on the system and retrieve known client data. If a client is known to the system, the data will populate in the appropriate fields of the tabs that follow.

The Benefit Programs tab has current and historical data about a client's applications and all programs affiliated with the client. This data may include program data from external sources

provided to the AR IE-BM. During the application intake process, workers can record notes regarding their interaction with the clients, the specific application or case, and any data collected from external sources. Case notes become part of case-client data. Figure 32 shows the Benefits Program Tab.

Action	Benefit Program Name	System	Affiliation Start Date	Affiliation End Date	Primary Client
View		Child Support	03/16/2010	04/30/2014	Robert Smith
View		Social Services	10/08/2013	08/28/2014	Sally Smith
View	SNAP	IE	02/20/2017		Robert Smith
View	Medicaid	IE	02/20/2017		Robert Smith

Figure 32. Benefit Programs Tab.

The data displayed on the Benefit Programs Tab includes program data from external sources provided to the AR IE-BM.

New Record Creation by Intake Worker for the Applicant

During the application intake process, the worker performs a client search using identifying client data. This data may include client first and last name, date of birth, gender and SSN if known. If a match is not found, the worker can create a new client record in the system.

The flexibility to incorporate DHS workflows is an important benefit of the AR IE-BM design.

Capability to Override Deadline by Intake Worker

The AR IE-BM allows workers to override application and request for information deadlines. For example, a worker processes an application and determines income verifications are needed. The worker sends the client a request for verification. If the client does not provide the verification in a timely manner, the application is automatically denied. If the client calls and explains to the worker that they are attempting to obtain verification but needs additional time, the worker can override the deadline date and enter in a reason for the override. This allows the worker to continue to process the existing application and submit for eligibility determination. We can configure the AR IE-BM to allow a worker to override various application and request for information dates and deadlines so that correct program benefits are administered to a client. Workers will also have the ability to select the reason they need to override a date field. The AR IE-BM supports configurability of supported reason codes.

Security Profiles

The DHS worker’s role, security profile and assignment to cases are role-based. The role will determine the information the worker can view, create and update. For example, we can configure the security so that workers responsible for new applications and intakes can only create intakes or initiate applications. They cannot perform functions such as create and update assessments, enter case changes, transfer cases or approve eligibility. A user with an investigator role can create and update assessments and cases but cannot create new intakes. With this flexible functionality, you can establish access through roles and profiles that are as open or restrictive for different workers and locations, as needed.

Configurable Workflows

Workflow rules are configurable and can automate DHS business processes. The workflows improve productivity by enabling you to concentrate on strategic business-oriented outcomes instead of day-to-day operational tasks. Workflows save time and eliminate paperwork and lost documents by automatically routing tasks from one person to the next.

Workflows typically follow a sequential order to make sure all steps in the process are complete before moving forward. We can configure the solution to modify the order of the steps and improve efficiency for specific work units. For example, a work unit with experienced workers may prefer steps to run simultaneously instead of sequentially or to skip some steps. Unlike traditional IE solutions, these workflows minimize the impact to the other parts of the AR IE-BM.

Additional examples of actions you can automate using workflow rules include the following:

- Workflow approvals for tasks, based on role profile
- Workflows routing activities that require multiple actions
- Manual and automated workflow triggers
- Automated application assignment to a predefined set of workers, a work unit, or work queues
- Automated case assignment or reassignment, based on custom status values

Automated Notifications and Tasks

Any processing activity that requires follow-up by DHS staff automatically generates and displays a task. An example is a task triggered and assigned to a worker when an application is assigned for processing. A task will generate and display for the assigned worker with details about the activities needed to complete the task. These details can include the type of task, client name and case number, due date, and status of task. The task display and details can be configured, filtered by status, sorted by column and printed. Additional examples of activities that trigger tasks include the transfer of cases, change in circumstances, task reminders, and the receipt of a document or verification. Figure 33 provides an example of tasks public assistance programs.

ACTION	NAME ↑	TYPE	RELATED TO	DUE DATE	OVERDUE	STATUS	ASSIGNED TO
✎	Ambani, Dhirubhai	Verification	00000012	9/23/2016	🚩	In Progress	Worker1, Eligibility
✎	Ben, Kokila	Other	00000059	9/14/2016	🚩	Waiting on someone else	Worker1, Eligibility
✎	Kraft, Holly Ann	Application	00000055	10/18/2016	🚩	Not Started	Worker1, Eligibility
✎	Kraft, Holly Ann	Document	00000055	10/1/2016	🚩	Not Started	Worker1, Eligibility
✎	Smith, Robert	Reminder	00000062	10/1/2016	🚩	Not Started	Worker1, Eligibility
✎	Smith, Shawn	Informational	00000047	10/10/2016	🚩	Not Started	Worker1, Eligibility

Figure 33. Agent Portal Tasks.

DHS staff will have their assigned tasks visible for easy follow-up and action through their portal access.

Guided Data Entry

The AR IE-BM is designed to guide the entry of client applications and client data. For example, when application intake is initiated for public assistance programs, the intake process provides eight screens organized with the entry of client/applicant data first. This process allows the user to search and retrieve known clients or to create a new client if one is not known to the system. This process eliminates duplicate records in the AR IE-BM. Known client data will populate in the fields of the tabs that follow. Workers can trigger eligibility determinations upon entering the minimum necessary data. Figure 34 provides an example of the Application Intake function.

Application Details [Continue] [Exit]

Application Details = Required Information

Application Date: 11/07/2016 Case Number: []

Application Identification Number: [] Auto Deny Date: 12/07/2016

Application Method: Paper [v] Withdraw Reason: []

Application Status: []

Primary Applicant = Required Information

Add Primary Applicant

Search Search fields required at least two characters

First Name: John MI: [] Last Name: Doe SSN: [] - [] - [] Birth Date: mm/dd/yyyy Gender: [v] Search

Results Displaying 1 - 2 of 2 View 10 Per Page

Select	Client ID	First Name	MI	Last Name	SSN	Birth Date	Gender	Alias
<input type="radio"/>	33019	John	James	Doe	187896000	1980-08-28		No
<input type="radio"/>	60582	John		doe	876553465		Female	No

Selected From List Create New

Figure 34. Application Intake Page.

Predefined required fields will prompt the user to enter data.

Single-click Navigation between Client and Case Records

The AR IE-BM provides single-click navigation between client and case records, providing the user quick access to data with little navigational burden. When clicking to view another record, a new tab opens, enabling the user to toggle between multiple records. Clicking on a name opens the detailed record and clicking on “job” will open the income record for the job, as Figure 35 shows.

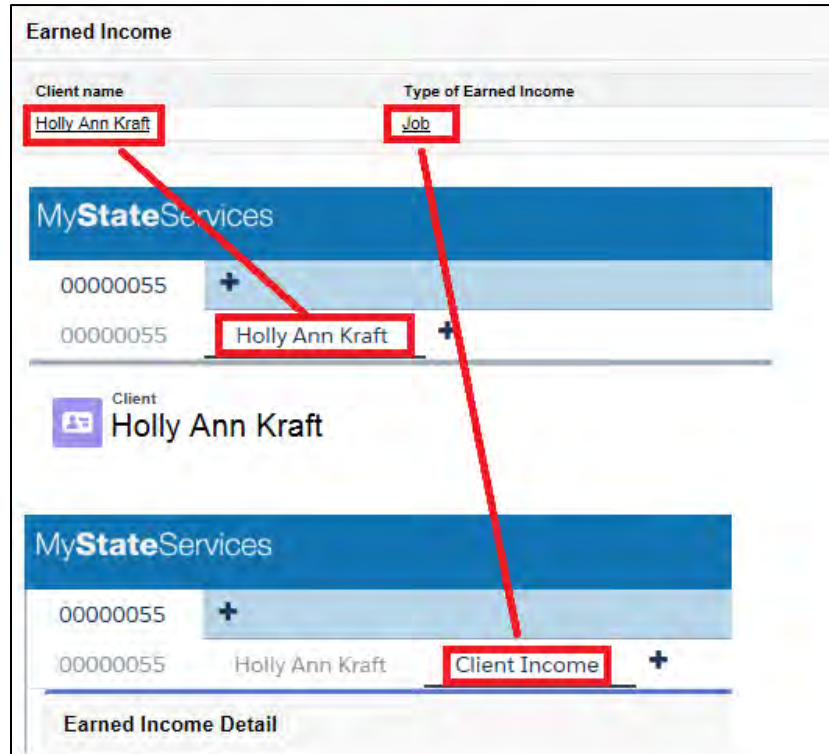


Figure 35. Single-click Navigation.

The user can toggle between the case, the client's detail record and the client's income record.

1.4.4 Application Completed by Applicant on a Paper Form Requirements

Significant System capabilities in this area include:

- Utilizing bar coding and Optical Character Recognition (OCR) to read the application and pre-populate information
- Allowing the Intake Worker to review the pre-populated fields and enter in corrected or new information

Instructions: The Vendor should describe its approach to addressing Application Completed by Applicant on a Paper Form requirements.

This response addresses requirements FR 3.62-3.66 contained in Tab FR3 of the Functional Requirements Traceability Matrix. All of the requirements in this section will be met through configuration.

Bar Code and Optical Character Recognition (OCR) Usage for Application

The AR IE-BM supports integration bar coding with OCR technology to read application and renewal forms and pre-populate information whenever possible. This functionality improves operational efficiency by streamlining business processes.

Intake Worker Review of Pre-populated Fields and New Information Entry

The documents section displays all of the client's scanned applications and forms. This screen allows the worker to access the forms and confirm the information on pre-populated fields. The worker can make corrections if incorrect data populates. If data is not provided on the application or forms, client information from the case will pre-populate when available.

We can configure the AR IE-BM to display the application information in the same sequence as it appears on the paper application. This capability helps the worker to verify information and make corrections more efficiently.

1.4.5 Authorized Representatives Requirements

Significant System capabilities in this area include:

- Providing account registration of third parties who are authorized to help Applicants
- Providing a list of Applicants for whom the individual can act as an Authorized Representative
- Sending all correspondence to the Authorized Representative in addition to the Applicant

Instructions: The Vendor should describe its approach to addressing Authorized Representatives requirements.

This response addresses requirements FR 3.67-3.75 contained in Tab FR3 of the Functional Requirements Traceability Matrix. All of the requirements in this section will be met through configuration.

Account Registration of Authorized Third Parties

Applicants may designate third parties to assist them during the application process or act on their behalf. Third parties include assistors, navigators, authorized representatives and social workers. The Client Portal supports account registration of third parties. When the application is completed with third-party assistance, this information is recorded on the application and is associated with the case. When applicable, the worker can record the authorized representative's relationship to the client.

Under specified conditions, the client or authorized representative can de-authorize the designation of an authorized representative at any time when the authorized representative is not a legal guardian. The client or authorized representative can initiate the de-authorization through the self-service portal or by contacting their worker. The AR IE-BM will notify both parties of the de-authorization.

Applicant List for an Authorized Representative

An authorized representative is an individual that clients designate to act on their behalf. The AR IE-BM displays the authorized representative's name and contact information, including his or her preferred method of contact. Clients can designate more than one authorized representative.

Correspondence for Authorized Representative and Applicant

Workers can record when clients have requested that all correspondence be sent to a designated authorized representative. Consistent with consent in a full-service environment, the authorized representative has the same access to applications, cases or person data that the applicant or client has. Program rules determine the level of access.

1.5 Approach to Interviews

The Vendor should ensure that the responses to this section are in alignment with the requirements set forth in Template T-6 – Functional Requirements Traceability Matrix, Tab FR4 – Interviews.

Significant System capabilities in this area include:

- Providing the steps (i.e. a script) for the Eligibility Worker to conduct the interview
- Allowing the Eligibility Worker to override data fields if the Applicant indicates the pre-populated application data is not correct
- Providing a summary of all the documents provided, any outstanding actions, and actions taken during the interview
- Sending interview appointment reminders to Applicants

Instructions: The Vendor should describe its approach to addressing Interview requirements.

This response addresses requirements FR4.1-4.20 contained in Tab FR4 of the Functional Requirements Traceability Matrix. All twenty (20) requirements in this section will be met through configuration.

Introduction

During the initial design of our Interview Workflow, we interviewed numerous case workers with thousands of hours experience to understand their primary frustrations with other eligibility determination platforms. Their primary concerns were that there was not an easy to navigate script available to them that allowed the ability for them to override the system in the human interview process.

In the Optum IE Agent Portal, the eligibility worker can easily initiate the interview process from different menu options depending upon the type of interview. Interview types may include an initial application, recertification, phone or in-person interview. In all cases, you can configure the system to meet your specific needs for each type of interview. For example, if a particular question is error-prone, the screen can provide additional reminder text for the worker. We can also configure a field to be mandatory to make sure important data is entered. Figure 36 illustrates the application interview process.

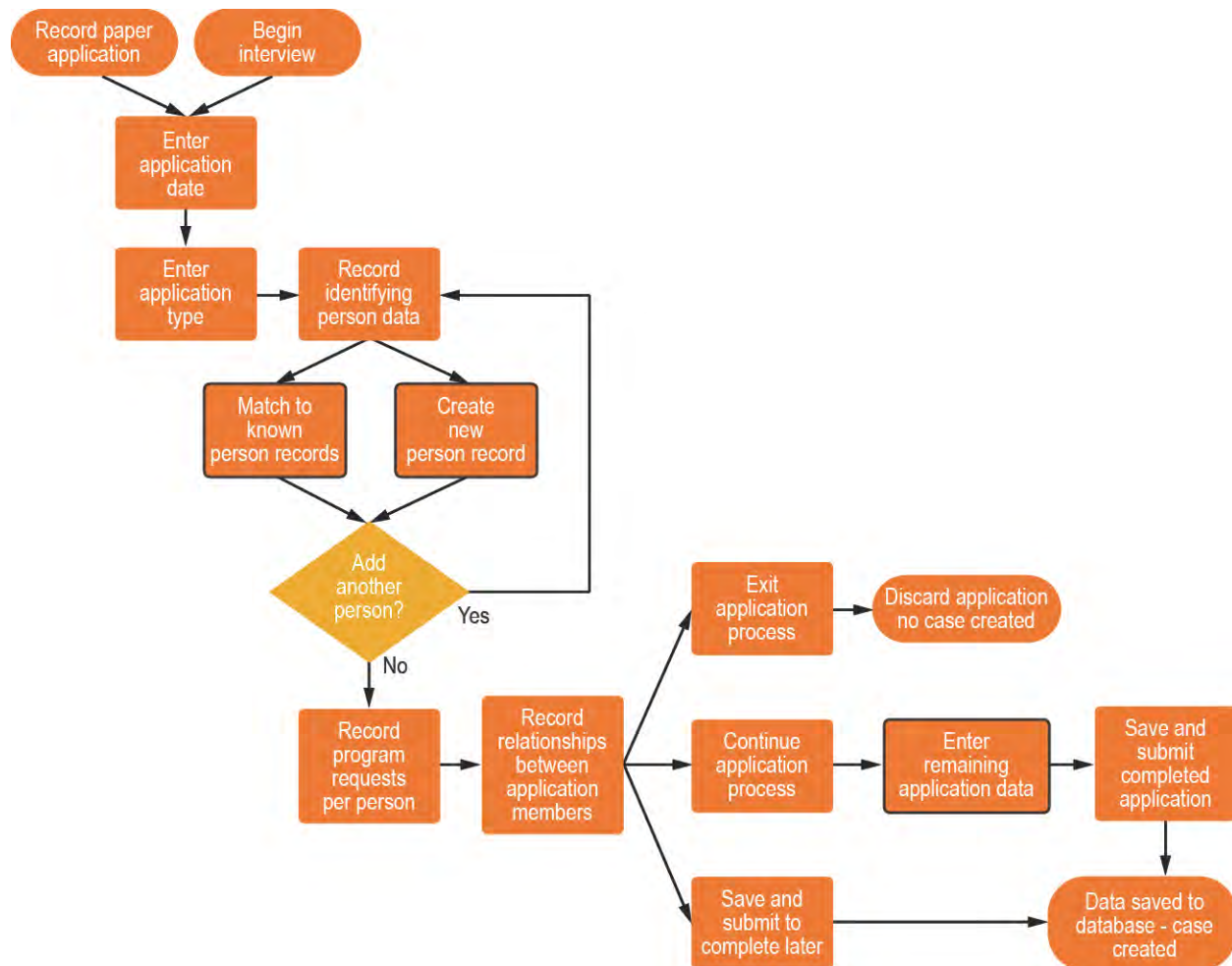


Figure 36. Application Interview Process.

We will configure the AR IE-BM Solution to meet your requirements for each different type of interview.

The Steps for the Eligibility Worker Interview of Applicant

The data entry workflow of the AR IE-BM steps the eligibility worker through the process of conducting the interview. The data entry workflow begins by prompting the worker to collect household member data. The AR IE-BM requires workers to enter data that is mandatory for minimal eligibility to be processed. This data includes identifying information for at least one applicant, a request date for at least one program, and relationships between applicants and other household members. After collecting this data, the worker can submit it for an eligibility determination. This feature enables triggering of eligibility results even if the interview process is interrupted. If the eligibility determination process is interrupted and incomplete, the AR IE-BM generates the appropriate notifications.

If the worker continues the data entry, the workflow takes the user through data collection for each household member. The data is grouped in a logical format. For example, when a person reports having a disability, the data flow prompts for more information about the disability (e.g., type, certification, and begin date). After the worker collects the disability data, the flow will prompt for additional topics such as pregnancy, insurance and income. You can configure the

data collection order to match a paper application or other interview flow for usability or policy compliance.

The default data entry flow begins with mandatory eligibility data, such as applicant, programs and relationships data. After the worker collects the data, the flow proceeds to demographic details (e.g., language, race, citizenship and immigration), cooperation and certification data (e.g., disability and education) income data, expenses and asset information. After entering the initial mandatory data, the user can navigate amongst any of the data sections. This feature helps workers to backtrack in data entry if they receive new information later in the interview process.

The final step in the data entry flow consists of reviewing and submitting the data. This step allows the worker to record which applicants signed the application and agreed (verbally or in writing as allowed by policy) to the program rights and responsibilities. This final step can include user prompts, such as a script, for the worker to confirm verbally the client's understanding of the programs and intent to apply. After confirming intent, the worker can submit the completed application or renewal.

This final submission is similar to the incomplete submission. The difference is outcome for the final submission is a complete determination showing eligible or ineligible results. This near-real time response enables the worker to review it while still in contact with the client. If the review indicates data is still missing, the worker can immediately navigate from the eligibility result to update the case within the same eligibility result display.

Eligibility Worker Ability to Override Incorrect Data Fields

The AR IE-BM will allow eligibility workers to override data fields and update or change data if the applicant indicates pre-populated data is inaccurate. The worker will have the option to enter the data as a correction or as a change, as appropriate for the circumstance. The validity of the original data will determine if the modification is a correction or a change. If the original data was never correct, the worker can enter the correction. The AR IE-BM will invalidate the original data and not use it to determine eligibility. If the original data was correct for a period of time but is currently a new value, the AR IE-BM will save both data values and use them to determine eligibility for the effective dates. Changes and corrections made on any screen in the portal will populate and persist throughout the Solution. Modifying income values, addresses or other data on one record or screen updates the source data in the database. The user does not have to record a single change in multiple places in the portal.

We can illustrate the difference between a change and a correction using reported income. For example, a client reports income of \$400 monthly at application or renewal. During the interview or after reviewing the verification document, the worker determines the client's income is actually \$100 weekly. The worker will update the income amount and frequency and indicate the modification is a correction. Moving forward, the rules engine will use \$100 weekly for eligibility determinations. By comparison, if the client income is \$400 monthly and the amount increases later to \$433.33 monthly, the worker will record this as a change in circumstance. Our solution will prompt the worker to enter the effective date for each amount. The rules engine will use either \$400 or \$433.33, depending on which value is correct for the month being determined.

Summary of Interview Documents, Outstanding Items and Actions

After an interview, an application intake, or application renewal submission is complete, the workflow process can trigger any type of notification or documentation necessary to support the business process. The default response generates a notice following submission. The notice is

also called a Request for Information (RFI). The RFI notifies the client of current program status and lists the next steps for completing the program request. For example, the RFI may explain that paper documentation is needed to verify data or release forms need to be signed and returned. We can configure the workflow process to include any additional data such as eligibility summary data, document summaries or completed tasks.

We can use a SNAP application interview to illustrate how this works. During the application process and interview, a worker, with the support of the rules engine, determines the client is required to participate in SNAP Employment and Training activities. After explaining the process to the client, the worker schedules the client for a SNAP Employment and Training orientation. The worker records the orientation date in the case record. After submitting the completed application, the worker, with the support of the rules engine, determines the client is eligible for SNAP and approves eligibility. The resulting approval notice includes eligibility information and indicates a SNAP Employment and Training orientation was scheduled. The notice indicates the time and place of the appointment and any standard instructions or directions.

Interview Appointment Reminder to Applicants

The AR IE-BM workflow management component supports follow-up tasks, notifications and reminders after the initial intake process is complete. User action or automated system process can trigger three types of messages: tasks, notifications, and reminders. A task prompts users to complete an action to move a process forward. A notification informs users about an event that occurred. Notifications may or may not require a follow-up action. A reminder notifies users when a specific event is approaching and requires action. A reminder can also notify users when a task deadline approaches or passes without resolution.

Any system user (e.g., workers, clients, and supervisors) can send and receive tasks, notifications and reminders. For Optum IE Agent Portal users (e.g., workers and supervisors), these activities display in the user's task list.

Clients have various methods for sending and receiving these messages. Clients with a Client Portal account can manage these activities in the My Tasks tab of My Account. Clients can also receive an email or text message when a new item is added to My Tasks if they have elected that communication method. The email or text message will advise clients to log in to their Client Portal account to review the new activity. We can send a task, notification or reminder as a paper notice through USPS if a client selects that communication method or does not have an online account. The system allows you to indicate if a document must be mailed to comply with policy.

The content of the reminder notification to the client is configurable. In addition to the date, time and location of the appointment, the notice can include the purpose, duration or required materials to bring. The notice can also remind clients of the outcome for failure to attend appointments or meetings, up to and including the termination of benefits. In addition, notices can include standard appeal or accessibility content.

The SNAP Employment and Training client is a good workflow to illustrate this process. For example, the client receives an initial notification both verbally and in the approval notice of the orientation appointment. If the client has an Optum IE Client Portal account, the date, time and details of the appointment display in My Tasks. As the appointment approaches, a batch process in the workflow component identifies the client's case for a reminder message. Within the configurable lead-time, the batch process triggers the workflow to send reminder messages. This activity can include a notification to the worker, a My Tasks message to the client, an email or text to the client about the My Tasks message, and a paper appointment notice mailed to the

client through USPS. We can repeat this process, as needed, if multiple reminders are required or if the client fails to attend the orientation.

1.6 Approach to Documentation

The Vendor should ensure that the responses to this section are in alignment with the requirements set forth in Template T-6 – Functional Requirements Traceability Matrix, Tab FR5 – Documentation.

1.6.1 Electronic Documentation Requirements

Significant System capabilities in this area include:

- Providing the Applicant/Client any outstanding required documents when Applicant/Client logs into their online account
- Allowing the Applicant/Client to upload the electronic version/picture of the required documents
- Allowing the Applicant/Client to enter any additional information required including free form text comments
- Associating all attachments with the Applicant/Client record
- Supporting DHS Workers uploading electronic documents to an Applicant/Client's record

Instructions: The Vendor should describe its approach to addressing Electronic Documentation requirements.

This response addresses requirements FR 5.1-5.12 contained in Tab FR5 of the Functional Requirements Traceability Matrix. Optum will meet all of the requirements in this section through configuration of the AR IE-BM.

Access to Outstanding Required Documents at Applicant/Client Account Login

Correspondence forms and notices are accessible from the self-service Optum IE Client Portal. Clients can access the My Messages section of the portal to view their correspondence and download and print it. When a client requests delivery by regular postal mail, the electronic version displays on the portal and the appropriate file is transmitted to print services for mailing. This same process applies when program policy requires a mailed hard copy for correspondence. Figure 37 shows the My Messages section of the Client Portal.

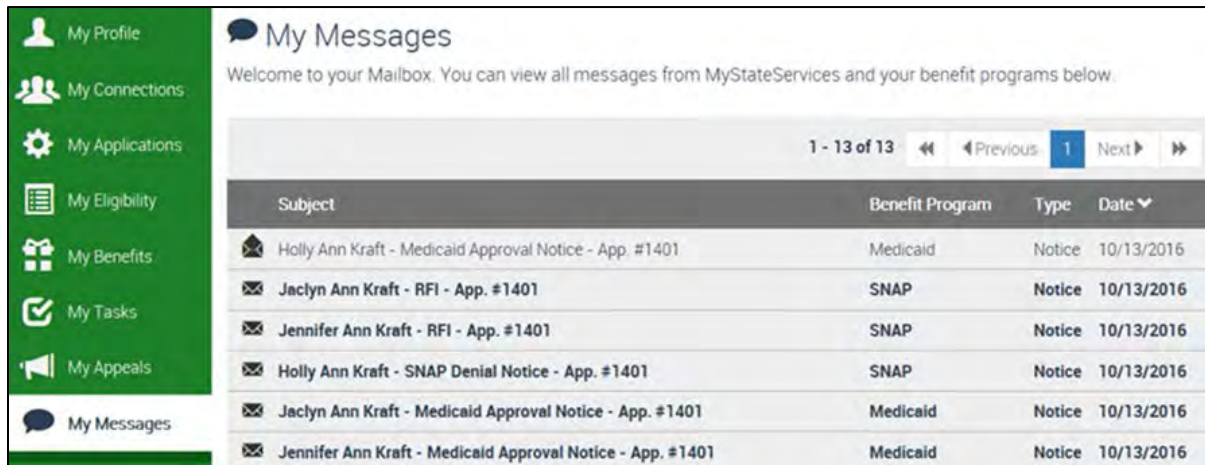


Figure 37. Access to Documents through the Client Portal.

Clients have online access to all of their program correspondence through the Client Portal.

When a message representing a notice or form is created on the portal, the AR IE-BM sends an email to the client’s email address on record. If the email address is invalid, the notice or form is mailed instead. The email notifies clients that correspondence is available in their Client Portal account. Each message on the portal summarizes the information included in the notice or form. The content and format of the message is configurable based on the business or program requirements. Figure 38 provides an example of this message.



Figure 38. Client Portal Messaging.

Each message containing an attached document or form summarizes information related to the attachment.

Applicant/Client Ability to Upload Required Documentation

Clients with a submitted application or open case can upload the document supporting that application or case. Clients select the application or case related to the document, the person that the document supports and the type of document. The upload process automatically associates the document with the appropriate case, application or person. When accessing the account using a computer, the client can browse saved documents to select one to upload. On a mobile device, the client can take a picture of a document and upload it from the device. After uploading a document, clients can return and view documents related to their case. Figure 39 shows the My Documents page of the Client Portal where clients can upload documents.

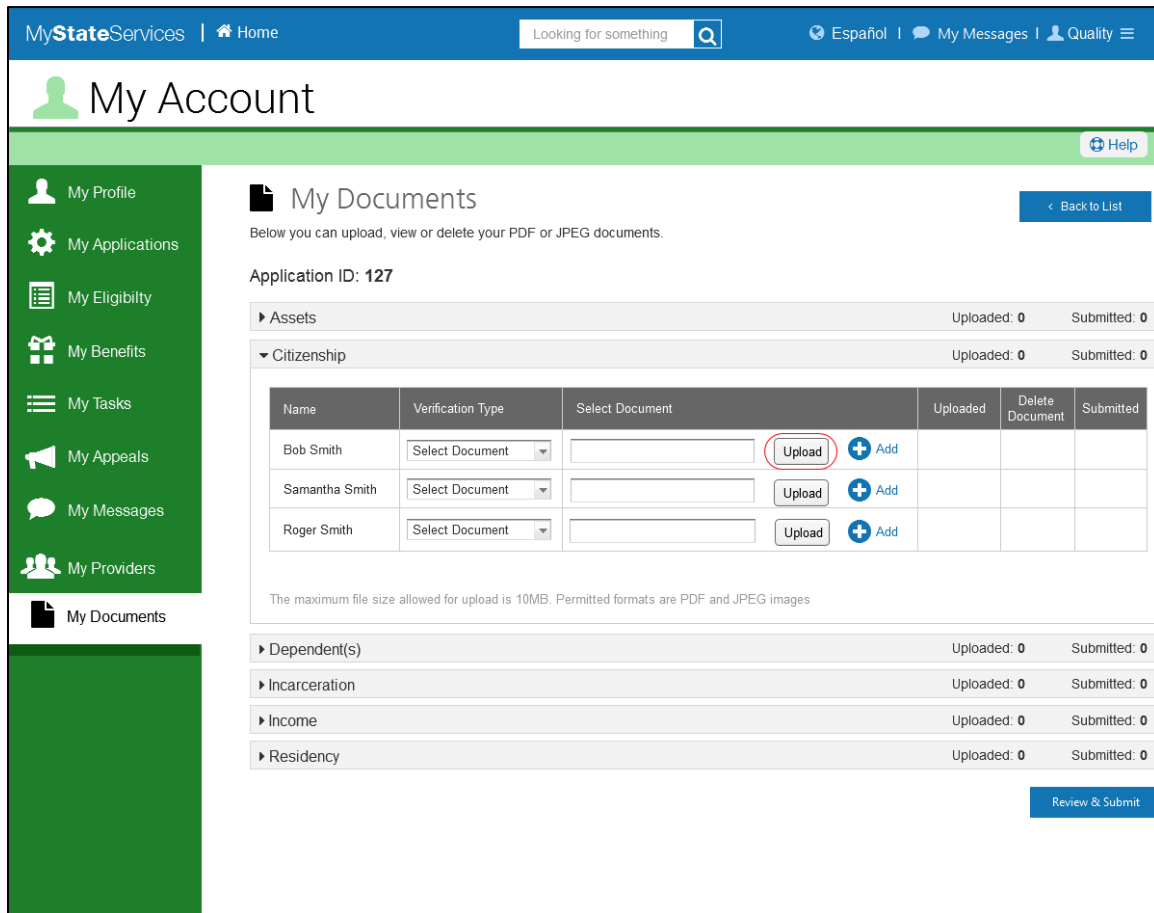


Figure 39. Uploading Documents from the Client Portal.

Clients can upload documents from the My Documents page of the Client Portal.

The uploaded document is stored with the case and person associations indicated by the client. At the same time, the worker for that case, application or person is notified of the uploaded document. The notification can be sent to as many workers as necessary. The document also becomes immediately accessible from the associated case, application or person record. In response to the notification, the worker can review the document and take the appropriate actions (e.g., clear verification or update a data value).

Applicant/Client Ability to Enter Required Information and Free Form Text

After clients upload a document, they can include a free-form text comment that will be included with the document submission. Forms on the Client Portal are interactive and pre-populated with client information and support free-form text, when needed.

Attachment Association with Applicant/Client Record

All unsigned and signed correspondence is automatically stored within the AR IE-BM. Documents are stored with the appropriate case ID, person ID or application ID associated with it, as needed for future retrieval. We can configure this feature to use additional identifiers as necessary. Electronic documents are indexed and stored by configurable identifiers. We can also include Quick Response (QR) codes and barcodes on forms, documents and notices.

DHS Worker Ability to Upload Documents to Applicant/Client Record

The Optum IE Agent Portal provides document and notice management, including viewing, updating and deleting documents; uploading and labeling documents; and sort, filter and search functions. The portal enables users to upload different document types, such as photographs, letters and scanned images.

Using an easy, on-demand process, DHS workers can upload documents through the online secure Agent Portal. Our solution stores all uploaded documents with associated document attributes and identifiers.

The system will automatically recognize uploaded documents, the document type, and who uploaded the document and then trigger actions based on the specific associated program. After the documents are in the system, the system will list them as documents received and apply them to various programs. This capability provides the worker and client the convenience of uploading documents just once to the system.

Any document uploaded from either the Agent Portal or the Client Portal is accessible through either portal when allowed by policy and business processes. For example, if a worker uploads a document for a case, that document will display on the Client Portal. However, a copy of the client's identification would be available to the client. The indicator to suppress the display can be manually entered or automated based on document type. The portals will handle PHI and PII using authentication and encryption methods.

Figure 40 shows how a document uploads through the Agent Portal.

The screenshot displays the 'Documents' tab for case 00007082. It includes search filters for Client (Holly Ann Kraft) and Type (Bank Statement), with an 'Apply' button. Below is a table listing the document with columns for Client, type, and Uploaded Date. The table shows one entry: Holly Ann Kraft, Bank Statement, 02/27/2017. Navigation buttons (First, Previous, 1, Next, Last) are at the bottom right.

Client	type	Uploaded Date
Holly Ann Kraft	Bank Statement	02/27/2017

Figure 40. Uploading Documents from the Agent Portal.

Documents that workers upload through the Agent Portal are automatically tied to the appropriate case.

1.6.2 Paper Documentation Requirements

Significant System capabilities in this area include:

- Allowing the Documentation Processing Staff Worker to upload documents to the Applicant's record
- Allowing the Documentation Processing Staff Worker to indicate the type of document if the document was not barcoded

- Notifying the Client/Applicant of receipt of the document
- Saving the document in the repository of documents that were unable to be associated with a case record if the Document Processing Staff Worker is unable to identify the specific case to which the document should be associated

Instructions: The Vendor should describe its approach to addressing Paper Documentation requirements.

This response addresses requirements FR 5.13 - 5.25 contained in Tab FR5 of the Functional Requirements Traceability Matrix. All of these requirements will be met through configuration of the AR IE-BM.

Documentation Upload to Applicant Record

Document management functionality has two entry points for DHS. The bulk of paper documents are generally received through the mailroom or reception area. The dedicated workspace supporting this function allows the user to assign identifiers by case, person or other configurable data element. Submitting the document stores it in federated storage, where client-uploaded documents are also stored. The AR IE-BM notifies the appropriate workers of the incoming document.

The second entry point for the portal is from individual workers. Like the clients, workers can upload scanned documents directly to a specific application, case or person record. If the AR IE-BM determines the document is unreadable or blank, it will notify the worker to reload it. The workers can then navigate to the record and select the document type and other attributes.

After workers select the electronic document from their workstations, the upload process automatically associates the document with the case, application or person. Workers can select the document type, purpose, attributes and indicate type of document. They can also enter additional information or comments in a free-form text box or other attributes, as needed. Upon successful upload, the IE-BM will begin the timer that indicates when we should destroy paper documents.

Document Type Indicator

As previously described, dedicated workspace for receiving documentation in the mailroom or reception area allows the user to assign identifiers by case, person or other configurable data element to bulk paper documents. Scanning barcodes or QR codes automatically identify the document type, purpose or other document attribute as needed. The workspace supports manual entry or changing the attributes when automated assignment is not possible. In all cases, submitting the document stores it in federated storage as previously described.

Client/Applicant Notification of Documentation Receipt

When a message is created on the Client Portal representing a notice or form, an email is sent to the client's email address on record. The email notifies the client that correspondence is available in their account. Each message on the portal contains a summary of the information included in the notice or form. The content and format of the message displayed is configurable based on the business or program requirement. Figure 41 provides an example of this message.



Figure 41. Client Portal Messaging.

Each message containing an attached document or form provides information related to the attachment.

The workflow automatically triggers the forms, documents and notices. In many cases, the client is required to take some action with the form, document, or notice in order to begin, maintain or renew eligibility. The AR IE-BM maintains a tracking feature for any form, document or notice that requires a return or response. After issuing the form, document or notice, the system establishes an issuance or initiation date. The system also establishes a due date based on the type of form, document or notice. The client communications includes these issuances and due dates.

As the due date for the client's response approaches, tasks and reminders may be issued to the client and worker as necessary to complete the process. The timing and format of the tasks and reminders are configurable. When the client completes the necessary actions, the worker can resolve the tracking manually. Alternatively, the tracking can be auto-resolved based on data recorded in, or derived by, the system. For example, if clients have 90 days to verify their citizenship or immigration status, the clock can stop after a client enters the verification type in the appropriate data field. If the client fails to complete the action by the due date, the expired timer will trigger the appropriate workflow to close the program, reduce benefits or take appropriate action.

Unassociated Document Retention in Repository

When the AR IE-BM cannot assign a received document to a particular case, it timestamps the document and marks it for further review. A worker reviews the document in detail to make sure it is assigned to the correct case. If there is not enough information to assign the document to a case, we will store the document pending case identification. Documents are searchable if more identifying information is provided. In addition to storage of system-generated notices, forms, and other correspondence, our solution supports uploading, storage and retrieval of supporting documentation provided by the client or appropriate third parties. Like system-generated documents, manually uploaded documents will follow the retention schedule dictated by policy. Each type of document can have a separate retention schedule, as dictated by policy or business process.

1.7 Approach to Eligibility Determination/Spend-Down

The Vendor should ensure that the responses to this section are in alignment with the requirements set forth in Template T-6 – Functional Requirements Traceability Matrix, Tab FR6 – Eligibility Determination.

1.7.1 Eligibility Determination Requirements

Significant System capabilities in this area include:

- Maximize the volume of case actions which can be completed without review by an Eligibility Worker
- Continuously review all submitted applications and redeterminations to determine if all of the required documents and information for a Program specific application or redetermination have been submitted
- Notifying the Eligibility Worker that there are applications or redeterminations that require Eligibility Worker review
- Calculating the benefit amount
- Incorporating existing overpayments information and any flags to the Client/Applicant's eligibility into the eligibility determination and update overpayments information
- Providing the Program specific eligibility determinations and benefit amounts for each Program applied
- Denying benefits or change the Client/Applicant's status to ineligible and terminate any benefits currently being issued to the Client/Applicant if all outstanding actions have not been completed within the predetermined time
- Providing eligibility information to the appropriate division
- Monitoring deadlines on a continuous basis and notifying the Client/Applicant and Eligibility Worker of any missing information/documentation
- Re-running eligibility for all when the rules engine changes

Instructions: The Vendor should describe its approach to addressing Eligibility Determination requirements.

This response addresses requirements FR 6.1-6.34 contained in Tab FR6 of the Functional Requirements Traceability Matrix. Thirty two of the thirty four requirements will be met through configuration of the AR IE-BM while FR 6.18 and 6.24 will require Arkansas specific customization to fulfill the request of DHS.

Introduction

Accurate benefit determination is the primary objective of the entire Integrated Eligibility process. This includes being able to effectively request, receive and reply to required applicant documentation in a timely manner. But usability for the case worker to maximize efficiency through automation and allowing them to manage manual decisions easily is a close second to improve customer service for the client.

The AR IE-BM achieves the best of both priorities as an automated and comprehensive solution for determining eligibility for multiple assistance programs. It will give DHS the flexibility to

determine eligibility across the spectrum of Arkansas programs while enabling workers to control eligibility outcomes. The AR IE-BM Solution will assess appropriate programs with each run through the Optum IE BRE. Our BRE uses the IBM Operational Decision Manager (ODM) and drives eligibility processing for our solution. Whether the program is an assistance program like SNAP or a health care program, the AR IE-BM will derive accurate eligibility results at the appropriate level for each program.

Every state has unique eligibility rules and programs. Most program requirements will fit within the broad functionality of our solution. Our Optum IE BRE is flexible enough to easily incorporate DHS-specific rules. The structures we created within the rules logic will enable us to add or remove entire programs to meet your requirements.

The following sections describe some key features of the Optum IE BRE and how it will meet your requirements for the AR IE-BM.

Decision process: Our solution will enable you to see the business process for eligibility determination within the decision process and as part of the Optum IE BRE. You will also have visibility into how each applicant progressed through the process in the rules engine.

[REDACTED]

[REDACTED]

The Optum solution enables you to see the business and decision processes for eligibility determination.

Our approach is to provide all critical decisions made in the rule execution as part of the eligibility response. Our response contains one or more decision blocks, which hold the decision type, rule ID, decision, possible dispositions, and the business process workflow associated with that rule execution. This process flow is configurable per rule. Each step in the rule process is documented with each rule that was executed.

Audit tracker/debugger: Our BRE includes audit trail functionality. This functionality provides insight into the specific rules that were triggered and the reasons why those rules were triggered for a particular eligibility determination request. This information is useful for understanding how the BRE processed an eligibility decision and identifying changes that may need to be made to existing rules. The rule flow, the path of the rule flow tasks, and the rules that were executed are recorded. These are intended to help users (for example, an auditor) understand what happened during the rule execution process.

Rules process overview: The BRE is triggered by initial entry or updates to client and household data. With very few exceptions, entering or updating any data will send a request to the rules engine, verifying each change is reflected in eligibility results. The request to the rules engine will send all of the relevant data needed to process new eligibility results. The rules engine will break down the request by month and by program. For each month to be processed, the system will look at all programs either requested or already active.

Every program is processed based on its own rules. Where multiple programs can apply to a particular type of assistance (e.g., Medicaid, CHIP and Arkansas Works), the household only needs to request the particular type of assistance and the rules determine the most appropriate program.

After processing of the appropriate programs and associated months is complete, the results are stored and available for display in the Client Portal and the Agent Portal. Results will generate and store with enough detail for a worker to understand how the outcome was determined. The results will also have enough detail to feed downstream processes, such as client notices, interfaces, benefit issuance and reports.

Other events can trigger the rules engine as well. For example, a scheduled batch process can trigger a number of cases for processing. This trigger could result from a mass change, a change in State or federal policy, or other factor. The rules engine could also trigger if the agency overrides eligibility results. The agency will have the ability to override select data elements in the results in some circumstances. In that case, the rules engine will run again to determine the full impact of the override.

Rules components: The rules are highly automated and will translate raw data about the household into accurate results without further input by the worker. This level of automation is supported by having rules components that are sufficiently comprehensive to create a detailed view of the eligibility results for each program. The high-level components are known as rules packages. We provide additional detail on the major rules packages in the following sections.

Assistance unit: The AR IE-BM will determine membership in the assistance unit based on relationships, age and other relevant factors. The determination is specific to the rules of each program. For health care programs, assistance unit membership is determined on two levels: an individual's health care eligibility and the household size within each person's eligibility result. For childcare assistance, we construct a single assistance unit but determine eligibility only for particular children, while considering the activities of each child's parents.

Eligibility groups: Eligibility for health care programs depends, in part, on the eligibility groups to which a person belongs. Eligibility groups are based on each person's circumstances, such as whether a person is a child, a parent, disabled or elderly. Eligibility groups can affect many eligibility factors.

The AR IE-BM will determine all eligibility groups for which a client could qualify. All eligibility groups will be stored for that person in the eligibility results. The AR IE-BM will choose one eligibility group on which to base eligibility results, but all groups will display. If circumstances

change and eligibility groups change for that person, the AR IE-BM will reassess eligibility based on the new groups. The worker will also have the ability to re-run the rules engine using a different eligibility group based on their assessment or the client's request.

Program selection: If a particular type of assistance has several possible programs, the AR IE-BM will automatically determine the appropriate program from that group of programs. Health care assistance has two sets of programs: programs for basic coverage (i.e., Medicaid, CHIP and Arkansas Works) and the Medicare Premium Assistance programs. Program selection for health care assistance will occur monthly for each client separately. Special processing will be needed if a person changes programs from month-to-month. Other types of assistance that may need to use program selection functionality are cash assistance, childcare assistance, and the Low Income Home Energy Assistance Program (LIHEAP).

The AR IE-BM uses threshold tests to select appropriate programs. These tests consider the factors that separate one program from another. They allow us to select the appropriate program without performing the full processing of all programs in that assistance type. For basic health care programs, the threshold tests look primarily at eligibility groups and income amounts. The threshold tests are tailored to each assistance type.

Non-financial tests: Non-financial eligibility factors include factors such as residence, citizenship and immigration status, and cooperation. Each area of non-financial eligibility is represented by an eligibility test. Failure of the test signifies ineligibility. Non-financial tests and financial tests combined will represent a comprehensive expression of eligibility factors for each program.

For human services programs that are not health care programs, we can perform non-financial tests at two levels. We can perform tests related to the assistance unit as a whole. When these tests fail, they indicate that the entire assistance unit is ineligible for the particular program. We can also run tests for each person in the assistance unit. Failure of a person-level test indicates the person is ineligible to be included in the assistance unit's benefits. When this test fails, it indicates the reason for ineligibility.

Income tests: While all assistance programs have income limits, the net countable income determination and the limits applied to that income vary greatly from program to program. The AR IE-BM will align income determinations to each program and provide a high level of automation in the income determination rules.

MAGI determinations for health care programs generally rely on annualized income. We obtain the income amount through an electronic interface with the Federal Data Services Hub that Optum built and maintains. We evaluate the amount using the rules engine to establish reasonable compatibility with the household's statement of income.

For determinations not using the MAGI methodology, we calculate income monthly. For past months and for retrospective budgeting for a future month for SNAP, we base income on actual amounts received. The AR IE-BM will gather actual amounts for the rules engine to use for appropriate months. For future months, we will need to project income. The AR IE-BM will gather and use appropriate amounts for income projection. If income received needs to be translated into a monthly amount, the rules engine will perform the translation.

Some income types require unique processing. For example, self-employment income may need to look at expenses against receipts first or use amounts from a tax return. Seasonal income and student income are other examples of income types that require unique processing. For each income type, the worker or client will simply enter the raw data and the system will calculate countable income amounts.

The AR IE-BM can also apply income exclusions and deductions in the appropriate amounts and in the appropriate order for budgeting income. Our solution will automate budgeting income through the rules engine. The AR IE-BM will automatically determine income limits and apply them against income amounts. The AR IE-BM will store and display these budgeting calculations to the case worker.

Asset tests: As with income tests, the AR IE-BM will determine the asset types that are countable or excluded. Treatment of assets is different from treatment of income. Issues of joint ownership may mean that only a pro rata share of the value of the asset is countable. For assets, like other eligibility factors, the worker or client will enter the data and the AR IE-BM will determine how that data affects eligibility.

Benefit calculation: The rules engine will perform a benefit calculation before returning eligibility results. For programs like SNAP, TEA and LIHEAP, the benefit calculation determines the benefit amount to be issued to the household. If an ongoing case has a change in circumstance, the benefit calculation may involve determining an amount of overpayment or underpayment and initiating the process to establish a claim or issue a supplement. For health care programs, the benefit calculation component may determine a premium amount or an obligation amount based on a spend-down calculation.

Begin and end dates: The AR IE-BM will automatically determine begin dates and end dates for eligibility. The system will determine the dates at the person level or program level as appropriate. The AR IE-BM will also determine the dates for the certification period for each program. The worker can adjust these dates as needed. For health care programs, dates of coverage may be different from dates of eligibility. The AR IE-BM will calculate the dates of coverage and the dates of eligibility.

Additional rules features: The Optum BRE has several additional rules engine features that will benefit DHS.

A household may be required to complete specific activities in order to maintain eligibility for various programs. These activities may include returning forms, providing information, or maintaining a work requirement. A household may also be required to apply for some other type of assistance. The AR IE-BM will track these requirements and the rules engine will apply cooperation criteria to the determination of person and program eligibility.

If a person does not cooperate with a requirement, particularly regarding work-related activities, the household may face a sanction, which could include a specified period of ineligibility. The AR IE-BM will track that period of ineligibility and the rules will apply the sanction to the appropriate months.

Verifications can be a challenging part of the eligibility process. The AR IE-BM will help DHS with verification of State and federal data sources. For verifications provided by the household, the rules will determine if the particular type of verification provided is acceptable. If verifications are not obtained or provided in the allowed timeframe, the AR IE-BM will take appropriate action. This may include making an individual or an entire household ineligible to receive benefits. In some cases, taking appropriate action may mean a particular income deduction is not allowed. The rules engine will apply the appropriate action for each circumstance.

Health care programs may have particular considerations. For example, the rules engine will allow a determination of presumptive eligibility in appropriate circumstances. The rules engine may also accommodate the process for converting that presumptive eligibility to a regular determination. The AR IE-BM will accommodate the determination of eligibility for a three-month

retroactive period, if appropriate. The complex process of spend-down determination and sorting medical bills will be highly automated.

When a client's eligibility changes, the associated enrollment determination processes automatically through system-activated triggers and workflows in the AR IE-BM. If new eligibility is approved, the AR IE-BM identifies the provider enrollment requirements for the particular program. If a client was previously enrolled with a provider, that client can automatically re-enroll with that provider, if allowed. If a new provider selection is required, the AR IE-BM generates the appropriate task or notice for the client, and if specified, a task for the appropriate worker. When the provider selection process is complete, the system notifies the provider, enrollment module or financial management module, as necessary, to facilitate the applicable connection and communication between the client and the service provider.

When an existing eligibility changes, the AR IE-BM identifies whether a new provider enrollment is necessary. For example, if a person has the same program eligibility but has moved out of the provider's service area, his or her provider enrollment needs to change. As with new eligibility, the AR IE-BM triggers the necessary workflow, sends the appropriate tasks and notices, and provides the necessary data to downstream provider, enrollment or financial systems.

When eligibility ends, benefits are terminated without further action by the worker. The program (and possibly case) status is set to Inactive and any SNAP, TEA or other program benefits are terminated.

For health care programs, the individual is dis-enrolled from coverage. For Medicaid and CHIP, a message triggers to the MMIS to end the individual's coverage.

Case Action Completion Without Eligibility Worker Review

Action by the system can be completely automated in some areas, with no action required from the worker. One of these areas is straight-through processing for MAGI health care determinations. Within the limits of Affordable Care Act (ACA) policy, clients can enter an application through the Optum IE Client Portal. The system will attempt to verify the client's statements with an interface to the FDSH. If the returned Federal Hub data is within policy limits for reasonable compatibility with client statements, eligibility for MAGI health care can be established with no worker intervention.

Programs other than MAGI-determined health care do not allow for straight-through processing for most eligibility determinations. Still, the system can automate various tasks without requiring worker involvement. For example, certain processes that involve tracking the passage of time can be fully automated. When an incomplete application is submitted, the system will track time elapsed and auto-deny the application if it is still incomplete. At the same time, the worker can postpone the auto-denial action if warranted by case circumstances.

Another area that can be fully automated is processing mass changes and cost-of-living adjustments (COLA). A batch process will trigger new eligibility results in these circumstances and the new results can be auto-approved with no worker intervention. State-specified exceptions to the auto-approval are maintained.

Other processes will be highly automated, even if requiring some involvement by the worker. Clients will be able to enter changes in circumstance in the Client Portal. New eligibility results will always be triggered when new data is entered, whether by the client or the worker. Eligibility determinations will be fully automated, requiring only review and approval. There will be workflows monitoring eligibility processes and alerting workers to any needed action.

Review of Submitted Applications and Redeterminations for Completion

Various elements help determine whether all needed information is received for applications and redeterminations. Most fundamentally, the rules engine will have rules that reflect the type and amount of information and documentation needed for each case, based on case circumstances and program policy. Each time new client data is entered into the system, the rules engine will be invoked to determine completeness of information. Rules results will reflect that determination. The worker will see the information or documentation that may still be missing.

For applications, the system will have an auto-deny process. The system will continuously monitor the caseload looking for programs that are in a pending status. The system will auto-deny pending programs with missing information at the appropriate time.

For redeterminations, the AR IE-BM will have a robust tracking system that will trigger the mailing of redetermination forms, when appropriate. The AR IE-BM will monitor the return of the redetermination forms and required documentation. The system will take action at the necessary times. It will provide automated notices to the client and alerts to the worker. The AR IE-BM will provide new eligibility results as circumstances warrant.

Eligibility Worker Notification of Application or Redetermination Review

The workflow management component of the solution supports task, notification and reminder processes. The system triggers tasks following a specific activity taken by a system user. Notifications are triggered by internal system processes informing a user about an event that occurred that does not necessarily require follow-up action. The system triggers reminders when a specific event is nearing and requires action, or when a task deadline is approaching or passes without resolution.

Tasks, notifications, and reminders can be sent to any system user, including workers, clients and supervisors. For Agent Portal users (e.g., workers and supervisors), these activities are listed on the user's task list. For example, when a client enters a new application on the Client Portal that requires worker involvement, the worker will be notified of a task. If there are eligibility results from a new application or from a redetermination that need review and approval, the worker will also have a task added to his or her task list.

We can configure the workflow management component to meet your needs. Any action can trigger a notification or task for the worker, with reminders issued at intervals set by the State.

Benefit Amount Calculation

Before returning a result, the rules engine will perform a benefit calculation. For some programs, such as SNAP, TEA and LIHEAP, the benefit calculation determines an amount of benefits to be issued to the household. With an ongoing case that has a change in circumstance, the benefit calculation may involve determining an amount of overpayment or underpayment. Data from a financial management system can be provided to the rules and used to compare a new benefit determination with amounts of benefits already issued for the benefit month. Data from financial management may also indicate whether a claim currently exists. The rules will use that information to determine a possible recoupment amount. The worker will receive complete and accurate information about benefit amounts based on all relevant information.

For health care programs, where there is no benefit issuance to the client, the benefit calculation component may still be needed to determine a premium amount or an obligation

amount based on a spend-down calculation. These determinations will be automated in the rules engine similar to that used for the issuance programs.

Overpayment Information and Flags Incorporated into Eligibility Determination

Three main factors transform the incorporation of overpayments information into a highly automated process.

- First, information from a financial management component can be available essentially as raw data for the rules engine. Financial management will keep track of any existing claims data. Claims data will be provided to the rules engine after a request to the rules engine has been triggered. Where appropriate, claims data can follow an individual from one household to another.
- Second, the rules in the rules engine will determine any amount to recoup based on program-specific policies.
- Finally, when an eligibility result that contains a recoupment amount is approved, the recouped amount will be provided to the financial management system. This step enables the total overpayment owed to be reduced by the recouped amount.

Eligibility Determination and Benefit Amount Data for Each Program Applied

A request to the rules engine is triggered by initial entry or updates to client and household data. Certain batch processes can also trigger a request to the rules engine. The request to the rules engine will send the relevant data needed to process new eligibility results. The rules engine will break down the request by month and by program. For each month to process, the system will look at all programs either requested or already active.

Every program is processed based on its own rules. Where multiple programs can apply to a particular type of assistance (e.g., Medicaid, CHIP and Arkansas Works), the household only needs to request the particular type of assistance and the rules will determine the most appropriate program. For each program and for each month, the rules engine will process various major components, known as rules packages, as previously described.

Benefit Denial or Status Change for Outstanding Action Completion

Eligibility tests are used as an aggregate of rules related to a particular policy area. Non-financial eligibility tests include a residence test, a citizenship/immigration test, a cooperation test and a verification test. Failure of a test signifies ineligibility. Non-financial tests and financial tests combined will represent a comprehensive expression of eligibility factors for each program.

The list of non-financial eligibility tests will include tests based on procedural eligibility. If the client fails to complete an action or provide required information or documentation, logic in the rules engine will cause an eligibility test to fail. Failure of a test will indicate ineligibility, which will cause denial or termination of benefits.

Eligibility Information Provided to Appropriate Division

When the rules engine determines eligibility results, those results have two distinct functions. The first function is the eligibility results act as derived data. Derived data indicates and explains the eligibility outcome from processing client data according to program rules. In this capacity, the rules display to the worker and provide a comprehensive understanding of the client's eligibility status. The worker can see if the client is ineligible or eligible. If the client is ineligible,

the worker can view the reason. If the client is eligible, the worker can view the benefit amount and the dates of eligibility.

The other function of the eligibility results is to serve as raw data for downstream processing. Functions such as notices, benefit issuance, reports and interfaces use the eligibility results as the raw data for their processes. It is critical that the structure of the eligibility results, and the detail of the particular data stored in the results, accommodates the downstream processes that will use those results as their raw data. When writing rules logic, vendors should consider the requirements of notices, interfaces and other downstream functions. Eligibility results need to be stored so that downstream processes can use them. This latter functionality is often overlooked in eligibility system design.

Designing rules logic and eligibility results for downstream processes makes it easier to provide information to other divisions. The State can define requirements for sharing information with others, such as with an MMIS, child support system, or employment and training providers. The AR IE-BM Solution can validate that the data required for downstream processing is derived in the rules engine and easily accessible.

Deadline Monitoring and Notification to Client/Applicant and Eligibility Worker

The rules engine will determine if information or documentation is missing from the client's case on a program-by-program basis. This determination will be stored in the system. Information or documentation subsequently requested by workers can be entered and processed by the rules engine.

Two mechanisms can trigger a notification to the client or worker about missing information or documentation. One mechanism is the system's workflow management component. DHS can use our workflow management to configure time frames for generating notifications and reminders. The second mechanism for triggering a notification is a batch process. We can run batches at specified times, such as overnight, to generate online notifications or mail paper notices. The State has discretion regarding which mechanism to use and how to set the specific time frames and notification content.

Rules Engine Change and Re-running Eligibility

We understand that eligibility rules may need to change at any time because of policy decisions at the State or federal level. Rules may need to be updated for routine changes in the Federal Poverty Levels or in SNAP benefit or deduction amounts. When business rules changes are required, some or all of the State's caseload may need to run through the rules engine to determine the effect of the new rules on each individual case. A batch process will need to run to identify impacted cases to process. The batch will trigger a request to the rules engine for relevant cases. From that point, the rules engine will process each affected case through the normal process. Rules will be effective-dated so that the AR IE-BM uses the appropriate rules for determining eligibility for a given benefit period. The rules record and display for the worker the source of the request to the rules engine. For the batch process, the worker will see that the particular eligibility results were prompted by, for example, a COLA or mass change batch process. The results can be auto-approved, without the need for worker intervention, when appropriate.

1.7.2 Spend-Down Requirements

Significant System capabilities in this area include:

- Calculating the spend-down amount
- Calculating if the spend-down amount has been met for the spend-down period, any unmet liability, and the date that eligibility begins and ends for the period

Informing DMS MMIS of any unmet liability and the eligibility start date **Instructions:** The Vendor should describe its approach to addressing Spend-Down requirements.

This response addresses requirements FR 6.35-6.42 contained in Tab FR6 of the Functional Requirements Traceability Matrix. All of the requirements in this section will be met through configuration.

Spend-down Amount Calculation

Calculating a Medicaid income budget will be automated within the rules engine. The system will calculate both a one-month budget and a six-month budget, and apply each to the eligibility determination for a given month. For six-month budgeting, the system will determine the appropriate months to include. The net incomes calculated for one month and the six months will be assessed against one-month and six-month income standards, respectively.

The AR IE-BM will determine the eligibility group for each person. The system will perform determination early in the flow through the health care part of the rules engine. After the income calculation completes, the system can use the already-determined eligibility group to apply appropriate income budgeting policies and apply the appropriate income limits. For six-month budgeting, the eligibility group will be determined independently for each of the six months; therefore, correct budgeting and limits can be used for every month.

When net income exceeds the income standards, the system can alert the worker to process for spend-down eligibility, if warranted, by the eligibility group selection.

Unmet Liability and Eligibility Begin and End Dates for Spend-down Period

When a spend-down determination is needed, the worker will be able to enter the client's medical bills. All relevant data about the bills (e.g., bill type or date of service) will be entered. The bill information will be entered as part of client data and processed in the rules engine.

The rules engine will sort through the entered bill data and apply bill amounts toward the spend-down according to program policy. The determinations of which bill amounts can be used will be automated. The rules engine can also apply bill amounts in date order, which determines the date the spend-down is met. The amount of any unmet liability can also be calculated in the rules engine.

Processing both one-month and six-month income budgets will lay the foundation for processing spend-downs in a similar fashion. The rules engine will be able to calculate both one-month and six-month spend-downs and apply the calculation that is most appropriate.

If clients have insufficient medical bills to meet the spend-down, their data will fail a Medicaid eligibility test and indicate ineligibility for the program.

Unmet Liability and Eligibility Start Date Information to DMS MMIS

We generally assume that states will require an interface to their MMIS system. We will tailor work on interfaces to external systems to meet your specific needs. All information about the details of Medicaid eligibility, including the eligibility start date and unmet liability based on spend-down calculations, will derive in the rules engine and store in the database in an accessible way. We will work with you to determine the requirements and design of the MMIS interface.

1.7.3 Processing the Semi-Annual Reports (SAR) or Annual Review Requirements

Significant System capabilities in this area include:

- Providing to the Eligibility Worker a queue of submitted Semi-Annual Reports
- Generating a notification for the Client with information regarding the status of their SAR or Annual Review

Instructions: The Vendor should describe its approach to addressing Processing the Semi-Annual Reports (SAR) or Annual Review requirements.

This response addresses requirements FR 6.43-6.48 contained in Tab FR6 of the Functional Requirements Traceability Matrix. All of the requirements in this section will be met through configuration.

Queue of Submitted Semi-Annual Reports for Eligibility Worker Access

The system will track the status of semiannual report processing throughout the process. The status will be visible to the worker. The status may indicate that a Semi-Annual Report (SAR) form is due, that the form has been returned but is incomplete, that a complete form has been returned but is still being processed, or that the SAR process is complete. Tracking the SAR process in this way allows the generation and display of online reports to each worker for cases in each phase of the SAR process. These reports allow the worker and the system to take appropriate action at the appropriate times.

Client Notification with SAR or Annual Review Status Information

The tracking functionality incorporated into the system for SAR and renewal processes will allow the system to notify clients about their status at appropriate points in time. You will be able to configure workflows or batch processes to send client notifications at any point in the process.

Automated Redeterminations and Reassessments

The AR IE-BM will automate many of the functions involved in the renewal process. The functionality we apply to the renewal process will also apply to the semiannual reports or other periodic reporting requirements. These functions include sending forms or notices at the correct times, tracking the status of the renewal process, or creating eligibility (or ineligibility) in the new certification period.

Setting the certification period: The BRE will set an appropriate certification period for each program based on that program's requirements. A start date for the certification period will be determined, taking various factors into account, such as the three-month retroactive coverage

for Medicaid or ineligibility in the initial month. We will add an appropriate length of certification to the start date to calculate a certification end date. We will determine a new certification period with each renewal.

Automatic (no touch) renewals: We can process renewals automatically for some health care assistance clients whose eligibility was determined using a MAGI methodology. These renewals require no worker intervention and no need to submit renewal forms. The AR IE-BM will track the timing for these renewals, initiate an interface to the Federal Hub that Optum built and maintains, and process the data through the rules engine to create new results for a new certification period. For other programs not covered by the automated MAGI renewal, the AR IE-BM provides the features discussed in this section.

Sending out renewal forms: The AR IE-BM will identify cases due for renewal at a predetermined time using a batch job process. Those households will receive a renewal form and pertinent information about the renewal process, as prescribed by DHS.

Tracking renewal status: The AR IE-BM tracks the status of renewal processing throughout the process. Renewal status will be visible to the worker. The status may indicate that a renewal form is due, that the form has been returned but is incomplete, that a complete form has been returned but is still being processed, or that the renewal process is complete. Tracking the renewal process in this way allows the worker and the system to process renewals in a manner that is timely and accurate. If a complete renewal form has not been submitted by a specified time, the AR IE-BM will send a termination notice.

Renewal or termination: If a renewal is completed and the household remains eligible, the rules engine will create new eligibility results with a new certification period. If a renewal is completed but the household is no longer eligible, the rules engine will create new results that indicate the reason for ineligibility. If the household fails to complete the renewal, their eligibility will terminate. In each case, the household will be notified of the result.

Reinstatement: For some programs, the household may receive a grace period (generally one month) to return a late renewal without losing benefits. The system will process these late renewals, set a new certification period and set program statuses, according to given requirements.

1.8 Approach to Benefit Issuance

The Vendor should ensure that the responses to this section are in alignment with the requirements set forth in Template T-6 – Functional Requirements Traceability Matrix, Tab FR7 – Benefit Issuance.

Significant System capabilities in this area include:

- Determining the appropriate benefit payment dates
- Determining all payments that are due for the specific time period for all Clients
- Sending the benefit issuance information to the EBT vendor's system
- Providing a notification for the Client of the availability of funds

Instructions: The Vendor should describe its approach to addressing Benefit Issuance requirements.

This response addresses requirements FR 7.1-7.12 contained in Tab FR7 of the Functional Requirements Traceability Matrix. Each heading below corresponds to a requirement and we have provided details on how we will meet your requirement.

Appropriate Benefit Payment Date Determination

The AR IE-BM offers benefit payment schedules configurable to the needs of DHS programs, staff and clients. Our solution provides benefit issuance and benefit adjustments to eligible DHS clients through a daily batch process and sends the appropriate data to the EBT vendor each night to validate the availability of funds to a client on the next calendar day.

Monthly and recurring benefits are credited to a client's account each calendar month through an aggregated monthly batch file process.

The AR IE-BM will authorize payments outside of the recurring schedule to support emergency benefit issuance to a client. In this case, our solution can notify the State's EBT vendor with the necessary emergency benefit file to add program funds immediately to a client EBT card account.

Client Payment Determination Due for Specified Time Period

The AR IE-BM will classify and track the approval status of all outstanding benefit issuance payments that are due. The solution captures client demographic and EBT account information that it can share with the EBT vendor's system. Any updates or changes to the client information are immediately shared with the EBT vendor.

The Optum IE Agent Portal tracks EBT cardholder information. Program-specific funds can be added to the same EBT card when the client is receiving benefits from multiple programs. An authorized worker can designate, change, and remove authorized cardholders as needed to make sure payment is made to the appropriate client. The system can assign protective payees or legal guardians to receive EBT payments on behalf of a client after they are authorized to receive such benefits through the Agent Portal.

When benefits which exceed a State-specified amount are discovered in the Agent Portal, our solution leverages an approval process that authorized DHS staff can configure. In this case, a supervisor must approve any issuance over the State-specified amount before the DHS staff can submit the benefit. Alerts notify the supervisor of any pending action to expedite the workflow process. We can configure the settings to track approvals before issuance within a specific DHS program.

The AR IE-BM will integrate with third-party financial vendors to deliver EBT payments. This functionality gives the State an automated process for providing emergency, daily and monthly program funds directly to the client. Figure 43 shows the AR IE-BM Solution interface with the EBT vendor.

The Optum solution will integrate with the State's EBT vendor to provide benefit issuance and client information.

The EBT vendor interface begins when the AR IE-BM submits benefit payment requests and cancellations from the Agent Portal Database in a Daily/Monthly Benefit Claim File through our secure OIL. Our solution applies the benefit claim file to the designated program and account and stores it in the claim history in the Agent Portal Database. After the AR IE-BM schedules and authorizes the payment, it disburses a Daily/Monthly Benefit File containing daily and monthly benefit issuance information to a third-party EBT vendor to process the payment and load benefit funds to a client's EBT account. The AR IE-BM receives the benefit issuance information back from the third-party vendor in a Daily Client History File to confirm payment and track it in the client transaction history in the Agent Portal Database. DHS staff can view current EBT balance activity on a client's EBT account via the Agent Portal. Any changes to a client's information are updated in our solution and shared to the EBT vendor in a Daily Client Demographic File.

Our solution can also recoup EBT benefit issuance from a client account. After the client provides a repayment agreement to DHS, the worker will authorize the recoupment of benefits. The AR IE-BM provides for full and partial recoupment of EBT benefits through the offset of future benefits. Adjustments made to the benefit issuance balance on a client's EBT account are shared back to our solution through OIL in a Daily Benefits Adjustment File. These adjustments are then reflected in the client history within our solution. This process reduces the need for manual collection processes and paperwork.

The AR IE-BM also provides a benefit aging cycle. The cycle interfaces daily with a third-party EBT vendor to identify unused benefits and initiate an inactive account notification to a client at 45, 180, and 270 days through a Daily Benefit Aging File. Our solution stores this information in the Agent Portal Database. Benefits for a client are removed from the client's account at 365 days of inactivity. We can customize these notifications based on the needs of the State and your EBT vendor.

Client Notification of Funds Availability

The BRE will help us coordinate notice creation and disbursement to clients for the availability of funds. Our customizable notice templates will be reusable, which will reduce the need for manual processing. Event notices will notify DHS staff and clients about ongoing or completed transactions. Clients will receive availability of funds notices through U.S. Postal Service (USPS) if they do not select a notification preference to opt in for email notices. The AR IE-BM will send legally required notifications to clients through USPS, including workflow, agency and system events.

The system will send online alerts to DHS staff and clients when the client is required to perform an action. Clients with an Optum IE Client Portal account can manage these activities from the My Tasks tab of My Account. Clients will receive an email or text message when the system adds a new item to My Tasks if they have selected that communication method. The message will advise the clients to log in to their account to review the new activity. The AR IE-BM will send these reminders as notices through USPS if the clients have not opted in for electronic notification.

1.9 Approach to Redetermination/Semi-Annual Reporting

The Vendor should ensure that the responses to this section are in alignment with the requirements set forth in Template T-6 — Functional Requirements Traceability Matrix, Tab FR8 – Redetermination/Semi-Annual Reporting.

1.9.1 Redetermination/SAR or Annual Review Submitted Online/Paper

Significant System capabilities in this area include:

- Determining which redetermination the Client is scheduled to complete when a Client logs in to his/her account
- Providing a notification to the Client of receipt of the Eligibility Redetermination Application/Semi-Annual Report
- Providing the ability to generate a paper form pre-populated with the Client's information
- Reminding the Client to complete their eligibility redetermination application
- Processing the redetermination application separately from any Program specific application for which the Client is applying and is not currently enrolled
- Synchronizing the Semi-Annual Report and Redetermination/Recertification dates so that households with multiple Programs will receive a single semi-annual report and a single Eligibility Review

Instructions: The Vendor should describe its approach to addressing Redetermination/SAR or Annual Review Submitted Online/Paper requirements.

This response addresses requirements FR 8.1-8.40 contained in Tab FR8 of the Functional Requirements Traceability Matrix. All of the requirements in this section will be met through configuration of the AR IE-BM.

Establish Redetermination for Client to Complete Upon Account Access

The BRE will set an appropriate certification period for each program, based on that program’s requirements. The renewal date is calculated by the rules and stored in the database. Internal system processes will select cases, at the appropriate time, when one or more programs have a renewal due. These system processes will notify the client to complete a renewal.

Clients will have access to renewal information through the Optum IE Client Portal. Once logged into the portal, the client navigates to the My Tasks section and retrieves details on any renewal activities necessary. Figure 44 shows an example of the My Tasks page and the Renewal Activities folder.

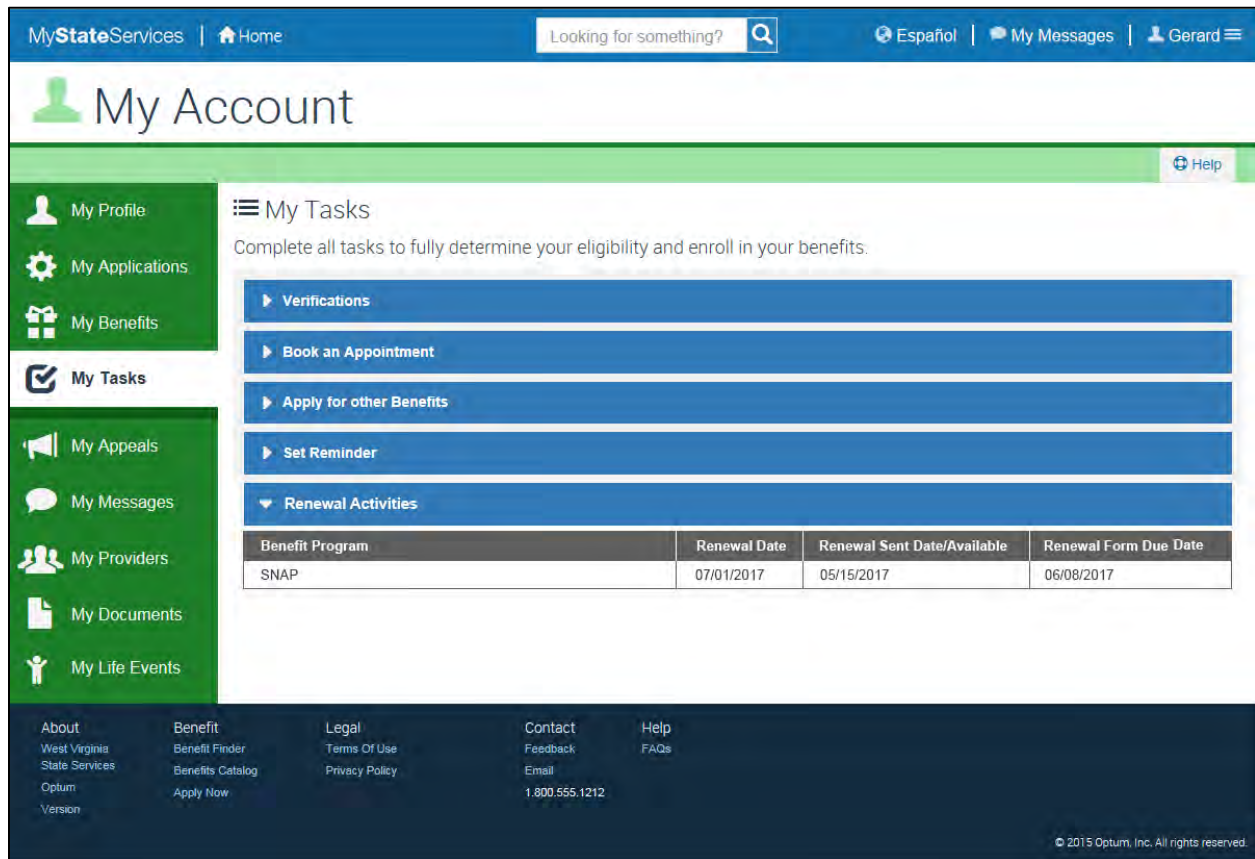


Figure 44. Client Portal My Tasks.
 The Client Portal provides self-service capabilities for clients to check renewal activities.

Client Notification of Eligibility Redetermination Application/Semiannual Report (SAR) Receipt

The system will track the status of renewal and semiannual report processing. The AR IE-BM includes a status to indicate the system has received a renewal or semiannual report form. Based on that processing status, DHS can configure system workflows to send a notification to clients indicating that the State has received the required forms.

Pre-populated Paper Form Generation with Client Information

The AR IE-BM constructs client notices using a combination of static text and dynamic text. For dynamic text, the database provides the notice generation tool with client data from raw client data or eligibility results. The notice generation tool then applies defined logic to populate the dynamic text fields on the notice. The system constructs a pre-populated renewal form by creating dynamic text fields using the desired client data and populating the fields from the database. This process uses the same type of notice generation logic it uses for other notices.

Client Reminder to Complete Eligibility Redetermination Application

The system will track the status of renewal processing as required in FR 8.17-8.29. Based on that processing status, you will be able to configure system workflows to generate client reminders at specific times.

Separate Redetermination Processing from New Program Specific Application

The AR IE-BM integrates client data across programs. While clients will be able to indicate the specific types of assistance they are requesting, the data about their household circumstances is not program-specific. Processing through the rules engine, however, is program-specific. The system contains data on program request and renewal dates. Based on data in the system, such as program request dates and renewal dates, the rules engine will establish it is processing one program as a redetermination and another as a new application, with appropriate processing for each. The worker will need to enter client data only once. The rules engine will process each program as needed, with correct results.

Semiannual Report and Redetermination/Recertification Date Synchronization for Households

The rules engine will determine the beginning and ending dates for the certification period based on program rules and client data. DHS can configure the rules logic that determines those dates. The State can define the logic it wants to use to synchronize reporting and renewal dates, and update the rules logic accordingly.

The worker can also enter a semiannual report or renewal date. This step would override the date the system would otherwise have determined.

1.9.2 Redetermination/SAR or Annual Review Completed by Intake Worker

Significant System capabilities in this area include:

- Providing a user interface for the Intake Worker to enter an Eligibility Redetermination application
- Allowing the Intake Worker to continue in process applications that the Client has

previously saved but not submitted

Instructions: The Vendor should describe its approach to addressing Redetermination/SAR or Annual Review completed by Intake Worker requirements.

This response addresses requirements FR 8.41-8.48 contained in Tab FR8 of the Functional Requirements Traceability Matrix. All of the requirements in this section will be met through configuration.

Intake Worker User Interface for Eligibility Redetermination Application

Entering a renewal is similar to how a worker enters a new application, in terms of the flow through the system. The primary difference is the system populates data on the case as the worker enters the renewal. The data will be available as the worker goes through the flow of the system. The system will prompt the worker to complete the renewal. Workers will only need to enter updates to the data as they follow the process.

Intake Worker Processing Client Applications Saved but not Submitted

We structured the AR IE-BM Solution to require clients to submit an application before a worker can process it. If clients have not submitted an application, they have neither attested to the accuracy of the information nor given permission for DHS to view the data. When clients save an application but do not submit it, the system stores it in a part of the database which DHS cannot access.

The AR IE-BM allows clients to submit incomplete applications. If clients want to begin the application online and complete the process later with the help of a worker, they can submit an incomplete application. By submitting the application, clients attest to the accuracy of the data they have completed and authorize DHS to view that data. The worker can continue the process from the point where the client stopped.

1.10 Approach to Client Change

The Vendor should ensure that the responses to this section are in alignment with the requirements set forth in Template T-6 — Functional Requirements Traceability Matrix, Tab FR9 – Client Change.

Significant System capabilities in this area include:

- Prompting prompt the Client to indicate the information that requires an update
- Determining if documentation is required for the change to be considered submitted
- Determining whether the change requires an Eligibility Worker to review the information
- Providing the ability to create a paper Client Change Form pre-populated with a Client's information to be mailed at the Client's request
- Allowing authorized DHS Staff to implement a mass change
- Determining to which Programs the changes apply
- Notifying appropriate divisions of Client changes
- Continuously monitor cases for critical updates

Instructions: The Vendor should describe its approach to addressing Client Change requirements.

This response addresses requirements FR 9.1-9.37 contained in Tab FR9 of the Functional Requirements Traceability Matrix. While most of the requirements will be met through configuration, we will leverage your existing Xerox DocuShare software for scanning and OCR requirements.

We designed the Optum IES to maximize client/applicant self-service and automate decision-making for the Eligibility Worker whenever and wherever possible. This design principle is a key differentiator from traditional transfer systems and hard-coded software options that are limited by their historical product architecture and past implementation approaches.

Prompt Client to Indicate Information Requiring Update

The Optum IE Client Portal provides self-service capabilities that allow clients to report life events and changes of circumstances because these changes may affect client eligibility for benefits they are receiving. Upon logging in, clients navigate to the My Life Events section and choose the type of change they are reporting. The system will display the current information on file and enables the user to record any changes. When the change is submitted, the data will be validated with third-party sources as appropriate and trigger a redetermination of eligibility. Figure 45 shows an example of the My Life Events page.

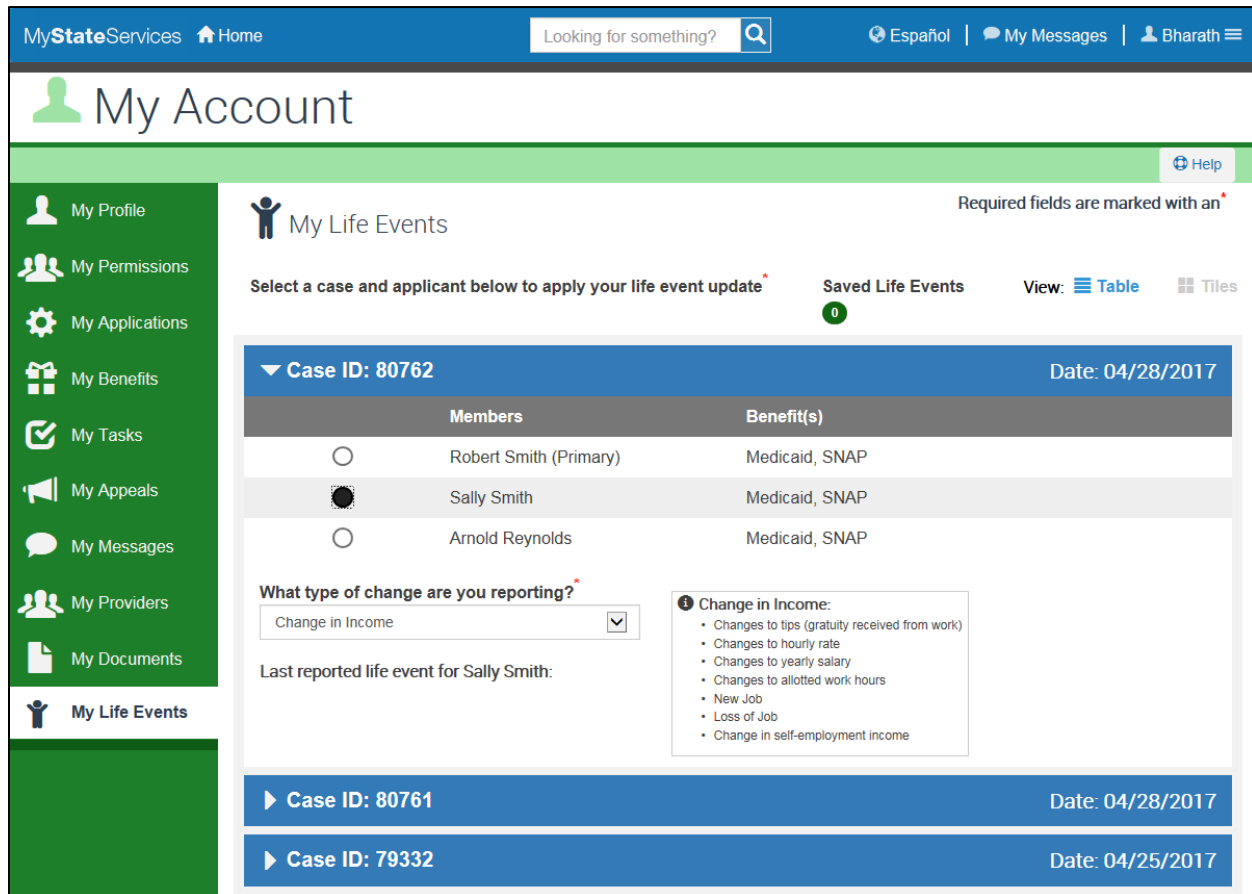


Figure 45. Client Portal My Life Events.

The Client Portal provides self-service capabilities for clients to report life events and changes of circumstances.

Determination of Required Documentation for Change Request Submission

The client can review a summary of all reported changes to make sure all have been entered accurately prior to submitting the changes to the agency. Upon submission, a confirmation of the submitted changes will be provided to the client. The rules engine will then determine what, if any, outstanding documentation/verifications are needed.

If additional information is required, a Request for Information (RFI) notice is generated. The RFI lists any required documentation the client needs to complete the change process. These client notices can also be viewed in the My Messages section of the Client Portal. Clients can then navigate to the My Documents section of the Client Portal to upload the documents to send to the agency.

Determination of Requirement for Eligibility Worker Review of Information

Improved case worker productivity is achieved by maximizing the number of actions and decisions the case worker never has to see or touch. When client-reported changes are submitted through the Client Portal, predefined business rules will determine whether the change requires a worker to review the information. If worker review is required, a task will be created and routed to the appropriate worker or to a queue pending follow up by the worker.

From the task, the worker can access the client's case, review the client's self-reported changes, and update or correct information, as necessary.

Bar coding, Quick Response (QR) codes, and Optical Character Recognition (OCR) will be leveraged to read the documents and forms to pre-populate information. Documents and forms will be scanned and accessible in the Client Documents section of the portal so the intake worker can confirm pre-populated data.

DHS may want to verify the accuracy of certain data contained in the system at intervals more frequently than at renewal. There are two likely scenarios for this:

- **Crosscheck data between different Arkansas systems:** For example, you may want to verify that data is consistent between the AR IE-BM and the Medicaid Management Information System (MMIS). Because this process would depend on the exact nature of the MMIS, we would have to design it as part of the State implementation.
- **Use external sources to periodically re-verify information in the AR IE-BM:** An example might be to draw information from the Federal Data Services Hub at times other than during application and renewal. Because this action would likely use existing interfaces, the only additional need would be to select which cases to process and at what intervals. As appropriate, the AR IE-BM will identify changes to client information with integrated systems and alert the worker that a change has been identified. The worker can trigger a notice to notify the client of the change identified, including the source of the change, and the next actions required.

Paper Client Change Form Pre-populated with Client Information for Mailing

Agency staff can trigger paper change forms with pre-populated client information to mail at the client's request. The AR IE-BM can be configured to display the change form information in the same sequence as it appears on the paper form; therefore, the worker can verify and make entries and/or corrections more efficiently.

DHS Staff Authorization to Implement a Mass Change

The AR IE-BM is configurable to enable authorized DHS staff members to implement batch processes and mass changes to all relevant client records. Other periodic processing options include SSA Cost of Living Adjustment (COLA), annual changes to the Federal Poverty Level, school graduation, closed cases for failing to renew, and end of the 60-day postpartum period for Medicaid. History will be maintained for all changes, including date and the source of change.

Determination of Programs for Application of Change

The AR IE-BM is configurable to determine what benefit programs changes apply and flag the case for the appropriate actions. Because of a change, new eligibility results will display for the worker to review. The AR IE-BM allows the worker to process any additional changes or make corrections, resulting in updates to client status and program eligibility status.

Business rules may be implemented to automatically disposition new eligibility results without worker intervention.

Appropriate Division Notification of Client Changes

Processed changes will generate a notification to the client detailing the changes in benefits. We will send notification to other DHS staff members and downstream systems. For Arkansas, this will include E&T Vendors, DHS WIC and DAAS Client Providers.

The AR IE-BM is configurable to:

- Accept and record client match files from the DHS WIC System to confirm participation in the WIC Program
- Query external databases periodically to proactively identify where client benefits may need to be adjusted
- Track clients who have appeared on external databases in error to avoid future false positives
- Create a report to be used to match with WIC participants
- Create business rules to change to multiple clients' statuses at once
- Enable workers to confirm, deny and add comments to information received from external sources

Changes in client information will update all cases and programs to which the client is known. This includes changes to client's personal data, income, assets, education level and household, to provide consistent data between the different benefit programs.

Continuous Case Monitoring for Critical Updates

Various date-related changes will affect a household's eligibility. Age is a primary example. When individuals in the household attain certain ages, eligibility can change. The AR IE-BM includes a monthly batch process that will detect those changes while they are still a specified number of months in the future. For affected cases, the batch process will create a rules engine request so that new eligibility results are created based on the changed data.

The AR IE-BM supports processes to identify critical updates that impact client eligibility, including changes to age unless an exception has been met, such as student or disability status, household composition, periods of inactivity and effective end dates.

1.11 Approach to Medical Review Team

The Vendor should ensure that the responses to this section are in alignment with the requirements set forth in Template T-6 — Functional Requirements Traceability Matrix, Tab FR10 – MRT.

Significant System capabilities in this area include:

- Determining that a medical review of disability is required
- Providing the ability for the Medical Reviewer to generate and issue requests for medical records electronically to the Provider(s)
- Allowing the MRT Supervisor to review the decision and the records for completeness and generate a notice to all appropriate parties
- Generating a notice to the Applicant when the Provider has not provided sufficient medical records

Instructions: The Vendor should describe its approach to addressing Medical Review Team requirements.

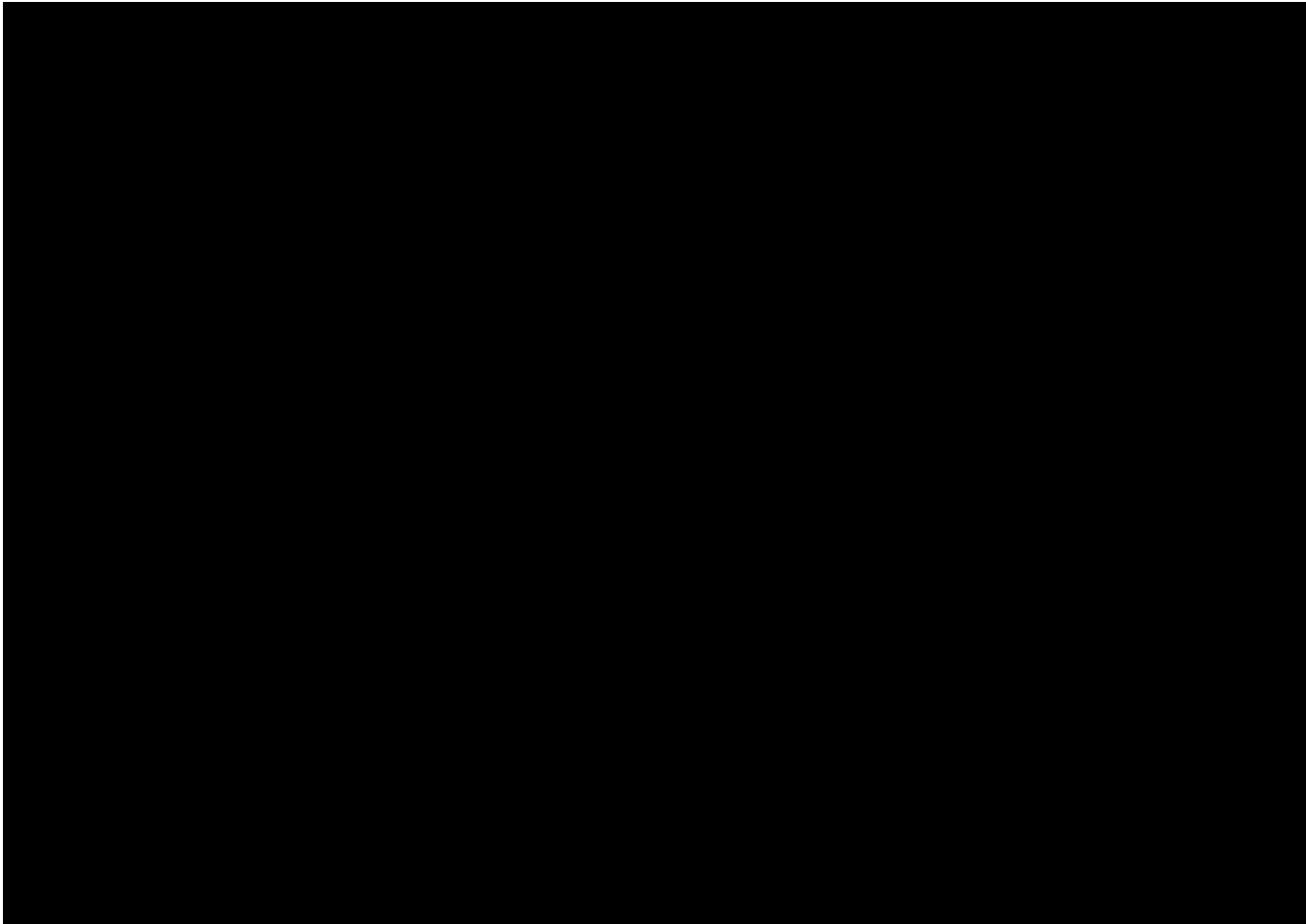
This response addresses requirements FR 10.1-10.16 contained in Tab FR10 of the Functional Requirements Traceability Matrix.

Introduction

The disability certification process begins when a client reports that a household member has a disabling condition or when the client specifically requests a program that requires a disability certification for eligibility. The online application includes a default question asking if any member has an injury, illness or disability that is expected to last for at least 12 months. The in-person application workflow includes fields to record disability data and follow-up prompts to determine current certification status. This data can also be collected at any time during the life of the case or program eligibility if the worker learns of a possible disability after initial application or if the client requests a disability-based program.

We will develop the medical review/disability certification workflow using the framework of our solution. The workflow will trigger when disability data is identified, or a disability-based program is requested and there is not a current certification. If the disability is already certified (e.g., through the Social Security Administration), the workflow does not trigger.

Figure 46 depicts the medical review process:



The workflow begins by identifying the type of potential disability. The online and worker-entered application flows ask if the condition is a mental disability, physical disability or blindness. Defining disability type is based on the expectation that it will determine the type of documentation needed to make a certification decision. For example, certifying an anxiety disorder will likely require different types of tests or records than certifying kidney disease. The types selected are configurable based on the definitions and business processes used by each state. The types can be more granular or more general depending on the need.

Based on the type of disability recorded, the workflow will prompt a request of medical records from the appropriate providers. The list of medical records can be predetermined based on the disability type, or an authorized user can select from a list of record types. In either case, the workflow includes identifying providers who will be asked for records. The client can provide contact information for their current providers. Submission of the request by the reviewer triggers a notice to the identified provider requesting either the predetermined records or the manually selected list.

If the provider fails to return the necessary records by the due date, the client is notified of the delay. The notification can include instructions for the client to follow up with the provider if supported by state policy and process. In addition to the client notice, a second request is sent to the provider asking for outstanding records. This request process can repeat as often as

necessary. Each state can configure the limit on the number of requests until an exception process is followed. The expectation is that each state has an exception process for providers who fail to cooperate.

When a provider returns medical records, authorized users attach them to the client's record through the integrated document management service (described in more detail in Section 1.6). The reviewer logs the record types against the initial list so the system can track missing documents. As necessary, the list can be resubmitted to verify that all required records have been received. This submission can be configured to issue another request to the provider for additional or missing records.

After the reviewer receives and examines all records and determines eligibility, that decision is logged in the client's record. The default data fields for disability certifications include certification type, disability type, disability begins and end dates, and certification begin and end dates. Additional fields or menu options can be added to the level of granularity needed to support the State's policy and process. Reviewers can also enter detailed case notes for the review process, which become part of the case record.

After the reviewer submits a decision, the next workflow step can be configured based on the state's policy and business process. If necessary, the supervisor can be notified to review the certification decision. With this option, the supervisor is responsible for reviewing and submitting the final decision. If the review step is omitted, the reviewer can submit the decision.

In either case, submitting the certification outcome generates a notice of decision to the client. The content of this notice is completely configurable; however, the default template includes details of the decision, information about the impact of the decision, and instructions for an appeal.

Submitting the decision also triggers the process for updating the case data for the client. This process can be manual or automated. For a manual process, submitting the certification decision creates a task for the eligibility worker. The task indicates that the medical review process is complete and advises the worker to update the case as necessary to reflect the decision. This option may be preferable if the decision has a broad impact on the case (e.g., changes in issuance for SNAP or changes in Medicaid spend-downs). If the impact is more limited, the case data can be updated and a new eligibility determination triggered automatically.

Disability Medical Review Determination Requirement

The workflow will trigger when disability data is identified or a disability-based program is requested and there is not a current certification. If the disability is already certified (e.g., through the Social Security Administration), the workflow does not trigger.

Medical Reviewer Generate and Issue Electronic Medical Record Request to Provider

Based on the type of disability recorded, the workflow will prompt a request of medical records from the appropriate providers. The list of medical records can be predetermined based on the disability type or an authorized user can select from a list of record types. In any case, submission of the request by the reviewer triggers a notice to the identified provider requesting either the predetermined records or the manually selected list.

MRT Supervisor Review of Decision and Records for Completeness and Notice Generation

After the reviewer submits a decision, the next workflow step can be configured based on the state's policy and business process. If necessary, the supervisor can be notified to review the certification decision. With this option, the supervisor is responsible for reviewing and submitting the final decision. If the review step is omitted, the reviewer can submit the decision. In either case, submitting the certification outcome generates a notice of decision to the client. The content of this notice is completely configurable; however, the default template includes details of the decision, information about the impact of the decision, and instructions for an appeal.

Notice Generation to Applicant when Provider has not Provided Sufficient Medical Records

If the provider fails to return the necessary records by the due date, the client is notified of the delay. The notification can include instructions for the client to follow up with the provider if supported by state policy and process.

1.12 Approach to Overpayment, Audits and Appeals

The Vendor should ensure that the responses to this section are in alignment with the requirements set forth in Template T-6 – Functional Requirements Traceability Matrix, Tab FR11 – Overpayment, Audits and Appeals.

1.12.1 Overpayments

Significant System capabilities in this area include:

- Generating an alert for the Overpayments Staff that a potential overpayment has been calculated
- Sending and receiving overpayment and recoupment information from the OASIS system
- Providing the ability to stop payment of benefits of the Clients who have not responded to the Demand Letter
- Notifying the Client of ongoing recoupments and established overpayments at all case action

Instructions: The Vendor should describe its approach to addressing Overpayments requirements.

This response addresses requirements FR 11.1-11.8 contained in Tab FR11 of the Functional Requirements Traceability Matrix. All of the requirements in this section will be achieved through configuration of the AR IE-BM.

Introduction

Our AR IE-BM Solution provides the Arkansas Department of Human Services (DHS) staff overpayment determination and notification while interfacing with the State's existing OASIS system for an end-to-end overpayment and recoupment process. DHS staff can receive multiple types of overpayment notifications through workflow events identified our solution. These events include:

- A client change of circumstance
- Information gathered during an investigation or audit review
- An overpayment triggered due to an eligibility worker input

In addition, our solution has the capability to identify overpayments for clients who reapply for benefits and have an existing overpayment balance.

By interfacing with OASIS through our OIL, our solution provides a timely and secure method of sharing these overpayment alert notifications with Overpayment staff for processing. After the Overpayments staff reviews and establishes overpayment collection, our solution can receive that information and send the adjusted benefit amount to the State's Electronic Benefit Transfer (EBT) vendor. All recoupments and overpayments that are provided to the EBT vendor for processing are tracked in our solution and shared back to OASIS. DHS staff and clients are notified of any action required during the overpayment and recoupment process through event notices.

Overpayment Alert Notification

The benefit amount determinations for active and closed client cases are performed in our Optum BRE and identified in our Optum IE Agent Portal. One example where overpayment notification alerts are established by the system is when there is a change in circumstance to a client case, resulting in a new benefit calculation. This new benefit amount is compared against the history of actual benefits issued. The discrepancy between the original amount and the net benefit amount will result in an overpayment recoupment.

The flexibility to incorporate DHS workflows is an important benefit of the Optum IES design. These workflows, unlike traditional integrated eligibility solutions, minimize the impact to the other parts of the AR IE-BM, such as OASIS.

After determining an overpayment amount, the AR IE-BM will generate an alert to the designated Department worker, noting the identified overpayment. The worker enters and submits the overpayment claim to OASIS for processing.

Processing activities that require follow-up by DHS staff, such as overpayments, automatically generate and display a task for the assigned worker with details about the activities needed to complete the task. These details can include the type of task, client's name and case number, due date, and status of task. The task display and details are configurable, filterable by status, sortable by column, and printable. Additional examples of activities that trigger tasks include the transfer of cases, change in a client or case circumstances, task reminders, and the receipt of a document or verification.

The AR IE-BM workflow rules are configurable and can automate DHS business processes. This enables you to concentrate on strategic business-oriented outcomes, rather than the day-to-day operational tasks, improving productivity. Workflows eliminate paperwork and save time by automatically routing tasks from one person to the next with no paper handling that may be lost in transit.

Workflows typically follow a sequential order to make sure all steps in the process have been completed before moving forward. However, they can be configured to modify the order of the steps making the process more efficient for specific work units. For example, if there is a work unit with experienced workers, steps could run simultaneously as opposed to sequentially, or some steps may be skipped based on State-specific business rules.

Additional examples of actions that can be automated using workflow rules include:

- Workflow approvals for tasks based on role profile
- Workflow routing activities that require multiple actions
- Manual and automated workflow triggers
- Automated application assignment to a predefined set of workers, a work unit, or work queues
- Automated case assignment or reassignment based on custom status values

Overpayment and Recoupment Information from the OASIS System

The Agent Portal will interface with the OASIS system through our secure OIL. This will provide an extract of, for example, the active SNAP cases monthly. Our solution can send identified overpayment and recoupment amounts to the OASIS system to initiate the recoupment process. In turn, the AR IE-BM can receive any approved adjustments on overpayment and recoupment claims and apply those net benefit amount changes for deduction on a client's benefits.

The AR IE-BM will identify overpayment and recoupment of SNAP, TEA, or other program benefits for a client and will communicate with OASIS daily to provide planned payment information for processing. This information includes the amount of recoupment, date of recoupment, and the client and program from which the benefit is being recouped.

After the OASIS overpayment staff reviews and accepts the overpayment referral, the AR IE-BM can receive any approved adjustments made to the overpayment. The overpayment claim status is tracked and updated within the AR IE-BM, along with any repayment or monthly recoupment process that offsets the benefit amount over a period of time. Lump sum payments from a client or vendor may also be applied and tracked to immediately resolve an over issuance claim.

The disposition claim classification is recorded for any overpayment and recoupment. Claims can be classified as intentional, unintentional, or department error, and have their status tracked in the solution. Approved overpayment and recoupment claims are processed by the AR IE-BM in a daily batch file that is sent to the State's EBT vendor for processing.

Ability to Stop Payment of Benefits

The AR IE-BM includes the functionality to stop, reissue or recoup EBT benefits from a client account, as required, when there is no response to a demand letter. When the client provides a repayment agreement to DHS, the worker will authorize the recoupment of benefits. Our solution will provide full or partial recoupment of EBT benefits through the offset of future benefits. This reduces the need for manual collection processes and paperwork for DHS.

If an appeal or audit hearing occurs, our solution can flag and withhold payment or recoupment of benefits until a client receives a decision on their case. After that decision is reached, DHS staff can process the recoupment amount received from OASIS to the vendor or stop the overpayment. To provide the State the means necessary to recoup all overpayments, our solution also supports OASIS in the interception of State Income Tax refunds by working with Overpayment staff to identify client cases eligible for intercept.

The AR IE-BM also provides a benefit aging cycle that interfaces daily with a third-party EBT vendor to identify unused benefits and initiates an inactive account notification at 90, 180 and

270 days to a client. This information is available in the Optum IE Agent Portal, including the expunging of benefits for a client at 365 days of inactivity.

Client Notification of Ongoing Recoupments

DHS staff and clients will be informed of ongoing recoupments and established overpayments through event notices. Clients will have a notification preference to opt-in for email notices; otherwise, they will receive notices through the U.S. mail. All legally-required physical notifications will go out to clients through the U.S. mail.

These notifications include:

- **Client events:** Clients and applicants will receive assistance requests, follow-ups, or legal notifications
- **Workflow events:** DHS will receive status update and aging reminders for tasks due for completion, as shown in Figure 47
- **Department events:** Through secure file transfer, the authorized print fulfillment center vendor will receive print delivery notices for printing, envelope inserting, and postal service distribution from the Optum IES
- **System events:** Identified system administrator-designated users will receive scheduled and unscheduled actions and issue notices

ACTION	NAME ↑	TYPE	RELATED TO	DUE DATE	OVERDUE	STATUS	ASSIGNED TO
✓	Ambani, Dhirubhai	Verification	00000012	9/23/2016	🚩	In Progress	Worker1, Eligibility
✓	Ben, Kokila	Other	00000059	9/14/2016	🚩	Waiting on someone else	Worker1, Eligibility
✓	Kraft, Holly Ann	Application	00000055	10/18/2016	🚩	Not Started	Worker1, Eligibility
✓	Kraft, Holly Ann	Document	00000055	10/1/2016	🚩	Not Started	Worker1, Eligibility
✓	Smith, Robert	Reminder	00000062	10/1/2016	🚩	Not Started	Worker1, Eligibility
✓	Smith, Shawn	Informational	00000047	10/10/2016	🚩	Not Started	Worker1, Eligibility

Figure 47. Agent Portal Tasks.

DHS staff members will have their workflow event tasks visible for easy follow-up and action through their portal access.

1.12.2 Conduct Audit/Review

Significant System capabilities in this area include:

- Providing the ability for the Quality Control Supervisor to develop and edit the Quality Control Sampling Plan
- Providing the ability for the Quality Control Supervisor to select one or more cases and assign them to a Quality Control Reviewer for audit/review

- Allowing the Quality Control Reviewer to review actions taken by Eligibility Workers in the sample month
- Allowing the Quality Control Reviewer to conduct the audit/review interview following the established questionnaire in the System and to record the results
- Providing a comparison of the information provided during the QC interview and/or verification activities with the information contained in the Client's electronic case file
- Providing the ability to recalculate the Client's eligibility based on the QC audit/review information
- Providing a Findings Report if the Quality Control Reviewer determines an error was made when eligibility and benefit amount was determined
- Allowing the Quality Control Reviewer to record the Findings Report as complete with no finding if no finding is identified
- Allowing the Eligibility Worker to create the recommended Corrective Action specifically addressing each error in the finding report
- Tracking all Corrective Action plans

Instructions: The Vendor should describe its approach to addressing Conduct Audit/Review requirements.

This response addresses requirements FR 11.9-11.45 contained in Tab FR11 of the Functional Requirements Traceability Matrix. All of the requirements in this section will be achieved through configuration of the AR IE-BM.

Introduction

Based on the interviews with case workers during the design phase of the Optum IES, emphasis has been placed on the ability of the QC Reviewer to be able to easily follow the questionnaire within the system while allowing easy comparison to the client supplied data and still providing supervisors the capability of manual review. The result is Quality Control Audit process in the AR IE-BM that is unequalled by transfer systems,

It begins with the automated creation of sampling plans based on criteria established by your Quality Control (QC) policy. Based on a schedule also determined using QC policy, the system will randomly sample cases for a specified month using the sampling frames, sample sizes, and other conditions specified in the sampling plan.

The criteria for the QC sampling plan will be editable by users with proper security, such as QC supervisors or managers. The sampling plan conditions can include factors that prevent selection of cases ineligible for review.

The sampling process generates a list of cases available for review. QC supervisors, managers, or other authorized users assign cases from this list to specific reviewers. You will have the ability to configure the automation of reviewer assignment based on specific conditions (e.g., workload size, program type and so forth).

Whether manual or automated, the reviewer assignment process triggers the creation of a case review number. The case review number, or audit case number, is a unique identifier that allows tracking the progress of the specific review occurrence for this case and reviewer.

Access to the audit case is controlled by user roles. Typically, only users with a QC role have access to audit cases. Eligibility workers or staff members who managed the cases under review would not be able to view any audit data or findings, assuring separation of duties.

The reviewer assignment process also triggers a task or notification to the reviewer advising him or her of the new assignment. Reviewers see these tasks on the task list on their workspace. The system displays all of their assigned reviews through caseload reporting. Caseload reports are filterable, sortable and configurable for each individual user. Supervisors can manage workloads across their team utilizing these reports.

Figure 48 shows the reviewer’s configurable task list in the Agent Portal.

ACTION	SUBJECT	NAME	RELATED TO ↑	DUE DATE	STATUS	PRIORITY
	Audit Assigned	Kraft, Holly Ann	00000051	5/24/2017	Not Started	Normal
	Interview Scheduled	Smith, Rob	00000052	5/31/2017	In Progress	Normal
	Findings Approved	Jilla, Anil	00000054	4/23/2017	Completed	Normal
	Audit Assigned	Kraft, Yankee Ann	00000060	5/22/2017	Not Started	Normal

Figure 48. Agent Portal Tasks.

QC reviewers will have their workflow tasks visible for easy follow-up and action through their portal access.

The system sends a QC review notice to the client whose case was selected for review. Notice content is configurable based on the state’s policy and business process, but typically includes date and time of the interview, method (e.g., phone or in-person), and repercussions for failing to cooperate. The notice can trigger automatically in the assignment process if interview scheduling is also automated. If the notice is triggered manually, the reviewer will have the option to add or change the interview time and date and add comments to the notice. If necessary, we can send reminder notices to the client as the date and time of the appointment approaches.

Once assigned, the QC reviewer receives view-only access to all areas of the eligibility case to review. Prior to the client interview, the reviewer evaluates the eligibility worker’s actions on the case. They can become familiar with the household’s circumstances or identify error-prone factors that will facilitate a more efficient interview process for the client.

If the reviewer determines at any point that this case is not eligible for review, he or she can cancel it. The system requires a reason for the cancellation. Valid reasons can be selected from a state-defined drop-down list based on your QC policy, or it can be free-form if allowed by policy.

The workspace for the audit case includes a display of the eligibility case data and editable audit case data fields. During and after the interview with the client, the reviewer can add and update the audit case to reflect the information learned from the client and any third-party sources used.

Reviewers can also attach documents and forms to the audit case for data that requires additional verification. The audit case includes case note functionality for the reviewer to record process notes or additional findings.

If the client does not attend the interview, the reviewer records that outcome on the audit case. Submitting an audit case with a missed interview does not trigger a Findings Report. Instead, the eligibility worker is notified of the client's failure to comply with QC, and can take follow-up action as program policy dictates. A missed interview notice can also be issued to the client, if required by QC policy and processes.

When the reviewer submits the audit results for a client in compliance, the system will generate an eligibility result for the audit case. This result reflects the client's eligibility for the sample month using the data associated with the audit case. The reviewer has the opportunity to confirm the accuracy of this result.

The AR-IE BM Solution will generate the Findings Report after confirmation of the audit results. This report compares the result from the original eligibility case to the result from the audit case. If there is no difference between the results, the report will indicate that outcome. If the results differ, the report identifies the differences in detail. When the reviewer is satisfied with the audit case results and Findings Report, he or she can submit it for supervisor acceptance.

When the reviewer submits a Findings Report, the appropriate supervisor receives notification through a task on the supervisor's task list. For each report, the supervisor has the option to accept the Findings Report or return it to the reviewer for further action. If there is no finding of an error, the supervisor accepts the report, and the review is completed.

If errors are found, an action plan is created to guide the eligibility worker through the corrections process. The action plan can be generated automatically based on the errors identified and the DHS QC policy. For example, if the error was because of missed verification documents, the plan can automatically populate with a list of documents that needs to be collected. Alternatively, a user can manually create the action plan by selecting from a list of activities or actions.

The list of corrections and action plan transmit to the appropriate eligibility workers, supervisors or other staff members, as needed, to support the corrections process. The action plan will track the activities required to correct the case as part of the audit case. If the plan is not completed within the established period, reminder notices can be issued or the task can be escalated to management, as needed.

Quality Control Sampling Plan Development and Editing Ability

The criteria for the QC sampling plan will be editable by users with proper security, such as QC supervisors or managers. The sampling plan conditions can include factors that prevent selection of cases ineligible for review.

Case Selection for Audit/Review

The sampling process generates a list of cases available for review. QC supervisors, managers, or other authorized users assign cases from this list to specific reviewers. You will have the ability to configure the automation of reviewer assignment based on specific conditions (e.g., workload size, program type and so forth).

Quality Control Review of Eligibility Worker Actions

Once assigned, the QC reviewer receives view-only access to all areas of the eligibility case for review.

Quality Control Reviewer Conduct Audit/Review Interview

The workspace for the audit case includes a display of the eligibility case data and editable audit case data fields. During and after the interview with the client, the reviewer can add and update the audit case to reflect the information learned from the client and any third-party sources used.

Comparison of QC Interview Information/Verification Activities with Client Electronic Case

The workspace for the audit case includes a display of the eligibility case data and an editable audit case data fields. The editable fields in the audit case allow the QC reviewer to collect and record comparable case data through the audit interview and review.

Recalculate Client Eligibility Based on QC Audit/Review Information

When the reviewer submits the audit results for a client in compliance, the system will generate an eligibility result for the audit case. This result reflects the client's eligibility for the sample month using the data associated with the audit case. The reviewer has the opportunity to confirm the accuracy of this result.

Findings Report Upon Quality Control Reviewer Error Determination

The AR-IE BM Solution will generate the Findings Report after confirmation of the audit results. This report compares the result from the original eligibility case to the result from the audit case. If the results differ, the report identifies the differences and reports out those details.

Findings Report Upon Quality Control Reviewer Identification of No Findings

The AR-IE BM Solution will generate the Findings Report after confirmation of the audit results. This report compares the result from the original eligibility case to the result from the audit case. If there is no difference between the results, the report will indicate that outcome. If there is no finding of an error, the supervisor accepts the report, and the review is completed.

Eligibility Worker Creation of the Recommended Corrective Action

If errors are found, an action plan is created to guide the eligibility worker through the corrections process. The action plan can generate automatically based on the errors identified and the DHS QC policy. Alternatively, the action plan can be manually created by a user selecting from a list of activities or actions.

Corrective Action Plan Tracking

The action plan will track the activities required to correct the case as part of the audit case. If the plan is not completed within the established period, reminder notices can be issued or the task can be escalated to management as needed.

1.12.3 Appeal Tracking

Significant System capabilities in this area include:

- Allowing authorized users to record that an appeal has been filed
- Providing checklists to the DHS Staff of the information/documentation to be gathered and provided to the Office of Appeals
- Providing the authorized DHS Staff all information/documents relevant to the appeal (based on the checklist available in the System) in order to defend the Appeal
- Allowing authorized DHS Staff to enter the ruling into the System and identifying where action is required
- Tracking all actions specified in the decision until completed

Instructions: The Vendor should describe its approach to addressing Appeal Tracking requirements.

This response addresses requirements FR 11.46-11.57 contained in Tab FR11 of the Functional Requirements Traceability Matrix. All of the requirements in this section will be achieved through configuration of the AR IE-BM.

Introduction

Clients can submit appeals by using the Optum IE Client Portal or by submitting paper documents. Appeals submitted using the portal route to the Optum IE Agent Portal for processing by the eligibility worker, appeals worker, and/or appeals hearing officer. The appeals record supports functions similar to the eligibility case. Clients can upload and attach documents using a computer or a mobile device. Notifications and notices can then be triggered at specified due dates or following specific user actions, and required actions can be escalated if not completed in a timely manner.

Figure 49 depicts the system's ability to automatically and securely route appeals to the authorized system users or user groups for multiple levels of review, per DHS business rules. The flow reflects how the workflow assigns unique case IDs to each case, has auto-generated acknowledgement letters, escalation and user review queues.



Authorized Users Record Appeal Filing

The appeal process begins when a client makes contact with the agency to appeal a decision. This contact can occur online, by phone, or by mail. If the client submits the appeal through the online Optum IE Client Portal, the collected appeal data automatically transmits to the Agent Portal to create an appeal case. The appropriate eligibility worker is notified that an appeal has been filed. If the contact is by phone or mail, the worker manually records the data to create the appeal case.

When created, the appeal case is automatically assigned to an appeals worker, referee and/or judge. Case assignment is a configurable process that can occur by round-robin assignment, by program type, based on caseload size or by other factors, as needed, to align with the policy and business process for the agency. When the case is assigned to the worker, referee and/or judge, that user is notified that a new case has been assigned to them. The system can also notify the originating eligibility worker with the appeal contact to facilitate communication.

DHS Staff Checklist for Office of Appeals Information and Documentation

As with the client, the notification to the worker is configurable. It can include a checklist for required documentation, due dates for providing information and other policy directives, as needed, to facilitate the appeal hearing. If the directives to the eligibility worker include specific tasks for completion, the worker can track the appeal case, trigger reminders and overdue

notices, and escalate missed deadlines to supervisors or managers, as needed, to assure that all preparations are in place for the hearing.

Authorized DHS Staff Access to Information and Documents for Appeal Defense

The AR IE-BM has the ability to grant access to authorized users. Authorized users include any eligibility worker or other staff member responsible for providing documentation or completing other tasks prior to the hearing. Security can be restricted, as necessary, if a specific case includes sensitive or confidential information. The granting of access can be automated based on case ownership, agency role or other factors, as needed by the business process.

The assigned appeals staff can view the appeal case data that the client or worker enters. The initial review gives staff the ability to make an initial determination of the validity of the appeal. For example, if the appeal was not filed timely or was not filed by someone with authority to appeal, the system supports staff members making an expedited judgment without scheduling a hearing. This ability can be disabled if State policy does not support expedited judgments.

After the initial review, appeals staff can schedule a hearing. The scheduling workflow automatically triggers a notice to the client with the date and time of the hearing. The full text of the hearing notice is configurable. It can include directions to the hearing location, instructions to provide documentation, and guidance for legal aid or advice. The eligibility worker or workers associated with the appeal case will also receive notification of the hearing time and date.

Authorized DHS Staff Ability to Enter Ruling and Action into System

Following the hearing, appeals or other staff members have access to the appeal case to attach additional documentation collected during the hearing. The appeal case also includes data fields that can be configured to collect mandatory data, as needed, to manage, track or make a decision on the appeal. The appeals referee or judge with the necessary security for the appeal can review all collected documents and data. When their review is complete, the judge or referee submits their final appeal decision. They can add case notes to the appeal case, as needed.

Submitting the decision triggers a notification to the client of the outcome. The content of that notification is configurable to meet the State's policy requirements. Judges or referees can specify language to include in the notice, or the text can populate automatically based on the data collected on the appeal case. In either case, the approver has the option to add comments to the client's notice.

The AR IE-BM communicates the appeal decision to the eligibility worker, as needed, for follow-up action. If program eligibility or benefits were extended pending the appeal, this communication can include instructions to the worker to terminate those benefits, continue to extend benefits or take other action, as needed, to conform to the appeal decision.

Tracking of Specified Decision Actions Through Completion

The appeal case can be configured to collect mandatory data as needed to manage, track or make a decision on the appeal. These fields can be conditional based on the program, appeal type, household type or other factors as defined by the State's policy and business process.

1.13 Approach to Appointment and Caseload Management

The Vendor should ensure that the responses to this section are in alignment with the requirements set forth in Template T-6 — Functional Requirements Traceability Matrix, Tab FR12 – Appointment and Caseload Management.

1.13.1 Appointments

Significant System capabilities in this area include:

- Allowing the Applicant/Client to schedule an appointment
- Providing a list of appropriate appointment types, appointment settings, and appointment times that are available to the Client
- Updating the availability of resources to reflect when an appointment has been scheduled
- Allowing the Client to reschedule an appointment

Instructions: The Vendor should describe its approach to addressing Appointments requirements.

This response addresses requirements FR 12.1-12.13 contained in Tab FR12 of the Functional Requirements Traceability Matrix. Eleven of the thirteen requirements will be met through configuration. Requirements FR 12.7 and 12.11 require integration with external systems and will require some development. All of the costs are included within our proposal for this functionality.

Introduction

The AR IE-BM Solution provides an intuitive appointment scheduling feature giving clients the option to schedule appointments at the time of application submission or at the client's convenience. This feature streamlines the application processing time, providing better service to clients.

Applicant/Client Appointment Scheduling

Clients can use the Optum IE Client Portal to schedule appointments with staff. The scheduling is available through the portal using the My Tasks – Book an Appointment Section Web page.

Available Appointments for the Client

The AR IE-BM Solution will display appointment options to clients for their selection. These options include available appointment type, setting and time. The options will vary based on your predetermined business rules, including program type and the client's enrollment status. For example, an option for a phone interview will not be available for clients who have applied for SNAP benefits. Instead, they must complete a face-to-face interview to complete the application process. Based on the type of appointment selected and the requested language by the client, available date and times will display. To confirm and schedule an appointment, clients must provide their contact information if not previously provided. Clients can modify appointment settings according to their preferences, including notification and language preferences. Figure 50 provides an example of the Book an Appointment function.

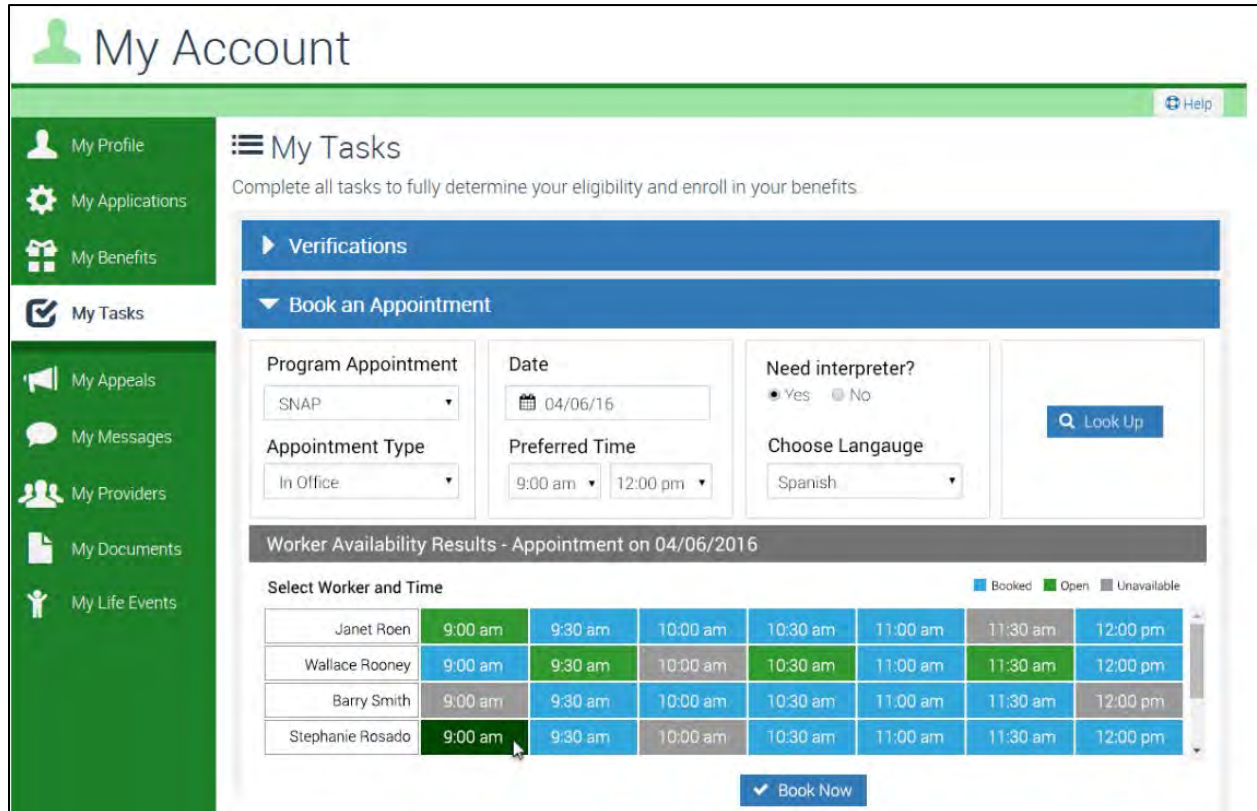


Figure 50. My Tasks Book an Appointment Page.

Predefined required fields will prompt the user to enter data.

Figure 51 provides an example of the Book an Appointment confirmation message.

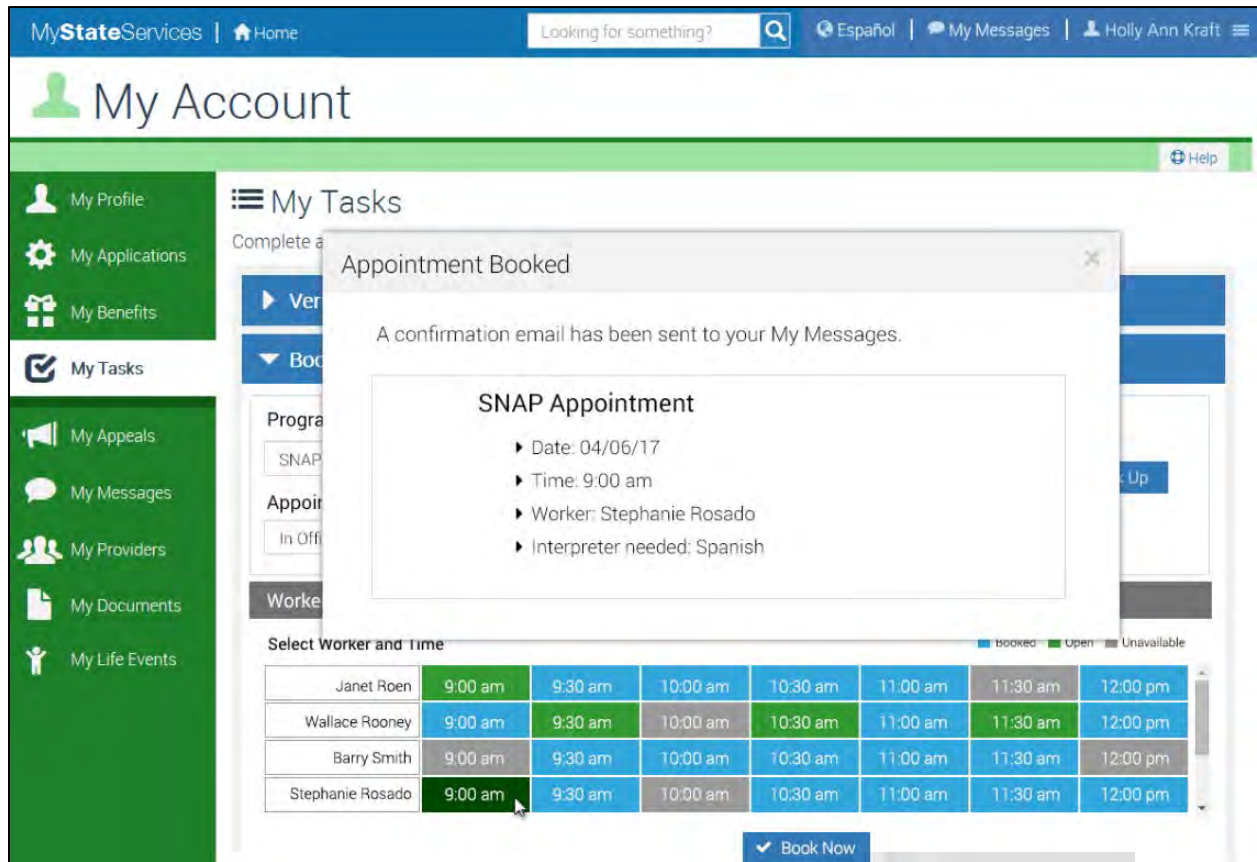


Figure 51. My Tasks Book an Appointment Confirmation Message.

An appointment confirmation message is sent the client's My Messages page in the Client Portal.

Update of Resource Availability for Appointment Scheduling

Real-time worker availability is maintained in the AR IE-BM Solution to offer clients the most up-to-date information for appointment availability. The solution updates as appointments are scheduled, rescheduled or canceled. The system will also comprehend worker availability changes.

Confirmations of scheduled appointments and reminders of upcoming scheduled appointments are sent to clients. The notifications are issued according to the client's preferred method of communication.

When an interpreter is requested, the system tracks the request and triggers a task to the case worker to take necessary actions so that an interpreter is present at the scheduled appointment. If the agency does not complete the task within the time frame that DHS predefines, reminder alerts will be triggered.

Client Appointment Rescheduling

Clients may reschedule appointments by accessing their account through the Client Portal. Rescheduling of appointments will follow your predetermined business rules. You may request that the client reschedule an appointment if resources and availability change. Other DHS staff may receive access to schedule and/or reschedule appointments per the client's request.

You have the ability to leverage system alerts to notify the worker when the client arrives for an appointment and when a client misses a scheduled appointment.

1.13.2 Caseload Management

Significant System capabilities in this area include:

- Initiating work effort requests through a variety of methods
- Identifying the skills required, based on the work effort request and constraints, and route the work effort to the correct queue
- Automatically route the work effort to the correct queue, based on a set of predefined rules, and then assign to an appropriate Worker or allow selection by the Worker to complete the entire process
- Tracking resource calendars/availability

Instructions: The Vendor should describe its approach to addressing Caseload Management requirements.

This response addresses requirements FR 12.14-12.23 contained in Tab FR12 of the Functional Requirements Traceability Matrix. All but one of the ten functional requirements will be met through configuration. FR 12.23 expects integration with external systems and will require some development. All of the costs are included within our proposal for this functionality.

Work Effort Request

Processing activities that require follow-up by your staff will automatically generate and display a task. Tasks may be created through various methods such as:

- Automated workflows for when applications, renewals and/or documents are received electronically through the Client Portal
- Manually created by DHS staff and assigned to other staff members for tasks such as:
 - Scanned applications, renewals and/or documents received by fax, email or mail
 - Calls received from clients that require follow-up
 - Activities that require follow-up as a result of a business process

Tasks will have details about the activities needed to complete the task, including:

- Type of task
- Client name and case number
- Due date
- Status of tasks

The task display and details are configurable, filterable by status, sortable by column, and printable.

Identification of Required Skills

DHS can leverage the solution profiles to identify a worker's skill set, roles and permission sets. This feature gives you the ability to include or exclude a task from a work queue, which allows

for appropriate staffing from the beginning of the work. This approach limits inefficient use of time and reduces DHS staff frustration because of inappropriate work assignments.

Automatic Work Effort Routing

Workflow rules will route work effort requests to the correct queue and/or to workers with the matching, predefined role profile based on skills. Workflow rules are configurable based on business needs and processes.

One example of a workflow rule is the client benefit application process. When an application is received, it is automatically assigned to an intake worker to process and determine eligibility. Assignment is based on the predefined role profile of the worker (e.g., SNAP workers could be assigned SNAP applications and TEA workers could be assigned TEA applications). After a client is determined as eligible, the case will automatically route to a Level 2 worker or supervisor for approval (depending on policy for the particular task), and then reassigned to an ongoing case maintenance worker. If additional information is required, the case will automatically route to work queues, pending additional information or verifications.

As needed, workflow rules can be configured to trigger notifications to the assigned worker's supervisor if the current worker has not completed the action within the predetermined time frame. When this occurs, additional rules can be implemented for automatic reassignment of work.

Workflows typically follow a sequential order making sure that all steps in the application process have been completed before moving forward. However, workflows can be configured modifying the order of the steps making the application process for certain work units more efficient. For example, if there is a work unit with advanced workers, some steps could run simultaneously as opposed to sequentially, and some steps may be skipped, as permitted by policy.

Resource Tracking

The AR IE-BM offers the ability to configure and track the history of resource availability. This tracking helps with appropriate resource allocation to meet workload volumes.

1.13.3 Establishing Calendars

Significant System capabilities in this area include:

- Providing a structured and standard calendar form
- Providing access to user's calendar outside of the System

Instructions: The Vendor should describe its approach to addressing Establishing Calendar requirements.

This response addresses requirements contained in Tab FR12 of the Functional Requirements Traceability Matrix. Sixteen of the eighteen requirements will be met through configuration of the AR IE-BM. FR12.27 and 12.28 require integration with external systems and will require some development. All of the costs are included within our proposal for this functionality.

Structured and Standard Calendar Form

The AR IE-BM calendar view displays the worker's calendar. It also offers links to other calendar and activity views such as tasks that are coming due. Users can share their calendar with co-workers and print a paper copy, as needed. Calendar views have the following display options:

- Day
- Week
- Work week
- Month at a time

Users can create and save calendar events with our configurable event form, which includes:

- Attendees
- Appointment category/type (application interview, redetermination interview, reporting a change of circumstance)
- Event type (e.g., phone call, in-person)
- Event description or message
- Start and end date
- Start and end time

External Access to a User's Calendar

The AR IE-BM is configurable to integrate with external calendars so workers will not need to update their availability, meetings or appointments more than once. Sharing permissions helps workers and other DHS staff to see other team members' calendars. Private events are synchronized between calendars by default; however, users can choose to turn off synchronizing private events in their settings. System configurations and workflow rules may be implemented for the following:

- Automatically populate and display the source system that created the calendar event (Agent Portal or an external calendar such as Outlook or Google)
- Allow attendees to include a message to other staff
- Notify appointment creator of scheduled appointment
- Enable appointment creator to cancel an appointment
- Electronically deliver a notification to attendees listed that an appointment has been cancelled
- Delete a cancelled appointment from calendars
- Log the time, date and user ID of the user who cancelled the appointment
- Enable appointment creator to grant other users access to modify/cancel appointment details
- Enable appointment creator to grant other users access to modify/cancel appointment details on behalf of creator

- Enable appointment creator to set appointments as a recurrence, with overall start and end dates
- Allow clients to view scheduled appointments through the portal account
- Allow clients to schedule appointments through their portal account
- Save appointments

1.14 Approach to Reporting and Business Intelligence

The Vendor should ensure that the responses to this section are in alignment with the requirements set forth in Template T-6 – Functional Requirements Traceability Matrix, Tab FR13 – Reporting and Business Intelligence.

1.14.1 Reporting and Business Intelligence

Significant System capabilities in this area include:

- Providing static, parameter driven, dashboards, statistical and ad hoc reports
- Creating and saving reports in different file formats
- Providing the ability to upload external data sets for integrated reporting
- Providing a process by which reports may be delivered by email
- Providing the capability for reports to be automatically generated based on a predefined schedule and distributed to subscribed users on a periodic basis
- Saving and attaching reports to a Client's record
- Providing the ability to generate a listing of all standard on-line reports available and the description of each report
- Projecting future case actions and requirements
- Providing application processing reporting and analysis capabilities in real-time
- Providing different dashboards and reports by user type
- Providing the ability to generate Federally/State required reports
-

Instructions: The Vendor should describe its approach to addressing Reporting and Business Intelligence requirements

This response addresses requirements FR 13.1-140 contained in Tab FR13 of the Functional Requirements Traceability Matrix. All of the forty (40) requirements will be met through configuration of the AR IE-BM.

Introduction

Optum's Reporting and Analytic Services provide a flexible, Web-based reporting and business intelligence solution to streamline reporting and analytics across federal and state agencies. Using historical, transactional and real-time data, our Reporting and Analytic Services deliver predefined, custom and ad hoc reports, interactive dashboards, and data extracts in compliance with CMS' MITA business, information, and technical architectures. Our services incorporate

simple yet powerful data visualizations with drill-down capabilities, roll-up capabilities and Key Performance Indicators (KPIs) to monitor trends and improve operational efficiency and effectiveness.

Our extensive reporting and analytic services can integrate with existing DHS infrastructure and tools to create a consistent user experience where DHS staff can transform data into actionable insights. Our services provide standard reporting and analytic capabilities while offering a mechanism to conduct complex evaluation studies, monitor quality improvements, track program performance and identify opportunities to reduce administrative costs. We increase access and harmonize data to reduce gaps in fragmented information and enable a wide range of reporting and analytic tools to offer a span of functionality from basic calculations to advanced statistical analyses.

We leverage our extensive experience implementing and operating state reporting systems hosted within Optum and state data centers to continually innovate and advance our offerings. We operate data warehouse and reporting solutions within state data centers in California, Illinois, Indiana, Michigan, and New Jersey and host Medicaid warehouse and reporting for DHS here in Arkansas and Washington. Additionally, we are in the process of implementing an Optum-hosted data warehouse and reporting solution in the State of New York.

Our approach to reporting and analytics will help DHS achieve your goal of promoting a client-centric delivery model by using data to make evidenced-based decisions that focus on quality, cost and program integrity. We provide a comprehensive and flexible platform to enable DHS to extract information from data to drive key business decisions. This will ultimately contribute to the ongoing effort of improving outcomes of the populations served by the AR IE-BM system.

Static, Parameter Driven, Dashboards, Statistical and Ad Hoc Reports

Our Reporting and Analytic Services deliver pre-defined and configurable dashboards and reports with options for self-service ad hoc reporting capabilities to satisfy all business and analytic reporting needs. Dashboards are designed to provide powerful easy-to-understand data visualizations that will enable DHS to monitor and track KPIs and statistical information based on federal and State guidelines. We can tailor all of our dashboards and reports to meet your specific needs resulting in accurate and detailed reporting.

Parameters are used across reporting functions to compare measures and create calculations and filters to make dashboards and reports more interactive. The parameter control feature enables authorized users to modify existing values to view and combine data in multiple ways. Our dashboards and reports include basic parameter controls to allow user friendly drill-down and roll-up capabilities.

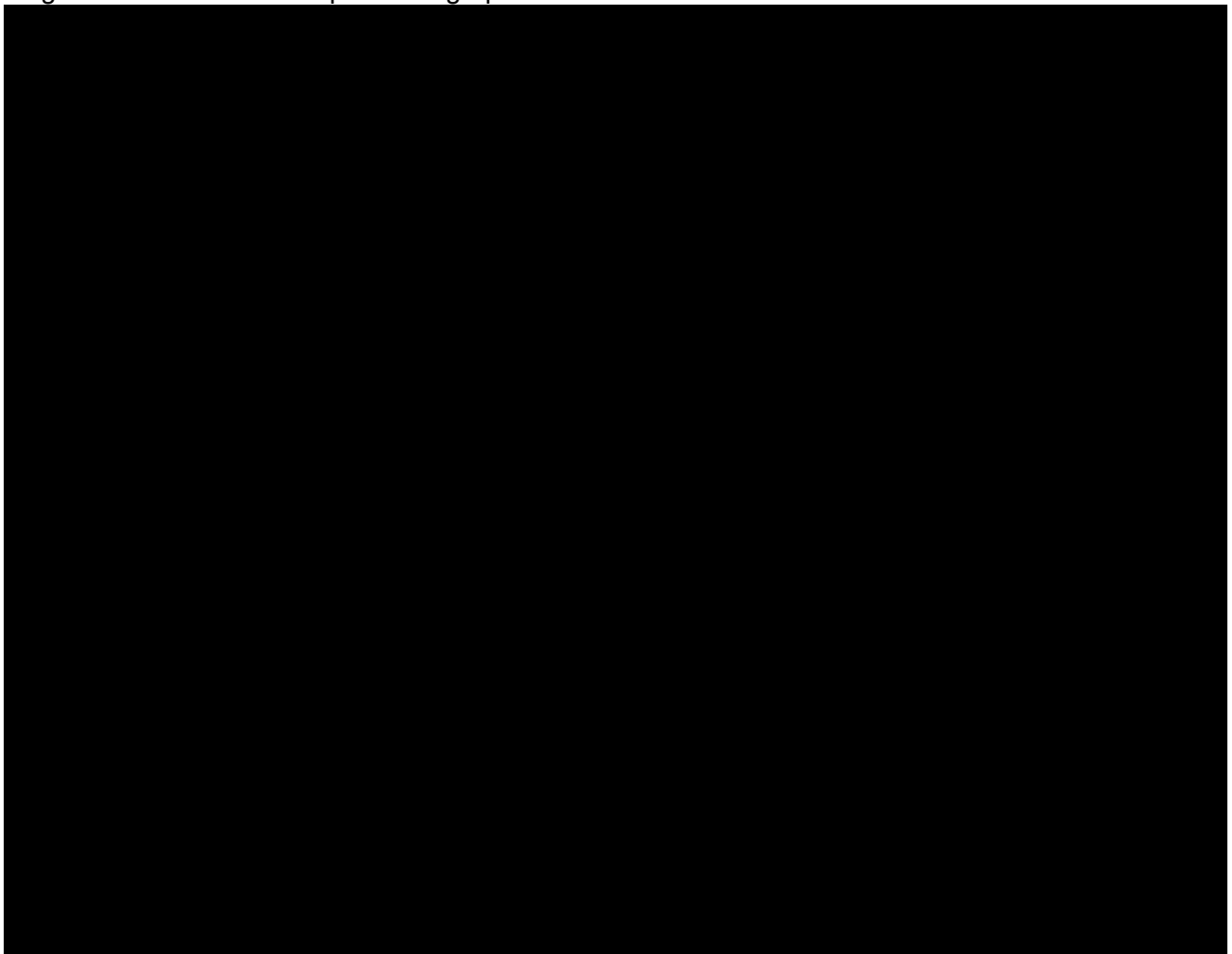
Authorized users have options to save dashboards and reports, including user-defined views in various formats. Static reports and dashboards can be modified, enhanced and published by authorized users with ad hoc rights to meet agency requests.

Our ad hoc reporting features will enable DHS to create, edit and deliver ad hoc reports in a simplified and user-friendly way. Unlike traditional reporting systems commonly used across government agencies, our system creates opportunities for technical and non-technical users to maximize the use of data to analyze trends and use results to produce real-time dashboards. Authorized ad hoc report users can modify existing reports, including colors, data visualizations, tables and data elements. Through access provisioning, DHS can designate multiple levels of access to ad hoc report users to address variations in access across the system users.

Our pre-defined dashboards provide an interactive, easy-to-use method to manage applications, caseloads and monitor performance across all programs. The native tab bar feature enables users to toggle between multiple dashboards quickly. Flexible configuration options are available to insert state-specific logos or color schemes to meet state design specifications and maintain a consistent experience across the system. The following screenshots illustrate examples of the types of dashboards our services provide.

Demographics Dashboard

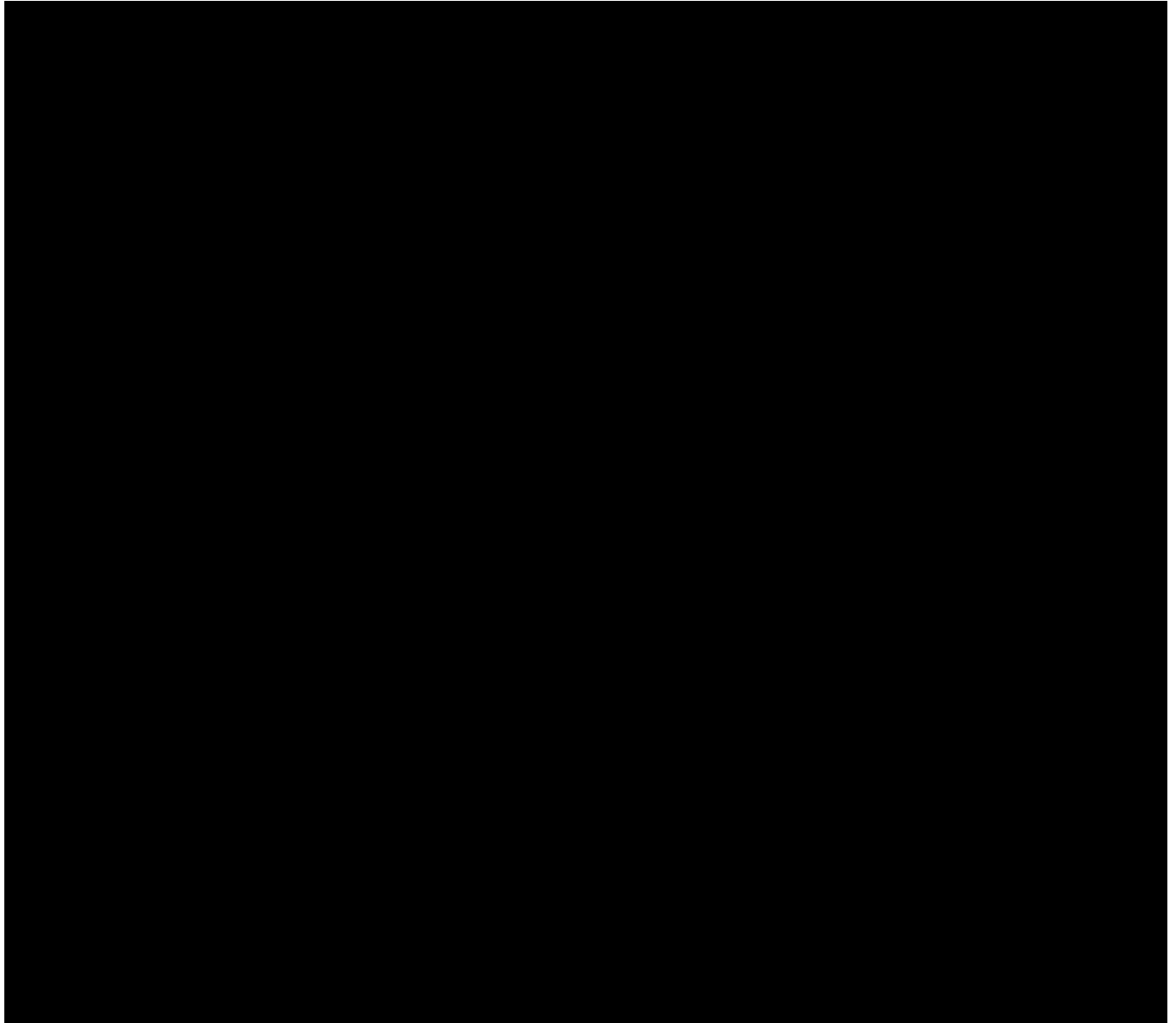
The Demographics Dashboard will enable DHS management to understand households and client demographics across programs and geographic locations. Filters provide ability to slice data and drill down in many ways to visually discover trends and make meaningful comparisons across social and demographics factors associated with program and client outcomes. Figure 52 shows an example Demographics Dashboard.



TANF (or TEA) Work Participation Rate Dashboard

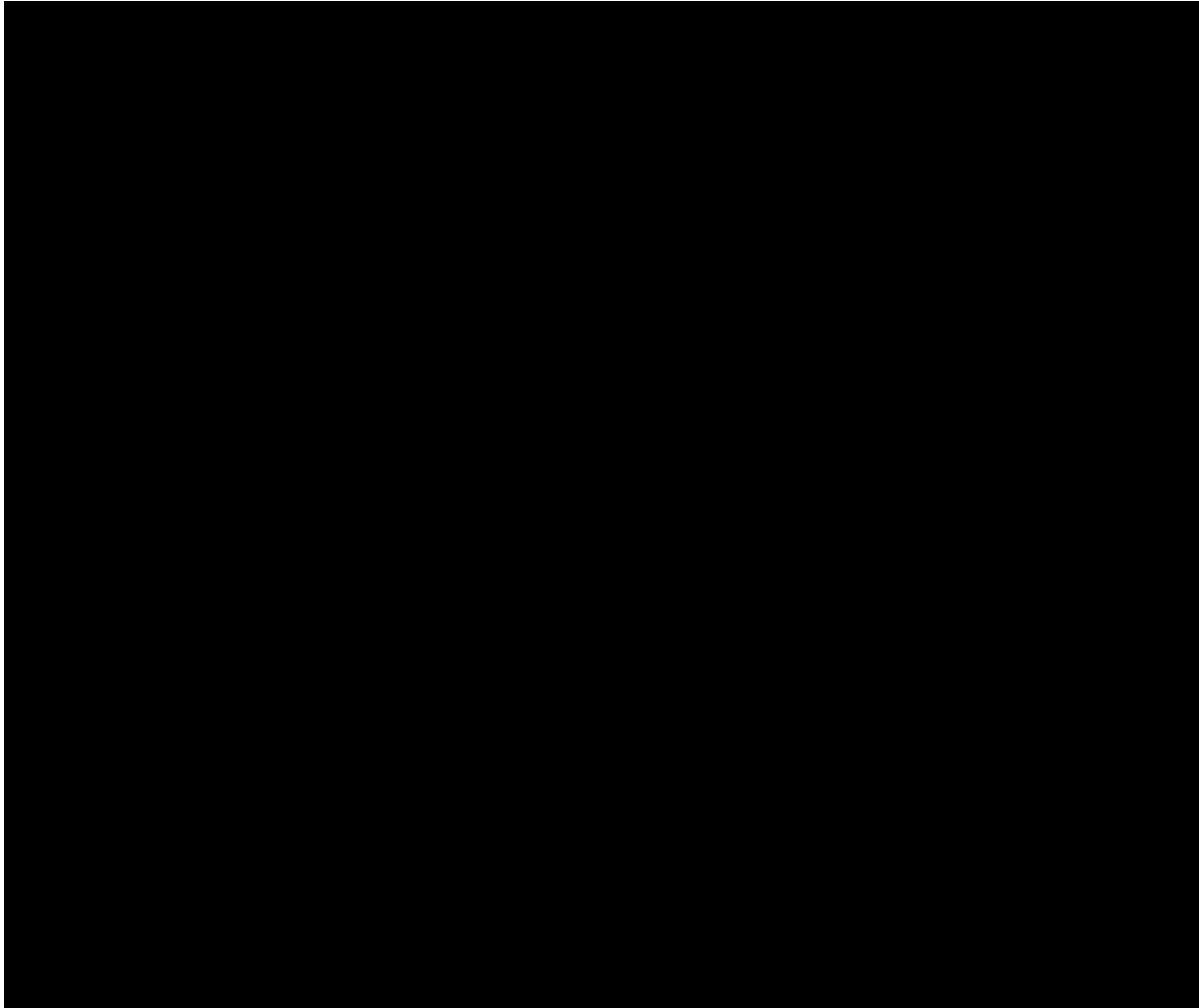
The TANF Work Participation Rate (WPR) dashboard provides data on TANF WPRs across counties and defined time periods. This will enable DHS management to track monthly rates

and implement targeted corrective actions before submitting quarterly data to Administration for Children and Families (ACF). An example is shown in Figure 53.



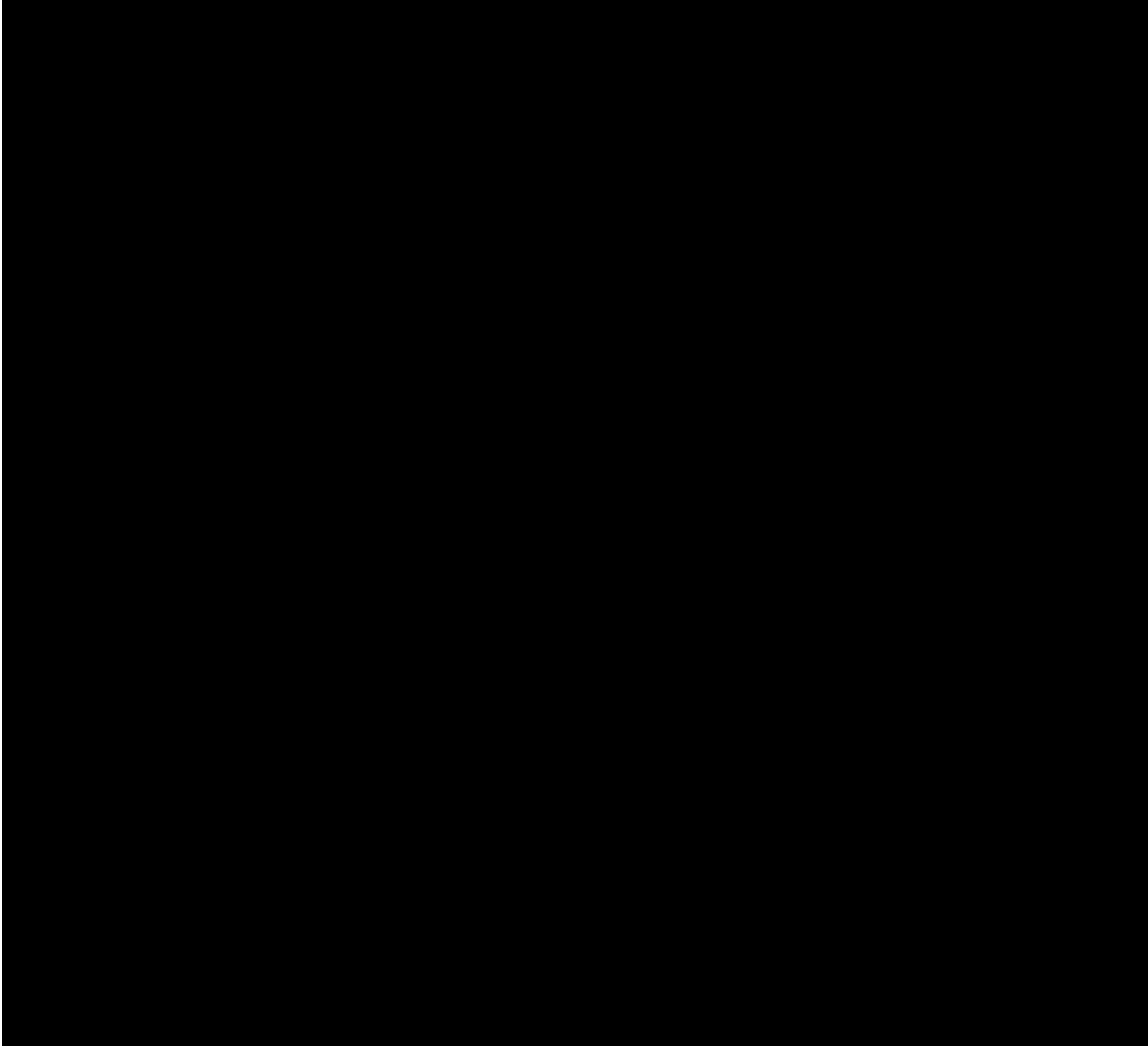
SNAP Payment Error Rate Dashboard

The SNAP Payment Error Rate dashboard provides data on monthly payment error rates that will enable DHS to identify and implement corrective actions at the county-level to make sure error rates are within Food and Nutrition Service (FNS) tolerance levels prior to federal submission. An example is shown in Figure 54.



CMS Performance Indicators Dashboard

The CMS Performance Indicators dashboard provides information on Medicaid and CHIP performance indicators. It will enable DHS to measure monthly trends and counts by program and time to prepare for monthly CMS report submission. An example is shown in Figure 55.



Creating and Saving Reports in Different File Formats

Users can create and save reports and underlying data in various formats depending on their assigned roles and permissions. After dashboards and reports are published on the server, users can download and save reports, including the underlying data, to meet their business needs.

The following formats are available:

- Workbook
- PDF
- PNG
- XLS
- CSV
- Print

External Data Set Upload for Integrated Reporting

The system integrates the primary reporting data source with external sources using common identifiers to join and blend data. This functionality promotes interoperability by allowing authorized users to conduct analyses across multiple data sources to identify causal relationships and associations.

The reporting solution uses its native connectors to access and combine commonly used files, servers and data sources:

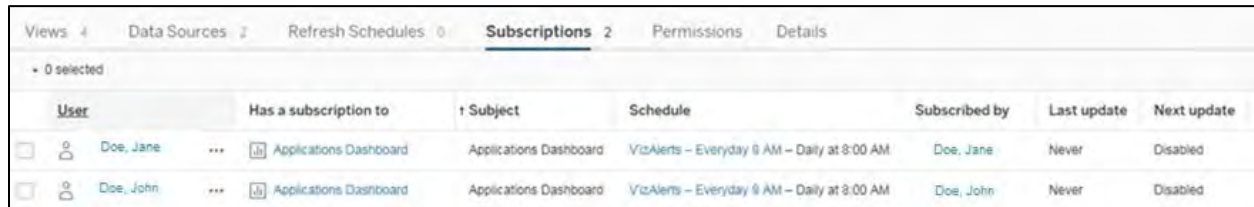
- **File systems:** CSV, Excel
- **Relational systems:** Oracle, SQL server
- **Cloud systems:** Salesforce, Google, Windows

Email Report Delivery

Report dissemination can occur by email in accordance with federal and State data security and encryption policies. System administrators can use parameters to schedule automatic emails by date, type and user.

Automatic Report Generation and Distribution on Predefined Schedule

Reports are automatically generated and delivered to authorized users based on agency schedules and reporting time periods. Users can subscribe to reports and dashboards to receive electronic notifications when updates are made to reports. Figure 56 shows an example of the view report users see when managing their reporting system subscriptions.



User	Has a subscription to	Subject	Schedule	Subscribed by	Last update	Next update
<input type="checkbox"/> Doe, Jane	Applications Dashboard	Applications Dashboard	VizAlerts - Everyday 9 AM - Daily at 8:00 AM	Doe, Jane	Never	Disabled
<input type="checkbox"/> Doe, John	Applications Dashboard	Applications Dashboard	VizAlerts - Everyday 9 AM - Daily at 8:00 AM	Doe, John	Never	Disabled

Figure 56. User Subscription View.

Our Reporting and Analytic Services enables users to subscribe to dashboards and reports to receive updates and alerts when new content or data is added.

Report Saving Attachment to a Client Record

Authorized reports are produced in various formats and can be attached to a client's record through the Optum IE Agent Portal case and client summary view.

List of Available Standard On-line Reports with Description

Within the reporting solution, a master list of all standard reports, including descriptions, can be generated for authorized users to access. Detailed report descriptions with options to modify are available to provide users report background information.

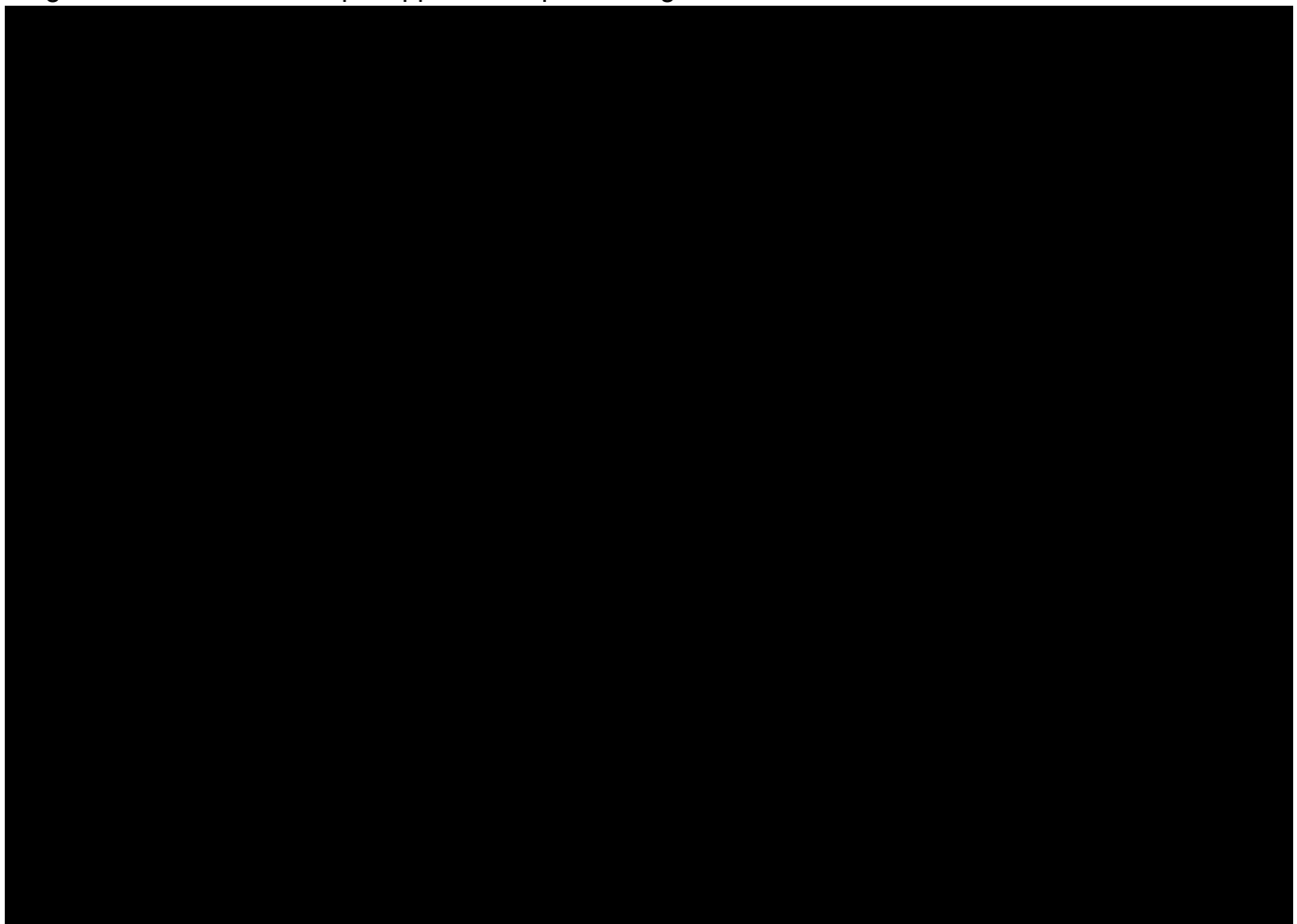
Future Case Action and Requirement Projection

Extensive analytic capabilities are used to predict case actions and requirements to improve processes and efficiencies across the AR IE-BM. Using case and longitudinal data, our Reporting and Analytic Services identify trends in case actions including outcomes. These

capabilities assist agency staff members to complete their daily tasks and identify opportunities for process improvement.

Real-time Application Processing Reporting and Analysis Capabilities

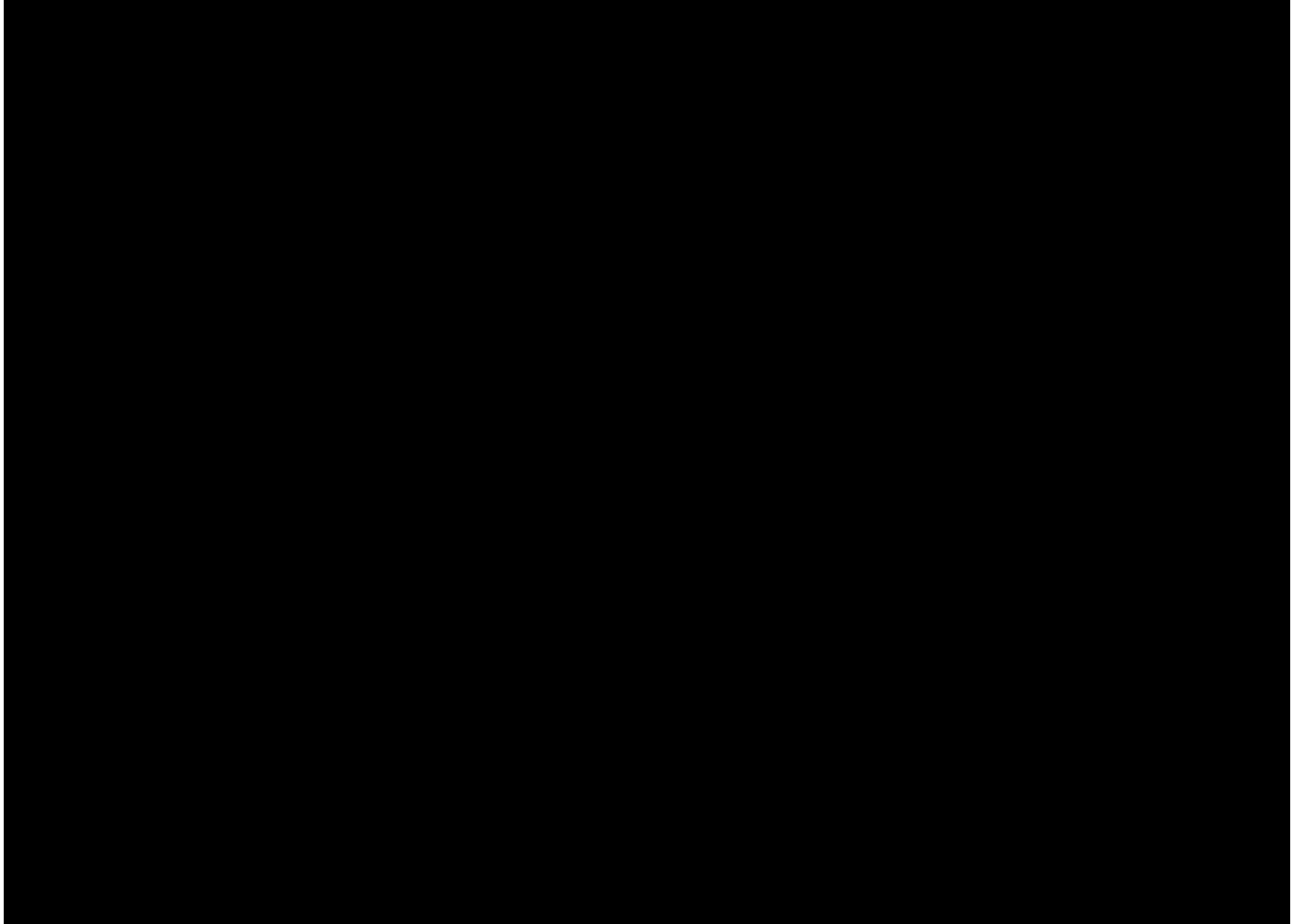
Our pre-defined Application Processing Dashboard will enable DHS to monitor application processing times in real time to reveal trends and target areas for improvement. This dashboard provides visual representation of applications by status, processing times and decisions with configurable options to filter by time, program, county, team/office and worker. It includes performance metrics, such as mean and median processing times, and uses meaningful color schemes to indicate strengths, cautions and areas that need work. This dashboard makes comparisons and determinations on fulfillment of processing times according to federal regulations with the option to configure based on state-specific processing regulations. Figure 57 shows an example applications processing dashboard.



Different Dashboards and Reports by User Type

Our pre-defined dashboards and reports are designed to span across multiple user types and roles with options for configuration. Dashboard, report and filter permissions are enabled or restricted to allow access to information based on DHS-defined criteria. Users can modify dashboard and report templates and/or create user-specific views to tailor dashboards and reports to meet their needs.

Using role-based access, administrators can grant and restrict access to users based on DHS-defined user criteria. For example, if DHS would like to restrict access to worker data based on the county supervisor, we can create roles and disable filters so that county supervisors can only see information for their direct reports. Figure 58 illustrates an example of a dashboard with configurable role-based filters.



Required Federal and State Report Generation

ACF, CMS and FNS data reporting requirements are an integral component of our Reporting and Analytic Services to adhere to federal and state regulations. Using federal and state report specifications, we prepare data reports and files and transmit them electronically or by paper according to defined frequencies and security regulations.

Additional Reporting Capabilities and Key Features

Our flexible COTS services integrate with existing infrastructure and tools to provide comprehensive reporting and analytics capabilities. Our design reduces the need for significant system customization by allowing simple and quick system changes to adapt to evolving reporting business demands. Our native and configurable features create a flexible and easy-to-use environment with automated report delivery and extensive reporting and analytic capabilities.

Features include:

- User-friendly ad hoc reporting capabilities
- Real-time and batch reports
- Pre-defined reports and interactive dashboards with customizable tool tips
- Adheres to all federal accessibility requirements (i.e., Section 508 of the Rehabilitation Act)
- Flexible role-based access, including view and editing capabilities
- Various report and data formats (e.g., PDF, PNG .XLS, .CSF, paper)
- Access to underlying data and integration with external data
- Customizable user subscription to data/reports/dashboards
- Geo-spatial analysis
- Compliance with federal and state rules (e.g., ADA, HIPAA, Federal Tax Information)
- Electronic and automated report delivery
- Customizable filters and sort features
- Pre-defined federal-based key performance indicators with options for customization
- Drill-down and roll-up capabilities: demographics, errors, rates, locations, time, applications and cases
- Pre-defined report and dashboard templates

Our Reporting and Analytic Services core business capabilities include the following:

- Agency effectiveness: Reporting capabilities across state agencies to manage operations and performance; includes drill-down and roll-up capabilities and customizable parameters to discover trends and support agency decisions
- Agency management and operations: Reports to assist agency staff with workload management and develop a deeper understanding of households and client characteristics; includes key performance metrics and real-time dashboards for application processing, case information, eligibility overrides, claims and client demographics. Examples include:
 - Eligibility Override Report
 - Demographic Report
 - Claim Report
 - Renewal Dashboard
 - Program Churn Report
- Staff performance: Reports to assist with performance reviews; includes configurable key performance indicators to track trends in performance; and identify strengths and areas of improvement. Examples include:
 - Staff Development and Performance Dashboard
 - Agency Development and Performance Summary Report

- Agency worker caseload: Reports to assist agency staff with eligibility determination, enrollment and case status to manage overall work load
- Appeals and fair hearings: Reports to monitor the number of appeals, reasons and final decisions such as the following examples:
 - Appeals reports
 - Fair Hearings reports
 - Outcome reports
- Audits: Reports to prepare audit case sample information, identify errors and results
- Usage: Reports on user utilization across portal functions to understand system usage
- Cross-program and statistical reports: Reports with easy to understand graphics to analyze cross-program totals and statistics

Program effectiveness: Reporting to validate adherence to federal and state regulations; provides multiple formats and frequencies to deliver reports according to federal regulations such as:

- SNAP: Reports to comply with FNS submission requirements; includes dashboards and reports to monitor program performance such as payment error rates, work participation and participation totals. Examples include:
 - FNS Issuance and Participation Estimates
 - FNS Employment and Training Reports
 - FNS Quarterly ABAWD Report
 - FNS Program and Budget Summary
 - FNS Food Participation by Race
- TANF: Reports to comply with ACF submission requirements; includes dashboards and reports to monitor program performance such as work participation rate and participation totals. Examples include:
 - ACF Caseload Reduction Report
 - ACF Financial Report
 - ACF Data Report
- Medicaid/CHIP: Reports to comply with CMS submission requirements; includes dashboards and reports to monitor CMS key performance indicators and eligibility by group

System Effectiveness: Reporting to verify optimal system operations and performance such as:

- Compliance: Reports to monitor system operations and performance and to provide insight on trends and make recommendations on system adjustments
- Logs: Logs to track login attempts and system usage, such as the following examples:
 - Usage reports
 - Manual versus Automated Processes Report

- Login reports
 - Mass Change reports
- Batch reports
- System Performance Report

Analytics: Employing extensive statistical methodologies to maximize the use of data; includes prescriptive, predictive and diagnostic analytics to understand populations, track performance, make fact-based decisions and predict future trends

Analytics include:

- Fraud and abuse: Innovative analytics capabilities to combat fraud and abuse across programs; includes match reports and tracks trends in unusual activity and outliers to guide investigation efforts and make sure funds are spent according to state and federal regulations. Examples include:
 - Loss/Replacement Benefits Report
 - Match Reports
 - Retailer Reports
- Outreach: Analytics to quickly identify clusters of customers and families across the State who are potentially eligible for additional programs and services; enables the State agencies to develop evidence-based outreach strategies to make sure eligible individuals are receiving assistance. Examples include:
 - Potentially eligible families and persons report
 - Referral Reports
- Program: Analytics across agency programs to support effective policy adherence and recommendations
- KPIs: Pre-defined and agency-specified KPIs to track performance using real-time data

1.14.2 Mobile Reporting

Significant System capabilities in this area include:

- Providing real-time dashboards to DHS Executives via mobile devices
- Generating pre-populated forms and notices

Instructions: The Vendor should describe its approach to addressing Mobile Reporting requirements.

This response addresses requirements FR13.41-13.48 contained in Tab FR13 of the Functional Requirements Traceability Matrix. All eight of the requirements will be met through configuration.

Real-time Dashboards to DHS Executives using Mobile Devices

Our Reporting and Analytic Services will enable users to log in using various types of DHS authorized mobile devices, including laptops, tablets and smartphones, to view reports and dashboards. The mobile reporting feature will enable DHS executives and management to

monitor and track data in real time to better understand ongoing operations and performance. As updates are made and validated against data within reports, users will have immediate access to view changes from their mobile devices. Report users' experience will be consistent across devices and will use the same login credentials regardless of the device used to access the reporting system.

Pre-populated Form and Notice Generation

Optum Document Management Services generates and delivers all documents throughout the life cycle of a case following state guidelines and review cycles. Our services provide the ability to generate notices, letters, documents and glossy print material, which we store in our content repository. Standard templates and a common structure (e.g., logo, customer service, website and address) will enable DHS to auto-populate forms and notices using State-defined parameters and guidelines. Our solution enables users to make changes to the document before it is delivered. System users sending and receiving documents, including clients, will have the ability to electronically sign and send documents. The parties can also sign documents as needed. When needed, documents are pre-populated from the shared system database.

Our OIL interface will enable the Optum IES to orchestrate and/or reuse the State's document management solution. Optum will leverage the existing platform deployed in Arkansas and will deploy the centralized platform within the hosting infrastructure established by Optum. We will also provide ongoing operations for the platform for the duration of the contract.

Business Correspondence Flow

Figure 59 shows the correspondence flow and how all components link to this service.

CORRESPONDENCE WORKFLOW

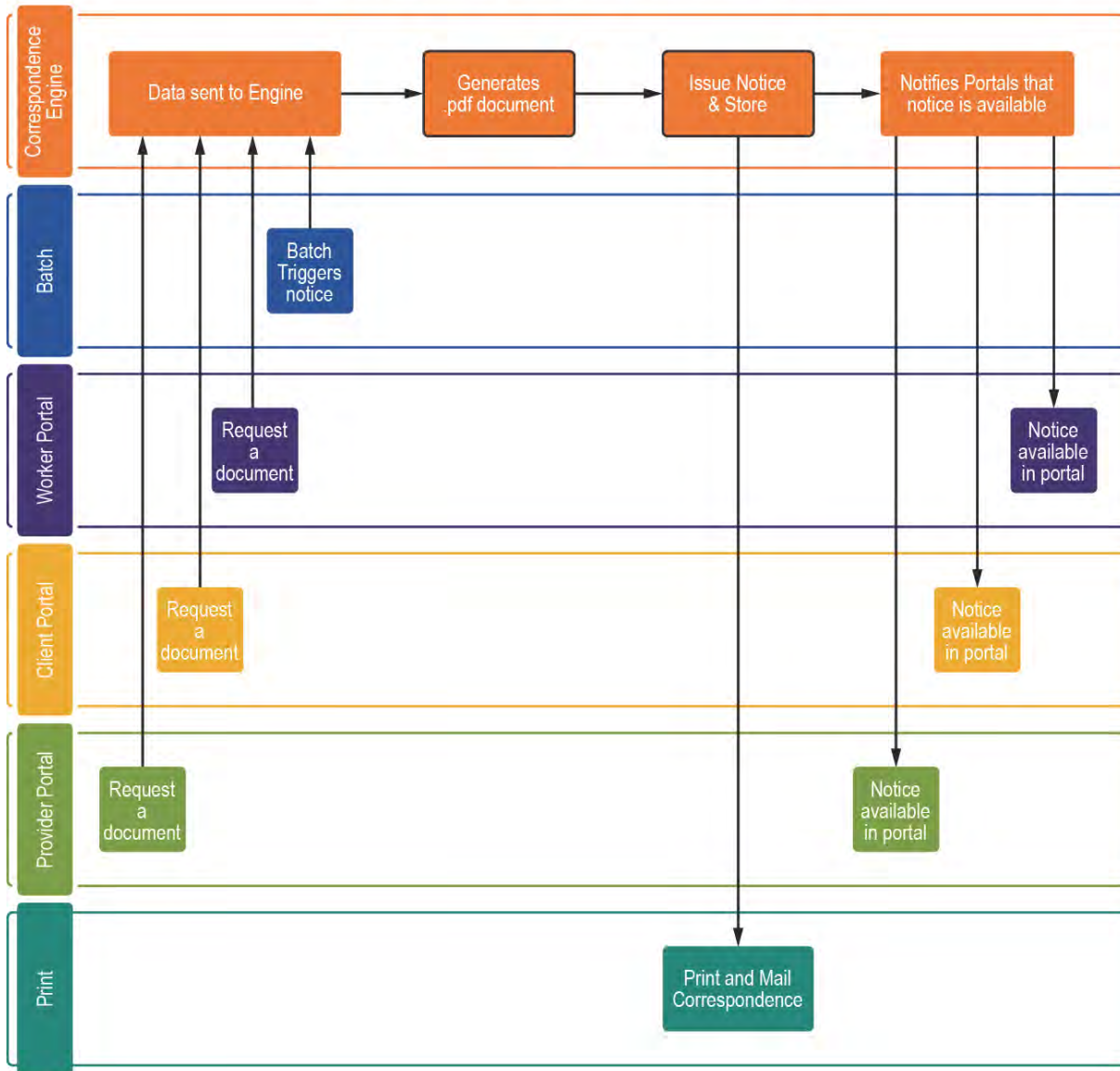


Figure 59. Business Correspondence Workflow.

All components of the Optum solution link to the Optum Correspondence Engine providing an integrated document management solution.

Optum Correspondence Engine

As a core component of our Document Management Services, the correspondence engine enables generation of documents in real time. The user can then retrieve, view, modify or print documents as needed.

Features include the following:

- Generation of correspondence, reports, forms, applications, and other documents
- Generation of certificates

- Generation of privacy and rights and responsibilities forms
- Generation of checklists and worksheets
- Creation of documents in PDF
- Pre-defined templates
- Generation of contracts
- Printing of a blank version of forms, letters and other documents
- Pre-population of forms, correspondence, applications and other documents with information from the electronic case record
- The ability to override pre-populated information
- The ability to convert auto-populated fields to mixed case

As outlined above, we will use the State's document management solution, rather than ours, to provide the document generation capabilities.

Agent Portal Notice View

All generated forms, notices and correspondence are accessible to the worker from the Agent Portal. Workers can access documents from the case or client record, as appropriate based on role. In the limited circumstances that the worker should not access a form or notice, the display of the document is suppressed.

The notice interface enables the worker to search and filter notices by name, program, type, status and date. Additional search or filter attributes can be added as needed by the business process. The status attribute indicates if the document is pending delivery, has been delivered to the client, was cancelled by a user, or has been reissued. Figure 60 shows an example of the notice interface in the Agent Portal.

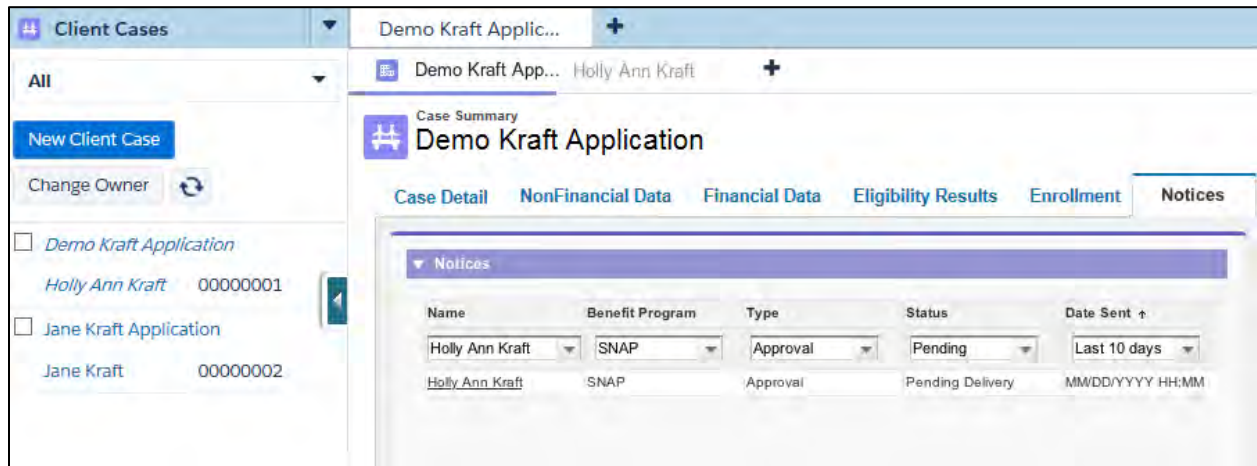


Figure 60. Notice Access through the Agent Portal.

DHS workers can access notices and forms through the Agent Portal. Complete status of the notice is also provided.

Client Portal Notice View

Clients have options to select between electronic or mail document delivery based on their expressed preferences. For clients who prefer electronic delivery, correspondence, forms and notices are accessible from the My Messages section of the self-service Optum IE Client Portal, as shown in Figure 61. When a client requests delivery by postal mail and/or program policy dictates delivery of a hard copy to clients, we transmit the document to print services and mail it in addition to the electronic version accessible on the Client Portal.

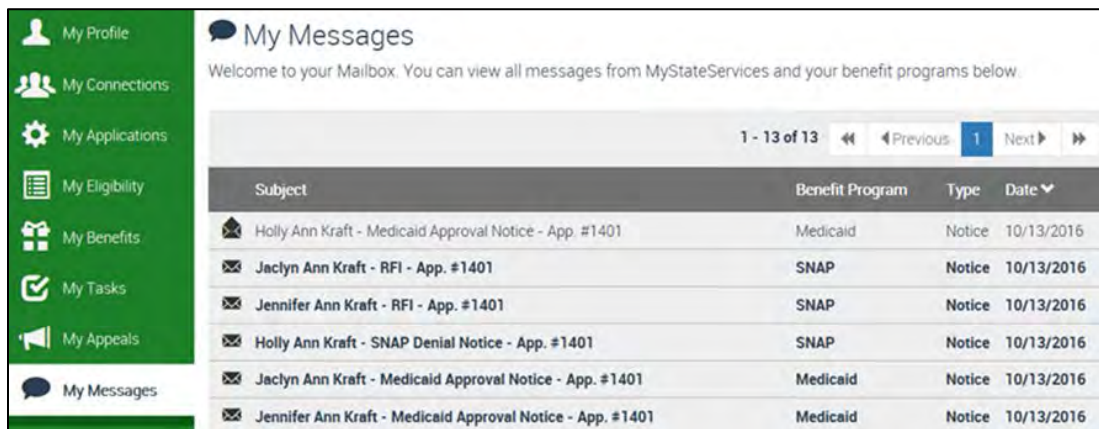


Figure 61. Access to Documents through the Client Portal.

Clients have online access to all of their program correspondence directly through the Client Portal.

When a message is created on the portal representing a notice or form, an email is sent to the client's email address on record. The email notifies the client that correspondence is available in their account. Each message on the portal summarizes the information included in the notice or form. Figure 62 provides an example of this message. The content and format of the message display is configurable based on the business or program requirement.



Figure 62. Client Portal Messaging.

Each message containing an attached document or form provides information related to the attachment.

Each notice or form is accessible through a link to the document summary. The content and format of the message display is configurable based on the business or program requirement. Within the summary, the PDF for the notice is retrievable through a hyperlink. If the notice was sent to multiple recipients (e.g., the client, authorized representative and a social worker), all links are contained in the single summary view.

1.14.3 Statutory Reports and Notices

Significant System capabilities in this area include:

- Providing all notices/reports in required languages
- Providing mandatory SNAP reports
- Producing mandatory fiscal reports

Instructions: The Vendor should describe its approach to addressing Statutory Reports and Notices requirements.

This response addresses requirements FR 13.49-13.54 contained in Tab FR13 of the Functional Requirements Traceability Matrix. All of the requirements in this section will be met through configuration.

Notices and Reports in Required Languages

We can produce and translate reports and notices into languages other than English, such as Spanish and Marshallese. We use pre-defined English notice and report templates to build notices in other languages to maintain a consistent look and feel. In addition, we verify and validate content to confirm accurate information and readability according to state requirements.

Mandatory SNAP and Fiscal Reports

The production of mandatory reports is a core system feature within our reporting solution. Our solution uses federal and state report specifications to develop standardized processes for the preparation and submission of mandatory federal and state data files and reports. Using selection criteria based on program reporting requirements to collect data, we format multi-level data according to specifications. We then verify and submit the data electronically or by paper to designated recipients. Our agile approach adapts to changing policies and regulations and delivers timely submission of information across federal and state departments and agencies.

The following are examples of mandatory reports we provide:

- Program federal and state financial reports
- Quality control error reports
- SNAP food participation and estimates by demographics, including race and ABAWD (Able-bodied Adults without Dependents) status
- SNAP employment and training reports
- Program and budget summary statements
- Issuance reconciliation reports
- Program monthly total reports

1.15 Work Requirements (DHS Optional Deliverable)

The State of Arkansas is considering legislation to require certain Medicaid recipients attest that they are meeting specific criteria (e.g. searching for work, training) required to continue receiving Medicaid benefits. The high level requirements include:

- Identifying clients who are receiving Medicaid who must provide information on a scheduled basis. This may include exempting a client from the reporting requirement, based on specific criteria such as:
 - Receiving income
 - Able bodied adults (e.g. ABAWDs)
 - Enrolled in E&T or TANF/TEA
 - Type of program (e.g. long term care)
- Provide a self-service mechanism for clients to report specific information confirming their participation in activities required to meet the work requirements
- Provide the ability for DHS to review and approve the client provided information
- Track when clients have not reported and proceed with required actions to terminate Medicaid benefits if they do not meet the pre-defined criteria
- Provide DHS the ability to reinstate Medicaid benefits
- Provide notices, alerts and other communications to the clients regarding the requirements, the status and other criteria

The cost of meeting these requirements should not be included in the proposal.

Instructions: The Vendor should describe how their solution will be integrated into the overall IE-BM Solution and provide DHS with their core functionality which can be utilized to support these new requirements.

Introduction

We can leverage existing related functionality within the Optum IE Solution to meet the needs for Medicaid-related work requirements. Work requirement functionality does exist in the system for other programs, such as Supplemental Nutrition Assistance Program (SNAP), and that functionality can be expanded to Medicaid as well. Self-reporting of work activities will be facilitated by the existence of a robust Optum IE Client Portal. Tracking client activity reports, allowing worker approval of those reports and acting on the activity report information could follow functionality being used to process renewals. There are no structural issues presented by the addition of this functionality.

Client Identification

Identifying clients subject to work requirements for Medicaid purposes would be a fairly straightforward expansion of the rule set in the Optum IE Business Rules Engine. Rules used to identify clients subject to work requirements for other programs could serve as a ready template. Specific rule conditions for Medicaid work requirements could be substituted or added. Medicaid rules are applied at the client level, and work requirements would simply be an additional derived eligibility factor applied to each client's eligibility result.

Some of the factors involved in determining Medicaid work requirements will likely be data elements that are already being determined for Medicaid such as eligibility group and income calculation. Other elements may need the addition of new rules, while still being based on existing client data, such as an Able-bodied Adults without Dependents (ABAWD)-type

determination. If new client data is also required, the effort will be somewhat larger to include the necessary data structure changes.

Self-Service Client Reporting

The Optum IE Client Portal can serve as the vehicle for client reporting of work requirement activities. Clients are currently able to select from multiple menu options on the portal. Reporting on work activities could be added as another selection. Appropriate screens and data fields would be designed and added, which would be a relatively straightforward effort to augment the existing Client Portal functionality.

DHS Review and Approval

Data entered in both the Client Portal and the Optum IE Agent Portal is stored in a common database, providing a link between the portals. The data is available to both portals, restricted appropriately by security roles and a selective user interface. Data entered by the client in the Client Portal regarding work activities would therefore be readily available for viewing by a DHS worker. In the Agent Portal, a data field could be added to allow the worker to indicate confirmation of a client's compliance with work requirements. That compliance data would then be provided to the rules engine for appropriate eligibility result determination.

Client Tracking

Tracking client reports of work requirement activities could leverage functionality for tracking renewal processing. For renewal processing, a renewal completion status will be maintained for each renewal that is due. That completion status is used to determine the actions needed for the program, whether issuing a notice, renewing the household for a new certification period, or terminating the program. The worker is involved in setting the completion status. Other actions are automated.

Client reporting on work activities could be treated with similar functionality. Various completion statuses could be maintained that would indicate whether a client has reported on work activities and would indicate the status of worker review and approval. Those completion statuses could then be used in automated processes to send notices or terminate the client's participation in the program, if appropriate.

Medicaid Benefits Reinstatement

Reinstatement functionality will be included in the AR IE-BM. We understand reinstatement to be a process for reopening a closed case without the need of a new application and without a gap in coverage or benefits. This functionality will be used with renewal processing for some programs. For example, if a program has been terminated due to lack of a complete renewal, but the client submits a complete renewal within 30 days of the termination, the program may be reinstated, retroactive to the termination date. Similar reinstatement functionality could be applied to instances in which a client is terminated from Medicaid for not complying with work requirements, but subsequently complies within a defined time period.

Client Communications

Existing functionality in the AR IE-BM can easily be leveraged to provide information and notices to clients regarding Medicaid work requirements. For example, appropriate text can be added to the standard Notice of Action that will inform the client of any work requirements. In addition, new notices can be designed with text specifically tailored to the processing of work

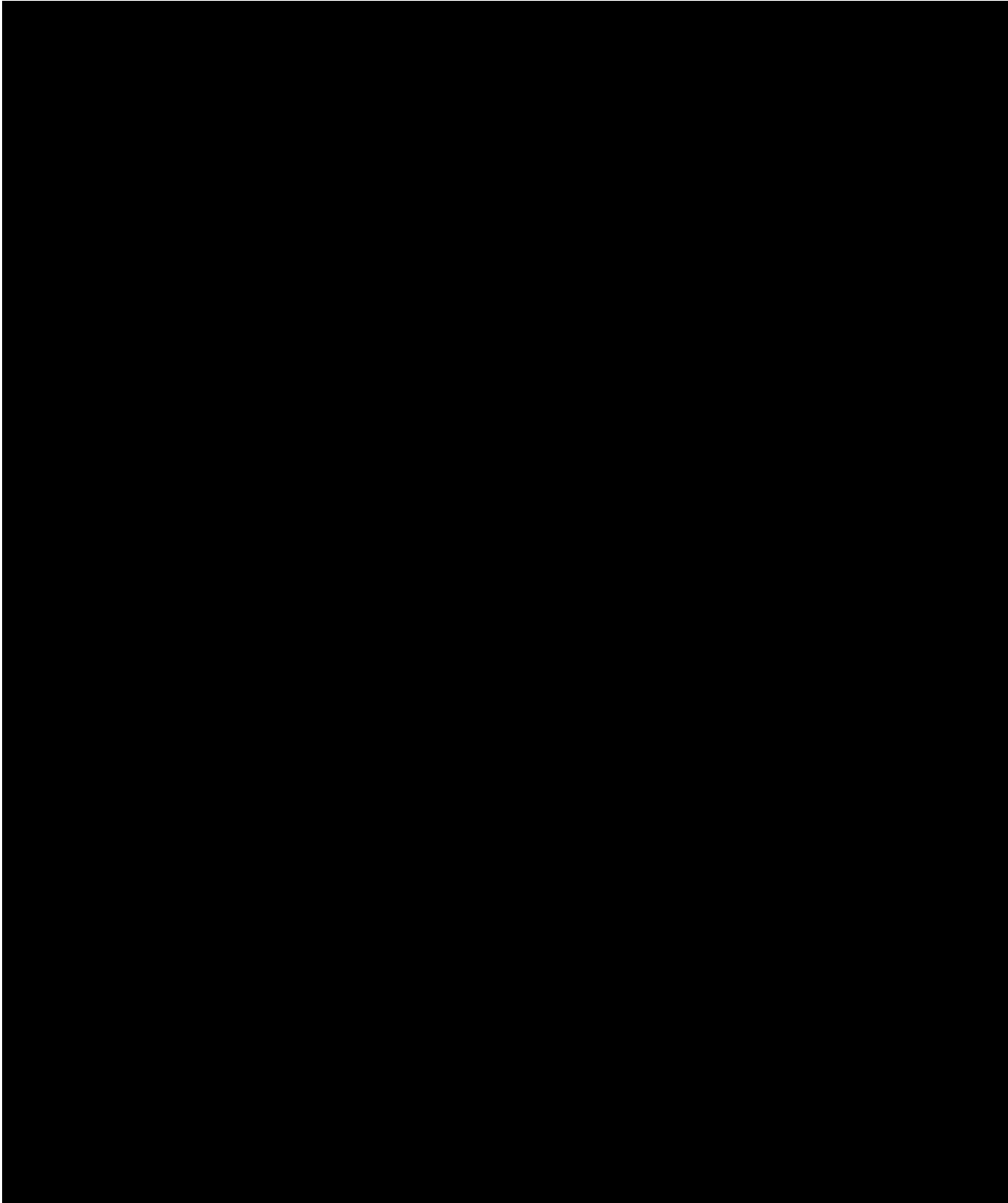
activity reports. These notices could be triggered from the processes associated with activity report tracking. New notice text would be composed using the standard methods of generating static or dynamic text that are used for all notices.

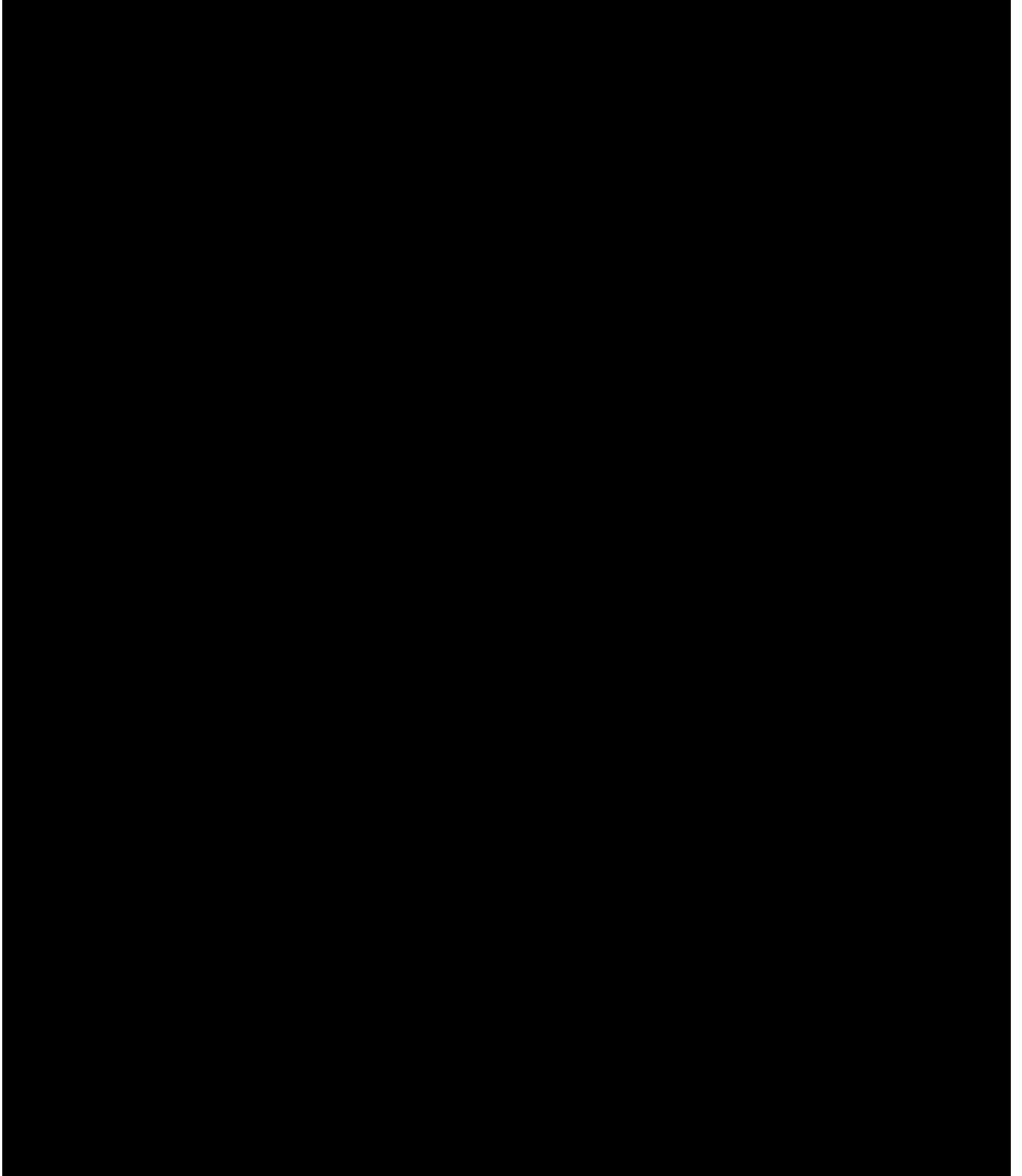
Standard notice functionality will include the ability to issue physical notices through the mail or electronically through the Client Portal. Notice functionality will also allow a DHS worker to manage the notices in a number of ways, such as adding comments to a notice or cancelling or resending a notice. All of this functionality would be available for client communications regarding Medicaid work requirements.

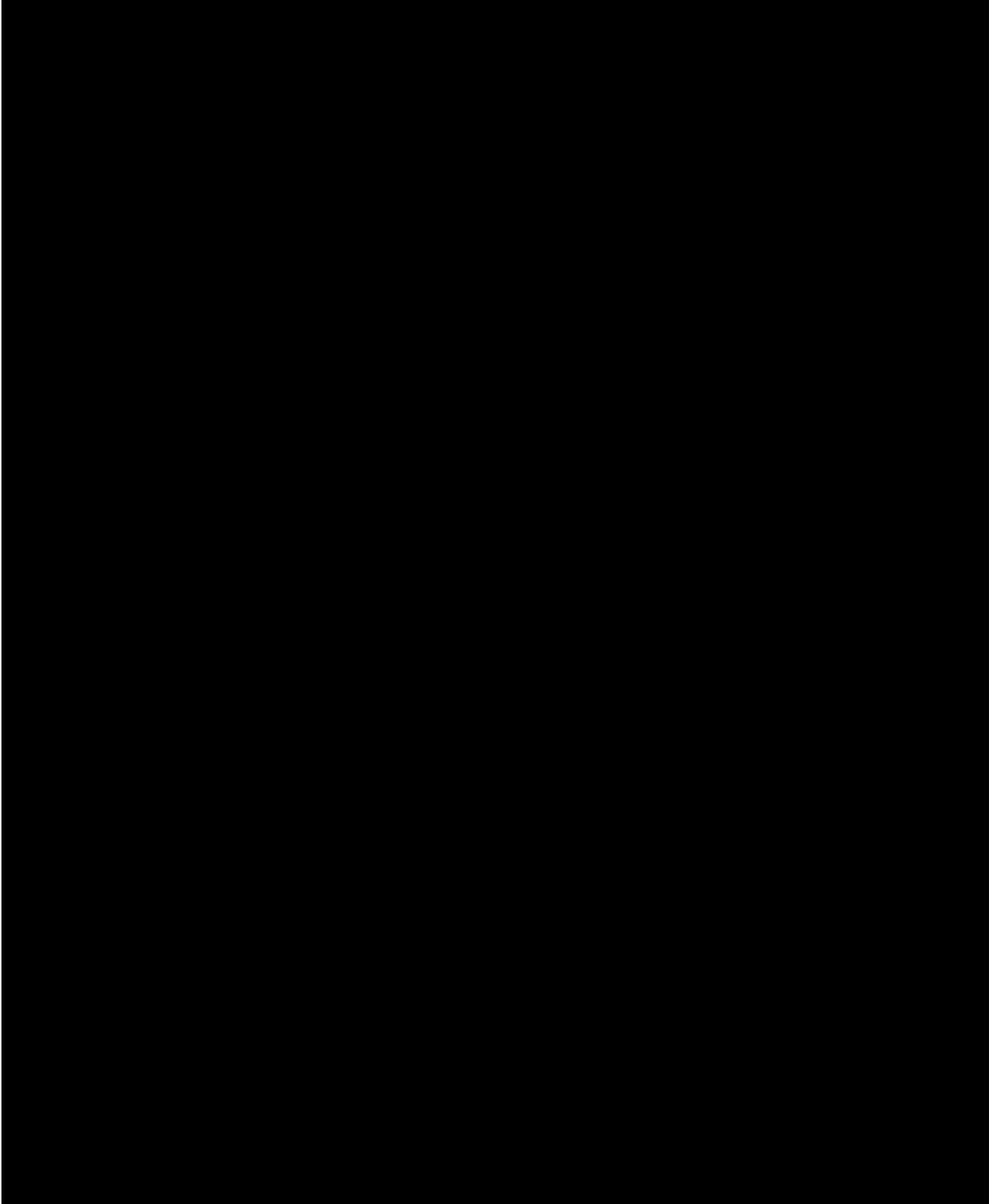
2.0 Value Added Services and Benefits

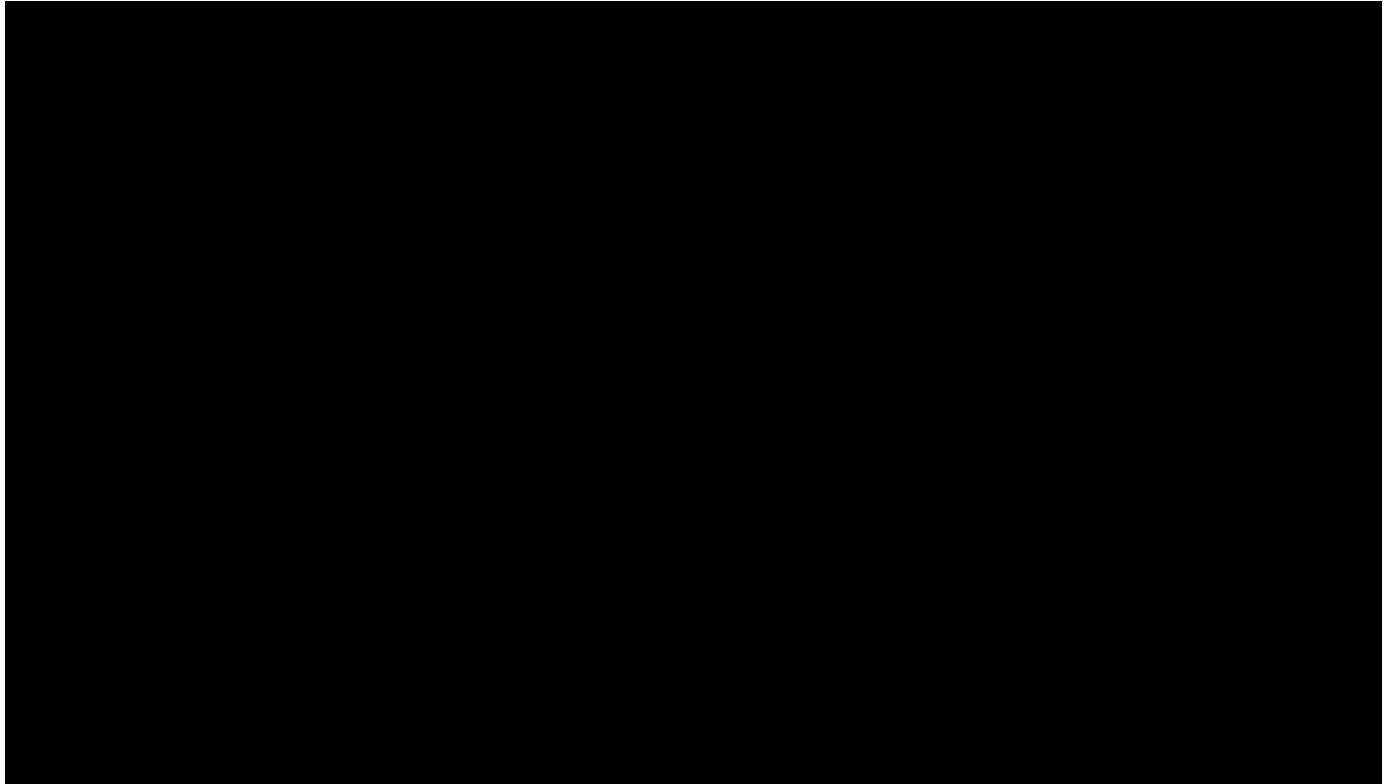
The Vendor may describe any services or deliverables that are not required by the RFP, and thus at no additional cost to DHS, but that the Vendor proposes to provide that will add value to the Project and further differentiate the Vendor from other bidders. The Vendor is not required to propose value-added benefits, but inclusion of such services may impact the Vendor's overall evaluation.

Instructions: Please describe any value added services or deliverables the Vendor is including as part of its Proposal that is at no additional cost to DHS.

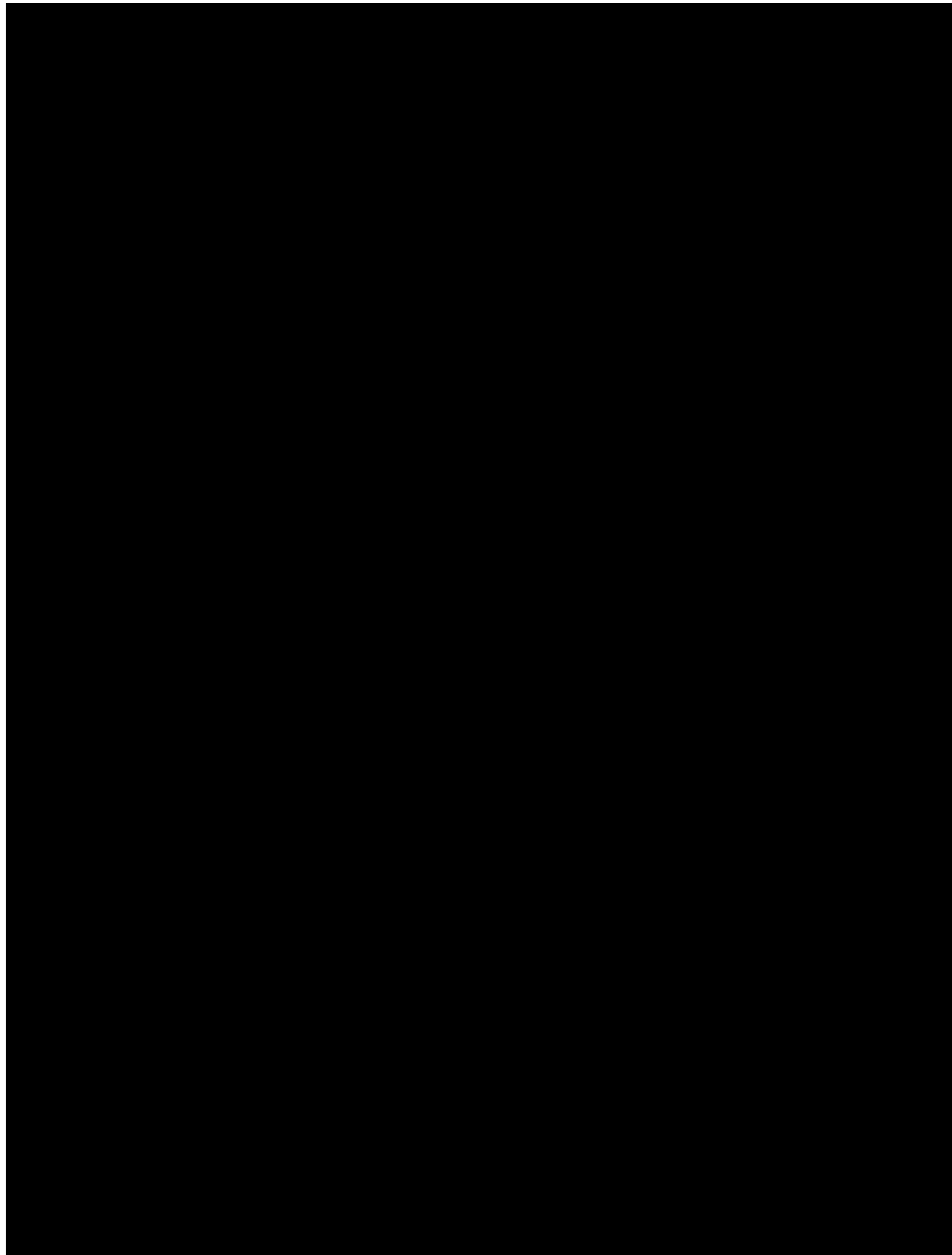


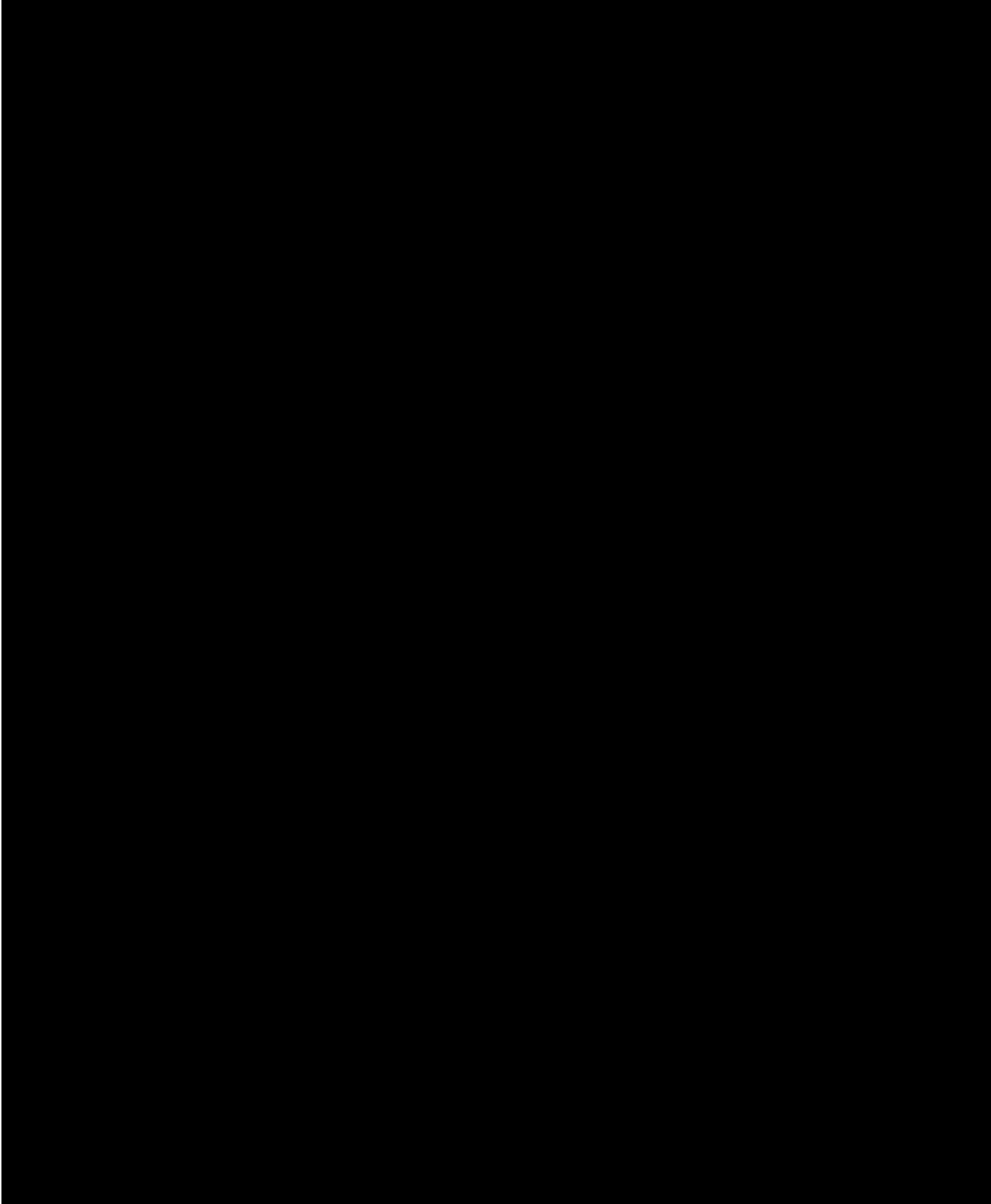


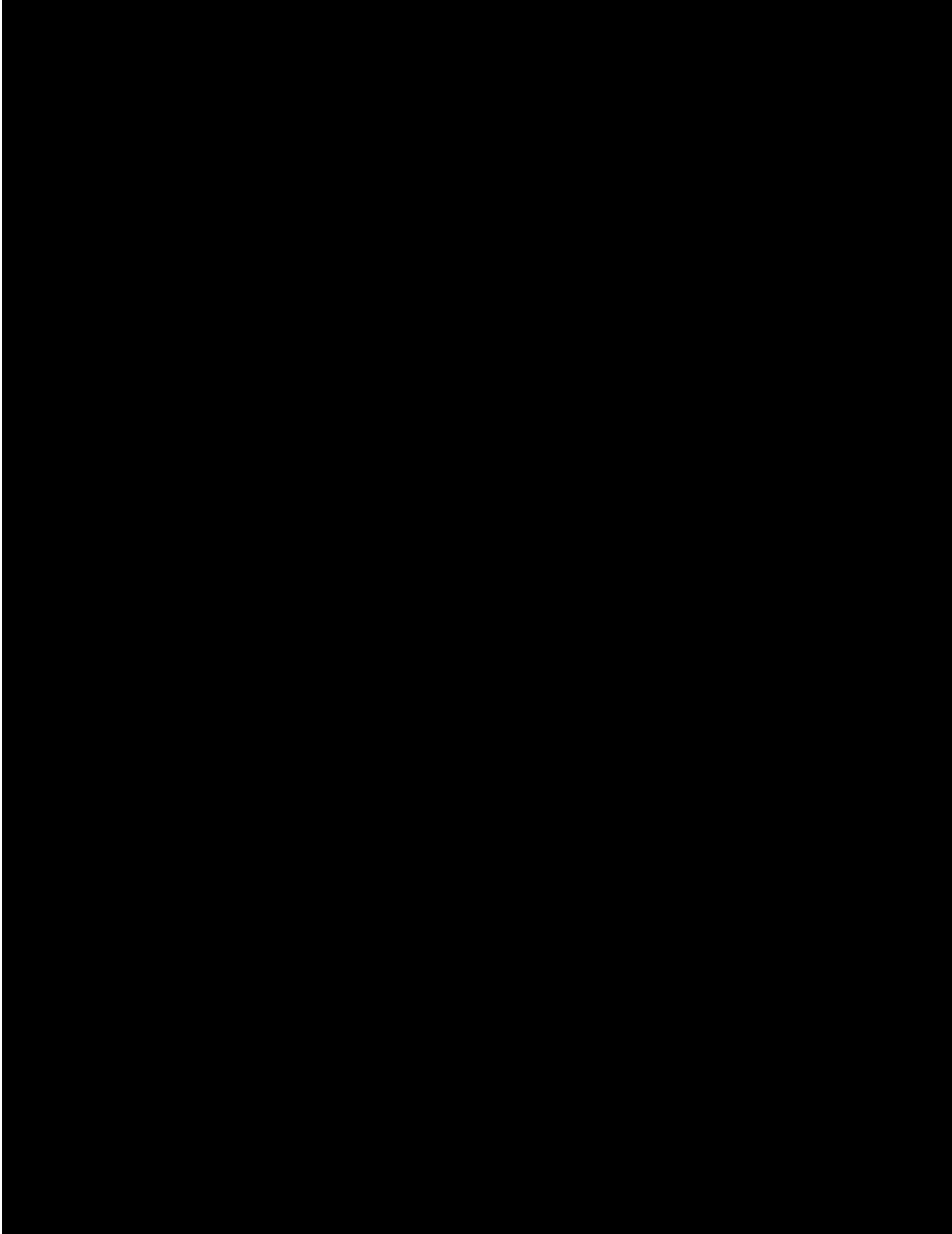


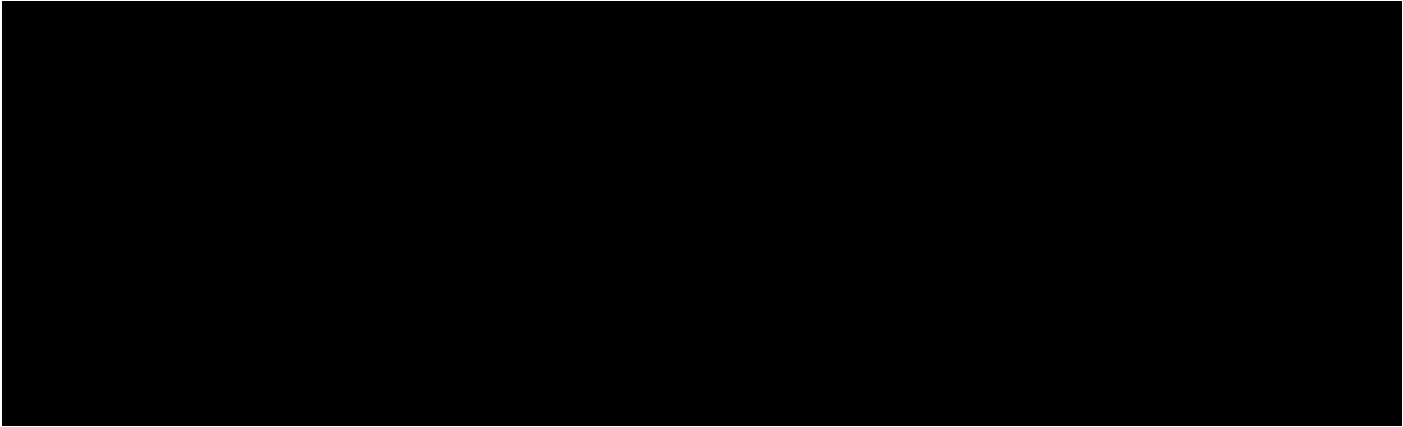


¹ The EquiKNOX Criticality Score (ECS) helps project teams determine where to concentrate their time and effort to get big wins. ECS provides data-driven prioritization and grouping of critical transition elements. ECS is derived by the following attributes: 1) Technical Complexity, 2) Multidisciplinary Resource Requirement, 3) Impact to Operations, 4) Maturity and Stability, and 5) Schedule.









3.0 Functional Requirements Approach Assumptions

Instructions: Document all assumptions related to this Response Template in the following Table. Add rows as necessary. Do not change any of the completed cells. Any changes to the completed cells could lead to the disqualification of the Proposal.

Table 1. Functional Requirements Assumptions

ITEM #	REFERENCE (Section, Page, Paragraph)	DESCRIPTION	RATIONALE
1.	T7 (all sections, various pages)	Within this response, we refer to “Optum IE Client Portal” and “Optum IE Agent Portal” to distinguish between the functionality available to clients (i.e., the general public) and DHS staff (i.e., agents).	We would like to draw the distinction between the functionality available to the general public through the Client Portal and that available to DHS through the Agent Portal.
2.	T7, 1.3, pages 40-42, “Public Access to Anonymous Pre-screening Tool” section	Assume that Optum has designed a solution capable of anonymous pre-screening that can be configurable to meet the requirements of DHS.	Optum will provide an approach to allowing applicants and clients access to anonymous pre-screening through the Optum IE Client Portal.
3.	T7, 1.11, pages 91-92, “Introduction” section	Assume that the Optum IE Solution workflow framework is compatible with DHS medical review/disability certification workflow processes and can be successfully configured to fully support DHS requirements.	Medical review/disability certification is not native to the Optum IE Solution.
4.	T7, 1.11, page 93, “Medical Reviewer Generate and Issue Electronic Medical Record Request to Provider” section	Assume that the Medical Review Team requests different types of medical records depending on the type of potential disability.	To certify a developmental disability, the team will likely need IQ tests or other types of developmental test results. For a physical

ITEM #	REFERENCE (Section, Page, Paragraph)	DESCRIPTION	RATIONALE
			disability, the team will need tests and test results such as lab tests and X-rays. For a mental health issue, they will need psychiatry or psychological reports.
5.	T7, 1.11, pages 93-94, “Medical Reviewer Generate and Issue Electronic Medical Record Request to Provider” and “Notice Generation to Applicant when Provider has not Provided Sufficient Medical Records” sections	Assume that Arkansas has an exception process for providers who fail to respond to a request for medical records.	If a provider never responds to a records request, the State has a process to obtain the records by another avenue. The client should not be disadvantaged because the provider does not comply.
6.	T7, 1.12.1, page 96, “Overpayment and Recoupment Information from the OASIS System” section	Assume that the overpayments and recoupment processing within OASIS are compatible with those in the Optum IES such that the two components can be successfully integrated to meet DHS requirements.	Will need to integrate OASIS and the Optum IES to process overpayments and recoupments.
7.	T7, 1.14, page 111-112, “Introduction” section	Assume that all data, both within the Optum IES and within the DHS legacy systems, is accessible in real-time to fulfill the reporting requirements.	Our Reporting and Analytic Services will produce real-time dashboards and reports, when applicable.
8.	T7, 1.14, page 111-112, “Introduction” section	Assume that our Reporting and Analytic Services will integrate with existing DHS reporting and analytic capabilities.	We will leverage and build upon existing reporting functionality.
9.	T7, 1.14.2, page 123, “Pre-populated Form and Notice Generation” section	Assume that the State’s document management solution has capabilities similar to those of the Optum IES such that the State’s solution can be effectively integrated with the Optum IES to provide the required capabilities.	To produce and store documents will need to integrate the State’s document management solution with the Optum IES.

Introduction

This document captures the Technical Requirements for the State of Arkansas's IE-BM Engagement. This document should be read in conjunction with the Solution Overview section of the RFP, which documents the recommended Solution approach. Together, these requirements and the Solution Approach section must be used to create cost and schedule estimates for the design, development, implementation and ongoing support of the IE-BM System.

The Technical Requirements document contains the following sections:

- 1) Instructions
- 2) General System Behavior Requirements
- 3) Technology Requirements

Within the Technical Requirements, the requirements are categorized by area as detailed below. Each category has its own tab in this workbook.

ID	Section Title
G	General System Behavior Requirements
G1	Usability
G2	Audit and Compliance
G3	Performance and Availability
G4	Regulatory and Security
G5	Interoperability and Interfaces
G6	Scalability and Extensibility
G7	Interface List
G8	Solution Management and Administration
T	Technology Platform Requirements
T1	Presentation Layer
T1.1	Portal
T2	Business Components Layer (Requirements for these are defined in the Functional RTMs)
T2.1	Case Management Functionality
T2.2	Notifications and Alerts

ID	Section Title
T3	Application Infrastructure Services Layer
T3.1	Business Rules Management Engine / BRE
T3.2	Workflow, Business Process Management / BPM
T3.3	Enterprise Content Management / ECM
T3.4	Application Server
T4	Integration Services Layer (Proposed State Hub Architectural Components)
T4.1	Application Integration and Enterprise Service Bus (ESB)
T4.2	Data Integration, Quality and ETL Services
T4.3	MDM (Master Data Management)
T5	Data Services Layer
T5.1	DBMS (Database Management Systems)
T5.2	BI (Business Intelligence)
T6	Security and Privacy Layer
T6.1	IAM (Identity and Access Management)
T6.2	Privacy and Consent
T7	Infrastructure Layer
T7.1	Platform
T7.2	Virtualization
T7.3	Server Infrastructure
T7.4	Data Center / Hosting Infrastructure
T7.5	Network Infrastructure
T7.6	Development, Operations and Support Tools

Instructions (All Tabs)

This workbook contains Technical Requirements required by the State of Arkansas Department of Human Services for a IE-BM System. The response codes below should be used by Vendors to indicate the fit of their Solution to the State Requirements specified in this workbook. This template must be submitted as an Microsoft Excel file as part of the response to this RFP and should be thoroughly completed.

Field	Definition / Instructions
Req. #	Requirement Identification Number: This should be used to refer to requirements in correspondence. DO NOT EDIT THIS FIELD.
Requirement Description	Requirement: The detailed description of requirement. DO NOT EDIT THIS FIELD.
Requirement Met	Vendor response to whether the Technical Requirement will be met by the Vendor solution. Indicate whether the requirement, as currently written, will be met by the Vendor's proposal: Yes, Clarification. Some items on T0 must have a Yes, No response.
Solution Method	Vendor response to how the Technical Requirement will be met by the Vendor solution. Indicate how the requirement will be met by selecting one of: * <u>L</u> everaged <u>F</u> unctionality - The State Requirement will be met by leveraging/enhancing the EEF Solution functionality already configured and implemented for MAGI Medicaid at DHS * <u>C</u> onfiguration - The State Requirement will be met by configuring the proposed Solution and/or any existing DHS Enterprise assets already in production * <u>T</u> hird <u>P</u> arty <u>P</u> roduct - The State Requirement will be met by commercially available third-party software or hardware assets and is included in this proposal. Note: In the "Suggested Clarifying Comments" column, indicate the name of the proposed third-party software vendor and proposed components and indicate its compliance to DHS' technology or architecture standards. * <u>N</u> ew <u>D</u> evelopment - The State Requirement will be met through development of new software code to provide specific business or technical services where there are no leverageable off-the-shelf functionality or software assets. Note: This column is not included on the Sections (worksheets) where it does not apply
Proposed Phase	The Vendor's response to which implementation phase the requirement will be met (if multiple implementation phases being proposed). Provide the proposed phase for meeting each requirement. The Vendor must identify the phase number and schedule of proposed implementation phases within its detailed narrative response. Note: This is not included on the Sections (worksheets) where it does not apply
Suggested Clarifying Comments (for G1 to G8 and T0 to T7)	If the Response Code is set to "Clarification" the Vendor must provide clarifying comments with appropriate justification. To provide more detail regarding the approach for meeting a technical requirement or an overall section, use the Technical Requirements Approach template (Template T-9 - Technical Requirements Approach) and provide a reference to the appropriate RFP Req. #(s) in this template.

Defined Terms / Acronyms

Defined Term	Acronym (if used)	Description
American Recovery and Reinvestment Act	ARRA	American Recovery and Reinvestment Act of 2009, including any subsequent laws, rules, mandates, etc. derived from it.
Application Programming Interface	API	Application Programming Interface
Business Intelligence	BI	Business Intelligence
Business Process Execution Language	BPEL	Business Process Execution Language
Business to Business	B2B	Business to Business
Communications Management Plan		A plan that is included in overall Project Management Plan
Continuity of Care Document	CCD	An HL7 XML-based markup standard intended to specify the encoding, structure and semantics of a patient summary clinical document for exchange.
Data Dictionary		A centralized repository of information about data such as meaning, relationships to other data, origin, usage, and format.
Data Model		A form to explain the structure and relationships of data that is independent of its storage method.
Database Management System	DBMS	Database Management System to store transactional data
Demilitarized Zone	DMZ	Demilitarized Zone used for network partition
Electronic Data Interchange	EDI	Electronic Data Interchange
Enterprise Service Bus	ESB	Enterprise Service Bus
eXtensible HyperText Markup Language	XHTML	eXtensible HyperText Markup Language

Defined Terms

Defined Term	Acronym (if used)	Description
eXtensible Markup Language	XML	eXtensible Markup Language
Extract-Transform-Load	ETL	Extract-Transform-Load
Graphical User Interface	GUI	
Health Information Technology for Economic and Clinical Health Act	HITECH Act	Health Information Technology for Economic and Clinical Health Act of 2009, including any subsequent laws, rules, mandates, etc. derived from it.
Health Insurance Portability and Accountability Act	HIPAA	Health Insurance Portability and Accountability Act (HIPAA) of 2009, including any subsequent laws, rules, mandates, etc. derived from it.
Health Level Seven	HL7	A not-for-profit, ANSI-accredited standards developing organization dedicated to providing a comprehensive framework and related standards for the exchange, integration, sharing, and retrieval of electronic health information that supports clinical practice and the management, delivery and evaluation of health services. In this document, this may also refer to the standards developed and/or managed by the organization.
Hypertext Markup Language	HTML	
Hypertext Transfer Protocol	HTTP	
Information Technology Infrastructure Library version 3	ITIL v3	A set of standards used in the industry to provide infrastructure based services
Information Technology	IT	
Integrating the Healthcare Enterprise	IHE	IHE is an initiative by healthcare professionals and industry to improve the way computer systems in healthcare share information. IHE promotes the coordinated use of established standards such as DICOM and HL7 to address specific clinical need in support of optimal patient care. Systems developed in accordance with IHE communicate with one another better, are easier to implement, and enable care providers to use information more effectively. In this document, this may also refer to the standards developed and/or managed by the organization.
Internet Inter-ORB Protocol	IIOP	Internet Inter-ORB Protocol
Internet Protocol Security	IPSec	Internet Protocol Security
Local Area Network	LAN	

Defined Terms

Defined Term	Acronym (if used)	Description
Maintenance and Operations Plan		A plan that is included in overall Project Management Plan
Maintenance and Operations	M&O	Maintenance and Operations
Network Time Protocol	NTP	Network Time Protocol
Personally Identifiable Information	PII	Personally Identifiable Information
Production Release Plan		A plan that is included in overall Project Management Plan
Project Management Institute	PMI	Project Management Institute
Project Schedule		Project Schedule
Protected Health Information	PHI	Protected Health Information
Quality Management Plan		A plan that is included in overall Project Management Plan
Relational Database Management Solutions	RDBMS	Relational Database Management Solutions
Role-Based Access Controls	RBAC	Role-Based Access Controls
Secure Sockets Layer	SSL	Secure Sockets Layer
Service Level Agreement	SLA	Service Level Agreement
Service Oriented Architecture	SOA	Service Oriented Architecture
Simple Network Time Protocol	SNTP	Simple Network Time Protocol
Simple Object Access Protocol	SOAP	Simple Object Access Protocol
Software Development Life Cycle	SDLC	Software Development Life Cycle
Structured Query Language	SQL	Structured Query Language

Defined Terms

Defined Term	Acronym (if used)	Description
Test Plan		Includes: a. Unit Testing b. Functional Testing c. Integration Testing d. Security Testing e. Regression Testing f. Stress/Load Testing g. Performance Testing
Transmission Control Protocol (TCP)/ Internet Protocol (IP)	TCP/IP	Transmission Control Protocol (TCP) / Internet Protocol (IP)
Triple-DES	3DES	Triple-DES
User Acceptance Testing	UAT	User Acceptance Testing
Vendor		The Vendor, or one of the Vendors, selected and contracted to participate in planning, implementing, maintaining, enhancing, upgrading, operating, providing support, etc. of the Solution
Virtual Private Network	VPN	Virtual Private Network
Web Services	WS	Web Services
Wide Area Network	WAN	
Work Breakdown Structure	WBS	A document that is included in overall Project Management Plan

Phase Description

Phase 1 = R0 (Base technology);
 Phase 2 = R1 (Data Intake UI);
 Phase 3 = R2 (HHS programs for PI-1, PI-2 & PI-3);
 Phase 4 = Subsequent equals R3 (MDM, Reporting, etc.)

Usability

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
G1.1	The System will provide a user interface that will be simple and consistent throughout all areas and functions of the System.	Yes	C	Phase 2	
G1.2	The System will minimize the number of mouse clicks/user interactions to complete any action.	Yes	C	Phase 2	
G1.3	The System will use a Graphical User Interface (GUI) to help the user navigate to the next logical step in the workflow, or freely navigate to other parts of the System functionality, and then allow the user to return to complete the in-process task.	Yes	C	Phase 2	
G1.4	The System will speak the users' language, with words, phrases and concepts familiar to the user, rather than System-oriented terms.	Yes	C	Phase 2	
G1.5	The System will accommodate diverse populations of users including those with disabilities as per State and Federal regulations under the Rehabilitation Act of 1973. The system must be independently verified to be compliant with these regulations.	Yes	C	Phase 2	
G1.6	The System will accommodate diverse populations of users including those with Limited English Proficiency (LEP) as per State and Federal regulations. The system must be independently verified to be compliant with these regulations.	Yes	C	Phase 2	
G1.7	The System will follow real-world Arkansas DHS terminology and conventions, making information appear in a natural and logical order.	Yes	C	Phase 2	
G1.8	The System will allow the users to easily navigate to a variety of functions available to them without having to move sequentially through excessive menus and screens.	Yes	C	Phase 2	
G1.9	The System will include Drill down and Look up functionality to minimize time required for access to more detailed information.	Yes	C	Phase 2	
G1.10	The System will include Multi-tasking and Multiple window capability, including split screens. All windows will be closed and all sessions will be terminated when a logoff is pressed in one window or a session times out.	Yes	C	Phase 2	
G1.11	The System will include Search capabilities to allow retrieval by name, DOB, member ID, case number or others as defined by the State during the Joint Application development (JAD) sessions.	Yes	C	Phase 2	
G1.12	The System will include the ability to tab and mouse through data fields and screens and to change tab order.	Yes	C	Phase 2	

G1 Usability

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
G1.13	The System will provide users with a clearly marked "emergency exit" for the instances when a user mistakenly chooses a function and such "emergency exit" must be simple with minimal dialogue.	Yes	C	Phase 2	
G1.14	The System will follow standardized conventions and limit the use of words, situations, or actions that have multiple meanings.	Yes	C	Phase 2	
G1.15	The System will eliminate error-prone conditions or check for them and present users with a confirmation option before they commit to the action.	Yes	C	Phase 2	
G1.16	The System will minimize the need for users to memorize by making options visible.	Yes	C	Phase 2	
G1.17	The System will provide the option to have rollover/tooltip help or context messages and provide the option to turn off this option in the user preferences profile.	Yes	C	Phase 2	
G1.18	The System will provide all user instructions in a visible or easily retrievable location, when appropriate.	Yes	C	Phase 2	
G1.19	The System will cater to both inexperienced and experienced users and will provide accelerators (e.g. onscreen short cuts, hot-keys, alternate workflows, etc.) to speed up the interaction for the expert user.	Yes	C	Phase 2	
G1.20	The System will allow users to create shortcuts (e.g. onscreen short cuts, hot-keys, etc.) for frequent actions.	Yes	C	Phase 2	
G1.21	The System will express its error messages in plain language, precisely indicate the problem, and constructively suggest a solution.	Yes	C	Phase 2	
G1.22	The System will use colors to enhance user experience and System usability while complying with all disability requirements notated elsewhere in these requirements.	Yes	C	Phase 2	
G1.23	The System will allow the user to navigate to any functional component from a client landing page.	Yes	C	Phase 2	
G1.24	The System will alert the user with information relevant to required next steps.	Yes	C	Phase 2	
G1.25	The System will provide drop down and list boxes for all key entry, and text entry will display existing values for selection (system based auto fill) (but specifically disallow client browser based auto fill).	Yes	C	Phase 2	
G1.26	The System will accommodate point and click selection and check box entry for all relevant data entries to ensure that the user does not have to enter textual data that may already be available to the System.	Yes	C	Phase 2	
G1.27	The System will facilitate data entry and will contain pop-up list boxes for all code fields in all processing windows and allow selection of the entry with use of hot keys.	Yes	C	Phase 2	
G1.28	The System will provide field level on-screen edits with limited user override capabilities.	Yes	C	Phase 2	

G1 Usability

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
G1.29	The System will provide the ability to make fields visible/invisible depending on parameters, user rights, consent, and access controls.	Yes	C	Phase 2	
G1.30	The System will not show fields not accessible to a given user based on access rights, member consent, nor will the System show fields not in use.	Yes	C	Phase 2	
G1.31	The System will have a cursor that will automatically advance to the next logical input field when the maximum allowed numbers of characters have been entered for the keyed field or when the user presses the "Tab" key.	Yes	C	Phase 2	
G1.32	The System will provide the option of having a selection from the drop down boxes automatically and take the user to the next input field.	Yes	C	Phase 2	
G1.33	The System will provide validation checks at the time of each field entry as the default mechanism.	Yes	C	Phase 2	
G1.34	The System will identify invalid entries to the user as immediately as possible.	Yes	C	Phase 2	
G1.35	The System will provide the ability to suggest or automatically change entries that do not conform to data entry standards, to be defined in the detailed System design and meta data models in collaboration with the State.	Yes	C	Phase 2	
G1.36	The System will be designed to include only the necessary information and functionality on screens and will be based on the user's access level and the user's configuration.	Yes	C	Phase 2	
G1.37	The System will be designed to include logical transitions between screens and level of detail during navigation.	Yes	C	Phase 2	
G1.38	The System will provide templates for data entry with identified mandatory and optional data fields.	Yes	C	Phase 2	
G1.39	The System will allow incomplete data sets to be saved for completion of the workflow at a later time.	Yes	C	Phase 2	
G1.40	The System will highlight and flag required and incomplete data fields.	Yes	C	Phase 2	
G1.41	The System will include a graduated system of alert levels to allow users to determine urgency and relevancy.	Yes	C	Phase 2	
G1.42	The System will allow configuration of alerts by a user, for a user by a supervisor, and for a user by a System administrator.	Yes	C	Phase 2	
G1.43	The System will allow for the request or entry of data from external devices (e.g. tablets).	Yes	C	Phase 2	
G1.44	The System will notify the user when a source system is unavailable/inoperable and notify user that any available information about the subject being viewed is as of certain time and date.	Yes	C	Phase 2	
G1.45	The System will not require users to re-enter data due to validation errors if the system can auto-correct based on the entered data, or the user can navigate to the entry error to correct the entry.	Yes	C	Phase 2	

G1 Usability

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
G1.46	The System will enable central workflow alerts and transactional status. The System will centralize pending work items in a centralized queues and allow grouping by attributes including, but not limited to, location, type (walk in, phone) and System defined priority.	Yes	C	Phase 2	
G1.47	The System will have the capability to push messages to the intended workers without requiring them to specifically inquire for the data.	Yes	C	Phase 2	
G1.48	The System will provide a mouse-over option over State-defined fields that temporarily displays a description of the data element for the user.	Yes	C	Phase 2	
G1.49	The System will provide linked access to help functions that contain the appropriate information and search of all help information from every window, based on user profiles.	Yes	C	Phase 2	
G1.50	The System will push or link alerts/notifications to mobile devices.	Yes	C	Phase 2	
G1.51	The System will utilize standard web browser-based Thin-Client Technology that supports centralized software distribution and implementation. This must be available on commonly used browsers including, but not limited to, Chrome, Safari, Firefox and Microsoft Internet Explorer.	Yes	C	Phase 2	
G1.52	The System will maintain compatibility with the three (3) most current versions of each browser, provide data over a web browser interface (i.e., HTML over HTTP) and will include the capability to encrypt the data communicated over the network via SSL (HTML over HTTPS).	Yes	C	Phase 2	
G1.53	The System will provide the ability for on-line access by any site connected to the organization Wide Area Network (WAN).	Yes	C	Phase 2	
G1.54	The System will provide the capability for remote access in compliance with existing State/Federal connectivity/security policies.	Yes	C	Phase 2	
G1.55	The System will provide on-line system documentation that is accessible at all times including, but not limited to: a. On-line policy and procedures b. User guides c. System help	Yes	C	Phase 2	
G1.56	The System will allow an authorized user to modify/edit on-line system documentation	Yes	C	Phase 2	
G1.57	The System will provide office automation tools available based on user role. Tools include, but are not limited to: a. Word processing capabilities b. Ticklers c. Alerts/notifications d. Calendaring e. Electronic messaging f. System broadcast with ability to limit broadcast audience based on user roles	Yes	C	Phase 2	
G1.58	The System will support fuzzy search and display a match score/rating (e.g., %).	Yes	C	Phase 2	

G1 Usability

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
G1.59	The System will support uploading and attaching multiple file types to a Case record. File formats include, but is not limited to: a. jpg b. pdf c. doc d. xls e. csv f. tiff	Yes	C	Phase 2	
G1.60	The System will have no data leaks wherein a case worker who starts working on a new case will not encounter a scenario where data values from one case flow into subsequent cases.	Yes	C	Phase 2	
G1.61	The System design will accommodate rendering of the application in various form factors including Tablets and Mobile devices utilizing Microsoft, Android and Apple platforms	Yes	C	Phase 2	
G1.62	The System will be designed such that the user interface is automatically sized for an optimum view to the display dimensions of PC, tablet or mobile phone (e.g. a mobile phone user sees all information within their screen and does not need to scroll excessively to see content as the screen they are viewing was designed for a PC)	Yes	C	Phase 2	

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 Integrated Eligibility and Benefit Management Engagement (IE-BM) RFP
 RFP #: SP-17-0012
 Template T-8 - Technical Requirements Traceability Matrix

Phase Description

Phase 1 = R0 (Base technology);
 Phase 2 = R1 (Data Intake UI);
 Phase 3 = R2 (HHS programs for PI-1, PI-2 & PI-3);
 Phase 4 = Subsequent equals R3 (MDM, Reporting, etc.)

Volume 1 - Technical Proposal

Audit and Compliance

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
G2.1	The System will maintain a record (e.g. audit trail) of all additions, changes and deletions made to data in the System. In addition, a log of query or view access to certain type of records and/or screens will be maintained for investigative purposes. This should be readily searchable by user ID or client ID. This must include, but is not limited to: a. The user ID of the person who made the change b. The date and time of the change c. The physical, software/hardware and network location (IP address) of the person while making the change d. The information that was changed e. The outcome of the event f. The data before and after it was changed, and which screens were accessed and used	Yes	C	Phase 1	
G2.2	The System will allow an authorized administrator to set the inclusion or exclusion of auditable events based on organizational policy and operating requirements/limits.	Yes	C	Phase 1	
G2.3	The System will support logging to a common audit engine.	Yes	C	Phase 1	
G2.4	The System will be able to detect security-relevant events (as defined in NIST 800-53 moderate baseline, rev 4) that it mediates and generate audit records for them. At a minimum the events will include, but not be limited to: a. Start/stop b. User login/logout c. Session timeout d. Account lockout e. Client record created/viewed/updated/deleted f. Scheduling g. Query h. Order i. Node-authentication failure j. Signature created/validated k. Personally Identifiable Information (PII) export l. PII import m. Security administration events n. Backup and restore o. Audit Event Types listed in IRS 1075	Yes	C	Phase 1	

G2 Audit_&_Compliance

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
G2.5	The System will provide authorized administrators with the capability to read all audit information from the audit records in the following two (2) ways: 1) The System will provide the audit records in a manner suitable for the user to interpret the information. The System will provide the capability to generate reports based on ranges of System date and time that audit records were collected. 2) The System will be able to export logs into text format in such a manner as to allow correlation based on time (e.g. Coordinated Universal Time [UTC] synchronization).	Yes	C	Phase 1	
G2.6	The System will be able to perform time synchronization using NTP/SNTP, and use this synchronized time in all security records of time.	Yes	C	Phase 1	
G2.7	The System will have the ability to format for export recorded time stamps using UTC based on ISO 8601.	Yes	C	Phase 1	
G2.8	The System will prohibit all users read access to the audit records, except those users that have been granted explicit read access.	Yes	C	Phase 1	
G2.9	The System will protect the stored audit records from unauthorized deletion.	Yes	C	Phase 1	
G2.10	The System will prevent modifications to the audit records.	Yes	C	Phase 1	
G2.11	The System will provide logging, reporting and accessing errors and exceptions.	Yes	C	Phase 1	
G2.12	The System will provide the capability for integrating consent audit trails and data access audit trails in a consolidated searchable system for search/report to support consent rule enforcement or investigation including audit trails based on deprecated rules or policies.	Yes	C	Phase 1	
G2.13	The System will generate and protect consent audit events at the same or better levels as other data access audit records.	Yes	C	Phase 1	
G2.14	The System will support the ability to expunge data, based on predetermined business rules and/or amendments to State/Federal regulations.	Yes	C	Phase 1	
G2.15	The System will support audit trail functions with the ability to log every step in the process to a database for query and reporting purposes.	Yes	C	Phase 1	

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 Phase 4 = Subsequent equals R3 (MDM, Reporting, etc.)

Volume 1 - Technical Proposal

Performance and Availability

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
G3.1	The System will have the ability to support session replication and transparent failover using high-availability architectural options.	Yes	C	Phase 1	
G3.2	The System will be designed to support the planned Federally-compliant Solution and any anticipated expansion in scope of connectivity.	Yes	C	Phase 1	
G3.3	The System will be designed such that the System Administration staffing requirements and workload will be minimally impacted with expanded System usage.	Yes	C	Phase 1	
G3.4	The System will be built so that there is a near linear relationship between each additional server added, and the additional load that can be accommodated (load vs. capacity added), up to specified limit.	Yes	C	Phase 1	
G3.5	The System will leverage virtualization to expedite disaster recovery. Virtualization enables system owners to quickly reconfigure system platforms without having to acquire additional hardware.	Yes	C	Phase 1	
G3.6	The System will provide the ability to recover from data loss due to end user error and end application error.	Yes	C	Phase 1	
G3.7	The System will provide the ability to perform archival/incremental backups and the ability to perform open/closed database backups.	Yes	C	Phase 1	
G3.8	The System will provide tools for managing an environment that supports both high availability and disaster recovery.	Yes	C	Phase 1	
G3.9	The System will have all necessary functionalities, such as transactional processing, database back-out capabilities, backup and restore capabilities, transaction log database (point-in-time) restores, to ensure data integrity.	Yes	C	Phase 1	
G3.10	The System must be architected to support replication of the virtual machines to a secondary site so DIS can recover the environment within RTOs and RPOs	Yes	C	Phase 1	
G3.11	The System must be designed to support all batch processes and back-ups between the hours of 11pm and 7am	Yes	C	Phase 1	
G3.12	The System must be designed so all releases can be performed between 7pm and 6am except critical releases	Yes	C	Phase 1	

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Interoperability / Interfaces

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
G4.1	The System's interfaces will secure and protect (encrypt) the data and the associated infrastructure from a confidentiality, integrity and availability perspective.	Yes	C	Phase 3	
G4.2	The System will be able to support Application to Application (A2A) synchronous and asynchronous messaging using web services. The messaging capabilities will be able to support a wide variety of A2A patterns including, but not limited to: a. Data look-up and retrieval b. Data look-up with services provided by other applications c. Simple bulk data transfer to/from other Systems	Yes	C	Phase 3	
G4.3	The System's design will allow for the System to continue to operate despite failure or unavailability of one or more individual technology Solution components.	Yes	C	Phase 3	
G4.4	The System will be scalable to accommodate changes in scale including changes in user population, transaction volume, throughput and geographical distribution. The System will be capable of making any changes to the interface data elements/layouts easily, and to test those changes.	Yes	C	Phase 3	
G4.5	The System will implement, at a minimum, interfaces (real-time and/or batch) with the applications and data sources as listed in the "Interface List".	Yes	C	Phase 3	
G4.6	The System will provide the capability to perform source to destination file integrity checks for exchange of data and alert appropriate parties with issues.	Yes	C	Phase 3	
G4.7	The System's components will be committed to an advanced approach to interoperability using web services and Service Oriented Architecture (SOA) aligned with DHS and industry standards and vision for interoperability.	Yes	C	Phase 3	
G4.8	The System will integrate with External Systems (State and Federal) using a SOA by using a State Hub (an Enterprise Service Bus), responsible to monitor and control routing of message exchange between services, resolve contention between communicating service components, control deployment and versioning of services and marshal use of redundant services.	Yes	C	Phase 3	
G4.9	The System will support creation and extension of service interfaces through the use of Web Services Description Language (WSDL).	Yes	C	Phase 3	
G4.10	The System will develop/integrate services using standardized Web Services formats.	Yes	C	Phase 3	

G4 Interoperability-Interfaces

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
G4.11	The System will provide the ability to publish services and related data to be used by different types and classes of service consumers.	Yes	C	Phase 3	
G4.12	The System will provide the capabilities for a Real-Time (or near real-time) Integrated Enterprise where common data elements about the customers served (e.g., clients) and services rendered are easily shared across organizational units with appropriate adherence to State and Federal security and privacy restrictions.	Yes	C	Phase 3	
G4.13	The System will have the capability to implement synchronous and asynchronous program-to-program communication, moving messages between SOA service consumer modules and service provider modules at runtime. The ESB component may also move files, database rows and other data.	Yes	C	Phase 3	
G4.14	The System will have message and data formats that will be based on logical representations of business objects rather than native application data structures.	Yes	C	Phase 3	
G4.15	The System will have data transformations that will be to and from normalized formats. Normalized data formats facilitate composition and reduce the number of transformations that must be created and maintained. A canonical data representation that spans the enterprise can be used but is not required. A federated approach to data normalization is also possible.	Yes	C	Phase 3	
G4.16	The System will avoid point-to-point integrations. Application integration, both internal and external, will go through the Service Bus, either solution specific or enterprise.	Yes	C	Phase 3	
G4.17	All System services will be classified with one of the following values: Presentation, Process, Business, Data, Access, or Utility.	Yes	C	Phase 3	
G4.18	All System services will be reviewed, classified, and cataloged prior to use. The Documentation Artifacts will be modeled per ISO/IEC/IEEE 42010 Architecture Description Template.	Yes	C	Phase 3	
G4.19	All WSDLs developed for Arkansas will conform to the WSDL Development Standards.	Yes	C	Phase 3	
G4.20	The System's SOA-related messages will be formally defined with XSD (preferable) or DTDs. Use of a SOA Architecture Repository will be required.	Yes	C	Phase 3	
G4.21	The System's SOA-related services hosted will be implemented in Java.	Yes	C	Phase 3	
G4.22	The System's implemented services will rely on WS-Policy configurations for message reliability (WS-Reliable Messaging).	Yes	C	Phase 3	
G4.23	The following metadata attributes will be tracked for all services in the services catalog: {name, lifecycle status, class, description, owner, version, revision history, release frequency, versioning policy, deprecation policy, message exchange patterns, compensating transaction support, availability requirements, volume, max message size, security attributes, SLA, logging requirements}.	Yes	C	Phase 3	
G4.24	The System's SOA services will be attributed with one of the following SOA Lifecycle Status values: Candidate, Justified, Defined, Designed, Implemented, Operational, or Retired. The SOA Architecture Repository along with the Enterprise Repository is required to be hosted on the future State Hub.	Yes	C	Phase 1	

G4 Interoperability-Interfaces

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
G4.25	The System will provide reliable, once-only delivery of messages (guarantee of reliable and non-repetitive delivery).	Yes	C	Phase 3	
G4.26	The System will have the capability to integrate with the State Data Hub to perform syntactic and semantic hub-based transformation of messages, including: a. Support of taxonomy b. Support of ontology c. Reusable transformation maps d. Built-in transformation functions e. Extending the transformation function with custom-coded logic f. Support for B2B project translation including Electronic Data Interchange (EDI), RosettaNet, HL7, etc.	Yes	C	Phase 3	
G4.27	The System will provide the functionality that provides reliability for applications, services or message flows: a. Load balancing b. High availability c. Fault tolerance d. Failover e. In-order delivery f. Transaction support g. Execution prioritization h. Message prioritization. Tests for High Availability and Failover must be completed prior to the release to UAT	Yes	C	Phase 3	
G4.28	The System will provide the technology that manages the metadata and provides the features needed to support the reliable operation of services. Examples include: a. Online catalog of services and associated artifacts such as WSDL files, XSDs, BPEL files b. A single point of controlled access for cataloging, promoting, publishing and searching for information about managed assets c. Metadata that enables an ESB to find, bind to and invoke the execution of a service implementation d. Support for extending existing asset types and defining and populating custom asset types	Yes	C	Phase 3	
G4.29	The System will provide support for integrating with applications with SOA and event-driven architectures in a manner that supports the following implementation strategies: a. Web Services: Web Services Interoperability (WS-I) Organization-compliant implementation of basic Web services standards, including SOAP, WSDL and Universal Description, Discovery and Integration (UDDI), as well as higher-level Web services standards, such as WS-Security b. Representational State Transfer (REST): Support for XML-based messages, processing and HTTP, and XHTML	Yes	C	Phase 3	
G4.30	The System will have the ability to track a message from its origin to its destination (inside a firewall), inquire on the status of that message and address exceptions (for example, resend the message if a target times out). Usually implemented via a warehouse for archiving messages together with the associated tracking and logging data.	Yes	C	Phase 3	

G4 Interoperability-Interfaces

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
G4.31	The System will have the ability to use standards-based communication protocols, such as TCP/IP, HTTP, HTTP/S and SMTP. Protocol bridging: The ability to convert between the protocol native to the messaging platform and other protocols, such as Remote Method Invocation (RMI), IIOP and .NET remoting.	Yes	C	Phase 3	
G4.32	The System will seamlessly work with the technology and programs that act as glue, transforming among protocols, connecting to databases and linking pre-SOA Application Programming Interfaces (APIs) to the SOA backplane	Yes	C	Phase 3	
G4.33	The System will have the capability to work with security policy manager for Web services that allows for centrally defined security policies that govern Web services operations (such as access policy, logging policy, and load balancing).	Yes	C	Phase 3	
G4.34	The System will have the capability to integrate with MDM technology for Enterprise Master Person Index (EMPI) implemented as part of the "State Hub" in a centralized or registry style implementation.	Yes	C	Phase 3	
G4.35	The System will include the telephony integration required to satisfy the ability to dial a phone number directly from data within the System based on user request, and provide the capability to automatically bring up the caller's record upon the receipt of an incoming call.	Yes	C	Phase 3	
G4.36	The System will have access to User calendars outside of the System (Microsoft Outlook) and will automatically synch up.	Yes	C	Phase 3	
G4.37	The Solution will provide tools to support the Extract-Transform-Load (ETL) process to extract data into the State's DHS data warehouse or other analytical environments.	Yes	C	Phase 1	
G4.38	The Vendor will configure one environment solely dedicated to the testing of the interfaces with applicable interface test data.	Yes	C	Phase 2	
G4.39	The System will interface with the existing DHS Data Warehouse, which includes, but is not limited to, Tableau, SQL Server Analytic Services (SSAS), SQL Server Reporting Services (SSRS), and SQL Server Integration Services (SSIS).	Clarification	D	Phase 3	The capability to accomplish this is inherent within the AR IE-BM but individual interfaces require configuration and development.
G4.40	The Mobile Friendly User Interface, pages will automatically be sized for an optimum view to the display dimensions of PC, Tablet or Mobile phone and redirect to the appropriate URL. The Mobile Friendly System is not a separate mobile Application.	Yes	C	Phase 3	

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 Phase 4 = Subsequent equals R3 (MDM, Reporting, etc.)

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Scalability and Extensibility

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
G5.1	The System will be designed for ease of maintenance and readily allow future functional enhancements. This will be accomplished through use of modern design principles for SOA, applying principles of modularity, interface abstraction, and loose coupling.	Yes	C	Phase 1	
G5.2	The System will be adequately flexible to keep up with ever changing technology and regulatory changes. This will be accomplished by separating workflow and business rules into their own separate tiers.	Yes	C	Phase 1	
G5.3	The System will be scalable and adaptable to meet future growth and expansion/contraction needs such that the System can be expanded on demand and be able to retain its performance levels when adding additional users, functions, and data.	Yes	C	Phase 1	
G5.4	The System will provide screens that are highly re-configurable, providing ability to reposition and rename field labels / data fields, remove or "turn-off" unused fields, maintain data, and allow addition of custom-defined fields.	Yes	C	Phase 1	
G5.5	The System will provide the ability to create and/or modify edits and business rules that determine the correctness/integrity of data.	Yes	C	Phase 3	
G5.6	The System will be able to externalize Safety and Risk determination business rules to a business rules engine.	Yes	C	Phase 3	
G5.7	The System will establish a life-cycle view of each case and have the ability to track and report on the status of each case through out the Life of the Case.	Yes	C	Phase 3	
G5.8	For each step in the life-cycle discussed above, the System will establish and track states, e.g., in process, missing data, complete, approved, disapproved, etc. and have the ability to report on the status/state of each Case.	Yes	C	Phase 3	

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Regulatory & Security					
Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
G6.1	The System will, at a minimum, provide a mechanism to comply with security requirements and safeguard requirements of the following Federal agencies / entities: a. Health & Human Services (HHS) Centers for Medicare & Medicaid Services (CMS) b. Guidance from CMS including MITA Framework 3.0 and Harmonized Security and Privacy Framework c. Administration for Children & Families (ACF) d. Dept. of Agriculture Food and Nutrition Services e. NIST 800-53 r4, MARS-E and DOD 8500.2 f. IRS pub 1075, which points back to NIST 800-53 rev 3 g. Federal Information Security Management Act (FISMA) of 2002 h. Health Insurance Portability and Accountability Act (HIPAA) of 1996 i. Health Information Technology for Economic and Clinical Health Act (HITECH) of 2009 j. Privacy Act of 1974 k. e-Government Act of 2002 l. Patient Protection and Affordable Care Act of 2010, Section 1561 Recommendations m. Section 471(a)(8) of the Social Security Act n. Section 106(b)(2)(B)(viii) of the Child Abuse Prevention and Treatment Act	Yes	C	Phase 1	
G6.2	The System architecture and design must accommodate Single Sign-On (SSO) functionality so as to have a single login to all related applications.	Yes	C	Phase 1	
G6.3	The System will be in compliance with all applicable State and Federal laws and regulations, including 42 CFR Part 2 and HIPAA including privacy and client consent for release requirements.	Yes	C	Phase 1	
G6.4	The System will accommodate diverse populations of users including those with visual and hearing impairments, persons with low and moderate educational levels, and the elderly.	Yes	C	Phase 1	
G6.5	The System will conform with the sub-parts of Section 508 of the Americans with Disabilities Act (ADA), and any other appropriate State or Federal disability legislation.	Yes	C	Phase 1	
G6.6	The System will be compliant with CMS' Seven Standards and Conditions.	Yes	C	Phase 1	
G6.7	The System will comply with all applicable State security policies and adhere to all legal, statutory, and regulatory requirements. For example, MARS 2.0. The list of policies and regulations are provided as part of procurement library.	Yes	C	Phase 1	

G6 Regulatory_&_Security

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
G6.8	The System will implement security controls in accordance with all Federal and State security policy and regulations	Yes	C	Phase 1	
G6.9	The System will comply with accessibility requirements described in 45 CFR 85 and with State of Arkansas accessibility requirements	Yes	C	Phase 1	
G6.10	The System will adhere to the accessibility standard as outlined in the web guidelines and based on the W3C level 2 accessibility guidelines: (http://www.w3.org/TR/WCAG10/full-checklist.html)	Yes	C	Phase 1	
G6.11	The System will comply with the DHS branding standards as defined by the State	Yes	C	Phase 1	
G6.12	The Vendor will adhere to the principle of "Fail Safe" to ensure that a system in a failed state does not reveal any sensitive information or leave any access controls open for attacks	Yes	C	Phase 1	
G6.13	The System will allow for controlled access to client records. Users will be able to view participant data within the System at the State-defined levels of access based on user security privileges.	Yes	C	Phase 1	
G6.14	The System will maintain a level of security that is commensurate with the risk and magnitude of the harm that could result from the loss, misuse, disclosure, or modification of information	Yes	C	Phase 1	
G6.15	The System will be built with information security from its inception rather than "bolted on" after the System has been implemented	Yes	C	Phase 1	
G6.16	The System will uniquely identify each Program, Participant, Provider, and Authorized Representative	Yes	C	Phase 1	
G6.17	The System will authenticate users before allowing access to functionality requiring a login	Yes	C	Phase 1	
G6.18	The System will provide a mechanism to limit access to view/update information, based on User role, access rights, member consent, and program rules	Yes	C	Phase 1	
G6.19	The software used to install and update the System, independent of the mode or method of conveyance, will be certified free of malevolent software ("malware"). The Vendor may self-certify compliance with this standard through procedures that make use of commercial malware scanning software.	Yes	C	Phase 1	
G6.20	The System will be configurable to prevent corruption or loss of data already accepted into the System in the event of a System failure (e.g. integrating with a UPS, etc.)	Yes	C	Phase 1	
G6.21	The System will support protection of confidentiality of all Protected Health Information (PHI) delivered over the Internet or other known open networks via encryption using Advanced Encryption Standard (AES) and an open protocol such as Transport Layer Security (TLS), Secure Sockets Layer (SSL), Internet Protocol Security (IPsec), XML encryptions, or Secure/Multipurpose Internet Mail Extensions (S/MIME) or their successors. This System will be subject to external Audit checks.	Yes	C	Phase 1	

G6 Regulatory_&_Security

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
G6.22	The System will, when storing PHI on any device intended to be portable/removable (e.g. Smartphones, portable computers, portable storage devices), support use of a standards based encrypted format using AES or their successors	Yes	C	Phase 1	
G6.23	The System will, prior to accessing any PHI, display a State-approved configurable warning or login banner (e.g. "The System should only be accessed by authorized users"). In the event that a System does not support pre-login capabilities, the System will display the banner immediately following authorization.	Yes	C	Phase 1	
G6.24	The Vendor will monitor, alert, and protect against web application attacks of internet-facing applications.	Clarification	L	Phase 1	Since the AR IE-BM Solution will be hosted in the AR data center, monitoring will be a combined integrated effort between AR and Optum. This will use Wiley, Dynatrace SaaS and Managed (formerly Ruxit) for Application Monitoring; Nagios and Ganglia for infrastructure monitoring. This is compliant with the State of Arkansas' technology and architecture standards as outlined at http://www.dis.arkansas.gov/policiesStandards/Pages/default.aspx .
G6.25	The System will not transmit or store any Personally Identifiable Information (PII) using publically available storage over the Internet or any wireless communication device, unless: 1) the PII is "de-identified" in accordance with 45 C.F.R § 164.514(b) (2); or 2) encrypted in accordance with applicable law, including the American Recovery and Reinvestment Act of 2009 and as required by policies and procedures established by DHS	Yes	C	Phase 1	
G6.26	The System will include the same security provisions for the development, System test, acceptance test and training environment as those used in the production environment except those provisions implemented specifically to protect confidential information (e.g. PII)	Yes	C	Phase 1	
G6.27	The System will provide the ability to identify certain information as confidential (e.g. PII, PHI, etc.) and only make that accessible by appropriately authorized users and limit the ability to share among departments without required authorization. This applies to data provided to the Divisions by an individual or through an interface.	Yes	C	Phase 1	
G6.28	The System will restrict access to summarized information according to organizational policy, scope of practice, and jurisdictional law	Yes	C	Phase 1	

G6 Regulatory_&_Security

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
G6.29	The System will be able to associate permissions with a user using one or more of the following access controls: a. Role-Based Access Controls (RBAC; users are grouped by role and access rights assigned to these groups) b. Context-based (role-based with additional access rights assigned or restricted based on the context of the transaction such as time-of-day, workstation-location, emergency-mode, etc.)	Yes	C	Phase 1	
G6.30	The System will provide the ability to prevent specified user(s) or groups from accessing confidential information such as a client's Social Security Number (SSN) and other confidential data	Yes	C	Phase 1	
G6.31	The System will provide the ability to limit access to certain confidential information such as a client's SSN and other confidential data	Yes	C	Phase 1	
G6.32	The System will, when access to a user's account is restricted, provide a means for appropriately authorized users to "break the glass" and obtain access for emergency situations, as defined by State of Arkansas policy	Clarification	D	Phase 1	This functionality does not exist and has not been requested by other states in their IE implementations so this will be developed for AR and is included in our costs.
G6.33	The System will be capable of operating within an RBAC infrastructure conforming to ANSI INCITS 359-2004, American National Standard for Information Technology – Role Based Access Control	Yes	C	Phase 1	
G6.34	The System will provide more-advanced session management abilities including, but not limited to, prevention of duplicate logins, remote logout and location-specific session timeouts	Yes	C	Phase 1	
G6.35	The System will provide the ability to perform System administration functions including, but not limited to, reference table maintenance and adding / removing users from the System	Yes	C	Phase 1	
G6.36	The System will allow users access based on their roles irrespective of their geographical location	Yes	C	Phase 1	
G6.37	The System will provide the capability to integrate with existing DHS Enterprise authentication and authorization mechanisms	Yes	L	Phase 1	Optum is leveraging the State's existing IAM solution (CA IAM).

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Interface List

The requirements below describe the type of interfaces needed, and are assumed to be implemented via the State Data Hub. For technical requirements regarding how these interfaces should operate please refer to the section "T1 Interoperability-Interfaces".

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
G7.1	Department of Motor Vehicles System	Yes	C	Phase 3	
G7.2	Social Security Administration System	Yes	C	Phase 3	
G7.3	Public Assistance Reporting Information System (PARIS)	Yes	C	Phase 3	
G7.4	Department of Labor System	Yes	C	Phase 3	
G7.5	Electronic Disqualified Applicant System (eDRS)	Clarification	D	Phase 3	We will develop this interface within our Optum Integration Layer (OIL) and will build a reusable service. We will add this to the registry as we have with the other interfaces already available for configuration.
G7.6	Child Support Enforcement Agency System	Yes	C	Phase 3	
G7.7	Department of Public Safety/Corrections Division (State prison, Federal prison, and Juvenile Detention) System	Yes	C	Phase 3	
G7.8	National Directory of New Hires (NDNH) System	Yes	C	Phase 3	
G7.9	Department of Homeland Security - SAVE System	Yes	C	Phase 3	
G7.10	US Census Bureau System (to validate census tract)	Yes	C	Phase 3	
G7.11	Postal Service System (to validate address)	Yes	C	Phase 3	
G7.12	Asset Verification System (Accuity)	Yes	C	Phase 3	
G7.13	Division of Workforce Services (Wage/Unemployment — ESD) System	Yes	C	Phase 3	
G7.14	Federal Data Services Hub	Yes	C	Phase 3	
G7.15	ADH WIC System	Yes	C	Phase 3	

G7 Interface List

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
G7.16	Department of Workforce Services Welfare-to-Work System (ARWINS)	Yes	C	Phase 3	
G7.17	MMIS System	Yes	C	Phase 3	
G7.18	Medicare Premium (SOLQ) System	Clarification	D	Phase 3	We will develop this interface within our Optum Integration Layer (OIL) and will build a reusable service. We will add this to the registry as we have with the other interfaces already available for configuration.
G7.19	EBT Vendor's system	Clarification	D	Phase 3	We will develop this interface within our Optum Integration Layer (OIL) and will build a reusable service. We will add this to the registry as we have with the other interfaces already available for configuration.
G7.20	OASIS System	Clarification	D	Phase 3	We will develop this interface within our Optum Integration Layer (OIL) and will build a reusable service. We will add this to the registry as we have with the other interfaces already available for configuration.
G7.21	State Accounting System	Clarification	D	Phase 3	We will develop this interface within our Optum Integration Layer (OIL) and will build a reusable service. We will add this to the registry as we have with the other interfaces already available for configuration.
G7.22	State Data warehouse	Yes	C	Phase 3	

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Solution Management and Administration

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
Solution Administration					
G8.1	The System will provide data archiving capabilities based on State defined criteria.	Yes	C	Phase 4	
G8.2	The System will provide the capability to move all historical, expired and/or unnecessary data to offline storage according to a set of business rules and schedule to be defined by the State as a part of the ongoing system operational decision making.	Yes	C	Phase 4	
G8.3	The System will maintain an archival process so that accumulated historical records and log files do not consume large amounts of disk space.	Yes	C	Phase 4	
G8.4	The System will provide an auto archive/purge of the log files to prevent uncontrolled growth of the log and historical records storage using administrator-set parameters.	Yes	C	Phase 1	
G8.5	The System will provide version control capabilities to ensure the integrity of all software releases.	Yes	C	Phase 1	
G8.6	The System will provide logging and reporting for accessing errors and exceptions.	Yes	C	Phase 1	
G8.7	The System will monitor and provide reports on any unauthorized access.	Yes	L	Phase 1	Since the AR IE-BM Solution will be hosted in the AR data center, monitoring will be a combined integrated effort between AR and Optum. This will use Wiley, Dynatrace SaaS and Managed (formerly Ruxit) for Application Monitoring; Nagios and Ganglia for infrastructure monitoring. This is compliant with the State of Arkansas' technology and architecture standards as outlined at http://www.dis.arkansas.gov/policies/Standards/Pages/default.aspx .
G8.8	All System communications will be protected by at least 128-bit encryption.	Yes	C	Phase 1	
G8.9	The System will be supported by public key/private key encryption Secure Socket Layer (SSL) certificates.	Yes	C	Phase 1	

G8 Solution Mgmt, Admin & Perf

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
G8.10	The System will provide admin tools and maintenance routines to change access rights quickly.	Yes	C	Phase 1	
G8.11	The System will use firewalls and Demilitarized Zones (DMZs) for external access and remote access.	Yes	C	Phase 1	
G8.12	The System will allow System administrators to create and manage user accounts.	Yes	C	Phase 1	
G8.13	The System will allow System administrators to assign status and permissions to user accounts.	Yes	C	Phase 1	
G8.14	The System will allow System administrators to create and manage user roles.	Yes	C	Phase 1	
G8.15	The System will allow System administrators to create user groups to manage workflow.	Yes	C	Phase 1	
G8.16	The System will allow System administrators to assign users to particular local offices.	Yes	C	Phase 1	
G8.17	The System will allow System administrators to assign users to particular user groups / units.	Yes	C	Phase 1	
G8.18	The System will allow System administrators to assign users to particular supervisors.	Yes	C	Phase 1	
G8.19	The Vendor will establish an automated maintenance routine that will, at a minimum: a. Backup the user IDs and password data b. Identify expired IDs and related data	Yes	C	Phase 1	
G8.20	The System will allow for Data backup to be conducted offsite in the event of a physical disaster, leveraging the DHS Enterprise infrastructure.	Yes	C	Phase 1	
G8.21	The System will be able to automate archiving and expunging of cases and case data, based on Federal and State archiving rules, including, but not limited to: a. Inactive records b. Closed cases c. Any other data as authorized by relevant regulation or agency policy	Yes	C	Phase 4	
G8.22	The System will allow a user to recover archived data based on security access level.	Yes	C	Phase 4	
G8.23	The System will be able to track a user who enters, changes, and/or views information.	Yes	C	Phase 1	
Solution Management					
G8.24	The System will have the ability to generate administrative alerts and warnings when statistics indicate an impact or potential limits on System component performance and availability.	Yes	C	Phase 1	
G8.25	The System will allow for all changes/updates to the distributed components to be administered and completed centrally and available immediately to all source systems and sites.	Yes	C	Phase 1	
G8.26	The System will provide Service Level Agreement (SLA) monitoring and reporting capabilities. Service Level definitions will be drafted into a single document provided as an attachment.	Yes	C	Phase 1	

G8 Solution Mgmt, Admin & Perf

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
G8.27	The System will securely support State's existing remote control (i.e. support personnel ability to take over the user device for troubleshooting and support) capabilities deployed for any type of client workstation.	Clarification	C	Phase 1	As a web-based service (not client server like Curam), this is not an issue for our solution. If required, Optum can support the remote control ability and will leverage AR DHS current software capability.
G8.28	The System will provide event management and monitoring functionality according to Information Technology Infrastructure Library version 3 (ITIL v3) or equivalent best practices in alignment with the DHS Enterprise Standards.	Yes	C	Phase 1	
G8.29	The System will provide Application Performance Monitoring and Management capabilities (i.e. transaction monitoring, synthetic transactions, component root cause analysis (e.g. Application Server Management) in alignment with the DHS Enterprise Standards.	Yes	C	Phase 1	
G8.30	The System will provide transaction tracking and log consolidation capabilities across all tiers of the application.	Yes	C	Phase 1	

G8 Solution Mgmt, Admin & Perf

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
G8.31	The System will be designed to support a performance management toolset which integrates with the DHS Enterprise Standard performance management approach to provide an end-to-end solution. The Vendor should propose, implement and manage one or more monitoring tool(s) to proactively monitor the performance of the application.	Yes	C	Phase 1	
G8.32	The System will be instrumented and have tools to allow end-to-end transaction response time across multiple modules of the DHS Enterprise Standards and report against SLAs.	Yes	C	Phase 1	
Performance Monitoring					
G8.33	The System will log all system transactions and keep them easily retrievable and sortable.	Yes	C	Phase 1	
G8.34	The System will detect major errors related to one or more components including loss of network connectivity, a database server going off line, or the application suffers a out-of-memory situation.	Yes	C	Phase 1	
G8.35	The System will detect less than desirable application performance, such as degraded servlet, database or other back end resource response times.	Yes	C	Phase 1	
G8.36	The System will have safeguards designed to ensure that configuration variables affecting the application and the back end resources remain at some predetermined configuration settings.	Yes	C	Phase 1	
G8.37	The System will detect intrusion attempts by unauthorized system users.	Yes	C	Phase 1	
G8.38	The System will monitor critical performance parameters such as response time, resource availability, CPU Utilization, etc.	Yes	C	Phase 1	
G8.39	The System will provide a holistic view of a wide range of application services and network services providing the ability to drill down to a level where the observations provide useful information and both real-time and snapshot views.	Yes	C	Phase 1	
G8.40	The System will send alarms based on the monitored attributes. These can be escalated through E-Mail / SMS etc.	Yes	C	Phase 1	
G8.41	The System will provide information on the bottleneck in the system.	Yes	C	Phase 1	
G8.42	The System will allow DHS to perform admin activities through an intuitive user interface. Shall have the ability to create custom dashboards to empower the users.	Yes	C	Phase 1	
G8.43	The System will allow for different roles for Users including Operators, Administrators, Managers etc.	Yes	C	Phase 1	
G8.44	The System will allow for Report generation and analysis for application troubleshooting and capacity planning.	Yes	C	Phase 1	
G8.45	Monitoring tool(s) to proactively monitor the performance of key infrastructure components of the proposed solution architecture components as well as the overall end user experience are a requirement as part of Solution administration.	Yes	C	Phase 1	

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Technical Solution Architectural Components - DHS Enterprise Standards (Preferences)
The State of Arkansas is moving towards an integrated, person and family-centric systems for Human Services by leveraging, to the extent possible, the established DHS Enterprise

Section #	IE-BM Technical Solution Component	DHS Technology Mandates & Preferences [Mandatory, Preferred, No Preference]	Technical Solution Component Requirement Met in "Column B" ?	DHS Preference Met in "Column C"?	List Vendor's Proposed Component	Proposed Phase	Suggested Alternative Technology
T1	Presentation Layer						
T1.1	Portal	No Preference	Yes	Yes		Phase 1	
T2	Business Component Layer (Requirements for these are defined in the Functional RTMs)						
T2.1	CRM/ Case Management Solution	No Preference	Yes	Yes		Phase 1	
T2.2	Notifications and Alerts Functionality	No Preference	Yes	Yes		Phase 1	
T3	Application Infrastructure Services Layer						
T3.1	Business Rules Management Engine / BRE	No Preference	Yes	Yes		Phase 1	
T3.2	Workflow, Business Process Management / BPM	No Preference	Yes	Yes		Phase 1	
T3.3	Enterprise Content Management / ECM	Xerox Docushare (Preferred)	Yes	Yes		Phase 1	
T3.4	Application Server	WebSphere Application Server (Preferred)	Yes	Clarification		Phase 1	
T4	Integration Services Layer (Proposed State Hub Architectural Components)						
T4.1	Application Integration and Enterprise Service Bus (ESB)	On premise ESB - No preference iPaaS - Informatica (Preferred)	Yes	Yes		Phase 1	
T4.2	Data Integration, Quality and ETL (Extract, Transform and Load)	Informatica or IBM Infosphere Data Stage (Preferred)	Yes	Yes		Phase 1	
T4.3	MDM (Master Data Management)	Informatica or IBM Infosphere Initiate (Preferred)	Yes	Yes		Phase 4	

T0.Technology Solution Stack

Section #	IE-BM Technical Solution Component	DHS Technology Mandates & Preferences [Mandatory, Preferred, No Preference]	Technical Solution Component Requirement Met in "Column B" ?	DHS Preference Met in "Column C"?	List Vendor's Proposed Component	Proposed Phase	Suggested Alternative Technology
T5	Data Services Layer						
T5.1	DBMS	DB2 or SQL Server (Preferred)	Yes	Yes		Phase 1	
T5.2	Business Intelligence (BI)	Cognos or Business objects (Preferred)	Yes	Yes		Phase 4	
T6	Security and Privacy Layer						
T6.1	IAM (Identity and Access Management)	CA IAM (Preferred)	Yes	Yes		Phase 1	
T6.2	Privacy and Consent	No Preference	Yes	Yes		Phase 1	
T7	Infrastructure Layer						
T7.1	Platform	Windows or Linux or AIX (Mandatory)	Yes	Yes		Phase 1	
T7.2	Virtualization	Power VM or VMWare (Preferred)	Yes	Yes		Phase 1	
T7.3	Server Infrastructure	Power 770 or Linux or Wintel Servers (Preferred)	Yes	Yes		Phase 1	
T7.4	Data Center / Hosting Infrastructure	DIS Hosting Facilities in Little Rock (Mandatory)	Yes	Yes	NA	Phase 1	NA
T7.5	Network Infrastructure	DIS Network Infrastructure (Mandatory)	Yes	Yes	NA	Phase 1	NA
T7.6	Development, Operations and Support Tools	Wiley for Application Monitoring; Nagios and Ganglia for infrastructure monitoring (Preferred)	Yes	Yes	Same as preferred plus others. For complete list of tools, see T11 Section 12.	Phase 1	Same as preferred plus others. For complete list of tools, see T11 Section 12.
<p>Note: Mandatory technology components as noted above, do not require a response as part of detailed requirements tab in the following sections.</p>							

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Portal

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
T1.1.1	The Portal Component will provide a portal UI framework that separates content from logic and is robust, scalable and interoperable with W3C Web-based standards.	Yes	C	Phase 2	
T1.1.2	The Portal Component will provide session management capabilities to support user sessions and coordinated back-end application functionality.	Yes	C	Phase 2	
T1.1.3	The Portal Component will provide support for multiple languages and character set encoding standards.	Yes	C	Phase 2	
T1.1.4	The Portal Component will provide portal personalization and customization capabilities for the constituent user experience.	Yes	C	Phase 2	
T1.1.5	The Portal Component will support access from multiple channels and devices.	Yes	C	Phase 2	
T1.1.6	The Portal Component will provide support for Web content management and is robust and scalable.	Yes	C	Phase 2	
T1.1.7	The Portal Component will provide time-based content expiration and version management capabilities.	Yes	C	Phase 2	
T1.1.8	The Portal Component will provide Web content related workflow management capabilities.	Yes	C	Phase 2	
T1.1.9	The Portal Component will provide syndicated content capabilities including creation and subscription to RSS feeds.	Clarification	D	Phase 2	This function will require some development. The cost for this is included in our bid.
T1.1.10	The Portal Component will provide content metadata attributes for portal extensibility.	Yes	C	Phase 2	
T1.1.11	The Portal Component will provide multimedia Web content management capabilities.	Yes	C	Phase 2	
T1.1.12	The Portal Component will provide wiki- and blog-based capabilities.	Clarification	D	Phase 2	This function will require some development. The cost for this is included in our bid.
T1.1.13	The Portal Component will provide XHTML e-form capabilities.	Yes	C	Phase 2	
T1.1.14	The Portal Component will provide survey engine capabilities.	Yes	C	Phase 2	

T1.1 Portal

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
T1.1.15	The Portal Component will provide chat and instant messaging (IM) support.	Yes	C	Phase 2	
T1.1.16	The Portal Component will provide the capability to consume externally available mapping Web services.	Yes	C	Phase 2	
T1.1.17	The Portal Component will provide portlet capabilities.	Clarification	D	Phase 2	
T1.1.18	The Portal Component will provide inter-portlet communications that are robust, scalable and reliable.	Clarification	D	Phase 2	
T1.1.19	The Portal Component will provide search engine capabilities.	Yes	C	Phase 2	
T1.1.20	The Portal Component will provide taxonomy-based cataloging of portal resources.	Yes	C	Phase 2	
T1.1.21	The Portal Component will provide index-based search capabilities.	Yes	C	Phase 2	
T1.1.22	The Portal Component must allow for user analytics to be captured and reported.	Yes	C	Phase 2	

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Case Management Functionality (Please refer to Functional RTM for Detailed Requirements)

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
T2.1.1	The Vendor's proposed technology solution will provide technical capabilities to fulfill all Case Management requirements, as detailed in the Functional RTMs	Yes	C	Phase 3	

T2.2 Notifications and Alerts

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Notification and Alerts (Please refer to Functional RTM for Detailed Requirements)

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
T2.2.1	The Vendor's proposed technology solution will provide technical capabilities to fulfill all Notifications and Alerts requirements, as detailed in the Functional RTMs	Yes	C	Phase 4	

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Business Rules Engine (BRE)

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
T3.1.1	The BRE component will support data verification and consistency checks.	Yes	C	Phase 1	
T3.1.2	The BRE component will support Compute values based on input data	Yes	C	Phase 1	
T3.1.3	The BRE component will support the selection of business process path.	Yes	C	Phase 1	
T3.1.4	The BRE component will support mechanisms and ease of use for users to edit rules while maintaining compliance with State and Federal rules.	Yes	C	Phase 1	
T3.1.5	The BRE component will support design for a multi-step decision.	Yes	C	Phase 1	
T3.1.6	The BRE component will have the ability to tune individual steps in the overall decision process for maximum performance by the execution engine.	Yes	C	Phase 1	
T3.1.7	The BRE component will support reporting requirements either natively or integrate with other reporting tools to provide reporting.	Yes	C	Phase 1	
T3.1.8	The BRE component will support repository infrastructure for rule storage and versioning.	Yes	C	Phase 1	
T3.1.9	The BRE component will easily integrate with the rest of proposed Solution architecture	Yes	C	Phase 1	
T3.1.10	The BRE component will support seamless and easy user interaction.	Yes	C	Phase 1	
T3.1.11	The BRE component will provide context sensitive help and extensive documentation.	Yes	C	Phase 1	
T3.1.12	The BRE component must be able to submit business rules to a federal repository at such time as the repository exists.	Yes	C	Phase 1	

T3.1 Business Rules Engine

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
T3.1.13	<p>The BRE component will support advanced inference features, including:</p> <ul style="list-style-type: none"> a. Truth maintenance to support parallel rule execution b. Inductive and deductive problem sets supported c. Recursive rules supported d. Rule aggregation supported e. Links to simulation capabilities f. Agent or daemon links g. Object inheritance supported h. Multiple-engine support 	Yes	C	Phase 1	
T3.1.14	<p>The BRE component will include rule management features for the execution engine, including:</p> <ul style="list-style-type: none"> a. Rule extensibility b. Rule mapping to owners and stewards c. Rule change impact analysis purposes d. Integration/coordination of distributed rule engines with a corporate "master" e. Ability to rerun the engine for a point which has passed (for example, after 1 January, still able to rerun year-end jobs with 31 December rules) f. Ability to enter new rules or changes to become effective on a future date (for example, ability to put in the rule changes for 1 January in December) g. Rule consistency/collision checks h. Rule versioning i. Release versioning and rollback j. Rule security 	Yes	C	Phase 1	
T3.1.15	<p>The BRE component will include a rule repository for global rule management, including:</p> <ul style="list-style-type: none"> a. Nomadic support b. An extensible meta model c. Rule merge support d. Versioning/lockout e. Rule promotion f. Change management g. Electronic rule distribution (publish or subscribe) h. Security 	Yes	C	Phase 1	

T3.1 Business Rules Engine

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
T3.1.16	The BRE component will support ease of use in operation/development and administration, including: a. Rule-firing audit report capabilities b. Rule views by project or role c. Ability to be used as a wizard/plugin for multiple development environments d. Dynamic rule change supported e. Rules separated from the engine f. Constraints naturally supported	Yes	C	Phase 1	
T3.1.17	The BRE component will include the capability to save and retrieve partial user sessions.	Clarification	D	Phase 1	Unlike Curam, our COTS-based BRE does not need to store sessions by design. Unlike other solutions, our BRE isn't invoked until the application is submitted. At this point, a determination is made and stored.
T3.1.18	The BRE component will provide the capability to associate effective dates with each program and rule in the rules engine.	Yes	C	Phase 1	
T3.1.19	The BRE component will provide the capability to associate a rule with multiple program profiles.	Yes	C	Phase 1	
T3.1.20	The BRE component will provide the capability to identify and apply a rule change appropriately to existing cases.	Yes	C	Phase 1	
T3.1.21	The BRE component will provide the capability to copy an existing rule to create a new rule.	Yes	C	Phase 1	
T3.1.22	The BRE component will provide the ability to identify all other rules that are dependent on a specific rule by allowing rules association	Yes	C	Phase 1	
T3.1.23	The BRE component will provide the capability to generate and display a flow chart of each program profile.	Yes	C	Phase 1	
T3.1.24	The BRE component will provide the ability to maintain and display the history of each rule change in the rules engine. This history will show previous versions of the rule, a timestamp of when the change was made and the ID of the user making the change.	Yes	C	Phase 1	
T3.1.25	The BRE component will provide the capability to add additional table-driven variables to support new regulations using a rules engine.	Yes	C	Phase 1	
T3.1.26	The BRE component will include an automated rule build capability for rule repository propagation through the environments Development, Integration/Test, User Acceptance Testing and Production.	Yes	C	Phase 1	

T3.1 Business Rules Engine

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
T3.1.27	The BRE component will have the ability to expose sets of interrelated rules in the rules repository as either a web service and/or in a interactive, web-based interview format.	Yes	C	Phase 1	
T3.1.28	The BRE component will have the ability to create customizable web-based, interview sessions based on defined rule sets.	Yes	C	Phase 1	
T3.1.29	The BRE component must facilitate the creation and maintenance of rules referencing complex data relationships this will include, but not be limited to, rules referencing complex many-to-many relationships between entity types	Yes	C	Phase 1	
T3.1.30	The BRE component must have the ability for text documentation and meta-data to be included as part of the rules repository.	Yes	C	Phase 1	
T3.1.31	The BRE component will have documentation for assisting rule authors and administrators with best practices for rule repository creation and maintenance, repository check-in/checkout, repository promotion across environments.	Yes	C	Phase 1	

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Workflow and Business Process Management (BPM)

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
T3.2.1	The Workflow/BPM component will includes business rules engine/capabilities (e.g., roles, responsibilities, policies, procedures, approvals, deadlines, integrations, etc.)	Yes	C	Phase 1	
T3.2.2	The Workflow/BPM component will provide process execution and state management	Yes	C	Phase 1	
T3.2.3	The Workflow/BPM component will interact/integrate with Enterprise Data and Content Management Solution components.	Yes	C	Phase 1	
T3.2.4	The Workflow/BPM component will integrate with other solution architecture components	Yes	C	Phase 1	
T3.2.5	The Workflow/BPM component will provide simulation and optimization.	Yes	C	Phase 1	
T3.2.6	The Workflow/BPM component will provide robust Security functions	Yes	C	Phase 1	
T3.2.7	The Workflow/BPM component will provide a registry for process components	Yes	C	Phase 1	
T3.2.8	The Workflow/BPM component will provide robust Administration functions	Yes	C	Phase 1	
T3.2.9	The Workflow/BPM component will provide and/or integrate with a robust and easily configurable workflow engine	Yes	C	Phase 1	
T3.2.10	The Workflow/BPM component will include the capability to assign tasks to staff based on defined business rules.	Yes	C	Phase 1	
T3.2.11	The Workflow/BPM component will include the capability to route work to the next person in a workflow based on process outcomes.	Yes	C	Phase 1	
T3.2.12	The Workflow/BPM component will provide an automated method to balance workload based on user and work unit queues or skills and availability.	Yes	C	Phase 1	
T3.2.13	The Workflow/BPM component will provide a method to manually reassign workload based on user input.	Yes	C	Phase 1	
T3.2.14	The Workflow/BPM component will support e-mail (push) or on-line queries (pull) by a user for work that is in their queue.	Yes	C	Phase 1	
T3.2.15	The Workflow/BPM component will provide data validation rules to ensure data validity	Yes	C	Phase 1	

T3.2 Workflow & BPM

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
T3.2.16	The Workflow/BPM component will enforce workflow rules (with task checklists) to ensure that processes are completed correctly.	Yes	C	Phase 1	
T3.2.17	The Workflow/BPM component will improve management and staff accountability through the production of reports and/or electronic notifications which will alert users of pending and over due work.	Yes	C	Phase 1	
T3.2.18	The Workflow/BPM component will provide for comprehensive case tracking as defined in requirements detailed during Workflow/BPM component configuration - minimally these requirements will include logging of task status, case and contact history, issues, etc.	Yes	C	Phase 1	
T3.2.19	The Workflow/BPM component will track milestones and due dates and support notification of the appropriate parties about upcoming and overdue milestones	Yes	C	Phase 1	
T3.2.20	The Workflow/BPM component will support multiple forms of electronics notification channels for external users(e.g. text, page, etc.)	Yes	C	Phase 1	
T3.2.21	The Workflow/BPM component will support a visual/modeling tool to define business process flows.	Yes	C	Phase 1	
T3.2.22	The Workflow/BPM component will support standard business process definition languages	Yes	C	Phase 1	
T3.2.23	The Workflow/BPM component will provide the capability to tie business rules to workflows	Yes	C	Phase 1	
T3.2.24	The Workflow/BPM component will provide the capability to link a workflow to one or more workflows.	Yes	C	Phase 1	
T3.2.25	The Workflow/BPM component will provide the capability to suspend and resume a workflow that is incomplete	Yes	C	Phase 1	
T3.2.26	The Workflow/BPM component will provide production of reports and/or electronic notifications to identify suspended workflows	Yes	C	Phase 1	
T3.2.27	The Workflow/BPM component will provide all operational functions to manage Global and individual queues	Yes	C	Phase 1	
T3.2.28	The Workflow/BPM component will provide standard reports on pending tasks queried by county, zip code, office, program, due date etc.	Yes	C	Phase 1	
T3.2.29	The Workflow/BPM component will implement the functional requirements as defined in T6-Functional Requirements RTM FR 13.31, and 13.32. To that extent, the System will report on the following metrics. a) The Workflow/BPM component will measure time taken for each task to report on the average time taken for each type of task and have this metric rolled it up to a case level b) The Workflow/BPM component should also calculate the actual and elapsed time taken for each case and report on averages.	Yes	C	Phase 1	

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Enterprise Content Management (ECM)/Document Management

The Vendor's technical solution must either leverage DHS' current DocuShare implementation for all Document and Records Management of Electronic documents or implement a new technical component and migrate all existing documents from DocuShare to the new system. If they select a new system the component must meet the following requirements

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
Document Management					
T3.3.1	The ECM/Document Management component will provide the ability to capture System generated documents and store them at appropriate level (e.g. individual, case, program, application, various workflow/process)	Yes	L	Phase 4	Optum is leveraging the State existing EMC solution, including the use of Xerox DocuShare.
T3.3.2	The ECM/Document Management component will provide the ability to store electronic forms (System generated or 3rd-party generated forms)	Yes	L	Phase 4	Optum is leveraging the State existing EMC solution, including the use of Xerox DocuShare.
T3.3.3	The ECM/Document Management component will provide the capability to scan and store imaged documents and electronic files	Yes	L	Phase 4	Optum is leveraging the State existing EMC solution, including the use of Xerox DocuShare.
T3.3.4	The ECM/Document Management component will enable indexing and searching of documents by a variety of user-defined metadata attributes	Yes	L	Phase 4	Optum is leveraging the State existing EMC solution, including the use of Xerox DocuShare.
T3.3.5	The ECM/Document Management component will provide support for full text search	Yes	L	Phase 4	Optum is leveraging the State existing EMC solution, including the use of Xerox DocuShare.
T3.3.6	The ECM/Document Management component will provide built-in viewers/converters for a wide variety of file types	Yes	C	Phase 4	
T3.3.7	The ECM/Document Management component will provide digital rights management capabilities	Yes	C	Phase 4	
T3.3.8	The ECM/Document Management component will provide notification features for files that are checked out (over due, availability, etc.)	Yes	C	Phase 4	
T3.3.9	The ECM/Document Management component will ensure version control of documents as they are changed or modified	Yes	C	Phase 4	
T3.3.10	The ECM/Document Management component will allow rollback to a previous version of a document	Yes	L	Phase 4	Optum is leveraging the State existing EMC solution, including the use of Xerox DocuShare.
T3.3.11	The ECM/Document Management component will enable collaborative document creation and/or markup	Yes	C	Phase 4	

T3.3 ECM-Document Management

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
T3.3.12	The ECM/Document Management component will enable attachment of documents to e-mails and e-mail distribution lists with the option to have them encrypted prior to distribution.	Clarification	C	Phase 4	
T3.3.13	The ECM/Document Management component will utilize the System authorization and access control for file level security	Yes	L	Phase 4	Optum is leveraging the State existing EMC solution, including the use of Xerox DocuShare.
T3.3.14	The ECM/Document Management component will have the ability to, based on rules or context, automate the creation of indexing, meta data and overall taxonomy	Yes	C	Phase 4	
T3.3.15	The ECM/Document Management component will have robust bulk load and conversion features	Yes	C	Phase 4	
T3.3.16	The ECM/Document Management component will provide the capability to communicate natively with the document management API	Yes	C	Phase 4	
T3.3.17	The ECM/Document Management component will provide the capability to access the output of the document management files over the Internet and/or Intranet web sites.	Yes	C	Phase 4	
T3.3.18	The ECM/Document Management component will develop a user guide that can be accessed online and printed on demand.	Yes	C	Phase 4	
T3.3.19	The ECM/Document Management component will provide the capability for online access to policy and procedure and training materials.	Yes	C	Phase 4	
T3.3.20	The ECM/Document Management component will be integrated with document processing center workflow.	Yes	C	Phase 4	
Imaging and Image Capture					
T3.3.21	The ECM/Document Management component will provide scanning software that is configurable to accommodate user-defined field edits such as the exclusion or inclusion of special characters.	Clarification	L	Phase 4	Optum is leveraging the State existing EMC solution, including the use of Xerox DocuShare.
T3.3.22	The ECM/Document Management component design will accommodate multiple imaging locations.	Clarification	L	Phase 4	Optum is leveraging the State existing EMC solution, including the use of Xerox DocuShare.
T3.3.23	The ECM/Document Management component will integrate the Imaging and Document Management capabilities.	Clarification	L	Phase 4	Optum is leveraging the State existing EMC solution, including the use of Xerox DocuShare.
T3.3.24	The ECM/Document Management component will provide the capability to access System to extract data to pre-populate index fields, and/or values on forms.	Yes	C	Phase 4	

T3.3 ECM-Document Management

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
T3.3.25	The ECM/Document Management component will provide the capability to send and receive faxed and e-form documents, process the data and image directly into and out of the System including the ability to automatically send confirmation of transmission to the sender.	Clarification	L	Phase 4	Optum is leveraging the State existing EMC solution, including the use of Xerox DocuShare.
T3.3.26	The ECM/Document Management component will provide the capability for performing conditional routing that will send documents to a specific queue or inbox, either manually or electronically, based on preset conditions as defined by the User.	Yes	C	Phase 4	
T3.3.27	The ECM/Document Management component will provide the capability to store and view a multiple page document as a single document.	Yes	C	Phase 4	
T3.3.28	The ECM/Document Management component will provide the capability to attach notes, annotations, e-mails and other documents to an original scanned document at any time without rescanning.	Yes	C	Phase 4	
T3.3.29	The ECM/Document Management component will provide the capability to notify the user when a duplicate document has been received so the user can decide whether to use the previously received document, replace the existing document or store the new document separately.	Yes	C	Phase 4	
T3.3.30	The ECM/Document Management component will provide the capability to link imaged documentation together and link it to an individual and/or cases within the System.	Yes	C	Phase 4	
T3.3.31	The ECM/Document Management component will provide the capability to record user and workstation identification for each document processed, accessed or updated.	Yes	C	Phase 4	
T3.3.32	The ECM/Document Management component will provide the capability for documents to be grouped together during scanning based on user defined criteria.	Yes	L	Phase 4	Optum is leveraging the State existing EMC solution, including the use of Xerox DocuShare.
T3.3.33	The ECM/Document Management component will provide the capability to allow the User to manually remove, rescan and replace a previously scanned image or document(s).	Yes	L	Phase 4	Optum is leveraging the State existing EMC solution, including the use of Xerox DocuShare.
T3.3.34	The ECM/Document Management component will provide the capability to employ user-defined form/template, indexes and/or field values for recognition and retrieval of documents.	Yes	C	Phase 4	
T3.3.35	The ECM/Document Management component will provide the capability to validate data captured from specific fields on forms electronically read by OCR/OMR/ICR.	Yes	L	Phase 4	Optum is leveraging the State existing EMC solution, including the use of Xerox DocuShare.
T3.3.36	The ECM/Document Management component will provide the capability to archive documents manually and/or automatically by user-defined criteria.	Yes	C	Phase 4	

T3.3 ECM-Document Management

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
T3.3.37	The ECM/Document Management component will provide the capability for archived documents to be retrieved and re-indexed.	Yes	C	Phase 4	
T3.3.38	The ECM/Document Management component will provide the capability to permanently delete documents based on user defined criteria.	Yes	C	Phase 4	
T3.3.39	The ECM/Document Management component will provide the capability to interface with other imaging Systems using industry standard interfaces and file formats.	Yes	C	Phase 4	
T3.3.40	The ECM/Document Management component will provide the capability to version multiple copies of scanned documents.	Yes	C	Phase 4	
T3.3.41	The ECM/Document Management component will provide image retrieval response times within a maximum of two seconds for all documents stored in the System given a minimum level of bandwidth agreed during detailed requirements.	Yes	C	Phase 4	
T3.3.42	The ECM/Document Management component will provide an imaging capability that includes advanced Optical Character Recognition, Intelligent Character Recognition, and Optical Mark Recognition capabilities with a minimum 90% accuracy rate and the ability to regulate the error percentage between 90 and 100 percent by document type.	Yes	L	Phase 4	Optum is leveraging the State existing EMC solution, including the use of Xerox DocuShare.
T3.3.43	The ECM/Document Management component will provide audit trail functions with the ability to log every step in the process to a database for query and reporting purposes.	Yes	C	Phase 4	
Records Management					
T3.3.44	The ECM/Document Management component will automatically calculate transfer and destruction dates (and assign records ready for deletion to the appropriate review process for approval of final deletion) for all records in the retention schedules.	Yes	C	Phase 4	
T3.3.45	The ECM/Document Management component will provide email notification of disposition results	Yes	C	Phase 4	
T3.3.46	The ECM/Document Management component will include a workflow tool to support the records management process	Yes	C	Phase 4	
T3.3.47	The ECM/Document Management component will allow users to manually or automatically classify records or classified automatically based on a policy/rules engine	Yes	C	Phase 4	
T3.3.48	The ECM/Document Management component will allow administrators and authorized users to create, apply, view or remove legal holds for individual or multiple records	Yes	C	Phase 4	

T3.3 ECM-Document Management

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
T3.3.49	The ECM/Document Management component will enable declaration of email: a) From Microsoft Outlook as records using drag-and-drop or menu functions b) As it is inbound to and outbound from the email System c) In Microsoft Outlook journal folders	Yes	C	Phase 4	
T3.3.50	The ECM/Document Management component will have the capability to produce colored and bar-coded labels created for physical records	Yes	C	Phase 4	
T3.3.51	The ECM/Document Management component will have the capability to check records in and out using barcodes, with adherence to security permissions and support the use of barcode scanners for the purpose	Yes	L	Phase 4	Optum is leveraging the State's existing EMC solution, including the use of Xerox DocuShare, and assuming that it currently meets or will meet all listed requirements.
T3.3.52	The ECM/Document Management component will have the capability to track all types and sizes of storage containers within storage locations	Yes	C	Phase 4	
T3.3.53	The ECM/Document Management component will be compliant with U.S. Department of Defense 5015.2-STD Electronic Records Management Standard	Yes	C	Phase 4	
T3.3.54	The ECM/Document Management component will have the ability for an administrator to create and maintain retention schedules	Yes	C	Phase 4	
T3.3.55	The ECM/Document Management component will have the ability to create disposition, legal hold and audit reports for the records	Yes	C	Phase 4	

T3.3 ECM-Document Management

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
Web Content Management					
T3.3.56	The ECM/Document Management component will provide content authoring capabilities including: a) Provide a structured container for the content (e.g. document) b) Support reuse via Copy and Paste or "Save As" c) Tracking of changes to content within a container d) Drag-and-drop page layout e) Ability for collaboration by allowing the "single control" to transfer between authors, reviewers and authorizers f) Real-time active collaboration allowing multiple authors to review and update the content in a container during the course of a shared session g) Standard templates to make authoring documents within certain parameters h) Facilitate the use of Microsoft Office creation tools to submit content directly into the WCM repository i) The bulk import and export of XML content for integration and migration j) Reuse of content and templates to enforce a common "look and feel" and brand identity k) A flexible and extensible workflow to manage authoring review and approval of content across its life cycle l) The ability to expire and retire content.	Yes	C	Phase 4	
T3.3.57	The ECM/Document Management component will support the combination of text and other page elements, such as graphics, logos and buttons and multimedia, such as audio/video and Flash.	Yes	C	Phase 4	
T3.3.58	The ECM/Document Management component will include the ability to support content in multiple languages	Yes	C	Phase 4	
T3.3.59	The ECM/Document Management component will support multiple versions of the same site using the same WCM instance and repository (e.g. ECM has a built-in Web Content Management)	Yes	C	Phase 4	
T3.3.60	The ECM/Document Management component will display content targeted toward specific user profiles	Yes	C	Phase 4	
T3.3.61	The ECM/Document Management component will target content based on visitor-supplied preferences	Yes	C	Phase 4	
T3.3.62	The ECM/Document Management component will personalize a site based on customer transaction data, apply personalization rules to elements smaller than pages and use perceived behavior employing mechanisms to assess the behavior of an individual user (known or unknown) in real time and enable choice of delivered content based on that analysis)	Yes	C	Phase 4	

T3.3 ECM-Document Management

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
T3.3.63	The ECM/Document Management component will provide reporting of a) The status and history of a piece of content b) Content source and descriptive information c) Timetable of release dates or content submission dates d) User-definable audit reporting on an ad hoc basis for content e) Active content page inventory	Yes	C	Phase 4	
T3.3.64	The ECM/Document Management component will provide out-of-the-box log file analysis	Yes	C	Phase 4	
T3.3.65	The ECM/Document Management component will have the ability to find broken links and repair them	Clarification	D	Phase 4	This functionality will require some development effort. We need to better understand this deliverable during the requirements validation phase.
T3.3.66	The ECM/Document Management component will have the capability to track and report on-site use and demographics	Yes	C	Phase 4	
T3.3.67	The ECM/Document Management component will provide content publication capabilities including: a) Support in-context (what you see is what you get - WYSIWYG) editing and the ability to preview rendered content in a staging area. Verifying content for hygiene (for example, accessibility, spelling, format validation, privacy, security, speed of deployment) b) Publish to multiple locations and channels based on predefined attributes c) Roll back content publication if unsuccessful d) Automatically publishing on a scheduled date e) Support dynamic and event-driven presentation of content	Yes	C	Phase 4	

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 RFP #: SP-17-0012
 Template T-8 - Technical Requirements Traceability Matrix

Phase Description

Phase 1 = R0 (Base technology);
 Phase 2 = R1 (Data Intake UI);
 Phase 3 = R2 (HHS programs for PI-1, PI-2 & PI-3);
 Phase 4 = Subsequent equals R3 (MDM, Reporting, etc.)

Application Server

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
T3.4.1	The Application Server component shall be a scalable, enterprise-ready application and shall support the deployment of many types of distributed applications and provides an ideal foundation for building applications based on Service Oriented Architectures (SOA).	Yes	C	Phase 1	
T3.4.2	Application Server component shall enable deployment of mission-critical applications or components in a robust, secure, highly available, and scalable environment.	Yes	C	Phase 1	
T3.4.3	Application Server component clusters shall provide scalability and reliability for applications by distributing the work load among multiple instances of the Server.	Yes	C	Phase 1	
T3.4.4	Overload protection to allow the Server the ability to detect, avoid, and recover from overload conditions.	Yes	C	Phase 1	
T3.4.5	Prioritize work based on pre-defined rules and by monitoring actual run time performance statistics.	Yes	C	Phase 1	
T3.4.6	Store-and-forward services to enable the Server to deliver messages reliably between applications that are distributed across many Server instances.	Yes	C	Phase 1	
T3.4.7	The Application Server component security architecture shall provide a comprehensive, flexible security infrastructure designed to address the security challenges of making applications or components available on the Web.	Yes	C	Phase 1	
T3.4.8	The system must provide a standard set of user analytics and provide required API / configuration to collect additional metrics and reporting.	Yes	C	Phase 1	
T3.4.9	The Application Server component shall support session replication to support transparent fail over.	Yes	C	Phase 1	

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Volume 1 - Technical Proposal

Enterprise Service Bus (ESB) / Application Integration

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
T4.1.1	The ESB/Application Integration component will provide reliable, once-only delivery of messages (guarantee of reliable and non-repetitive delivery).	Yes	C	Phase 1	
T4.1.2	The ESB/Application Integration component will have the ability to support varying message payloads, ranging from individual transactions to large files (more than 1GB) containing multiple transactions.	Yes	C	Phase 1	
T4.1.3	The ESB/Application Integration component will have the ability to track a message from its origin to its destination (inside a firewall), inquire on the status of that message and address exceptions (for example, resend the message if a target times out). Usually implemented via a warehouse for archiving messages together with the associated tracking and logging data.	Yes	C	Phase 1	
T4.1.4	The ESB/Application Integration component will have: a. Protocols: The ability to use standards-based communication protocols, such as TCP/IP, HTTP, HTTP/S and SMTP. b. Protocol bridging: The ability to convert between the protocol native to the messaging platform and other protocols, such as Remote Method Invocation (RMI), IIOP and .NET remoting.	Yes	C	Phase 1	
T4.1.5	The ESB/Application Integration component will have features that enable in-flight message manipulation, such as transformation (typically XML-based), intelligent routing, naming and addressing.	Yes	C	Phase 1	
T4.1.6	The ESB/Application Integration component will have the ability to apply logic to the routing of messages, including support for the following file interaction styles: a. Store and forward: Ability to persist a message and then send it to destinations. b. Publish/subscribe: Ability to distribute a message to multiple destinations based on a message attribute usually described as the subject area of the message. c. Request/reply: Ability to correlate asynchronous messages so that the target's response is associated with the appropriate request made by the source. d. Content-based: The ability to route a message based on a value or values within a message. For example, the ability to route a referral message whose target turnaround time is small to a different set of targets than a referral message whose turnaround time is high.	Yes	C	Phase 1	

T4.1 ESB-App Integration

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
T4.1.7	The ESB/Application Integration component will provide for syntactic conversion and semantic transformation, including ease of use and reuse, number of built-in functions, ease of extending the transformation function with custom-coded logic and XML support (e.g. schema or Extensible Stylesheet Language Transformations - XSLT).	Yes	C	Phase 1	
T4.1.8	The ESB/Application Integration component will have the capability during operations, to assist service consumers by dynamically finding, binding to and invoking the execution of service providers.	Clarification	T	Phase 3	
T4.1.9	The ESB/Application Integration component will provide the technology that combines design tools and runtime software to implement programs that act as "glue," transforming among protocols, connecting to databases and linking pre-SOA Application Programming Interfaces (APIs) to the SOA backplane. To support B2B projects, adapters also need to support SOA services using B2B protocols such as Applicability Statement 1 (AS1)/Applicability Statement 2 (AS2), RosettaNet and Electronic Data Interchange for Administration, Commerce and Transportation (EDIFACT).	Yes	C	Phase 1	
T4.1.10	The ESB/Application Integration component will support the industry-standards messaging and interfaces relevant to health and human services organizations including, but not limited to: a. Health Level Seven (HL7) Versions 2.x, 3.x, and CCD b. Integrating the Healthcare Enterprise (IHE) XD* Profiles	Yes	C	Phase 1	
T4.1.11	The ESB/Application Integration component will provide the technology that hosts the execution of process logic spanning multiple back-end services or applications - typically for short-term (seconds or minutes) processes that can occasionally also be long term (hours, days, weeks) - with the aim of implementing composite services or automated ESB/Application Integration component-to-ESB/Application Integration component processes. Features include: a. Graphical design surface for specifying process flows b. Support for standard specification languages including Business Process Modeling Notation (BPMN) c. Support for standard representations including Business Process Execution Language (BPEL), XML Process Definition Language (XPDL), Business Process Modeling Language (BPML) and Web Services Flow Language (WSFL) a. Ability to specify compensating transactions and execute those transactions upon failure of the process flow b. Integration with workflow	Yes	C	Phase 1	

T4.1 ESB-App Integration

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
T4.1.12	<p>The ESB/Application Integration component will provide the technology to perform syntactic and semantic hub-based transformation of messages, including:</p> <ul style="list-style-type: none"> a. Support of taxonomy b. Support of ontology c. Reusable transformation maps d. Built-in transformation functions e. Extending the transformation function with custom-coded logic f. Support B2B project translation including Electronic Data Interchange (EDI), RosettaNet, HL7, etc. 	Yes	C	Phase 1	
T4.1.13	<p>The ESB/Application Integration component will provide the functionality that provides reliability for applications, services or message flows:</p> <ul style="list-style-type: none"> a. Load balancing b. High availability c. Fault tolerance d. Failover e. In-order delivery f. Transaction support g. Execution prioritization h. Message prioritization i. Downstream throttling 	Yes	C	Phase 1	
T4.1.14	<p>The ESB/Application Integration component will provide the functionality used to monitor the operation of the overall ESB/Application Integration component (services, applications, processes and application infrastructure), and to collect events and usage information aimed at populating technical KPIs of the deliverables supported by the SOA backplane and of the SOA backplane components by monitoring and collecting metrics for:</p> <ul style="list-style-type: none"> a. Messaging traffic b. Process state and behavior c. Application and service parameters and behavior for all nodes in a LAN or WAN 	Yes	C	Phase 1	
T4.1.15	<p>The ESB/Application Integration component must provide for any combination of Alert Destinations such as Email, JMS, SNMP, reporting services, and server logs. The alerts will be customizable with respect to the frequency of the alert, the ability to enable/disable an alert, rule expiration dates, starting and ending times for an alert, and customizable conditions for an alert”.</p>	Clarification	C	Phase 1	

T4.1 ESB-App Integration

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
T4.1.16	<p>The ESB/Application Integration component will provide the tools and technologies required to implement the necessary control access to the services and the connected resources (for example, other services and databases), as well as the SOA backplane functionality. Capabilities include:</p> <ul style="list-style-type: none"> a. Authentication b. Authorization c. Encryption/decryption d. Digital signatures e. Credential mapping 	Yes	C	Phase 1	
T4.1.17	<p>The ESB/Application Integration component will provide the functionality to assist State's operations personnel in keeping the resultant ESB/Application Integration component (applications, services and infrastructure) running at peak efficiency at all times, including:</p> <ul style="list-style-type: none"> a. Establishing rules for automated ESB/Application Integration component monitoring b. Establishing network-alert-based management c. Supporting autonomous network behavior so local management and problem Resolution can continue during an outage d. A console that enables domain-specific display for multiple devices 	Yes	C	Phase 1	
T4.1.18	<p>The ESB/Application Integration component will provide the technology that manages the metadata and provides the features needed to support the reliable operation of services. Examples include:</p> <ul style="list-style-type: none"> a. Online catalog of services and associated artifacts such as WSDL files, XSDs, BPEL files b. A single point of controlled access for cataloging, promoting, publishing and searching for information about managed assets c. Metadata that enables an Enterprise Service Bus (ESB) to find, bind to and invoke the execution of a service implementation d. Support for extending existing asset types and defining and populating custom asset types 	Clarification	T	Phase 3	
T4.1.19	<p>The ESB/Application Integration component will provide support for building frameworks and extensible tools that enable the design, configuration, assembly, deployment, monitoring, and management of software designed around an SOA.</p>	Yes	C	Phase 1	

T4.1 ESB-App Integration

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
T4.1.20	The ESB/Application Integration component will provide assistance for deploying applications with SOA and event-driven architecture in a manner that supports the following implementation strategies: a. Web Services: Web Services Interoperability (WS-I) Organization-compliant implementation of basic Web services standards, including SOAP, WSDL and Universal Description, Discovery and Integration (UDDI), as well as higher-level Web services standards, such as WS-Security. b. Representational State Transfer (REST): Support for XML-based message processing as well as HTTP, and XHTML.	Yes	C	Phase 1	
T4.1.21	The ESB/Application Integration component will support Transport Security, Message Security, WS-Security, SAML architecture, and WS-Policy. In addition, the ESB/Application Integration component will also implement the ability to externalize security by using a third-party security infrastructure whereby the ESB's proxy action calls a third-party for user/role information.	Yes	C	Phase 1	
T4.1.22	The ESB/Application Integration component will provide the technology to implement processing logic that directly manipulates data values, and the representation of those values for storage, transport or presentation purposes. This processing logic is used to establish common access to data sources (structured and unstructured), improve data quality or federate data from multiple sources.	Yes	C	Phase 1	
T4.1.23	The ESB/Application Integration component will provide the tooling that enables the recording (storage) or retrieving (reading) of information (data) from data stores. An example is distributed query functionality that parses incoming queries into sub queries and the execution of those sub queries, via the connectivity layer, against the respective sources where the desired data resides.	Yes	C	Phase 1	
T4.1.24	The ESB/Application Integration component will provide the data infrastructure tooling that enables users to represent semantic models, identify model-to-model relationships, and execute the necessary translations to reconcile data with differing semantic models.	Yes	C	Phase 1	
T4.1.25	The ESB/Application Integration component will provide optimization services that continuously read various types of metadata from across the architecture. The optimization verbs will use the semantic/logical services to reconcile context to data content and deliver against some aspect of the application service-level agreement (requirements for data quality, data freshness, data volumes, throughput parameters, data-mining results, on-demand data aggregation or summarization, data enrichment, and many others).	Yes	C	Phase 3	
T4.1.26	The ESB/Application Integration component must incorporate the ability to undo changes, detect and resolve conflicts, test service connectivity with tracing information, easily enable/disable services, provide logging and view all session activities/change history attributable to each logged in user.	Yes	C	Phase 1	

T4.1 ESB-App Integration

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
T4.1.27	The ESB/Application Integration component must incorporate Role/Group-based rights for the management of the Service Bus across the environments.	Yes	C	Phase 1	
T4.1.28	A Service Registry shall serve as an integration point for runtime tooling	Clarification	T	Phase 3	
T4.1.29	ESB/Application Integration component shall subscribe to new or modified assets	Yes	C	Phase 1	
T4.1.30	Composite applications shall discover updated endpoints and WSDL locations	Clarification	T	Phase 3	
T4.1.31	Runtime monitoring tooling shall publish metrics to the Service Registry	Clarification	T	Phase 3	
T4.1.32	The Security policy manager for Web services shall allow for centrally defined security policies that govern Web services operations (such as access policy, logging policy, and load balancing)	Yes	C	Phase 1	
T4.1.33	The ESB component shall provide dynamic discovery and service level monitoring of all artifacts deployed in the Application Server	Clarification	T	Phase 3	

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Volume 1 - Technical Proposal

Data Integration, Quality, and ETL

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
T4.2.1	The Data Integration/ETL component will have the ability to convert message formats and translate coded data within messages.	Yes	L	Phase 4	For the AR IE-BM Solution, Optum will be leveraging the State existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
T4.2.2	The Data Integration/ETL component will provide support for a metadata repository for data and message conversion and transformations.	Yes	L	Phase 4	For the AR IE-BM Solution, Optum will be leveraging the State existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
T4.2.3	The Data Integration/ETL component will at a minimum support the following standards: a. Integrating the Health Enterprise (IHE): Cross-Enterprise Document Sharing (XDS, XDS.b); Cross-Community Access (XCA) b. Health Level Seven (HL7) Continuity of Care Document (CCD) C32 profile c. AHS ONC Direct Project	Yes	L	Phase 4	For the AR IE-BM Solution, Optum will be leveraging the State existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
T4.2.4	The Data Integration/ETL component will provide the technology to implement processing logic that can manipulates data values, and the representation of those values for transport or conversion purposes. This processing logic is used to establish a common meaning of data, improve data quality or federate data from multiple sources.	Yes	L	Phase 4	For the AR IE-BM Solution, Optum will be leveraging the State existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.

T4.2 Data Integ,Quality, ETL

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
T4.2.5	<p>The Data Integration/ETL component will provide tooling that supports data profiling: the process of examining the data available in an existing data source (for example, a database or a file), and collecting statistics and information about that data. The purpose of these statistics may be to:</p> <ul style="list-style-type: none"> a. Find out whether existing data can easily be used for other purposes. b. Give metrics on data quality, including whether the data conforms to company standards. c. Assess the risk involved in integrating data for new applications. d. Track data quality. e. Assess whether metadata accurately describes the actual values in the source database. f. Establish an understanding of data challenges early in any data-intensive project, so that late project surprises are avoided. Finding data problems late in the project can incur time delays and project cost overruns. g. Have an enterprise view of all data for uses such as master data management (MDM), where key data is needed, or data governance, for improving data quality. 	Yes	L	Phase 4	For the AR IE-BM Solution, Optum will be leveraging the State existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
T4.2.6	<p>The Data Integration/ETL component will provide tools for data source connectivity: Adapters for a range of source types beyond Relational Database Management Data Integration/ETL components (RDBMS's) and legacy databases (access to data stored in non-relational structures - for example, VSAM files and IMS databases), including packaged applications and Web services, the ability to access semi-structured and unstructured data (such as e-mail, websites, office productivity tools, content repositories and rich media)and the ability to interpret (as a source) XML structures.</p>	Yes	L	Phase 4	For the AR IE-BM Solution, Optum will be leveraging the State existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
T4.2.7	<p>The Data Integration/ETL component will provide tools to support the Extract-Transform-Load (ETL) process that involves:</p> <ul style="list-style-type: none"> a. Extracting data from data sources. b. Transforming it to fit business needs (which can include quality levels). c. Loading it into the target data store. d. Caching: The ability to cache federation results and various subsets of the source data to improve performance in situations where source data volumes are large; therefore, retrieving all data required for integration directly from the source is not feasible. e. Verbose ETL process logging to allow for ease of support and debugging. 	Yes	L	Phase 4	For the AR IE-BM Solution, Optum will be leveraging the State existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
T4.2.8	<p>The Data Integration/ETL component will have the ability to load data in a variety of approaches including (but not limited to) the following:</p> <ul style="list-style-type: none"> a. Bulk data extraction and loading b. Granular trickle-feed acquisition and delivery c. Changed-data capture (ability to identify and extract modified data) d. Event-based acquisition (time-based or data-value-based) 	Yes	L	Phase 4	For the AR IE-BM Solution, Optum will be leveraging the State existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.

T4.2 Data Integ,Quality, ETL

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
T4.2.9	The Data Integration/ETL component will include the following types of transformation: a. Simple transformations such as data-type conversions, string manipulations and Simple calculations b. Moderate-complexity transformations, such as lookup and replace operations, aggregations, summarizations, deterministic matching and management of slowly changing dimensions c. Higher-order transformations, such as sophisticated parsing operations on free-form text and rich media Facilities for developing custom transformations and extending packaged transformations d. Facilities for developing custom transformations and extending packaged transformations	Yes	L	Phase 4	For the AR IE-BM Solution, Optum will be leveraging the State existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
T4.2.10	The Data Integration/ETL component will provide tools that enables the recording (storage) or retrieving (reading) of information (data) from data stores. An example is distributed query functionality that parses incoming queries into subqueries and the execution of those subqueries, via the connectivity layer, against the respective sources where the desired data resides.	Yes	L	Phase 4	For the AR IE-BM Solution, Optum will be leveraging the State existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
T4.2.11	The Data Integration/ETL component will comply with all relevant HIPAA standards, including national standards for electronic health care transactions and code sets, unique employee and provider identifiers, and security and privacy of individually identifiable health information (called "protected health information" or PHI).	Yes	L	Phase 4	For the AR IE-BM Solution, Optum will be leveraging the State existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
T4.2.12	The Data Integration/ETL component will prepare the necessary data conversion programs using Extract Transform and Load (ETL) from the existing database and file Data Integration/ETL components to the new Data base / file Data Integration/ETL component.	Yes	L	Phase 4	For the AR IE-BM Solution, Optum will be leveraging the State existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
T4.2.13	Test Data Management (TDM): The Data Integration/ETL component will have the ability to create test data in Development and Test environments from production datasources using Extract, Transform and Load (ETL) mechanisms	Yes	L	Phase 4	For the AR IE-BM Solution, Optum will be leveraging the State existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
T4.2.14	Data Sub-setting: The Data Integration/ETL component will provide the ability in selecting sub-set of data elements from a set of data sources for a given criteria, follow the Referential Integrity constraints, and prepare the data to be copied to a Target destination or repository	Yes	L	Phase 4	For the AR IE-BM Solution, Optum will be leveraging the State existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.

T4.2 Data Integ,Quality, ETL

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
T4.2.15	Data Masking: The Data Integration/ETL component will provide the ability to mask data for PII (Personally identifiable Information) fields such as SSN , name and address etc. In addition the TDM Data Integration/ETL component will have reverse masking capability too.	Yes	L	Phase 4	For the AR IE-BM Solution, Optum will be leveraging the State existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
T4.2.16	<p>The Data Integration/ETL component will have the ability to interact with a range of different data structure types including:</p> <ul style="list-style-type: none"> a. Connectivity and native access data stored in relational database management system b. Connectivity to, and native access to, data stored in nonrelational structures c. Support for access to and interpretation of a variety of flat-file formats d. Support for "interpret" and "create" XML structures e. Interfaces to common packaged applications via the standard application interfaces provided by a vendor f. Interfaces to common applications delivered off-premises via SaaS or cloud-based environments (Salesforce, for example) g. Interpretation and creation of industry-standard message formats h. Connectivity to message queues, including those provided by application integration middleware products and standards-based architectures i. Support for data structures such as graph-oriented, XML and other NoSQL-style database management system j. Connectivity to data resident in popular mobile device operating Data Integration/ETL components and mobility platforms k. Connectivity to APIs and data structures of popular social media sources (e.g., LinkedIn, Twitter) l. Connectivity to popular spatial data sources (e.g., common GIS Data Integration/ETL components, ESRI) m. Support for in-memory database management system and in-memory data grids n. Ability to access data in nontraditional source types, such as email, Web, office productivity tools and content repositories 	Yes	L	Phase 4	For the AR IE-BM Solution, Optum will be leveraging the State existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
T4.2.17	The Data Integration/ETL component will have the ability to profile data in existing databases (without the need to extract or move the data)	Yes	L	Phase 4	For the AR IE-BM Solution, Optum will be leveraging the State existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
T4.2.18	The Data Integration/ETL component will have the ability to profile data external to existing databases (by importing the data into the tool)	Yes	L	Phase 4	For the AR IE-BM Solution, Optum will be leveraging the State existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.

T4.2 Data Integ,Quality, ETL

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
T4.2.19	The Data Integration/ETL component will include a range of prebuilt analyses on individual attributes/columns/fields such as minimum, maximum, frequency distributions of values and patterns and others	Yes	L	Phase 4	For the AR IE-BM Solution, Optum will be leveraging the State existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
T4.2.20	The Data Integration/ETL component will include a range of prebuilt analyses to identify relationships, patterns, integrity gaps and duplication between and across multiple attributes/columns/fields and across tables, databases and files	Yes	L	Phase 4	For the AR IE-BM Solution, Optum will be leveraging the State existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
T4.2.21	The Data Integration/ETL component will have the ability to configure and execute user-defined profiling analyses	Yes	L	Phase 4	For the AR IE-BM Solution, Optum will be leveraging the State existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
T4.2.22	The Data Integration/ETL component will include a prebuilt functionality to analyze trends in profiling results over time	Yes	L	Phase 4	For the AR IE-BM Solution, Optum will be leveraging the State existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
T4.2.23	The Data Integration/ETL component will have the ability to present profiling results in a graphical manner (using various chart formats, for example)	Yes	L	Phase 4	For the AR IE-BM Solution, Optum will be leveraging the State existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
T4.2.24	The Data Integration/ETL component will have the ability to present profiling results in textual report format	Yes	L	Phase 4	For the AR IE-BM Solution, Optum will be leveraging the State existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
T4.2.25	The Data Integration/ETL component will provide standard reports for exposing profiling results	Yes	L	Phase 4	For the AR IE-BM Solution, Optum will be leveraging the State existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
T4.2.26	The Data Integration/ETL component will include prebuilt graphical dashboards presenting profiling results (gauges and meters comparing actual metrics to user-specified limits/controls, for example)	Yes	L	Phase 4	For the AR IE-BM Solution, Optum will be leveraging the State existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.

T4.2 Data Integ,Quality, ETL

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
T4.2.27	The Data Integration/ETL component will have the ability to customize graphical, dashboard and tabular presentation formats	Yes	L	Phase 4	For the AR IE-BM Solution, Optum will be leveraging the State existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
T4.2.28	The Data Integration/ETL component will have the ability to present profiling results using third-party reporting or business intelligence tools (graphically or in tabular form)	Yes	L	Phase 4	For the AR IE-BM Solution, Optum will be leveraging the State existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
T4.2.29	The Data Integration/ETL component will provide ad hoc execution of profiling processes via user interface	Yes	L	Phase 4	For the AR IE-BM Solution, Optum will be leveraging the State existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
T4.2.30	The Data Integration/ETL component will provide scheduled execution of profiling processes (via built-in or third-party scheduling)	Yes	L	Phase 4	For the AR IE-BM Solution, Optum will be leveraging the State existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
T4.2.31	The Data Integration/ETL component will provide a number of parsing capabilities including: a. Ability to split text fields based on delimiters such as space or commas b. Ability to split text fields by matching character strings against packaged knowledge bases of terms, names and more c. Facilities for adding to, or customizing terms in, packaged knowledge bases, and the ability to create new knowledge bases d. Ability to perform parsing operations using knowledge bases from third-party sources e. Facilities for configuring user-defined parsing rules	Yes	L	Phase 4	For the AR IE-BM Solution, Optum will be leveraging the State existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
T4.2.32	The Data Integration/ETL component will provide a number of standardization and cleansing capabilities, including: a. Simple transformations, such as data-type conversions, string splitting and concatenation operations b. Moderately complex transformations such as look-up and replace operations c. Higher-order transformations, such as sophisticated parsing operations on free-form text and rich media d. Prebuilt rules for common standardization and cleansing operations, such as formatting addresses or telephone, social security and tax ID numbers e. Facilities for developing custom transformations and extending packaged transformations	Yes	L	Phase 4	For the AR IE-BM Solution, Optum will be leveraging the State existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.

T4.2 Data Integ,Quality, ETL

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
T4.2.33	<p>The Data Integration/ETL component will provide a number of matching/relationship identification capabilities, including:</p> <ul style="list-style-type: none"> a. Predefined rules for performing exact value-based matching b. Predefined algorithms/rules for matching, based on mathematical models, rather than on exact data values c. Linguistic techniques and other types of matching algorithms, for example (indicate types in comments column)" d. Entity identification/resolution across data of differing linguistic and cultural nuances e. Ability to weight, prioritize and tune matching rules (to optimize the frequency and number of potential matches, or the "tightness" or "looseness" of matching, for example) f. Facilities for implementing and customizing rules by which duplicate or related records can be merged into a single "survivor" g. Automatic removal of duplicate records based on rules for determining survival h. Ability to create logical groups of records by relating those with user-determined properties i. Ability for users to extend and/or customize the algorithms for matching, merging, linking and deleting duplications j. Ability to switch on/off data masking of records so that users are able to address data quality issues without compromising privacy and data security rules 	Yes	L	Phase 4	For the AR IE-BM Solution, Optum will be leveraging the State existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
T4.2.34	<p>The Data Integration/ETL component will include mechanisms for aiding the ongoing understanding and assurance of data quality, including:</p> <ul style="list-style-type: none"> a. Ability to develop business rules that check for specific quality issues b. Ability to deploy monitoring rules within existing applications and data flows (explain deployment mechanism in comments column) c. Ability to deploy monitoring rules as a stand-alone process (explain deployment mechanism in comments column) d. Ability to generate alerts of various types (such as email, page and error message) if monitoring rules have been violated e. Prebuilt and customizable reports that show numbers and types of monitoring rule violations over time 	Yes	L	Phase 4	For the AR IE-BM Solution, Optum will be leveraging the State existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
T4.2.35	<p>The Data Integration/ETL component will include packaged functionality to address specific requirements of party data quality issues, such as standardization of names, addresses, contact details and hierarchies, and merging of duplicate party records</p>	Yes	L	Phase 4	For the AR IE-BM Solution, Optum will be leveraging the State existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.

T4.2 Data Integ,Quality, ETL

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
T4.2.36	<p>The Data Integration/ETL component will include the following support for location-related data standardization and cleansing:</p> <ul style="list-style-type: none"> a. Vendor-provided libraries certified by relevant postal authorities b. Support for address extensions (such as the U.S. Postal Service's Zip+4 code look-up service), change of address notification and delivery-point validation c. Ability to provide some degree of email address validation (domain-level or user-level) d. Frequency and mechanism by which updates to postal libraries are delivered and applied e. Ability to tag records with geocoding information (such as latitude and longitude) f. Level of precision of geocoding data in relevant countries (street, block or rooftop, for example) 	Yes	L	Phase 4	For the AR IE-BM Solution, Optum will be leveraging the State existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
T4.2.37	<p>The Data Integration/ETL component will provide process flow and user interface capabilities to enable business users to perform data-quality-related tasks and fulfill stewardship functions, including:</p> <ul style="list-style-type: none"> a. Packaged processes, including steps used to perform common quality tasks (providing values for incomplete data, resolving conflicts of duplicate records, specifying custom rules for merging records, profiling, auditing, for example) b. User interface in which quality processes and issues are exposed to business users, stewards and others c. Functionality to manage the data quality issue resolution process through the stewardship workflow (status tracking, escalation and monitoring of the issue resolution process) d. Ability to customize the user interface and workflow of the resolution process e. Ability to execute data quality resolution steps in the context of a process orchestrated by BPM tools (packaged integration or other ability to work with popular BPM suites, for example) 	Yes	L	Phase 4	For the AR IE-BM Solution, Optum will be leveraging the State existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
T4.2.38	<p>The Data Integration/ETL component will provide content publication capabilities including:</p> <ul style="list-style-type: none"> a. Support in-context (what you see is what you get - WYSIWYG) editing and the ability to preview rendered content in a staging area. Verifying content for hygiene (for example, accessibility, spelling, format validation, privacy, security, speed of deployment) b. Publish to multiple locations and channels based on predefined attributes c. Roll back content publication if unsuccessful d. Automatically publishing on a scheduled date e. Support dynamic and event-driven presentation of content 	Yes	L	Phase 4	For the AR IE-BM Solution, Optum will be leveraging the State existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.

T4.2 Data Integ,Quality, ETL

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
T4.2.39	<p>The Data Integration/ETL component will include metadata capabilities including:</p> <ul style="list-style-type: none"> a. Automated discovery and acquisition of metadata from data sources, applications and other tools b. Generation of lineage and impact analysis reports via graphical and tabular formats c. Open metadata repository with the ability to share metadata bidirectionally with other tools d. Automated synchronization of metadata across multiple instances of the tools e. Ability to extend metadata repository with customer-defined attributes and relationships f. Documentation of project/program delivery definitions and design principles that support requirements definitions g. Business analyst/end-user interfaces that view and work with metadata h. Capabilities that offer metadata management across unstructured data (e.g., using search, taxonomy management) alongside structured data (e.g., rules, data models) that serve the needs for data quality across the entire enterprise information landscape 	Yes	L	Phase 4	For the AR IE-BM Solution, Optum will be leveraging the State existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
T4.2.40	<p>The existing data from the current database tables and/or files will be run through the Data quality checks and all Data quality issues will be reported to DHS. Necessary corrective action will be performed under DHS supervision, before final data conversion takes place in the New Data Integration/ETL component.</p>	Yes	L	Phase 4	For the AR IE-BM Solution, Optum will be leveraging the State existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.

Master Data Management (MDM)

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
General MDM Requirements					
T4.3.1	The MDM component will have the capability to support the global identification, linking and/or synchronization of client and provider information across heterogeneous data sources through semantic reconciliation of master client and master provider data.	Yes	T	Phase 4	
T4.3.2	The MDM component will create and manage a central, database-based Data Integration/MDM component or index of record for master client (i.e. Master Client Index - MCI) and master provider (i.e. Master Provider Index - MPI) data.	Clarification	D	Phase 4	
T4.3.3	The MDM component will enable the delivery of a single client and a single provider view for all stakeholders.	Yes	T	Phase 4	
T4.3.4	The MDM component will support ongoing client and provider data stewardship and governance requirements through monitoring of policy decisions and corrective action.	Yes	T	Phase 4	
T4.3.5	The Data Integration/MDM component will track and maintain detailed records on all changes via interfaces and authoring to support audit requirements.	Yes	T	Phase 4	
Data Model Requirements					
T4.3.6	The Data Integration/MDM component must include a flexible data model that can model the complex relationships between the internal application sources inside the State, its trading partners, clients and providers, as well as intermediaries and other parties, with the ability to handle complex hierarchies.	Yes	T	Phase 4	

T4.3 MDM

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
T4.3.7	The Data Integration/MDM component's data model must be capable of handling at least the following categories of elements for clients and providers: a. Identification b. Demographics c. Contact information d. Relationships with other entities / providers e. Interactions with other entities / providers	Yes	T	Phase 4	
T4.3.8	The Data Integration/MDM component will include data modeling capabilities that will be configurable, customizable, extensible, and upgradable.	Yes	T	Phase 4	
T4.3.9	The Data Integration/MDM component's data model must be able to support the State's standards for data content and coding where they exist.	Yes	T	Phase 4	
T4.3.10	The Data Integration/MDM component's data model must be expressed using commonly accepted logical data model conventions with associated metadata.	Yes	T	Phase 4	
Data Quality Management Requirements					
T4.3.11	The Data Integration/MDM component will have strong facilities, in batch and real-time mode, for profiling, cleansing, matching, linking, identifying and semantically reconciling master client and master provider data in different data sources to create and maintain golden records.	Yes	T	Phase 4	
T4.3.12	The Data Integration/MDM component's business rules and associated metadata related to data cleansing will be sufficiently visible to satisfy any audit requirements.	Yes	T	Phase 4	
T4.3.13	The Data Integration/MDM component will include the ability to review data quality metrics and track corrective actions.	Yes	T	Phase 4	

T4.3 MDM

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
Loading, Integration and Synchronization					
T4.3.14	The Data Integration/MDM component will provide dynamically configurable rules for comparing and reconciling semantics across data sources, matching (both probabilistic and tunable) across changing demographic data structures, linking data, and managing the merging and unmerging of client and provider records with full auditability and survivability.	Yes	T	Phase 4	
T4.3.15	Where data is matched by a proxy rather than the actual identifier (e.g. client or provider ID) the Data Integration/MDM component will load data no less quickly, efficiently or accurately.	Yes	T	Phase 4	
T4.3.16	The Data Integration/MDM component will include integration middleware, including publishing and subscription mechanisms, to provide a communication backbone for the bidirectional flow of client and provider data between the central repository and the spoke Data Integration/MDM components, be they copies or subsets of the repository, or remote applications.	Yes	T	Phase 4	
T4.3.17	The Data Integration/MDM component will provide tools to validate and manage all client and provider addresses to include all address types (mailing, residential, E-911).	Yes	T	Phase 4	
T4.3.18	The Data Integration/MDM component will be able to leverage a range of middleware products to data sources, including all State and trading partner data sources, and expose Healthcare industry-standard interfaces.	Yes	T	Phase 4	
T4.3.19	The Data Integration/MDM component will support integration with different latency characteristics and styles (e.g. real-time, batch).	Yes	T	Phase 4	
T4.3.20	The Data Integration/MDM component will support integration with downstream Business Intelligence (BI) and analytical requirements.	Yes	T	Phase 4	
Authoring and Workflow Functionality					
T4.3.21	The Data Integration/MDM component will provide flexible and comprehensive workflow capabilities to enable business users and client and provider data managers to collaborate effectively in the authoring and management of client and provider data across the multiple source Systems	Yes	T	Phase 4	

T4.3 MDM

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
MDM Manageability Requirements					
T4.3.22	The Data Integration/MDM component will include facilities for managing and controlling access to client and provider data in the MDM such as reporting on MDM activities.	Yes	T	Phase 4	
Security Requirements					
T4.3.23	The Data Integration/MDM component will have the ability to integrate the data within the MDM with management and security tools.	Yes	T	Phase 4	
T4.3.24	The Data Integration/MDM component will manage the policies and rules associated with privacy access rights.	Yes	T	Phase 4	
T4.3.25	The Data Integration/MDM component will configure and manage differing visibility rules, providing different views for different roles.	Yes	T	Phase 4	
T4.3.26	The Data Integration/MDM component will integrate with the State Active Directory or other directory Data Integration/MDM component in use to provide authorization, e.g., role-based security.	Yes	T	Phase 4	
Data Stewardship Support Requirements					
T4.3.27	The Data Integration/MDM component will provide analytics and performance measures related to the range of processes and activities taking place within the MDM; from the running of batch data loads and the execution of workflows against benchmarks to the quality of active client and provider data in the MDM.	Yes	T	Phase 4	
T4.3.28	The Data Integration/MDM component will include status and management tools for the chief data steward to monitor to-do lists to ensure effective action takes place across the management of the master client and master provider data.	Yes	T	Phase 4	
T4.3.29	The Data Integration/MDM component will include Data Integration/MDM component-wide meta models to help identify what users, roles, applications and Data Integration/MDM components are responsible for which client and provider data.	Yes	T	Phase 4	

T4.3 MDM

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
T4.3.30	The Data Integration/MDM component will provide workflow services for remediation of quality issues in client and provider data.	Yes	T	Phase 4	
T4.3.31	The Data Integration/MDM component will include business rules services to interrogate which rules are used by MDM by frequency and preference and to provide suggested enhancements to such business rules.	Yes	T	Phase 4	
Technology and architecture considerations					
T4.3.32	The Data Integration/MDM component will be based on up-to-date, mainstream technologies, and capable of flexible and effective integration with a wide range of other application and infrastructure platform components (whether from the same vendor or not) that will be deployed by DHS.	Yes	T	Phase 4	
T4.3.33	The Data Integration/MDM component will protect and complement the data layer with a layer of business services for accessing and manipulating the client and provider data that is built for an SOA environment, by exposing web services interfaces.	Yes	T	Phase 4	
T4.3.34	The Data Integration/MDM component will be capable of flexible configuration into a range of architectural styles in terms of instantiation, latency and use of client and provider data to enable different deployment scenarios, such as the consolidation, registry, coexistence and centralized scenarios.	Yes	T	Phase 4	

T4.3 MDM

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
Master Client and Provider Index					
T4.3.35	<p>The Solution must implement a Master Client Index (MCI) built on the existing data sources which are designated as part of IE-BM scope. This MCI must be designed and implemented as an independent module. It must act as a single source of truth for all Client information. This Index must have an easily navigable GUI with appropriate access controls built in for authorized DHS staff for access.</p>	Clarification	D	Phase 4	
T4.3.36	<p>The Solution must implement a Master Provider Index (MPI) built on the existing data sources which are designated as part of IE-BM scope. However, a majority of the provider data will only be available as part of future enhancements to the system, e.g interface to MMIS data, and thus the necessary framework and structure for MPI has to be setup as part of the IE-BM scope to make it ready to fulfill future requirements. This MPI must be designed and implemented as an independent module. It must act as a single source of truth for all Provider information. This Index must have an easily navigable GUI with appropriate access controls built in for authorized DHS staff for access.</p>	Clarification	D	Phase 4	

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 Integrated Eligibility and Benefit Management Engagement (IE-BM) RFP
 RFP #: SP-17-0012
 Template T-8 - Technical Requirements Traceability Matrix

Phase Description

Phase 1 = R0 (Base technology);
 Phase 2 = R1 (Data Intake UI);
 Phase 3 = R2 (HHS programs for PI-1, PI-2 & PI-3);
 Phase 4 = Subsequent equals R3 (MDM, Reporting, etc.)

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Database Management System (DBMS)

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
T5.1.1	The DBMS component will lock database records based on various parameters (e.g., at row level, field level, or at the application level).	Yes	C	Phase 1	
T5.1.2	The DBMS component will accommodate separate instances of databases.	Yes	C	Phase 1	
T5.1.3	The DBMS component will support online modifications to database structures with minimal user downtime.	Yes	C	Phase 1	
T5.1.4	The DBMS component will allow for data and transaction replication including, but not limited to, copying an instance of any database to specified locations (e.g. SAN, Multi-site implementations)	Yes	C	Phase 1	
T5.1.5	The DBMS component will provide standard data extraction APIs to allow import and export of data.	Yes	C	Phase 1	
T5.1.6	The DBMS component will provide documented best practices including, but not limited to optimum database configuration, client maintenance and change control.	Yes	C	Phase 1	
T5.1.7	The DBMS component will handle load balancing, failover and/or clustering ability for extended scalability and performance.	Yes	C	Phase 1	
T5.1.8	The DBMS component will use and take advantage of the capacity planning model for database configuration.	Yes	C	Phase 1	
T5.1.9	The DBMS component supports advanced configurations for data caching (e.g., support of client/application caching, support of server caching, etc.)	Yes	C	Phase 1	
T5.1.10	The DBMS component will have the ability to optimize performance in transaction processing versus report processing	Yes	C	Phase 1	
T5.1.11	The DBMS component will use history tracking within the database and logging options (e.g., transaction auditing)	Yes	C	Phase 1	
T5.1.12	The DBMS component will be fully ACID (Atomicity, Consistency, Isolation, Durability)- compliant so as to ensure it handles transaction rollbacks, validity and referential integrity checks, etc.	Yes	C	Phase 1	
T5.1.13	The DBMS component will handle record locking (e.g., row, field, other) and record updating/committing.	Yes	C	Phase 1	
T5.1.14	The DBMS component will support indexing technology (multiple types of Indexing will be available to tune performance of SQL statements).	Yes	C	Phase 1	

T5.1 DBMS

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
T5.1.15	The DBMS component must have the ability to support a variety of data model constructs including complex entity relationships and complex many-to-many relationships	Yes	C	Phase 1	
T5.1.16	The DBMS component will provide the ability to optimize individual queries and support parallelizing a query to run on multiple CPUs at the same time to increase performance.	Yes	C	Phase 1	
T5.1.17	The DBMS component will manage multiple query queue entries in parallel.	Yes	C	Phase 1	
T5.1.18	The DBMS component will offer tools to manage and control disparate mixed workloads in a Database Management Solution (DBMS) environment.	Yes	C	Phase 1	
T5.1.19	The DBMS component must have the ability to maintain security based upon appropriate roles	Yes	C	Phase 1	
T5.1.20	The DBMS component must have data replication capabilities to external file formats or other RDBM DBMS components.	Yes	C	Phase 1	
T5.1.21	The DBMS component will have full, incremental and transaction log backup and recovery capabilities on both a regular schedule and an ad hoc basis, including redundant off-site backups.	Yes	C	Phase 1	
T5.1.22	The DBMS component will provide the capability to remain fully-functional during database backup windows.	Yes	C	Phase 1	
T5.1.23	The DBMS component must support geo-coded address data for the storage and retrieval of latitude and longitude coordinates.	Yes	C	Phase 1	
T5.1.24	The DBMS component design will provide the framework to assist the State in developing procedures to ensure that specified data is archived and protected from loss, unauthorized access, or destruction.	Yes	C	Phase 1	
T5.1.25	The names of Tables, views, columns and indexes will follow a standard naming convention and not be cryptic and adhoc	Yes	C	Phase 1	
T5.1.26	The DBMS component design will provide the framework for naming conventions used in naming tables, views, columns and indexes.	Yes	C	Phase 1	
T5.1.27	The key tables will have initially defined partitions to facilitate archiving at a defined frequency.	Yes	C	Phase 1	
T5.1.28	The DBMS component design will specify if the application code is Database agnostic or tied to a specific database. If the code is partially database agnostic, the design must specify which modules are DBMS specific.	Yes	C	Phase 1	

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Phase Description
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 Phase 2 = R1 (Data Intake UI);
 Phase 3 = R2 (HHS programs for PI-1, PI-2 & PI-3);
 Phase 4 = Subsequent equals R3 (MDM, Reporting, etc.)

Volume 1 - Technical Proposal

Analytical Processing and Business Intelligence (BI)

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
T5.2.1	The BI Component will provide the ability to impose graduated access to reports based on user role and agency requirements/permissions to better analyze program data.	Yes	L	Phase 4	For the AR IE-BM, Optum is leveraging the State's existing Business Intelligence platform which includes reporting & analytics using Cognos and Tableau.
T5.2.2	The BI Component's business intelligence and reporting capabilities must be scalable to accommodate changes in BI Component scale including changes in user population, transaction volume, throughput and geographical distribution while maintaining the agreed service levels.	Yes	L	Phase 4	For the AR IE-BM, Optum is leveraging the State's existing Business Intelligence platform which includes reporting & analytics using Cognos and Tableau.
T5.2.3	The BI Component will have a mechanism to share specific data (e.g. limited data sets, detailed data at the level of the individual but with the data anonymous and completely de-identified, etc.) in a controllable fashion with other State and local agencies.	Yes	L	Phase 4	For the AR IE-BM, Optum is leveraging the State's existing Business Intelligence platform which includes reporting & analytics using Cognos and Tableau.
T5.2.4	The BI Component will be extensible and have a scalable data architecture incorporating State and external data.	Yes	L	Phase 4	For the AR IE-BM, Optum is leveraging the State's existing Business Intelligence platform which includes reporting & analytics using Cognos and Tableau.
T5.2.5	The BI Component will provide a tool to allow predictive modeling and analysis utilizing production data and coexist and integrate with such tools already in use	Yes	L	Phase 4	For the AR IE-BM, Optum is leveraging the State's existing Business Intelligence platform which includes reporting & analytics using Cognos and Tableau.

T5.2 BI Platform

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
T5.2.6	The BI Component will provide the ability for user to create and customize reports, queries, and dashboards.	Yes	L	Phase 4	For the AR IE-BM, Optum is leveraging the State's existing Business Intelligence platform which includes reporting & analytics using Cognos and Tableau.
T5.2.7	The BI Component design will provide a list of Out -of-Box standard set of Reports, Dashboards and visualizations that serve most of expected Reporting needs	Yes	L	Phase 4	For the AR IE-BM, Optum is leveraging the State's existing Business Intelligence platform which includes reporting & analytics using Cognos and Tableau.

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 RFP #: SP-17-0012
 Template T-8 - Technical Requirements Traceability Matrix

Phase Description

Phase 1 = R0 (Base technology);
 Phase 2 = R1 (Data Intake UI);
 Phase 3 = R2 (HHS programs for PI-1, PI-2 & PI-3);
 Phase 4 = Subsequent equals R3 (MDM, Reporting, etc.)

Volume 1 - Technical Proposal

Identity and Access Management (IAM)

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
T6.1.1	The IAM component design will comply with U.S. Department of Health & Human Services and U.S. Department of Education privacy and data security requirements, including, but not limited to, the Health Insurance Portability and Accountability Act (HIPAA), the Family Educational Rights and Privacy Act (FERPA) and the Health Information Technology for Economic and Clinical Health (HITECH) Act provisions of the American Recovery and Reinvestment Act (ARRA) of 2009.	Clarification	L	Phase 1	Optum is leveraging the State's existing IAM solution (CA IAM). The IAM technical capabilities will be implemented in R0. Specific IAM setup and requirements will be fulfilled in R1 (for UI) and R2 (for HHS programs) and R3 (for State Hub).
T6.1.2	The IAM component will comply with all applicable State security policies.	Clarification	L	Phase 1	Optum is leveraging the State's existing IAM solution (CA IAM)
T6.1.3	The IAM component will implement security controls in accordance with all Federal and State security policy and regulations.	Clarification	L	Phase 1	Optum is leveraging the State's existing IAM solution (CA IAM)
T6.1.4	The IAM component will meet: a. NIST 800-53A and NIST 800-53 rev3 Moderate baseline b. IRS pub 1075, which points back to NIST 800-53 rev 3 c. NIST 800-53A rev1 guidance (http://csrc.nist.gov/publications/nistpubs/800-53A-rev1/sp800-53A-rev1-final.pdf) and Harmonized Security and Privacy Framework.	Yes	L	Phase 1	Optum is leveraging the State's existing IAM solution (CA IAM)
T6.1.5	The IAM component design will adhere to the principle of "Fail Safe" to ensure that a IAM component in a failed state does not reveal any sensitive information or leave any access controls open for attacks	Yes	L	Phase 1	Optum is leveraging the State's existing IAM solution (CA IAM)
T6.1.6	The IAM component will allow for controlled access to participant records. Users will be able to view participant data within the IAM component at the DHS-defined levels of access based on user security privileges.	Yes	L	Phase 1	Optum is leveraging the State's existing IAM solution (CA IAM)
T6.1.7	The IAM component will provide for security concepts covering the following components: Virtual Private Network (VPN), firewall technology and Demilitarized Zone (DMZ), virus-/intrusion detection, mail/content filtering avoiding fault positives, encryption, Public Key Infrastructure (PKI).	Yes	L	Phase 1	Optum is leveraging the State's existing IAM solution (CA IAM)
T6.1.8	The IAM component will maintain a level of security that is commensurate with the risk and magnitude of the harm that could result from the loss, misuse, disclosure, or modification of information.	Yes	L	Phase 1	Optum is leveraging the State's existing IAM solution (CA IAM)

T6.1 IAM

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
T6.1.9	Information security will be built into the IAM component from its inception rather than "bolted on" after the IAM component has been implemented.	Yes	L	Phase 1	Optum is leveraging the State's existing IAM solution (CA IAM)
T6.1.10	The IAM component will support security at the object level (e.g. Table, View, Index).	Yes	C	Phase 1	
T6.1.11	The IAM component will support security at the row and column level.	Yes	C	Phase 1	
T6.1.12	The IAM component will support auditing at the object level (i.e. Table, Column).	Yes	C	Phase 1	
T6.1.13	The IAM component will provide the ability for concurrent users to simultaneously view the same record, documentation and/or template.	Yes	C	Phase 1	
T6.1.14	The IAM component will provide protection to maintain the integrity of data during concurrent access.	Yes	C	Phase 1	
T6.1.15	The software used to install and update the IAM component, independent of the mode or method of conveyance, will be certified free of malevolent software ("malware"). Vendor may self-certify compliance with this standard through procedures that make use of commercial malware scanning software.	Yes	C	Phase 1	
T6.1.16	The IAM component will be configurable to prevent corruption or loss of data already accepted into the system in the event of any solution component failure	Yes	C	Phase 1	
T6.1.17	The IAM component will support protection of confidentiality of all Protected Health Information (PHI) delivered over the Internet or other known open networks via encryption using triple-DES (3DES) or the Advanced Encryption Standard (AES) and an open protocol such as Transport Layer Security (TLS), Secure Sockets Layer (SSL), Internet Protocol Security (IPsec), XML encryptions, or Secure/Multipurpose Internet Mail Extensions(S/MIME) or their successors.	Yes	C	Phase 1	
T6.1.18	The IAM component, when storing PHI on any device intended to be portable/removable (e.g. smartphones, portable computers, portable storage devices), will support use of a standards based encrypted format using 3DES, AES or their successors.	Clarification	D	Phase 3	If there is a requirement to store PHI data on a mobile device, we will need to perform some development to provide this capability since we do not currently have a need to store any data on a local device. We will be happy to address this requirement with you during the requirements validation phase.
T6.1.19	The IAM component, prior to access to any PHI, will display a configurable warning or login banner (e.g. "The System should only be accessed by authorized users"). In the event that a IAM component does not support pre-login capabilities, the IAM component will display the banner immediately following authorization.	Yes	L	Phase 1	Optum is leveraging the State's existing IAM solution (CA IAM)
T6.1.20	The IAM component will support a form of user authentication.	Yes	L	Phase 1	Optum is leveraging the State's existing IAM solution (CA IAM)

T6.1 IAM

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
T6.1.21	The IAM component design must use an advanced form of user authentication utilizing multiple form factors and/or "biometric" mechanisms. The design must account for advanced forms of user authentication (including two-factor authentication using hardware tokens, biometric devices, confirmation codes sent to a mobile phone, etc.) that will maximize effectiveness and minimize inconvenience for DHS and legitimate users.	Yes	L	Phase 1	Optum is leveraging the State's existing IAM solution (CA IAM)
T6.1.22	The IAM component upon detection of inactivity of an interactive session will prevent further viewing and access to the System by that session by terminating the session, or by initiating a session lock that remains in effect until the user reestablishes access using appropriate identification and authentication procedures. The inactivity timeout will be configurable.	Yes	C	Phase 1	
T6.1.23	The IAM component will enforce a limit of (configurable) consecutive invalid access attempts by a user. The IAM component will protect against further, possibly malicious, user authentication attempts using an appropriate mechanism (e.g. locks the account/node until released by an administrator, locks the account/node for a configurable time period, or delays the next login prompt according to a configurable delay algorithm).	Yes	L	Phase 1	Optum is leveraging the State's existing IAM solution (CA IAM)
T6.1.24	The IAM component will provide the capability to prevent database administrators from seeing the data in databases they maintain.	Yes	C	Phase 1	
T6.1.25	The IAM component will support grouping users by functional departments or other organization to simplify security maintenance.	Yes	C	Phase 1	
T6.1.26	The IAM component will provide the ability to capture and maintain identifiers required for licensed clinicians to support their practice.	Yes	C	Phase 1	
T6.1.27	The IAM component will provide the ability to maintain a directory of all personnel who currently use or access any part of System functionality	Yes	C	Phase 1	
T6.1.28	The IAM component will provide the ability to create and maintain a directory of external providers to facilitate communication and information exchange.	Yes	C	Phase 1	
T6.1.29	The IAM component will provide the ability to identify certain information as confidential (e.g. PII, PHI, etc.) and only make that accessible by appropriately authorized users.	Yes	C	Phase 1	
T6.1.30	The IAM component will restrict access to summarized information according to organizational policy, scope of practice, and jurisdictional law.	Yes	C	Phase 1	

T6.1 IAM

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
T6.1.31	The IAM component must be able to associate permissions with a user using one or more of the following access controls: 1) user-based (access rights assigned to each user) 2) Role-Based Access Controls (RBAC; users are grouped by role and access rights assigned to these groups) 3) context-based (role-based with additional access rights assigned or restricted based on the context of the transaction such as time-of-day, workstation-location, emergency-mode, etc.)	Clarification	L	Phase 1	Optum is leveraging the State's existing IAM solution (CA IAM)
T6.1.32	The IAM component will provide the ability to prevent specified user(s) or groups from accessing confidential information such as a patient's chart.	Yes	C	Phase 1	
T6.1.33	The IAM component will provide the ability to limit access to certain confidential information such as a patient's chart to providers directly involved in service of the patient, or providers involved in review of the service.	Yes	C	Phase 1	
T6.1.34	When access to a user's account is restricted, the IAM component will provide a means for appropriately authorized users to "break the glass" and obtain access for emergency situations, as defined by DHS policy.	Yes	C	Phase 1	
T6.1.35	When access to a chart is restricted and the "break the glass" has occurred, the IAM component will provide the ability to notify specified users and provide an audit trail for this access.	Yes	C	Phase 2	
T6.1.36	The IAM component will enforce the most restrictive set of rights/privileges or accesses needed by users/groups or processes acting on behalf of users, for the performance of specified tasks.	Yes	C	Phase 1	
T6.1.37	The IAM component will provide the ability for authorized administrators to assign restrictions or privileges to users/groups.	Yes	C	Phase 1	
T6.1.38	The IAM component will support removal of a user's privileges without deleting the user from the System to ensure history of user's identity and actions.	Yes	C	Phase 1	
T6.1.39	The IAM component will be able to support RBAC in compliance with the HL7 Permissions Catalog.	Yes	C	Phase 1	
T6.1.40	The IAM component will be capable of operating within an RBAC infrastructure conforming to ANSI INCITS 359-2004, American National Standard for Information Technology – Role Based Access Control.	Yes	L	Phase 1	Optum is leveraging the State's existing IAM solution (CA IAM)
T6.1.41	The IAM component will provide more-advanced session management abilities such as prevention of duplicate logins, remote logout and location-specific session timeouts.	Yes	L	Phase 1	Optum is leveraging the State's existing IAM solution (CA IAM)

T6.1 IAM

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
T6.1.42	The IAM component design will provide the ability to perform Security administration functions such as reference table maintenance and adding / removing users from the System	Yes	C	Phase 1	
T6.1.43	The IAM component will allow users access based on their roles irrespective of their geographical location.	Yes	C	Phase 1	
T6.1.44	The IAM component will provide the capability to integrate with existing authentication and authorization mechanisms.	Yes	L	Phase 1	Optum is leveraging the State's existing IAM solution (CA IAM)
T6.1.45	The IAM component will provide the capability to create temporary and emergency accounts and terminate those accounts automatically after a user defined period of time.	Yes	L	Phase 1	Optum is leveraging the State's existing IAM solution (CA IAM)
T6.1.46	The IAM component will provide the capability to override a role and restrict access to information by users or groups of users.	Yes	C	Phase 1	
T6.1.47	The IAM component will allow an individual with active eligibility under a different user id to reapply under their own user id.	Yes	L	Phase 2	Optum is leveraging the State's existing IAM solution (CA IAM)
T6.1.48	The IAM component will provide the capability to monitor events and detect attacks, and provide identification of unauthorized use of the System.	Yes	L	Phase 1	Optum is leveraging the State's existing IAM solution (CA IAM)
T6.1.49	The IAM component will provide the capability to identify and report on inappropriate access to information in the System, based on user defined criteria.	Yes	L	Phase 1	Optum is leveraging the State's existing IAM solution (CA IAM)
T6.1.50	The IAM component will enforce minimum password requirements compliant with State-provided security policies	Yes	L	Phase 1	Optum is leveraging the State's existing IAM solution (CA IAM)
T6.1.51	The IAM component will allow User to change his or her password at any time	Yes	L	Phase 1	Optum is leveraging the State's existing IAM solution (CA IAM)
T6.1.52	The IAM component will have mandatory security questions for the User to answer for username and password validation in case of any user requested changes	Yes	L	Phase 1	Optum is leveraging the State's existing IAM solution (CA IAM)
T6.1.53	The IAM component will allow for online password reset self-service	Yes	L	Phase 1	Optum is leveraging the State's existing IAM solution (CA IAM)
T6.1.54	The IAM component will prevent multiple sessions for any single user ID. A session may be defined as the activity wherein a user with a unique IP address accesses the System during a specified period of time.	Yes	L	Phase 1	Optum is leveraging the State's existing IAM solution (CA IAM)
T6.1.55	The IAM component will have the ability to revoke external access to any change in circumstances, as defined in Functional requirements	Yes	L	Phase 1	Optum is leveraging the State's existing IAM solution (CA IAM)
T6.1.56	The IAM component will notify specified users (and provide an audit trail for this access) when access to client's confidential data is restricted but the "break the glass" has occurred	Yes	C	Phase 1	

T6.1 IAM

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
T6.1.57	The IAM component will support grouping users by roles, functional departments or other organization to simplify security maintenance	Yes	C	Phase 1	
T6.1.58	The IAM component will provide the ability to maintain a directory of all personnel who currently use or access the System	Yes	L	Phase 1	Optum is leveraging the State's existing IAM solution (CA IAM)
T6.1.59	The IAM component will, upon detection of inactivity of an interactive session, prevent further viewing and access to the System by that session by terminating the session, or by initiating a session lock that remains in effect until the user reestablishes access using appropriate identification and authentication procedures. The inactivity timeout will be configurable.	Yes	L	Phase 1	Optum is leveraging the State's existing IAM solution (CA IAM)

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 RFP #: SP-17-0012
 Template T-8 - Technical Requirements Traceability Matrix

Phase Description

Phase 1 = R0 (Base technology);
 Phase 2 = R1 (Data Intake UI);
 Phase 3 = R2 (HHS programs for PI-1, PI-2 & PI-3);
 Phase 4 = Subsequent equals R3 (MDM, Reporting, etc.)

Volume 1 - Technical Proposal

Privacy and Consent Management

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
T6.2.1	The Privacy and Consent Management component will be interoperable / vendor agnostic.	Yes	C	Phase 1	
T6.2.2	The Privacy and Consent Management component will support break-the-glass / override access for emergency data access per HIPAA.	Yes	C	Phase 1	
T6.2.3	The Privacy and Consent Management component will provide an alert mechanism for privacy breaches.	Yes	C	Phase 1	
T6.2.4	The Privacy and Consent Management component will be SOA-based	Yes	C	Phase 1	
T6.2.5	The Privacy and Consent Management component will be non-disruptive to worker workflow	Yes	C	Phase 1	
T6.2.6	The Privacy and Consent Management component will be centralized to consistently enforce policies network-wide	Yes	C	Phase 1	
T6.2.7	The Privacy and Consent Management component will enable all applications to support consumer consent	Yes	C	Phase 1	
T6.2.8	The Privacy and Consent Management component will accommodate granular directives	Yes	C	Phase 1	
T6.2.9	The Privacy and Consent Management component will audit all access to protected information in real time	Yes	C	Phase 1	
T6.2.10	The Privacy and Consent Management component will provide an alert mechanism for privacy breaches or when HIPAA break-the-glass or override functions are enacted	Yes	C	Phase 1	
T6.2.11	The Privacy and Consent Management component will be highly flexible to meet changing requirements	Yes	C	Phase 1	
T6.2.12	The design will have the consent service tied into role-based access control Privacy and Consent Management component for real-time permissions access-granting/removal/denial.	Yes	C	Phase 1	
T6.2.13	The component will accommodate extensive search and reporting capabilities on any consent audit event data.	Yes	C	Phase 1	
T6.2.14	The component will maintain historical records of consent/removal of consent.	Yes	C	Phase 1	

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Infrastructure

The proposed solution must be hosted by DIS. The State of Arkansas has defined which technologies must be leveraged as part of the vendor's solution (Mandatory) and which the

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
T7.1	For Platform requirements, the State has a "Mandatory" requirement for the Vendor to propose one or more of the following technologies as part of their Solution Architecture - Windows, Linux, AIX (Mandatory). The vendor must include this tool in their system architecture	Yes	C	Phase 1	
T7.2	For Virtualization requirements, the State has a "Preference" for the Vendor to propose one or more of the following technologies as part of their Solution Architecture - Power VM, VMWare (Preferred). The vendor may propose an alternate technology with a detailed and compelling justification if it deems it suitable within the overall solution architecture being proposed	Yes	L	Phase 1	We intend to use the State's preferred technology, as listed.
T7.3	For Server Infrastructure requirements, the State has a "Preference" for the Vendor to propose one or more of the following technologies as part of their Solution Architecture - Power 770, Linux, Wintel Servers (Preferred). The vendor may propose an alternate technology with a detailed and compelling justification if it deems it suitable within the overall solution architecture being proposed	Yes	L	Phase 1	We intend to use the State's preferred technology in addition to providing requirements that will allow for integration into our platform to address possible compatibility with the P-770 Platform
T7.4	For Data center/Hosting Infrastructure requirements, the State has a "Mandatory" requirement for the Vendor to utilize DIS Hosting Facilities in Little Rock (Mandatory) as part of their Solution design and implementation. The vendor must include this tool in their system architecture	Yes	L	Phase 1	We intend to use the State's preferred technology, as listed.
T7.5	For Networking Infrastructure requirements, the State has a "Mandatory" requirement for the Vendor to utilize DIS Network Infrastructure (Mandatory) as part of their Solution design and implementation. The vendor must include this tool in their system architecture	Yes	L	Phase 1	We intend to use the State's preferred technology, as listed.
T7.6	For Applications Monitoring the State has a "Preference" the Vendor proposes Wiley as part of their solution architecture (Preferred). The vendor may propose an alternate technology with a detailed and compelling justification if it deems it suitable within the overall solution architecture being proposed	Yes	L	Phase 1	We intend to use the State's preferred technology, as listed.
T7.7	For Infrastructure Monitoring the State has a "Preference" the Vendor proposes Nagios and Ganglia as part of their solution architecture (Preferred). The vendor may propose an alternate technology with a detailed and compelling justification if it deems it suitable within the overall solution architecture being proposed	Yes	L	Phase 1	We intend to use the State's preferred technology, as listed.

T7 Infrastructure

Req #	Requirement Description	Requirement Met	Solution Method	Proposed Phase	Suggested Clarifying Comments
T7.8	For defect management and help desk/incident management, the State has a "Mandatory" requirement the Vendor leverages the State's implementation of JIRA as part of their solution design (Mandatory). The vendor must include this tool in their system architecture	Yes	L	Phase 1	We intend to use the State's preferred technology, as listed.
T7.9	For deployment automation the State has a "Preference" the Vendor proposes Jenkins as part of their solution architecture. The vendor may propose an alternate technology with a detailed and compelling justification if it deems it suitable within the overall solution architecture being proposed	Yes	L	Phase 1	We intend to use the State's preferred technology, as listed.
T7.10	For code versioning the State has a "Preference" the Vendor proposes Jenkins as part of their solution architecture. The vendor may propose an alternate technology with a detailed and compelling justification if it deems it suitable within the overall solution architecture being proposed	Yes	L	Phase 1	We intend to use the State's preferred technology, as listed.
T7.11	For document management the State has a "Preference" the Vendor proposes SharePoint as part of their solution architecture. The vendor may propose an alternate technology with a detailed and compelling justification if it deems it suitable within the overall solution architecture being proposed	Yes	L	Phase 1	We intend to use the State's preferred technology, as listed.
T7.12	For batch scheduling the State has a "Preference" the Vendor proposes AutoSys as part of their solution architecture. The vendor may propose an alternate technology with a detailed and compelling justification if it deems it suitable within the overall solution architecture being proposed	Yes	L	Phase 1	We intend to use the State's preferred technology, as listed.
T7.13	For test automation and management the State has a "Preference" the Vendor proposes Rational Test Manager, Selenium, as part of their solution architecture. The vendor may propose an alternate technology with a detailed and compelling justification if it deems it suitable within the overall solution architecture being proposed	Yes	L	Phase 1	We intend to use the State's preferred technology, as listed.

Template T-9

Technical Requirements Approach













Response Template

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Technical Requirements Approach

The Vendor should provide a narrative overview of how the System will meet the Integrated Eligibility and Benefits Management (IE-BM) Project technical requirements. The following questions pertaining to technology and application architecture requirements and policy should be answered by the Vendor.

While responding, the Vendor should reference the IE-BM SOW, the Generalized System Design (GSD) document and other technical and infrastructure documentation provided as part of the Procurement Library, to gain an overall understanding of the current application and infrastructure environment and future DHS vision.

Please use these response sections to provide specific details of the proposed approach to meeting DHS requirements in each area. Responses should, when necessary, reference requirements using the appropriate RFP Requirement Numbers from Template T-8 – Technical Requirements Traceability Matrix.

Responses for the Technical Requirements Approach should be highly focused on the specific requirements and should not simply provide generic or marketing descriptions of technology or product capabilities. Also, include one (1) or more diagrams where necessary that detail the proposed design and the relationships between key technical components.

1.0 General Technical Solution Approach

Instructions: Describe in detail the overall technical approach and proposed System architecture/design. At a minimum, please describe:

- How the technical design/architecture will meet the technical requirements and deliver the business objective, focusing on delivering DHS vision
- How the technical design will ensure sharing of data and information across the DHS IE-BM Solution
- How the technical design aligns with DHS technology standards (including SOA compliance) and justification for any deviations from the standards, and technology component mandates and preferences
- How each of the proposed COTS solution components will be used to fulfill the Solution design

Additionally, describe in detail how the Vendor's approach to the technical requirements will leverage COTS solutions and tools to minimize custom development. If custom development is required, include a detailed description of where and how customization would be undertaken to fulfill specific functionality that cannot be fulfilled by COTS.

We built the Optum Integrated Eligibility Solution (IES) to meet the Centers for Medicare and Medicaid Services (CMS) objectives to leverage existing, proven, modular technologies. This gives you the flexibility to continuously mature your capabilities and meet changing federal and State requirements for the life of the AR IE-BM Solution. The configurable design enables you to quickly integrate changes within the AR IE-BM Solution in a more cost-effective manner. The solution integrates with your existing legacy systems, updated platforms and external sources.

The Optum IES provides the required modular components, a consolidated data model, and feature-rich portals to extend functionality to required stakeholders. This unique approach also meets State and federal goals for modularity and reuse.

Taking a modular approach, the Optum IES provides the following advantages:

- Flexibility in design to meet changing project requirements for a given module
- Scalability where needed
- Adaptability to develop and test each module separately within their own lifecycles and schedules
- Capability to independently version modules
- Ability for distributed deployment of modules that do not require deployment in the same environment or physical location
- Leveragability of well-defined interfaces (Application Program Interfaces [APIs]) – enabling high internal cohesion and loose coupling between modules

Optum Will Meet the Requirements, Deliver the Business Objective and Focus on the DHS Vision

The AR IE-BM Solution will support your vision and business objectives. We will deliver a solution that is architected from the ground up based on principles of delivering a consistent, high-performing person-centered IE platform. We base our end-user design on the understanding of the person/family-centric model. This model verifies that the citizen can easily use the system, without training, to apply for his/her applicable benefits.

Optum selected commercial off-the-shelf (COTS) products to accommodate the various components required to meet your AR IE-BM requirements. We integrate the components by leveraging a common Enterprise Service Bus (ESB) and defined API approach. Our goal is to deliver maximum customer satisfaction with a comprehensive self-service model. This design allows a streamlined application process and creates a single source of truth for benefit information and stakeholder access while minimizing customizations.

We know that access to data and information is very important for your staff members and stakeholders. We work to make the appropriate data available and consumable so that your staff are able to make appropriate program eligibility decisions without extensive searching.

Optum also recognizes the importance of creating the most value to support your vision. We do this in several ways. By establishing an integrated platform of reusable components that will decrease the Total Cost of Ownership (TCO) of the solution, the solution will also support future business needs while reducing the associated technology risks. Through our modular design and API approach, we also work to achieve improved operational efficiency and effectiveness, which improves the TCO.

Optum AR IE-BM Solution Will Provide Data and Information Sharing

The Optum IES enables data sharing across the modules and solutions using industry standard design principles, technologies and protocols. Sharing data and information across the whole solution is made possible by using integration techniques, such as Web services, queuing, and file transfer through the Optum Integration Layer (OIL). This is regardless of whether a module sits within the Arkansas State Data Center on the mainframe or distributed system, in a private cloud, in a public cloud, or in another Arkansas State government agency.

Our broad integration ability uses implementation-specific adapters or service proxies that communicate with the OIL core. Each service proxy exists between a modern or legacy enterprise system and a standard OIL service supporting an industry-specific data format and transaction technology. SOA services expose functionality and data from the source system. SOA services are designed in a business-enabled manner, aligned to the consuming portal application and decoupled from source systems.

The Optum IES uses modern data sharing techniques. These include Representational State Transfer (REST) or Simple Object Access Protocol (SOAP)-based Web services that minimize reliance on batch processing. Batch processing is appropriate in certain circumstances, including bulk processing of data for a specified population. The dependence on batch processing is not a limitation of the technology. In most cases, it is a way to conform to business processes that require a total population view to certify that the outcome matches the expected result.

We have avoided two-way data synchronization and maintain strict adherence to the system of record principle. This prevents source data from becoming out of sync, a condition that requires a complex reconciliation processes. A single system of record fosters better data management, governance, retention and protection.

To further prevent data synchronization and reconciliation issues, we will manage the data within the Arkansas State Data Center, providing data governance and operational maintenance. This enables us to keep data within the appropriate application domain. We will provide access, as appropriate, to other applications through secure one-way APIs. Any maintenance of the data will be performed natively on the application and in alignment with DHS Technology Standards.

Optum AR IE-BM Solution Alignment With DHS Technology Standards

Optum will conform to the technology mandates outlined by DHS in this RFP by positioning you to incorporate changes that support your Arkansas Works objective. We will provide you a system that is built to adapt to your changing environment. The COTS solution we propose meets your desire for a flexible system that is designed to change easily as your business requirements change. We will deliver a significantly more modular and configurable system than what is currently in place. Our API approach provides faster integrations with other Arkansas environments and ability to connect with external sources. The following table illustrates our alignment to your preferred and mandatory technologies.

Table A: Optum Alignment to DHS Technology

Section #	Technical Solution Component	DHS Preferred Technology and Preference Level	Optum Alignment
T1.1	Portal	Preferred - Cúram Citizen Portal	
T2.1	CRM/Case Management Solution	Preferred - Cúram Health Care reform (HCR) for MAGI Medicaid and Cúram Global Income Support Suite CGISS for SNAP	
T2.2	Notifications and Alerts Functionality	No Preference	

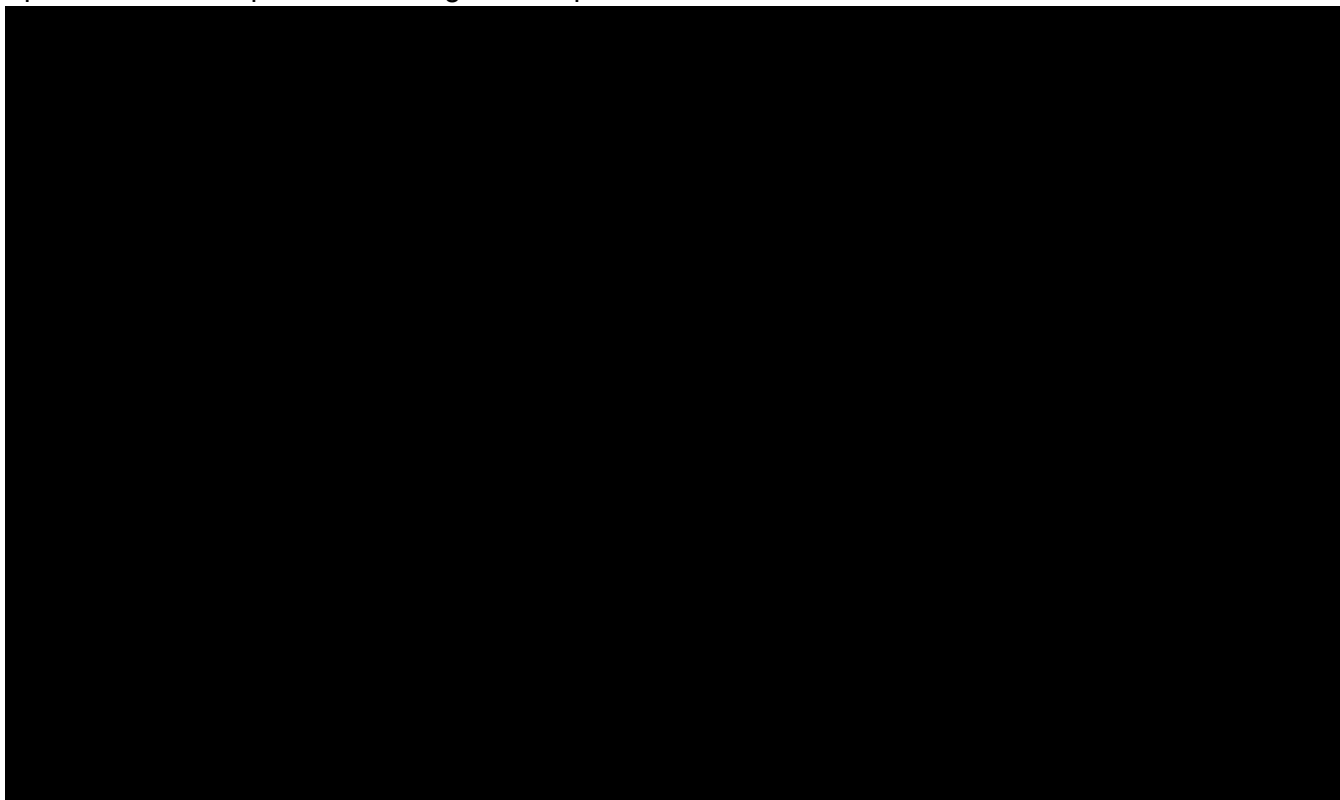
Section #	Technical Solution Component	DHS Preferred Technology and Preference Level	Optum Alignment
T3.1	Business Rules Management Engine (BRE)	No Preference	[REDACTED]
T3.2	Workflow, Business Process Management (BPM)	No Preference	[REDACTED]
T3.3	Enterprise Content Management (ECM)	No Preference	[REDACTED]
T3.4	Application Server	Preferred - WebSphere Application Server	[REDACTED]
T4.1	Application Integration and Enterprise Service Bus (ESB)	Preferred - Informatica	[REDACTED]
T4.2	Data Integration, Quality and ETL (Extract, Transform and Load)	Preferred - Informatica	[REDACTED]
T4.3	MDM (Master Data Management)	Preferred - Informatica or IBM InfoSphere Initiate	[REDACTED]
T5.1	DBMS	Preferred - DB2 or SQL Server	[REDACTED]
T5.2	Business Intelligence (BI)	Preferred – Cognos	[REDACTED]
T6.1	Identity and Access Management (IAM)	Preferred – CA IAM	[REDACTED]
T6.2	Privacy and consent	No Preference	[REDACTED]
T7.1	Platform	Mandatory - Windows, Linux, AIX	Linux and Windows
T7.2	Virtualization	Preferred - Power VM, VMWare	[REDACTED]
T7.3	Server Infrastructure	Preferred - Power 770, Linux, Wintel	[REDACTED]
T7.4	Data Center / Hosting Infrastructure	Mandatory – DIS Provided	DIS Provided
T7.5	Network Infrastructure	Mandatory – DIS Provided	DIS Provided
T7.6	Development, Operations and Support Tools	No Preference	[REDACTED]

Optum AR IE-BM Solution COTS Components

Figure 1 shows a detailed solution context diagram illustrating each module within our proposed AR IE-BM Solution. As you can see, we have taken a modular approach, incorporating SOA

guiding principles and other industry-standard design patterns built around COTS components and industry-standard open source libraries. We also take into consideration your future objectives to support the Arkansas Works program and initiatives. Within our core Optum IES, we leverage industry leading COTS components.

as well as several other COTS components to provide a broad spectrum of integration capabilities.



Our solution for the AR IE-BM incorporates defined modules into distinct business components.

As noted, our solution is built on a SOA architecture (as opposed to a point-to-point architecture) enabled by the OIL, [REDACTED]. As a result, you will have the option to use our services or to extend the solution to leverage State or third-party assets, as shown in Figure 1. This provides the high level of solution flexibility that you desire, while minimizing custom development of traditional systems that other IE vendors deliver.

[REDACTED] You can connect an eligibility and enrollment module for social service programs (e.g., Medicaid, Qualified Health Plans [QHPs], Supplemental Nutrition Assistance Program [SNAP] or Children’s Health Insurance Program [CHIP]) with other benefit management, provider management, content and fulfillment management, financial management and other legacy systems. The AR IE-BM will use these same guiding SOA principles.

Based on the Optum AR IE-BM Solution Context Diagram in Figure 1, the following table illustrates how the Optum IES provides the functionalities that meet the solution requirements and address your stakeholders’ needs.

Table B: Optum IES Component and Required Functionalities

Solution Component	Meeting User Functionality Requirements
[REDACTED]	<ul style="list-style-type: none"> ■ Manual verifications ■ Final determination ■ Change of circumstance
[REDACTED]	<ul style="list-style-type: none"> ■ Eligibility determination ■ Verification ■ Change of circumstance ■ Renewals/redeterminations ■ Benefit determination and calculation
[REDACTED]	<ul style="list-style-type: none"> ■ Prescreening ■ Application intake ■ Anonymous browsing ■ Change of circumstance
[REDACTED]	<ul style="list-style-type: none"> ■ Prescreening rules ■ Eligibility determination rules ■ Verification rules
[REDACTED]	<ul style="list-style-type: none"> ■ Document/letter generation ■ Digital/electronic signature
[REDACTED]	<ul style="list-style-type: none"> ■ Identity matching ■ Identity resolution
[REDACTED]	<ul style="list-style-type: none"> ■ Protocol conversion ■ Transformation ■ Routing ■ Throttling ■ Syntax validation ■ Splitting ■ Business integration services

2.0 General System Behavior Requirements Approach

The Vendor should ensure that the responses to this section are in alignment with the requirements set forth in each respective tab of Template T-8 — Technical Requirements Traceability Matrix, on the tabs starting with G.

Overview

Our approach to the AR IE-BM fully supports your vision and objectives. The system will use SOA principles built around modular COTS components and modules. This will help eliminate some of the barriers and struggles you may be experiencing with your current system between different applications, processes and diverse data types. Our multi-tier SOA provides the ability to leverage and integrate with almost any existing solution, asset or system. The solution architecture uses an ESB developed and implemented by Optum. SOA architecture enabled using the OIL ESB communicates on the bus instead of point to point.

Optum will meet security regulations through embedded controls designed and based on a layered SOA model and associated threats to each layer. We distribute security controls across the environment to prevent unauthorized opportunistic access. The techniques and mechanisms we use to protect data include advanced data protection; application and platform hardening; encryption and entitlement review; multi-factor authentication; physical, logical and virtual isolation; and Role-Based Access Control (RBAC).

We will monitor, measure, and optimize system and application performance. We will verify consistent and superior response time, enhanced stability, and required scalability built around your business needs and your future vision to support the requirements of the Arkansas Works program. Our recommended monitoring tools will capture the availability status of each monitored environment. Monitored environments identify, record, report and analyze equipment or system alarms and conditions that may lead to abnormal operations.

2.1 Usability

Instructions: Describe the design approach and the characteristics of the user interface for the System. The System must be designed to utilize a browser based or a Rich Internet Application that can provide feature rich applications that can be updated over the WAN and the Internet, and should deliver a consistent user experience to the various user groups. At a minimum, please describe:

- How the User interface will support different types of users (e.g. end users who log in very infrequently and Intake Workers who log in daily) using fixed location and mobile devices
- How the System will allow the users to easily navigate to a variety of functions available to them without having to move sequentially through excessive menus and screens
- How the System will allow incomplete data sets to be saved for completion of the workflow at a later time
- How the System will have the capability to push messages to the intended workers without requiring them to specifically inquire for the data

- How the System will maintain compatibility with the three (3) most current versions of each browser (Chrome, IE and Safari), provide data over a web browser interface (i.e., HTML over HTTP) and will include the capability to encrypt the data communicated over the network via SSL (HTML over HTTPS)

This response addresses requirements contained in Tab G1 of the Technical Requirements Traceability Matrix. We will meet all 62 of the requirements in this Tab through configuration.

In this section, we describe in detail how we designed the AR IE-BM for easy use by a wide range of users. Usability and accessibility are integral to an efficient and effective system. We used best practices in user experience and user interface development, including ethnographic analysis and producing iterations based on feedback. As a result, our methods enable us to develop a system that allows users to easily navigate functions, save their application if they need to come back to it later and receive different types of messages. By regularly checking for compatibility, the solution will be readily accessible on common browsers using both fixed location and mobile devices.

User Interface Support

When designing a user interface, it is important to understand the person using the system. We gain insight and connect with the people who we service to understand their needs then design a tool with their needs in mind. We began by looking at the user research from an ethnographic study Optum sponsored. The research included potential users from three cities, including Little Rock, Arkansas, as well as interview with enrollment workers from other states. We gained insights from this process that we have incorporated into our solution.

We will configure the AR IE-BM user interface with a profound understanding of that study, your business requirements, your goals, and user roles. Optum will work with the project team to deploy the solution that will evolve through the agile process. We will continue to configure by iterating the design, creating task flows, wireframes and prototypes, while obtaining feedback throughout the design process. We will combine this knowledge with your branding, terminology, conventions and accessibility requirements to create an intuitive, user-friendly interface for you and your stakeholders.

Figure 2 provides a snapshot example of our responsive user interface for fixed location and mobile device users.

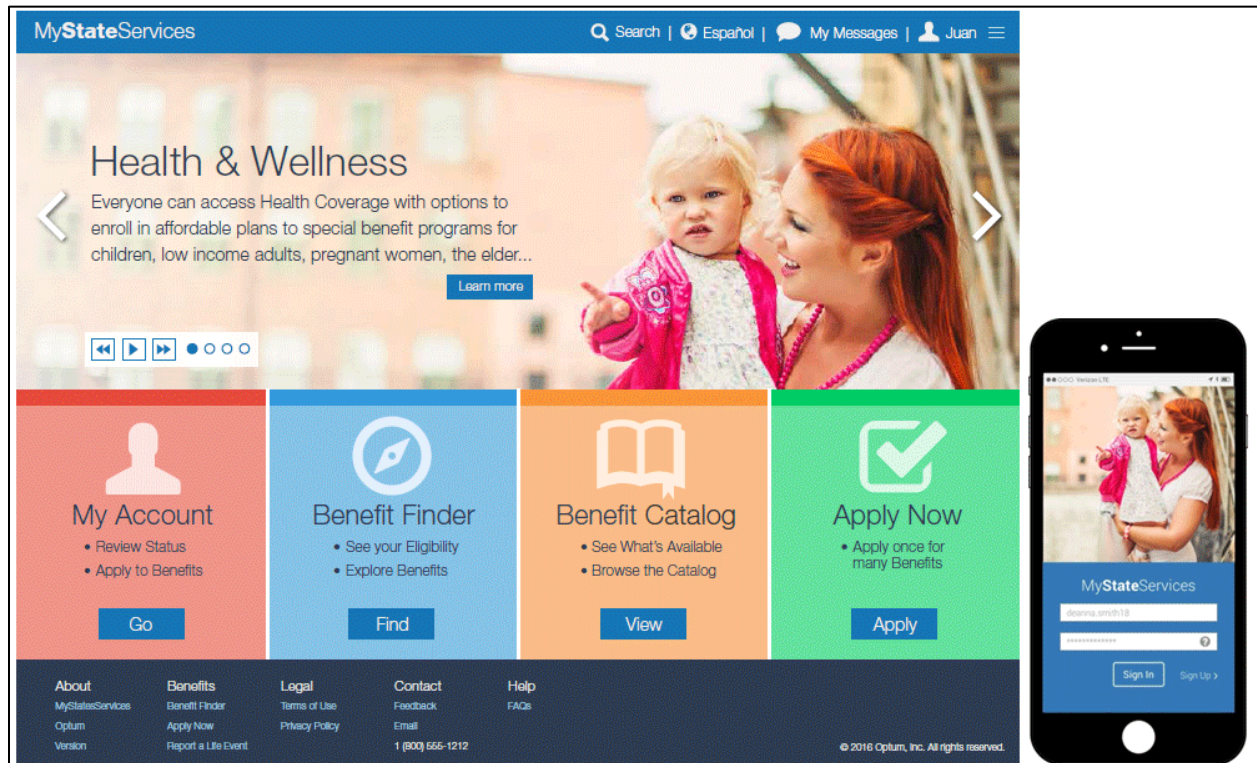
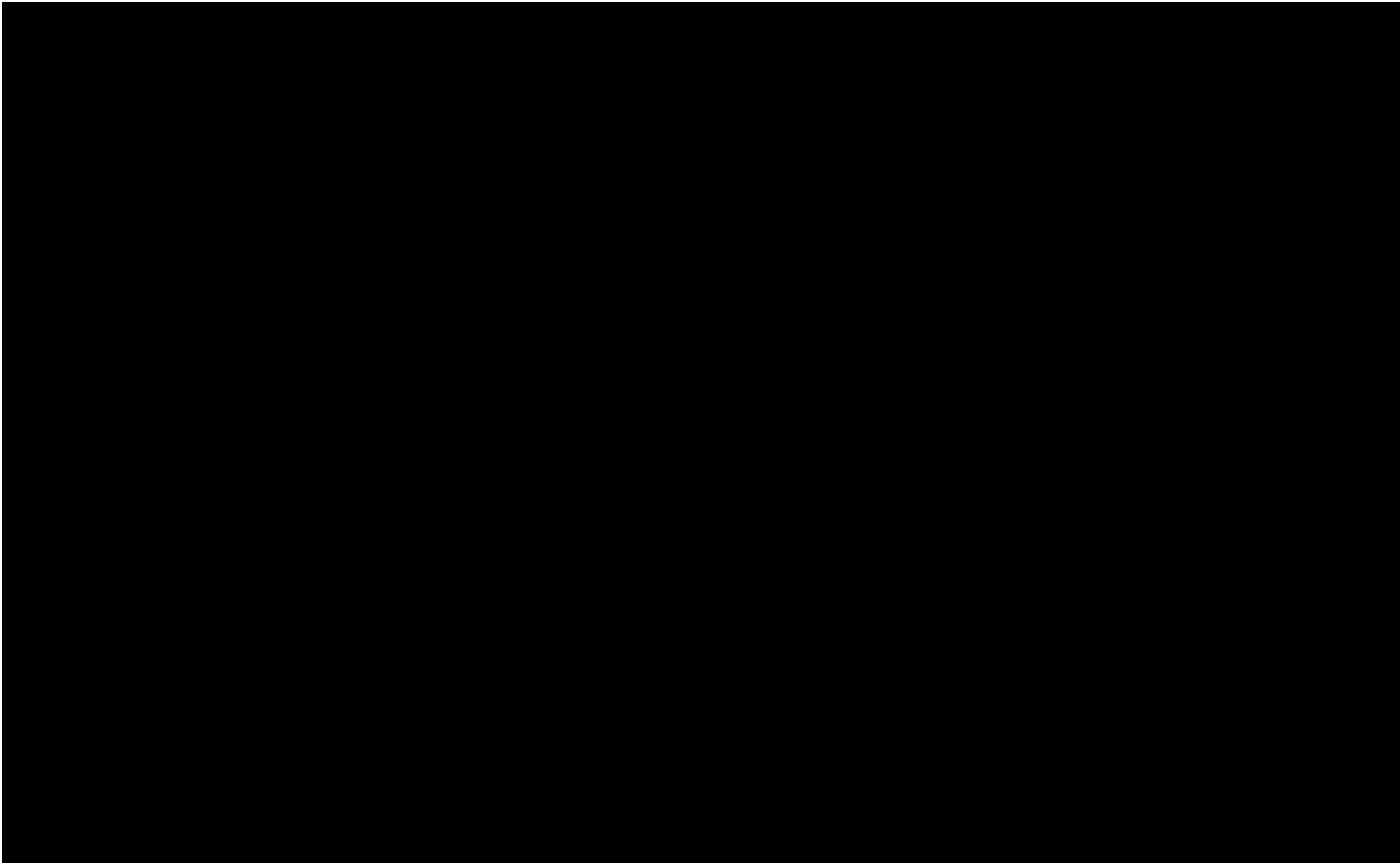


Figure 2. Optum IES User Interface Example.

End users will have the ability to interact with the AR IE-BM Solution at their desk or at a remote location.

The AR IE-BM will accommodate diverse populations of users in accordance with Arkansas and federal regulations under the Rehabilitation Act of 1973. The solution will extend beyond Section 508 and move to Web Content Accessibility Guidelines (WCAG) 2.0 Level AA compliance, which is considered more current and is expected to replace Section 508 as the new standard. In addition, the AR IE-BM will provide meaningful access to users with Limited English Proficiency (LEP). Initially, we will independently verify accessibility and LEP compliance. When this compliance verification is complete, we will incorporate it into our standard release process. The solution will include a mechanism for feedback if a user required additional support.

With our system, users can navigate without the need to move sequentially through excessive menus and screens that other systems may require as requested in G1.8, which will speed up the number of cases an eligibility specialist can process. Our approach will support a responsive design providing flexible layouts to fit the needs of individual users and different devices, including desktops, laptops, tablets and mobile devices. Our design principles will support different types of users, including expert users who may take advantage of onscreen shortcuts and alternative workflows. Any error message will be in easy-to-understand phasing and suggest an easy resolution as requested in G1.21. We will follow our user experience/user interface process, as illustrated in Figure 3, to make sure we provide the appropriate support for the different types of users.



We will work with you to verify that users can effectively navigate the AR IE-BM Solution to meet their specific needs.

The smaller size of the viewing area on mobile devices may be challenging for completing complex task flows. If needed, we will notify the user to take advantage of larger visual devices for an improved user experience.

The AR IE-BM will:

- Provide office automation tools available based on user role
- Support fuzzy search and display a match score/rating (i.e., percent)
- Support uploading and attaching multiple file types to a case record

In compliance with existing Arkansas and federal connectivity and security policies, our solution will be accessible online via the State's Wide Area Network (WAN) and through remote access.

User Navigation

With a clear visual hierarchy for each level of navigation, users can move through the application with a minimum number of clicks. This will reduce the number of menus and screens needed to move through daily work tasks and will help to minimize the frustration of long navigation routes.

User navigation is a result of the user experience development process. We build and test each user task and integrate them into a cohesive interface. Figure 4 offers an example of a self-service Client Portal with a visual design that is configurable to match your branding requirements.

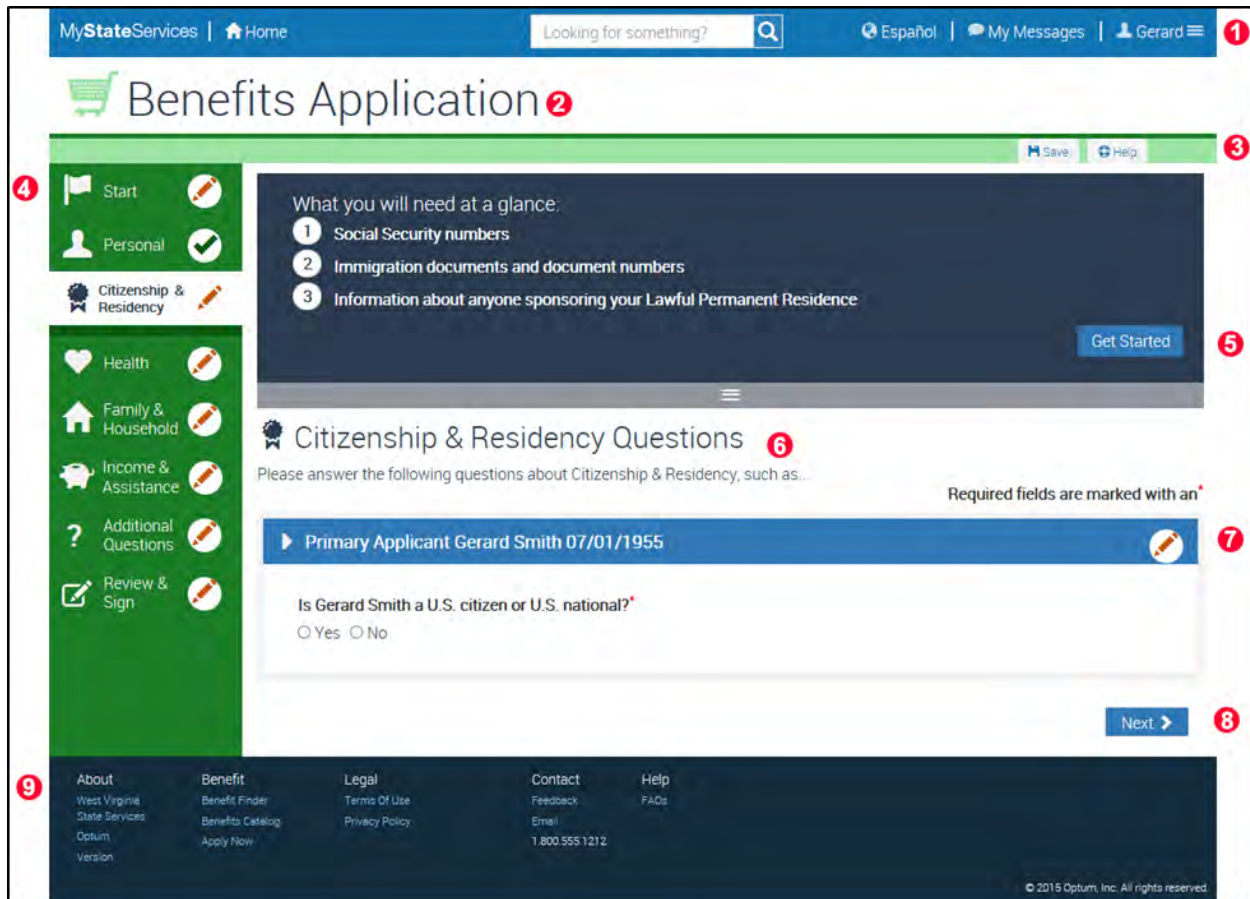


Figure 4. Optum IE Solution Client Portal Example.
 Users can view where they are within the application at all times.

The following table notes highlights of Figure 4.

Table C: Optum User Experience Features

	Feature Description
1	The global navigation menu displays to all pages of the solution.
2	Shows clear visual hierarchy, to alert users where they are within the application.
3	Shows <i>Save</i> and <i>Help</i> interactions; the <i>Save</i> is configurable to auto save, but is also available to manually save. <i>Help</i> will be contextual to support the information on that page.
4	Clear primary navigation that gives the users indicators to the status of a self-service application— <i>Check</i> is complete while a <i>Pencil</i> (edit) indicates incomplete.
5	Each section can provide a quick reading reminder of what will be needed to fill out a particular section. This window shade interaction collapses when it is no longer needed.
6	The title supports the hierarchy of where the user is, and there are clear instructions of what to do in that section.

	Feature Description
7	Applications can support multiple applicants, separating each applicant in an expand-and-collapse interaction. This lets users know where they are in an organized fashion. As sections are completed, the status changes from an Edit to a Check.
8	Clear navigation of primary buttons appears throughout the application.
9	Critical links are persistent in the footer throughout the application.

The AR IE-BM will also provide the appropriate level of taxonomy (based on content) to support secondary and tertiary level navigation with clarity.

We will consider the end users' frequency of access to the solution and provide an intuitive user-friendly approach that works best for frequent users (daily) and occasional users. This reduces the need for complex interactions that require learned behavior. We will create a library of best practice interactive design patterns that will be repeated consistently throughout the service, which reinforces the expected design pattern for all users.

The AR IE-BM Solution:

- Includes multi-tasking and multiple window capability
- Includes search capabilities to allow retrieval by name, date of birth, member ID, case number or others defined during the Joint Application Development (JAD) sessions
- Includes the ability to tab and mouse through data fields and screens and to change tab order
- Allows users to create shortcuts (onscreen shortcuts, hot keys and so on) for frequent actions
- Uses colors to enhance user experience and system usability, while complying with Section 508/WCAG 2.0 AA color contrast standards
- Facilitates data entry where appropriate, using:
 - Pop-up list boxes for code fields in all processing windows
 - Selection of the entry within these boxes with hot keys
- Performs validation checks at the time of each field entry as the default mechanism, where possible
- Utilizes an *i* icon or similar indicator, where appropriate, for contextual support for the user, where mouse-over descriptions may be too subtle
- Provides a persistent *help* or similar section, where appropriate

We will follow the appropriate federal and state guidelines to enhance the user experience and system usability while complying with the disability requirements outlined in the RFP.

Incomplete Data Sets

The AR IE-BM will allow all data sets to be saved for completion later for those users signed in to the solution. As seen in Figure 5, the solution will highlight and flag required and incomplete data fields. This is accomplished by presenting the information in summary form located on the top of the input section, as well as clear indications of the fields incorrectly formatted or incomplete.

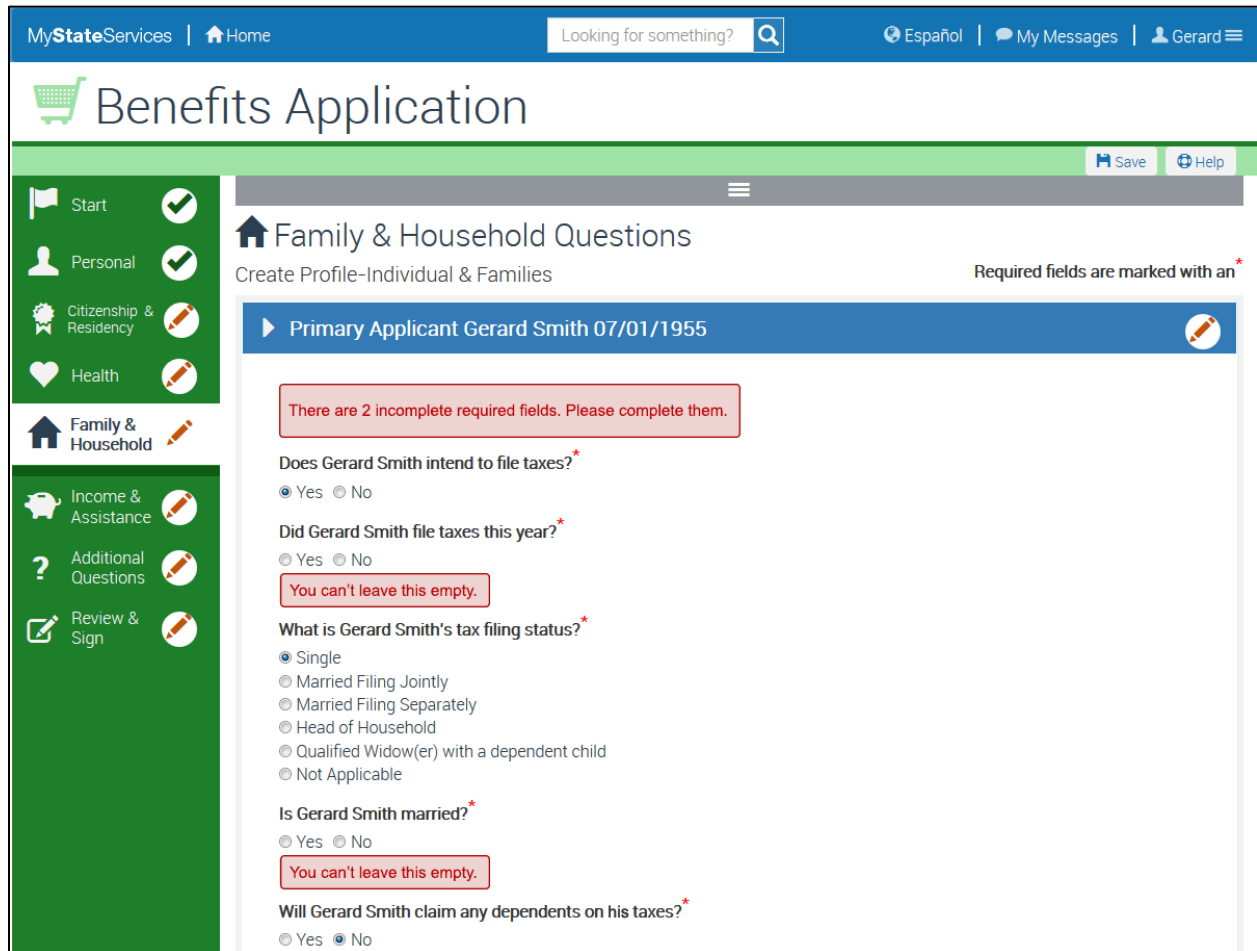


Figure 5. AR IE-BM Solution Sample Notification to Users.

The user will see the data sets needing completion before processing can occur in the solution.

Message Capability

The AR IE-BM Solution will allow notifications to be pushed and delivered through various channels, including email, text alerts and paper mail. Based on your specific business requirements, the solution will provide configurable triggers for predetermined messages to be pushed to the users. We can approach this through automated triggers or manual actions if the user decides to activate a notification.

Compatibility with Browsers

Our proposed solution for you is compatible with commonly used browsers as required in G1.52. These include, and are not limited to, Chrome, Safari, Firefox, Internet Explorer, and Edge. Optum maintains compatibility with the three most current versions of each browser. We incorporate the capability to encrypt the data communicated over the network using HTTPS. In addition, we will test and verify the AR IE-BM Solution using the browsers noted in the Quality Assurance (QA) process.

2.2 Audit and Compliance

Instructions: Describe the Vendor's approach for the System to meet Audit and Compliance requirements. At a minimum, please describe the Vendor's approach to:

- Providing the capability to audit records in a manner suitable for the user to interpret the information
- Providing the capability to generate reports based on ranges of System date and time that audit records were collected
- Providing the capability to integrate consent audit trails and data access audit trails in a consolidated searchable system for search/report to support consent rule enforcement or investigation, including audit trails based on deprecated rules or policies
- Providing an audit trail of all pertinent events, giving due consideration to storage space and performance constraints. Examples of these events include:
 - System start-up and shutdown
 - Successful and unsuccessful login attempts
 - User actions to access files or applications (successful and unsuccessful)
 - Actions taken by System administrators and security personnel
 - All administrative actions performed on the System (e.g. adding users)
 - Permission changes
 - Creation of users and objects
 - Deletion and modification of System files
 - Registry key / kernel changes
 - Skipped or rejected alerts
 - Changes, additions or deletions to data (including operational and security data) sets identified by management
 - Out of normal System operations usage or user access
 - Session timeout and account lockouts
 - Backup and restores

This response addresses requirements contained in Tab G2 of the Technical Requirements Traceability Matrix. We will meet all of the requirements in this section through configuration of the AR IE-BM.

One of the key design principles of the AR IE-BM is to be able to track all activities around the eligibility and enrollment process, both functionally from a process perspective and technically from a system and security perspective. This functionality is inherent to our system and is therefore easily configured.

The AR IE-BM captures step-by-step transactional records in chronological order. This includes destination and source information to provide documentary evidence of the sequence of activities taken by the client, worker, or system. The audit trail contains high-level role-based security that tracks the ongoing events in a privileged mode so that it cannot be altered or modified.

Audit trails are associated with all transactional types of information performed on the Client Portal, Agent Portal, any subsequent modules, and other key transactional systems. It tracks

changes made to the BRE, Notices Management, and Report/Document Templates to verify these also provide documentary evidence of any changes.

Depending on the type of activity, the solution automatically links some records with other work items. For example, when the caseworker records a face-to-face visit for an investigation, the solution automatically includes that record on the Family Assessment.

Audit Records

The AR IE-BM Solution will capture application audit records with enough detail and information to determine the following:

- What type of event occurred
- Where the event occurred
- When the event occurred
- The source of the event
- The outcome of the event
- Identity of any associated individuals or subjects

Within each portal, DHS can determine the granular level of security by user group, such as: system administrator; supervisor (by functional workgroup); staff users (by functional workgroup); and other defined parameters. Each user session will be uniquely identified and all activities in the session will be tracked against a session ID. We will make this tracking data available in the form of summary dashboards or detailed reports. We will maintain a comprehensive set of audit trails for all processes across the system.

This level of detail complies with and satisfies MARS-E and IRS 1075 security requirements. It also permits easy interpretation of event information. An audit trail is maintained to record access to the system, track changes, and archive a before-and-after copy of the change.

We protect audit records from unauthorized access, modification and deletion with technical and operational security controls. These security controls include separation of duties, least privilege, access enforcement, encryption and non-repudiation.

Data Integrity

Data usage, data creation, and any identity associated with data usage will have an audit trail created. These dual strategies will firm up the data quality and usage. Provider information is maintained in a master data repository to verify single unique identifier. A master data record is maintained in an integrated repository, including a single unique identifier that is not an SSN. File maintenance processing constraints are used to detect duplicate files or records and isolate them for manual review and further processing.

Generate Reports

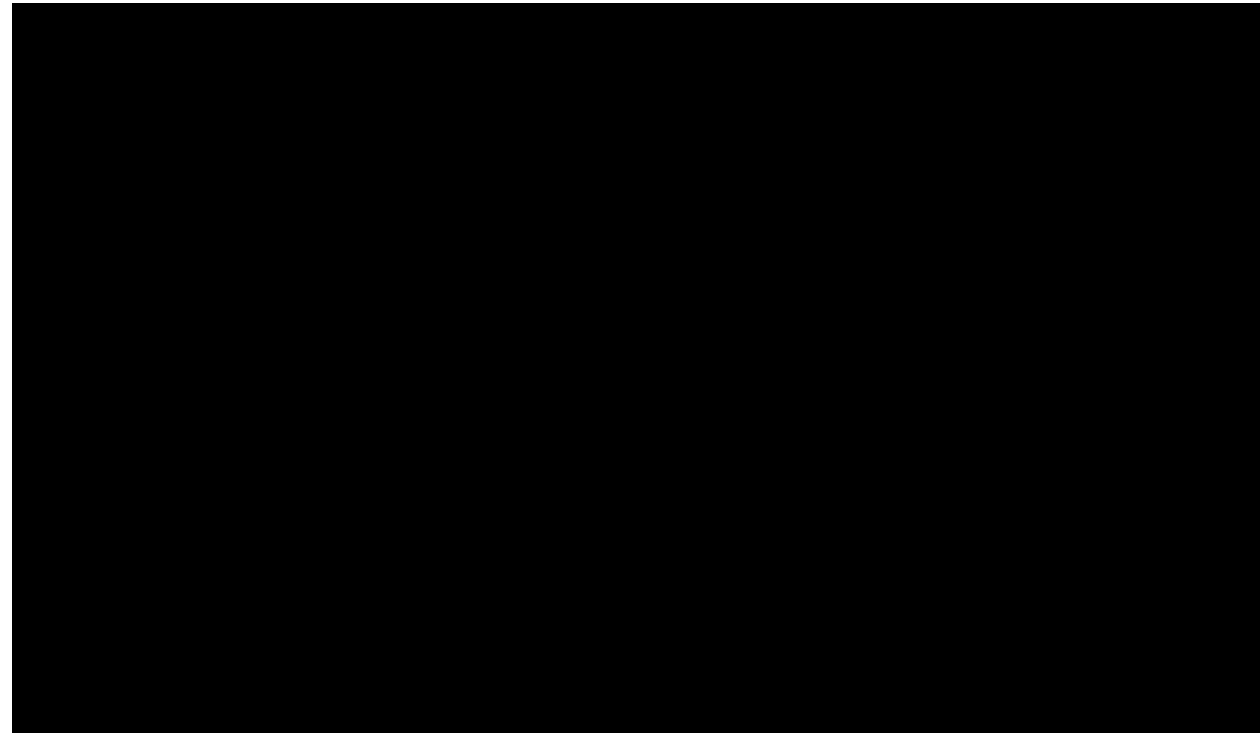
Standard transactional reports will be configured during the implementation to meet the tracking and auditing requirements. Additionally, our data will be provided to your Security Information Event Monitoring (SIEM) tool. This will allow you to generate more detailed security reports and providing a holistic view of your environment.

Integrate Audit Trails

The data we provide to your SIEM will allow you to create an integrated audit trail for use in reporting, forensics or incident handling purposes.

Audit Trail of Pertinent Events

The AR IE-BM will capture the listed pertinent events including the following:



At a minimum, the events captured will include the specific events requested in the RFP and events dictated by MARS-E and IRS 1075 security control frameworks. These events will include sufficient event detail and associated timestamps, based on your need for synchronization and granularity.

Our BRE includes audit trail functionality that provides insight into the decision tree that processed the specific rules that were triggered, and the reasons why those rules were triggered. This information is helpful in understanding how the system processed an eligibility decision and also helps to identify changes that may need to be made to existing rules.

Our audit capabilities will enable DHS to trace every system transaction in the AR IE-BM to the user ID or system process. Audit details can include the originating IP address, the operation type (drop table, insert, create procedure and so forth), the event time, and the actual SQL statements. The AR IE-BM has the capability to audit all transactions, including those conducted by administrator level accounts. The Optum IES leverages industry standard technologies designed to record database activity and event logging. The audit trail tool writes audit logs as they are captured in a read-only state and permits reading at any time for authorized users. Deletion or modification access is not granted to any entity including system, root, or other administrative level accounts. The Optum IES prevents the alteration of log data. Log repositories are encrypted at rest. The audit tool includes decryption and provides sophisticated search functionality for authorized users.

We have comprehensive audit trails that enable a complete provenance and reconstruction of all data. We log everything that arrives in our landing zone whether by file transfer or by Web service, naming the account responsible. Our ETL tool also maintains comprehensive logging including logging the execution of specific ETL scripts against specific data sets.

2.3 Performance and Availability

2.3.1 System Performance Requirements Approach

Instructions: Describe the Vendor's approach for the System to meet performance standards and how the data will be measured and reported. At a minimum, describe the ability of the Vendor's System architecture to support:

- Internal State, DHS, District and County staff, and external participants with their use of the System
- Mission-critical services/SLAs
- Ease of management
- Ability to upgrade (ease and compatibility)
- Meeting System response time requirements

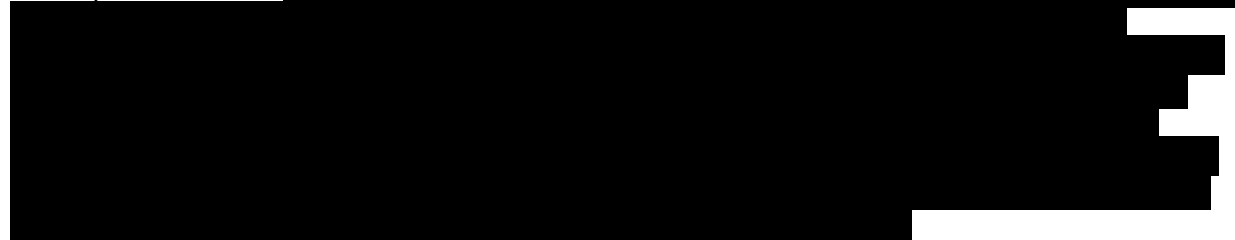
Each heading below corresponds to a requirement in G3.1-3.12. We will meet all of the requirements in this section through configuration of the AR IE-BM.

Internal and External Use of the System

Optum understands system performance, and we have designed our solution with your business objectives in mind. Our system is easy to use, easy to manage, and provides flexibility to meet changes in your business. We recognize that a client or a case worker should not be waiting for the application to respond to a transaction request. We created several Non-Functional Requirements (NFRs) for our Optum IES specifically focused on transaction responses and search requests. Through the NFRs, we optimized specific IE solution areas to improve system performance for internal and external users.

We understand that client record searching will be a key function of the case worker duties. We optimized the Optum IES by leveraging indexing of our databases to facilitate streamlined database calls. Searching and sorting record performance is greatly increased through indexing.

The Optum IES also



We leverage tools like Dynatrace to evaluate, measure and report on the end-to-end performance of a business process flow through the Optum IES. It identifies where bottlenecks occur and enables us to create performance enhancements. This is not a one-time evaluation occurrence for us. It is part of our continuous improvement opportunities within each release of the product. The modular design approach to the Optum IES facilitates easier identification of components that need performance tuning.

Mission-Critical Service and Service Level Agreement (SLA) Support

Optum understands the mission-critical nature of benefits management and the capability for clients and case workers to enroll, update and determine eligibility. To verify performance throughput of the system, we maintain the application on redundant server classes that are load balanced to provide the throughput at constant levels. Our goal is to create a solution for you that will minimize service disruption.

To support this mission-critical application, we recognize and value SLAs established for system performance. The list of NFRs related to performance and availability are as follows:

- The solution response time during peak agency level operations shall be three seconds or less for 95 percent of the search and lookup queries (does not include ad hoc queries and analytics). Maximum response time shall not exceed eight seconds except for agreed-to exclusions. Response time is defined as the time elapsed after pressing an ENTER key (or clicking on a button that submits the screen for processing) until a response is received back on the same screen.
- The solution shall return a dashboard report within five seconds or less from all the user locations with a high-speed network connection (greater than 768KB), 95 percent of the time.
- The solution shall return a static, standard report within five seconds or less from all the user locations with a high-speed network connection (greater than 768KB), 95 percent of the time.
- The solution shall return a parameter-based report within 20 seconds or less.
- The solution shall give the highest priority to search and lookup operations performance, conforming to the minimum acceptable performance standard of five seconds or less response time, 95 percent of the time.
- The solution shall be available at the agreed-upon level of availability, as defined in Arkansas RFP Section T13.
- The solution shall be designed with no single point of failure, supporting a high-availability enterprise.
- The solution shall support hours of operations of 24 hours per day, seven days per week, 365 days a year.
- The solution shall support session replication and transparent failover.
- The solution shall establish a performance baseline to assess change impacts.
- The solution shall conduct performance testing on an ongoing basis to assess change impact against baseline metrics.

Ease of Management

The modular design of the Optum IES enables you have insight and access to faster diagnostics and resolution of any application defects found during the current release than solutions that are not modular in design. We can accomplish this through our automated testing framework or during our integrated performance evaluations.

Within the various Optum IES modules, we construct the code and document it using internal Optum standards and continuous evaluation with SonarQube. SonarQube evaluates every build and identifies Optum coding standard violations to be addressed before the code migrates to

the test environment. This creates a coding environment that facilitates a supportable code base that is easily maintainable and transitions between developers.

Ability to Upgrade

Optum uses DevOps best practices to enable continuous delivery of the applications to the lower and production environments. DevOps is an innovative approach to software code management and development that reduces risk and speeds solution delivery. With a strong emphasis on automation, it promotes collaboration and communication between the development and technical operations teams. This approach will give our teams more control over the solution so they can respond to your requirements quickly. We have automated our delivery pipeline, from build to the deployment and upgrades. This reduces the chances of an error occurring from manual intervention, resulting in consistently and quickly delivering a higher quality application.

██████████ is our tool of choice for orchestrating the build, deployment and upgrade of applications. We have automated code compiling and testing as part of the delivery pipeline. An automated vulnerability scan finds any issues much earlier in the build process. The application is also automatically containerized, along with its dependencies and configurations. These containerized applications provide the ability to quickly perform blue-green upgrades of an application on the ██████████ COTS software product.

Optum follows the concepts of blue-green deployments for performing upgrades of application in the higher solution environments. The ██████████ monitoring tools support upgrades without any down time. The application Docker containers first deploy onto a dedicated green area, tested for any issues. When all tests have passed, user traffic diverts from the old blue instance onto the green instance. The blue instance is turned off when users have started using the green instance without any issues. In the unlikely scenario of a critical issue occurring, we can quickly switch users back to the blue instance, leaving the green instance for debugging purposes.

System Response Time Requirements

Optum uses automated performance testing tools to simulate high volumes of users, within a dedicated and comprehensive load farm. Support for application protocols includes HTTP/HTML, Web services, and database/Java Database Connectivity/Open Database Connectivity (database/JDBC/ODBC). Our performance management tools are fully integrated, facilitating comprehensive reporting and analysis.

We will work with you to identify goals, script requirements and scenarios. We will develop test scripts based on documented workflows that are either critical to the business or most frequently employed by users. For the AR IE-BM, our performance test engineers will execute tests based on test scenarios designed with your subject matter experts. We will provide reports after each test to assist with an in-depth analysis and comparison between tests. Performance test benefits include:

- Reduced infrastructure costs through correctly sized components
- Increased application stability through the following:
 - Baseline infrastructure and application performance prior to releases, upgrades or changes
 - Determining if applications and infrastructure can support the expected level of users and transaction volumes

- Testing application performance to plan for unexpected increases in usage volume
- Identifying failover issues and application resiliency under load
- Improved user experience by performing the following:
 - Verifying user experience remains unchanged and stable under stressful conditions, such as failures with architecture or dependent services
 - Identifying bottlenecks, performance issues and opportunities for tuning

We support multiple test types including load, stress and failover testing:

- **Load testing:** Allows customers to determine how the application will behave under peak user volumes. Optum will use the existing Arkansas user count volumes for clients and case workers. We will project anticipated growth in both of those categories and determine peak usage periods like enrollment periods to create a base volume level. Lastly, we will determine concurrent usage from that base level.
- **Stress testing:** Pushes the application to above-expected user volume and can help identify a break point. Using the base volume levels identified in the load testing section, we will increase those volume levels by percentages of increase.
- **Failover testing:** Determines application resiliency and testing for extended durations. It also assists with identifying underlying issues, such as memory leaks that may not be noticeable until the application has been under load for several hours.

System response times are a reflection of the infrastructure, network and application working together. As we noted in our Section 6.0 Technical Requirements Assumptions response, we assume your infrastructure and network sizing will be sufficient to prevent application performance bottlenecks. To facilitate performance testing and response time monitoring, we will work with you to open required firewall ports.

2.3.2 System Availability Requirements Approach

Instructions: The Vendor is responsible for delivering a cost-effective, high-availability environment that minimizes the frequency and impact of System failures, reduces downtime, and minimizes recovery time in the event of catastrophic failure. At a minimum, describe the Vendor's approach to providing a highly available System, and:

- How the System will have the ability to support session replication and transparent failover using high-availability architectural options
- How the System will be designed to support the planned Federally-compliant Solution and any anticipated expansion in scope of connectivity
- How the System will allow access for 24x7x365 with a 99.75% uptime SLR, with the exception of scheduled downtime
- How the System will leverage virtualization to expedite disaster recovery. Virtualization design must enable DHS quickly reconfigure system platforms without having to acquire additional hardware.

Session Replication and Transparent Failover

We will be aligning to your business needs to reduce cost and improve efficiencies. Our recommended platform for the AR IE-BM Solution is a modern, [REDACTED]

[REDACTED] uses the concept of elasticity for flexibility in deployments, high-availability, disaster recovery (DR), application performance, stability and scalability. The scalability opportunity aligns with the desire for any expansion in scope of connectivity.

The [REDACTED]
[REDACTED] This same functionality is used when performing high-availability and DR activities as well as supporting our DevOps continuous improvement/continuous delivery model.

We will create and maintain a capacity plan based on your business and technical needs. DevOps capabilities will enable us to scale vertically, horizontally, quickly and easily. For example, we will have ability to deploy fully established and previously deployed containers, without business impact, instead of executing a new code deployment. This capability would allow us to establish another instance of the entire AR IE-BM that is fully load balanced, into a new environment within minutes if needed. This could be used to recover in a disaster or to deploy an updated application version. This allows us to achieve an uptime Service Level Requirement (SLR) of at least 99.75 percent.

The Disaster Recovery Plan will include further details regarding process and procedures for recovering the AR IE-BM.

Support of Anticipated Connectivity Expansion

As discussed in other sections, the Arkansas State Data Center will be responsible for the hardware and the backbone connectivity to the hardware platform. As the technology and throughput of the connectivity changes, the AR IE-BM can take advantage of the expansion opportunities. Connectivity external to our AR IE-BM is critical for client access and for information distribution to other state and federal systems. When your backbone is expanded, our teams will work with you to fully use that opportunity to make sure we take advantage of the platform.

System Access and Uptime

Users can access the system simultaneously in multiple time zones within the United States. The system will be available 24 hours a day, seven days a week, with exception of planned or scheduled downtimes. When the system must be brought down and made unavailable for use, we will notify users with at least 24 hours' advanced notice for planned outages.

If a problem occurs that brings down the system without warning, the operations staff will receive immediate notification, and the users will be notified as soon as possible. When availability interruption occurs, users will receive a notice when the system is again available.

Virtualization and Disaster Recovery

To support the AR IE-BM Solution, Optum will leverage [REDACTED]
[REDACTED] to provide your production and DR environments.

Figure 6 illustrates how the AR IE-BM will [REDACTED]
[REDACTED]

The model adjusts the resources based on application needs, helping us provide the right infrastructure and resources to the business.

Using this resource model, failover recovery should be as fast as possible. Fast failover will be achieved by the following:

- Using a High Availability (HA) load balancer like [REDACTED] for internal load balancing
- Building applications per [REDACTED]
- Following RESTful best-practices when building services, in particular, avoiding storing client state on the server between requests

Fault domain isolation is an important part of building HA systems. To correctly handle failure scenarios, systems must be distributed across fault domains to survive outages. There are different types of fault domains, such as these two examples:

- **Physical domains** include machine, rack, data center, region and availability zone
- **Network domains** contain machines within the same network may be subject to network partitions; for example, a shared network switch may fail or have invalid configuration

With DC/OS, we distribute masters across racks for HA, or across regions. With agents distributed across data centers, we will tag agents with attributes to describe their location. We

“DC/OS is a distributed operating system based on the Apache Mesos distributed systems kernel. It enables the management of multiple machines as if they were a single computer. It automates resource management, schedules process placement, facilitates inter-process communication and simplifies the installation and management of distributed services. Its included Web interface and available command-line interface (CLI) facilitate remote management and monitoring of the cluster and its services.”

Source:

<https://dcos.io/docs/1.7/overview/what-is-dcos/>

use [REDACTED] will remain within the same region to reduce network latency.

To achieve self-healing, [REDACTED] will monitor DC/OS services and restart the service after failing. We monitor the core DC/OS components, including [REDACTED], with the DC/OS diagnostics service.

To achieve disaster recovery at a remote location, [REDACTED] will operate in HA mode, which allows running multiple [REDACTED] instances (at least two for HA), with one elected leader. [REDACTED] will use [REDACTED] for leader election, and the followers will not accept writes or API requests, but will proxy the API requests to the leading [REDACTED] instance. When a disaster recovery happens at the primary location, [REDACTED] identifies that the leader is not available and sends all traffic to the followers. On the followers, [REDACTED] will identify increased traffic and scale to support the demand.

2.4 Interoperability/Interfaces

Instructions: Describe the interoperability features and capabilities of the Vendor's System, specifically in providing support for integrating various applications with SOA and event-driven architectures in a manner that supports the following implementation strategies:

- Web Services: Web Services Interoperability (WS-I) Organization-compliant implementation of basic Web services standards, including SOAP, WSDL and Universal Description, Discovery and Integration (UDDI), as well as higher-level Web services standards, such as WS-Security
- Representational State Transfer: Support for XML-based messages, processing and HTTP, and XHTML

This response addresses requirements G4.1-4.40 contained in Tab G4 of the Technical Requirements Traceability Matrix. [REDACTED]

The OIL provides the flexibility to modernize over time while maximizing investments made in existing DHS assets and capabilities. For example, the AR IE- BM will leverage the existing Xerox® DocuShare document management capability through the OIL.

You may also decide later to use Optum program integrity services, which can help identify potential fraud, waste or abuse during the eligibility determination process. With reusable interfaces, you can access these services through the OIL.

Reusable interfaces provide maximum interoperability, which is a key differentiator of our platform.

Reusable interfaces include using open interfaces and exposed APIs, separation of business rules from core programming and the availability of business rules in both human and machine-readable formats.

The OIL components listed below and reusable APIs will enable the AR IE-BM to accomplish the functions associated with each one:

- File transfer gateway
- Authentication
- Secure file transfer
- File transfer monitoring
- Web service gateway
- Authentication
- Threat protection
- Integration services
- Transformation
- Aggregation
- Splitting
- Throttling
- Validation
- Scheduling
- Protocol conversion

The following table highlights the OIL capabilities and use within the AR IE-BM.

Table D: OIL Capabilities and uses in the AR IE-BM

Capability	Description
[Redacted Content]	

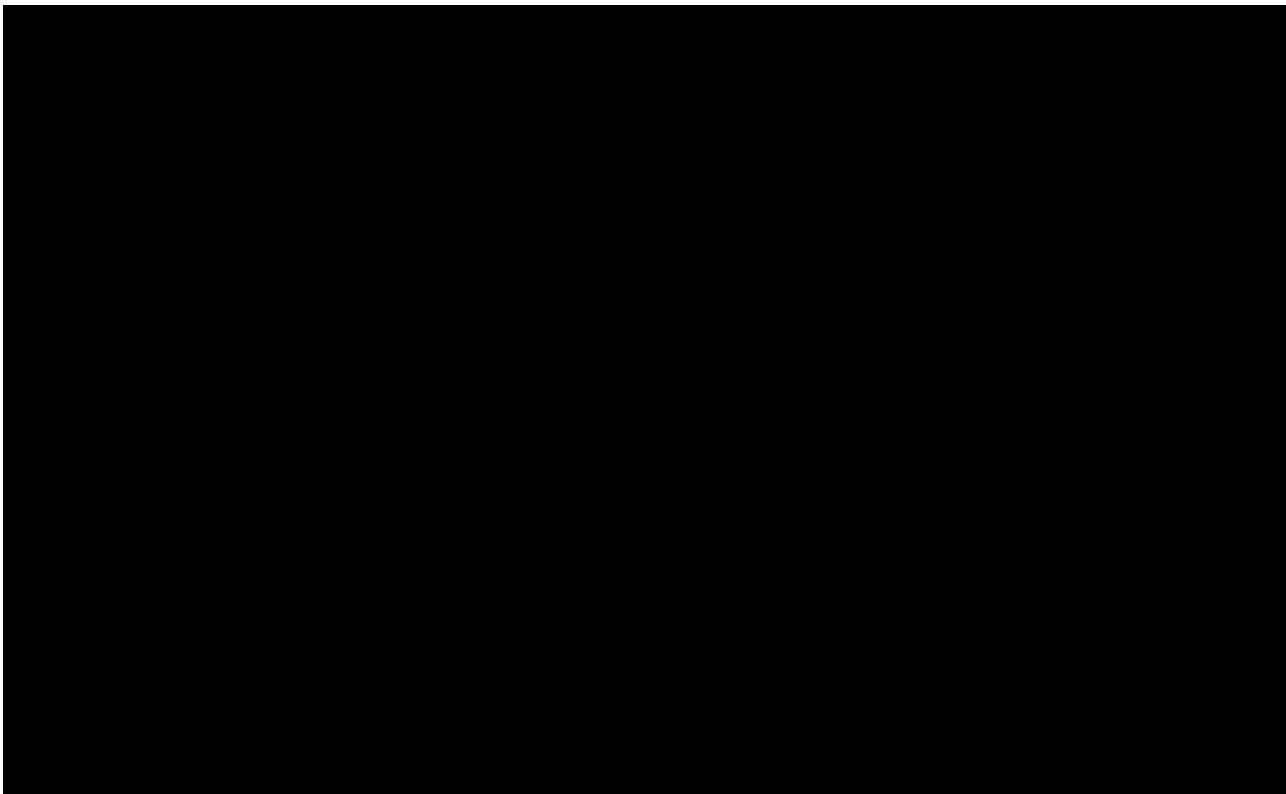
The technical architecture for the AR IE-BM is a multi-tier SOA, leveraging OIL at its core. It provides you the flexibility, stability and efficiencies you desire. The OIL acts as the service integration layer and has the ability to leverage and integrate with almost any existing solution, asset or system. The OIL will orchestrate message communication and transformation using legacy file transfer, batch methods or modern transactional Web services using Simple Object Access Protocol (SOAP) or RESTful APIs. The OIL has a HHS-specific design, including a canonical data model and interface library built on the X12, Health Level Seven (HL7) International and Federal Data Services Hub (FDSH) APIs. It was originally designed to integrate legacy platforms with modern systems in these domains, and it is well suited for use in an enterprise like the AR IE-BM consisting of both types of systems.

This broad integration ability uses implementation-specific adapters or service proxies that communicate with the OIL core. Each service proxy exists between a modern or legacy enterprise system and a standard OIL service, supporting a specific HHS data format and transaction technology. The layer currently supports several standards, including the Accredited

Standards Committee (ASC) X12 health care standard transactions, FDSH verification, HL7 standards, and other domain-specific data sets. This approach is more comprehensive and better suited than most other IE solutions to support modularity and interoperability than a general-purpose ESB implementation. It is also optimized for HHS business functions.

The OIL further extends this design pattern by implementing canonical models for each of the supported data sets in its core. When the data is transformed to a standard model by the producer proxy service, additional common logic and routing inside the service layer uses the standard model. At the consumer end of the integration, a service proxy is implemented if needed to convert the data to any non-standard output format. Therefore, extensions to the platform need to focus on proxy development, not core changes.

The OIL offers workflow management that provides message communication and transformation across all shared services in the DHS Enterprise. Coupled to the OIL core are industry-leading API and file gateway services integrated with the Optum security and DR layer. These features make the OIL platform secure, auditable and suitable for health and human service environments. The OIL complies with the governance frameworks of NIST 800-53, MARS-E 2.0, FIPS, PCI DSS and IRS Pub 1075.



2.5 Scalability and Extensibility

Instructions: Describe the Vendor's approach to the scalability and extensibility of the System. Describe how the Vendor's System would scale for multiple business units with different missions. For example, if Department 'x' and Department 'y' both want to take advantage of automated case management, how would the System handle increasing users while maintaining responsiveness and ensuring security, privacy and compliance? At a minimum, describe the ability of the Vendor's System architecture to support:

- Ability to meet future growth

- Configurability
- Flexibility to keep up with changing technology and regulatory needs
- Ease of maintenance

This response addresses requirements G5.1-5.8 contained in Tab G5 of the Technical Requirements Traceability Matrix. We will meet all of these requirements through configuration of the AR IE-BM.

Optum uses highly configurable, industry-leading COTS tools. Leveraging this architectural approach, we created the Optum IE modular solution with scalability and extensibility in mind to support your requirements of today and tomorrow. Our solution can help you address the difficulties you experience today in the scalability and extensibility area. From a scalability perspective, if Department 'x' and Department 'y' want to take advantage of automated case management, our solution can be expanded to include additional servers in the load-balanced cluster. Our multi-threaded, asynchronous architecture also helps maintain responsiveness while our security protocols maintain security, compliance and privacy by allowing for compartmented user roles and access. Our modular architecture enables [REDACTED] to auto scale, meaning we can detect when additional bandwidth on a particular module is needed and scale it, accordingly. For example, if there is a significant demand on the client portal, [REDACTED] will scale up just the components needed to support the demand of that specific component. Once the demand reduces, it then levels itself back down. Theoretically, the only limitation to our scalability is the amount of physical hardware that is available to [REDACTED]

Similarly, from an extensibility perspective, our Optum IES can support new programs as they are developed and introduced. So when a new program (e.g., Arkansas Works) is developed and needs to find a technology home, our Client and Agent Portals and BRE are configured to isolate and compartmentalize those new business requirements. When these additional business requirements are added, we also expect additional clients and case workers will need to start accessing the solution. To account for this, we have designed our solution to avoid all two-way data synchronization and maintain strict adherence to system-of-record principles. This prevents source data from becoming inconsistent and requiring complex reconciliation processes. A single system of record fosters better data management, governance, retention, and protection. This minimizes the issues of duplicate eligibility and failure to load into Medicaid Management Information System (MMIS) because of eligibility matching issues.

Finally, our architectural approach provides an added feature of streamlined maintenance of the individual modules. The loose coupling of the modules through the centralized ESB enables changes to one module without directly affecting changes to other modules. Items such as regulatory system changes are much less of a burden on your staff by reducing the time required to change the system.

To fully enable your citizen-centric vision and design approach, we incorporated the CMS Seven Standards and Conditions and the Medicaid Information Technology Architecture (MITA) 3.0 Framework into the development of Optum IES. This gives you features to mature your business, technical and information architectures. It also enables you to advance your eligibility and enrollment business, information and technical capability maturity levels, as well as reuse and extend this platform to other services. Our AR IE-BM Solution includes a single entrance for applicants to access your benefit programs and will give you the ability to serve as the single source of data for your DHS programs. This feature also carries forward to the case worker who

will have a consolidated view of the clients’ benefit cases, along with supporting the growing populations in expanding services.

Optum has developed and implemented solutions that align with the MITA framework from its first version to the current 3.0 framework. MITA provides a framework for states to establish modern Medicaid IT systems to address the CMS Triple Aim of cost, quality and efficiency. We know from experience that each state has considerable variations in MITA readiness and maturity. Achieving with higher levels of MITA maturity require states to implement operational and infrastructure changes. To help you achieve your project vision, Optum will deliver an AR IE-BM that aligns with CMS’s Seven Standards and Conditions, as highlighted in the following table.

Table E: CMS Seven Conditions and Standards

CMS Seven Conditions and Standards	Optum AR IE-BM Solution Features
Modularity Standard	<ul style="list-style-type: none"> ■ Offers human and machine-readable business rules ■ Uses service oriented architecture (SOA) and APIs
MITA Condition	<ul style="list-style-type: none"> ■ Assists the State of Arkansas in aligning with MITA to mature business, data and technical architectures
Industry Standards Condition	<ul style="list-style-type: none"> ■ Complies with HIPAA security and privacy regulations ■ Supports X12 health care transactions and HL7 standards
Leverage Condition	<ul style="list-style-type: none"> ■ Supports multiple programs and incorporates data across the enterprise to create a single master data record for each client ■ Offers scalability to meet changing program enrollment as DHS matures Arkansas HHS programs
Business Results Condition	<ul style="list-style-type: none"> ■ Increases business productivity by making sure actions are performed efficiently through automated workflows in a Web-based environment
Reporting Condition	<ul style="list-style-type: none"> ■ Leverages leading business intelligence tools to provide automation from its foundational layer all the way to its knowledge delivery tools
Interoperability Condition	<ul style="list-style-type: none"> ■ Allows for a high degree of coordinated interaction to maximize value and minimize burden and costs to DHS stakeholders, members and providers

As you look forward to modernizing your IT support for human services programs, Optum can help you transition your manually intensive work into automated business processes wherever possible. We understand your mission to provide the appropriate services to your citizens in the most efficient and effective manner. We can help you accomplish this with a solution that can leverage capabilities across DHS and minimize siloed activity using its scalability, modularity and flexibility attributes.

We understand the limitation of the current Cúram data model and are aware of the challenges created by the current system because of its lack of extensibility and the difficulty required to convert the data from extensible legacy systems. Our approach seeks to migrate to an open, extensible data model for the future to reduce total cost of ownership and ease of integration and conversion. Optum and our business partner Connvertex have done an assessment of your business issues and will approach your implementation based on our experience. As an

example, Connvertex, in support of the State of Utah's Electronic Resource and Eligibility Product (eREP) understood that keeping the existing data structure intact was a key business requirement. Before the migration started, to improve on performance, foreign key constraints were turned off. Since the onus of maintaining data quality was now on the developers, it quickly led to a lot of orphaned records in the database. Connvertex partnered with the Utah system stakeholders to clean this data up before beginning the data migration.

Meet Future Growth

The AR IE-BM will provide a common and optimized exchange platform for your multiple program services, providing standardized information collection, data maintenance and business rule application to efficiently support a wide range of eligibility rules across multiple programs. This capability enables you to grow the use of the AR IE-BM across your enterprise, incorporating programs, including those not currently in scope of the RFP, into a common eligibility and enrollment system.

Our Optum IES design promotes extensibility and modularity with its ability to meet increased performance needs and to extend functionality to include additional programs and needs. Our implementation model makes the system scalable by horizontal and vertical scaling as needed to handle additional load, whether caused by additional user population or increased transactions from the existing population. We incorporate the standard of modularity into our software design, which simplifies maintenance and expansion of functionality.

Configurability

Because we are using a COTS based system you will have the ability to mature the automation processes across the Arkansas enterprise. We are incorporating a COTS BRE product that we have used successfully for more than 10 years in health care projects across the country. We have used this proven rules engine tool to solve our most complex business challenges. It will meet your current and growing business configuration and processing needs in the years to come.

Our flexible rules engine will deliver timesaving configuration of business rules with rich Web experience for authorized users. Business users can easily configure or modify business rules in human readable format. Users can correlate the rules back to the originating policy. Business users can maintain the rules with minimal training. They do not require any programming skills to edit or update the rule set. Our rules engine component also comes with a built-in controller to verify changes are properly and safely rolled out, or rolled back if necessary.

Flexibility

Our system is not dependent on vendor-specific components that can take time to implement. Therefore, you can realize flexibility in our rules engine and its ability to support State-specific business rules faster and more efficiently. To address the challenges we have encountered in our work with states on their eligibility and enrollment systems, our approach is to extend the base set of federal rules to specific state, county or city eligibility business rules. We can apply effective dates to each rule for retroactive and future eligibility determination. The internal logic and deployment process allows rules specific to Arkansas to be fully supported separately from federal or other state systems. This will give you the flexibility to implement specific eligibility rules and eligibility processes.

Ease of Maintenance

Because our entire solution is built on a SOA platform, it provides you other added values that you may not be realizing today in the maintenance of your existing environment including backward compatibility during upgrades, extensible data and overall architecture and modularity which enables rules engine or database independence. In support of the CMS Seven Standards and Conditions, the OIL implements a SOA that adds agility through a variety of solution features. Although agility is a desired outcome from any SOA implementation, the HHS-focused and MITA-aware design of the OIL also adds other unique values. The following table highlights Optum IES features that add ease of maintenance and efficiencies to change management, support maturing business processes, and reduce costs associated with ongoing requirement changes across multiple programs.

Table F: Optum IES Features

Feature	Supporting Agility, Efficiency and Ease of Maintenance
Reusability	Services and service composites are stand-alone components that can be re-orchestrated in infinite ways to support changing business needs, requirements and organizations. Other business modules created from composites may also be reused; however, as the complexity of the module increases, the degree of reusability may diminish.
Loose coupling	Services and service composites used for application and module integration are, by their nature, loosely coupled, especially when the services use APIs and asynchronous communication.
Human services APIs	The OIL library contains native service support for relevant X12 health care, HL7 and CMS FDSH standards. It also contains native support for translation from legacy COBOL data and batch environments to modern asynchronous services implementing one of these standards.
Human services data model	The OIL uses the X12 health care and HL7 canonical data models internally for all services and service orchestration. Implementing the layer in a health care or human services enterprise is accelerated by this native support. The implementation also accelerates changes to the service architecture whenever the model can be leveraged.
Promotes modularity	Modules communicate with other modules through the layer. Providing this fabric encourages the creation and implementation of modular architecture. As the service architecture and library mature, it is even possible to create entire modules through the orchestration of services.
Interoperability	Using standards-based APIs and industry-standard transaction formats promotes interoperability within solution modules. It also promotes interoperability across other Arkansas IE-BM enterprise partners who similarly implement standards-based APIs. For legacy modules or enterprise partners who do not implement standards-based APIs, the proxy wrapper design pattern used by the OIL promotes rapid integration with legacy systems.
Independent development and testing	The OIL promotes independent development of both services and modules because the service model dictates that each service or module is self-contained. Minimal dependency exists on external APIs that can be accessed or simulated during development and testing.
Independent deployment	Each service or module linked by services in the OIL that uses a known API can be deployed independently as long as the API is unchanged.

In short, because our solution is COTS-based and not complex like other vendor offerings the AR IE-BM Solution we are proposing offers DHS capabilities to reduce maintenance issues and increase efficiency with program growth across the enterprise as you realize your business needs.

2.6 Regulatory and Security

This response addresses requirements G6.1-6.37 contained in Tab G6 of the Technical Requirements Traceability Matrix.

Optum takes an industry-standard, comprehensive approach to adopting, designing and implementing regulatory and security requirements. We base this approach on a [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] Implementing the applicable technical controls throughout the software development lifecycle (SDLC) protects the confidentiality, integrity and availability of the AR IE-BM information assets.

Optum standardizes the applicable security controls to produce security configuration baselines for the AR IE-BM components. Having standardized security baseline configurations enables us to monitor, assess and maintain each component to a known benchmark. We monitor these benchmarks with vulnerability scanning and integrity monitoring tools. If the monitoring activities discover a missing patch or vulnerability, then we can more easily remediate the issue because a standard security configuration baseline has been implemented, resulting in less time and resources needed for testing.

Optum will [REDACTED]

2.6.1 Regulatory and Security

Instructions: Describe the Vendor's approach to harmonizing the regulatory requirements, audit compliance and security needs of the System. At a minimum, describe the ability of the Vendor's System architecture to support:

- Adhering to, harmonizing, and enabling the listed Federal, State and local regulations
- Protecting and securing the information assets within the System

- Enabling Identity and Access Management
- State data may include personally identifiable information, tax information or HIPAA protected information. Describe the Vendor’s approach to ensure State data will be isolated and protected. Please explain the architecture and the related security model to support PHI (Personal Health Information) an PII (Personally Identifiable Information)

Federal, State and Local Regulation Adherence

Following the applicable regulations from federal, state and local sources can be a challenge to any state program. When combined with the maintenance of both your clients’ and applicants’ sensitive and protected information, this becomes a massive work effort with complex and sometimes differing rules. As the nation’s largest health services company, we designed our privacy and security programs to support compliance with various federal and state privacy and security regulations. With our work throughout the United States, we understand the shared requirements and unique needs that occur within a state program. We endeavor to ease the burden on states with our approach to security and privacy..

The Optum team considers and applies HIPAA, CMS Minimum Acceptable Risk Standards for Exchanges (MARS-E), Internal Revenue Service (IRS) 1075, and National Institute of Standards and Technology (NIST) 800-53 security control frameworks, along with the applicable State security and privacy requirements to our solutions as requested in requirement G6.1. We adopt security controls from these prevailing federal regulations and standards to design our security configuration baseline. When State statutes are more stringent, they will supersede Optum and regulatory requirements. Contractual agreements deemed more stringent supersede statutes. When DHS policy is more stringent, it will take final precedence.

Our goal is to provide and manage the security and privacy of the information systems we deploy. This requires identification of key security requirements and processes from each applicable law, regulation, DHS security policy and industry best practice. Applying this methodology harmonizes all security requirements from multiple sources into an understandable and useful model that can be easily reused and measured. This will enable DHS to identify the current security posture of the information system and the associated protected information easily.

For any solution or product we implement for a customer, we approach compliance to regulations as paramount to a successful project. Optum has the experience required to design, develop, implement and maintain information systems that meet HIPAA, MARS-E, IRS 1075 and NIST 800-53 compliance and has received successful assessments from CMS, IRS and others. These assessments have resulted in multiple Authorities to Connect (ATC), as well as consistent acceptance of the CMS Annual Security and Privacy Attestations.

Information Asset Protection and Security

Optum will follow DHS requirements for securing and protecting information assets maintained in the DHS environment. We are well versed in the MARS-E and IRS 1075 requirements and understand their importance in program compliance. Our team will implement the applicable security controls in the AR IE-BM to meet the applicable regulations.

Identity and Access Management

The AR IE-BM will integrate with the DHS IAM Solution and will not lessen the security posture. As we noted in Section 6.0 Technical Requirements Assumptions response, we assume the DHS IAM meets applicable security requirements.

2.6.2 Security Architecture and Design

Instructions: Describe the Vendor’s approach to support technical controls and technology solutions that must be secured to ensure the overall security of the System including, but not limited to:

- Providing security-related input into IT infrastructure, system and application design =
- Leveraging published industry and Federal government standards and models to apply security best practices
- Supporting, enabling and extending the security policy by providing specific security-related guidance to decision makers
- Addressing the capability to provide user and site authentication
- Supporting VPN access
- Recovering from a failure of any single element
- Easily serviceable
- Supporting the establishment and active management of data sensitivity levels
- Application and system hardening processes
- DHS considers the use of the State of Arkansas’s security infrastructure (including CA Identity and Access Manager etc.) mandatory for the Integrated Eligibility and Benefit Management System.

Security-Related Input into IT Design

We integrate security into our SDLC. This enables the identification and verification of regulatory requirements and controls required to meet compliance. We meet our security requirements through the following:

- Identification of applicable security and compliance requirements, system components, functional requirements and internal administrative controls during requirement gathering
- Identification of existing patterns, use cases and gaps analysis during design
- Identification of recommended solution; includes recommendation of acquisition of solutions required to address gaps during development
- Threat and vulnerability management through source code review, and infrastructure and application penetration testing during testing
- Continuous vulnerability scans, flaw remediation and compliance verification during production

Security Best Practices

Our security program will adhere to the standards and best practices as we discuss in this section.

Optum Conduct Policies

Company-wide, Optum employees adhere to the Optum corporate Code of Conduct Policies. We review and update these documents annually, including:

- Code of Business Conduct and Ethics
- Managing Electronic Records Policy
- Protecting Information Assets Policy
- Records Management Policy
- Reporting Misconduct Policy

Privacy and Legal Policies and Procedures

Optum has developed and distributed Privacy and Legal Policies and Procedures, which guide employee conduct and actions. We annually review and update these policies and procedures, which include the following:

- Use and Disclosure of Protected Health Information (PHI)
- Minimum use of PHI
- Acting as a Business Associate to Covered Entities
- Privacy Complaints and Sanctions
- HIPAA Consumer Rights Issues
- De-Identification of Data
- Employee Training on HIPAA and Privacy
- Research Uses of PHI
- Procedure for Privacy Violations and Security Incidents

Security Policies

We conduct security policy reviews. Key personnel representing subject matter experts, business areas, information technology, ethics and integrity, and legal review and update corporate security policies annually. Additionally, the Optum information security officer and chief information officer review and approve these policies. Updated policies obtain sign-off by the appropriate stakeholders within management. The security policies align to the areas of ISO/IEC 27001 such as:

- Security Management Policy
- Risk Management Policy
- Personnel Security Policy
- Physical Security Policy
- Operations Management Policy
- Security Monitoring and Response Policy
- Communications Management Policy
- Access Control Policy
- Network Security Policy
- Third Party Security Policy
- Application Development Policy
- Business Continuity and Disaster Recovery Policy

Security Management

Several layers of internal management support our organizational approach to security operations. This makes sure that policies and controls remain consistent and comprehensive and are followed. Included in this management chain of command are:

- Optum Senior Management
 - Holds weekly management meeting to review objectives, risks, change events, new opportunities, financials and other topics as needed
 - Monitors remediation and mitigation plans for audits, critical events, security events/incidents and litigation
 - Provides sign-off on Optum policies
 - Monitors critical events
- Chief Information Security Officer (CISO)
 - Protects the availability of computer systems, the integrity of business operations and the confidentiality of sensitive information
 - Reviews and approves changes to security policies and standards
 - Acts as key link between the Optum information security program and the Optum Chief Information Officer (CIO)
 - Takes operational responsibility for the prioritization and implementation of information security policies, procedures, standards, technical safeguards and solutions for identified business exposures
 - Leads reporting of information security status, issues and actions to the Optum CIO and appropriate segment leadership
- Optum Legal and Compliance
 - Performs a Legal Risk Review for each new product/service
 - Performs a HIPAA Privacy/Security review on each product/service every 18 months
 - Maintains the Disclosure Analysis Program to confirm that all de-identified data has a low risk of re-identification
 - Manages the HIPAA compliance program throughout Optum
 - Manages a periodic HIPAA security and privacy site review of Optum facilities
 - Coordinates the Ethics and Integrity quarterly reporting, which documents all audits, assessments, monitoring activities, investigations, employee ethic/integrity calls and security/privacy incidents for the audit committee
- Risk Management Director
 - Performs the semiannual business risk assessment
 - Manages the Optum Business Continuity Program
 - Identifies the business processes material to Sarbanes-Oxley compliance
 - Facilitates Sarbanes-Oxley and SAS 70 audits
- Optum Business Unit Management

- Establishes and manages business unit procedures based on the business requirements of product/service offerings
- Monitors business unit change events, objectives, risks, financials, new opportunities and so forth
- Conducts regular assessments

The corporate information security program, directed by our internal Information Risk Management (IRM) group, oversees assessments of our security posture, and in many cases, manages projects, solutions and procedures. These include Annual Penetration Assessments, the scope of which includes:

- External vulnerability assessment
- Web application vulnerability testing
- Physical security testing
- Wireless testing
- Exposure assessment
- Firewalls review (isolate the Web servers from the Internet, the Web servers from the application/database servers and the application/database servers from the customer premise)
- Monitoring

While the monitoring of the infrastructure components of the AR IE-BM is a DHS responsibility, Optum has a comprehensive approach to monitoring application and infrastructure components to support secure access, performance, and availability. We recommend various monitoring activities, which include:

- **Baseline operating system monitoring:** Servers are scanned to monitor operating system security baselines. The security baselines are reviewed and updated annually based on vendor, customer and auditor recommendations.
- **Web vulnerability scanning:** External Web applications are scanned to identify and remediate Web vulnerabilities.
- **Data loss prevention solution:** Management can monitor and prevent data loss on the network with comprehensive coverage including email, instant messaging (IM), Web, Secure Web (HTTPS), file transfer protocol (FTP), P2P and generic TCP.
- **Source code analysis:** We use the appropriate COTS tools to identify and remediate source code security defects and vulnerabilities as part of the development process.
- **Email monitoring:** Consistent with policy, we encrypt emails containing confidential, sensitive or protected information using secure delivery before sending emails outside the company's email network. An automated tool scans emails being sent outside the network to check for confidential information, sensitive information or PHI.

Security-Related Guidance to Decision Makers

As described in our earlier response to Security Best Practices, we will create and maintain a Security Test Plan for the supported applications. The intended use of the Security Test Plan is to make sure all stakeholders, leaders, and decision makers have a complete understanding of the security testing lifecycle phases allowing for comprehensive analysis and evaluation.

The Security Test plan will cover:

- Definition of security testing phases
 - Static Code Analysis
 - Non-Static Code Review
 - Dynamic Web Scanning
 - Penetration Testing
 - Baseline Scanning
 - Functional Security Testing
- Purpose of each security testing phase
 - Time frames in which each security testing phase will occur
 - Roles and responsibilities for performing the security testing

User and Site Authentication

Optum will use your site authentication mechanism owned and managed by the State of Arkansas.

VPN Access

Optum will use the existing remote access solution owned and managed by the State of Arkansas.

Failure Recovery

We will use our existing backup and recovery process as discussed in Section 2.3.2. This will be in conjunction with the State of Arkansas' existing backup and recovery procedures.

Easily Serviceable

As we described in our response to Section 2.3.2 System Availability Requirements Approach, the AR IE-BM will be easily serviceable. Our trained staff in geographically diverse locations will use [REDACTED] operating in HA mode. This allows running multiple [REDACTED] instances (at least two for HA), with one primary instance (leader). The secondary instances (followers) will not accept writes or API requests, but will proxy API requests to the leading [REDACTED] instance.

Data Sensitivity Levels

Optum will categorize and accommodate DHS data sensitivity levels as required by the State of Arkansas Data and System Security Classification policy.

System Hardening Processes

Security is integrated into our SDLC. It enables the identification and verification of regulatory requirements and the controls required to comply by deploying appropriate controls throughout the solution stack. We test controls throughout the development process by using source code analysis, automated scanning tools and penetration testing. We will supplement these system controls through the operating system hardening as directed and managed by DHS.

2.6.3 Database Security

- **Instructions:** Describe the Vendor’s approach to ensure the confidentiality, integrity and availability of the Database Management Systems responsible for managing data related to the proposed System.

Confidentiality, Integrity, and Availability

The AR IE-BM will manage role-based security using RBAC mechanisms from prevailing authorization and authentication technologies. RBAC, using existing roles and responsibilities, will enforce appropriate data segregation and isolation based on department, role or work effort. This will verify that only authenticated users perform authorized activities at authorized times. We invest significant resources in our information security program and use various network, security monitoring and encryption technologies to protect our environment and maintain the confidentiality and integrity of the data and information entrusted to us. Our information security policies, procedures, technical protocols and operations protocols help maintain the control of secured information.

Optum implements encryption technologies according to CMS’s mandatory requirements. We already do this for multiple state customer exchanges and it is part of our proven certification process. We will implement encryption as addressed in CFR 164.312(a)(2)(iv) and 164.312(e)(2)(ii) and noted in your RFP requirements. We will encrypt data at rest in the AR IE-BM database applications and file systems using Federal Information Processing Standard (FIPS) 140-2 compliant encryption technologies. In this manner, our solution supports the HIPAA Safe Harbor requirements. We also encrypt all data during transmission between the Web browser and the Web server using SSL 256-bit encryption validated as FIPS 140-2 Level 2 conformant.

2.6.4 Software and Hardware Security

- **Instructions:** Describe the Vendor’s approach to development and implementation of security measures that will provide security and protection for the System including, but not limited to:
 - Server OS Security
 - Client OS Security
 - Mobile Devices Security
 - Web Server Security
 - Browser Security

Server OS Security

We will implement our solution on DHS-configured and secured server operating systems, using your defined security baselines, hardening, and compliance standards.

Client OS Security

We will meet the regulatory compliance requirements established by the State of Arkansas for safe and secure access to your environment.

Mobile Devices Security

We will enable browser-based security best practices for mobile devices access the system. DHS is responsible for mobile device security and control, such as anti-virus. We define our browser security support in the response below.

Web Server Security

We will implement the Optum IES on the server operating system configured and secured by DHS using DHS security baselines. We will develop the applications, hosted on Web servers, per Optum secure coding practices. We test controls throughout the development process using source code analysis, automated scanning tools and penetration testing as previously described in system hardening process. We will also comply with applicable DHS and regulatory security requirements.

Browser Security

The AR IE-BM will support the encryption requirements as provided by DHS. We will meet the regulatory compliance requirements established by the State of Arkansas for safe and secure access to your environment.

2.7 Interface List

Instructions: Describe the Vendor’s approach and any experiences the Vendor has in integrating with external data sources similar to those listed in Template T-8 – Technical Requirements Traceability Matrix, tab G7 Interface List, the technical challenges faced and how these challenges were overcome.

This response addresses requirements G7.1-7.22 contained in Tab G7 of the Technical Requirements Traceability Matrix.

We have significant experience integrating with external data sources, including many entities listed in the Tab G7 interface list. Through these experiences, we have learned to overcome challenges including communication with stakeholders and partners; using APIs; security; data translation and transformation; testing; and deployment. We describe our experiences and lessons learned in the following section to illustrate our process for successful data integration.

[REDACTED]

External Data Source Integration

Optum has integrated with many of the identified trading partners and verification entities listed in Tab G7 of the Technical Requirements Traceability Matrix, as part of our public sector and HHS practice. For these integrations, we have used [REDACTED]. These integrations use industry standards like X12 and HL7 International and apply the best practices of security, API implementation, logging and monitoring, analytics data and performance. In our experience, our use of the HHS specific capabilities of the OIL integration platform yield working integrations faster than other SOAs.

As noted in the following table, we successfully interface with many of the entities from the Tab G7 interface list in our public sector projects.

Table G: Optum Interface Experience with External Data Sources

Interface	Optum Experience
Social Security Administration (SSA) System	
Department of Labor System	
Child Support Enforcement Agency System	
United States Postal Service System	
Federal Data Services Hub (FDSH)	
Medicaid Management Information System (MMIS)	
EBT Vendor System	
State Data Warehouse	

Other external system integrations listed in the RFP, such as those needed to interface with the following, will use either [REDACTED]

- Department of Motor Vehicles (DMV)
- Public Assistance Reporting Information System (PARIS)
- Electronic Disqualified Applicant System (eDRS)
- Department of Public Safety/Corrections Division
- Women, Infants and Children (WIC)
- Employment Security Department (ESD)
- Outcome and Assessment Information Set (OASIS)

Whenever possible, we prefer to use encrypted RESTful or SOAP Web services for such integrations. Conversely, the OIL can support legacy file transfer or database connection methods. It can support a broad range of data formats, including JavaScript Object Notation (JSON), Extensible Markup Language (XML), flat file, playbook and other proprietary formats.

Integration Technical Challenges

Integration technical challenges materialize in various forms when trying to integrate between new and legacy systems. Challenges may include data impendence mismatches, protocol mismatches (e.g., SOAP versus Java Message Service [JMS]), data layout and schema mismatches (e.g., XML versus JSON) and communication mismatches (e.g., synchronous versus asynchronous). Using the OIL, we have overcome these challenges while implementing integrations and verifications for our public sector engagements. With our team's experience and expertise, we successfully met these challenges as we discuss in this section.

Stakeholder and Partner Management

External integrations require careful communication and coordination with integration partners and enterprise stakeholders to provide successful design, development, testing and deployment of the integration. In many cases, integration partners may not have corresponding product owners, project management personnel or even compatible SDLC methodologies. In these situations, Optum has used our engagement and project management expertise to overcome these difficulties.

API Definition and Standards Agreement

We have found that trading partners do not have formal or sufficient API specifications or definitions, or they have implemented a standard API with a custom dialect. To overcome these challenges, we have engaged with the trading partner stakeholders to understand the API through in-depth sprint planning sessions, JAD sessions or similar activities. In cases where a standard API is implemented in a custom dialect, Optum works to document the specific customizations and implement accordingly.

Security Protocols and Use of Public Key Infrastructure (PKI)

In past engagements, we have engaged with trading partners who have outdated or insufficient security controls or encryption standards to protect the PII and PHI transmitted through integration. In these cases, we have implemented proper security controls and industry standard encryption to provide privacy and security. Optum brings security leadership to the integration engagement with our integration and risk management teams. We have the ability to accommodate the State of Arkansas PKI requirements.

Payload Translation and Transformation

Careful analysis and corresponding service development is needed to translate payloads from producer to consumer services. This verifies the integration conveys the meaning and state of the data properly. In prior experience, we have noted that failure to completely understand the state and needed transformation of the data results in poor outcomes and needless cycles of testing and defect remediation. We avoid this situation by applying our analysis and development expertise to the integration as well as leveraging reuse of existing services wherever possible. Appropriate payload translation and transformation results from our efforts.

Test Case Generation and Execution

For successful integration, testing must anticipate the business uses of integration as well as possible permutations of test data. To meet this need, service integration testing must use a suitably well-developed set of test cases to provide adequate coverage. We have also learned that careful stakeholder management and engagement is needed to successfully complete testing with external partners. This management and engagement must compensate for differing stakeholder values, schedules, priorities and lifecycles.

Service Deployment

For external partner integrations, one must fully understand potentially differing deployment and maintenance cycles of the stakeholders, and design a promotion and deployment method that supports these differences. We leverage our expertise in stakeholder management and client engagement to develop such a method. Development of this method requires us to align the deployment and maintenance schedules of all stakeholders with the AR IE-BM deployment schedule, adjust schedules as needed, communicate the aligned schedule to all stakeholders and verify services are deployed according to the schedule.

2.8 Solution Administration and Management

The Vendor should ensure that the responses to this section are in alignment with the requirements set forth in Template T-8 – Technical Requirements Traceability Matrix, Tab G8.

Optum understands and embraces the full concepts of solution administration and management. Because our proposed offering is based on a COTS platform Administration and Management are less complex than a vendor specific solution. The AR IE-BM will provide monitoring to continually evaluate the end-to-end availability and security of the system. It will also verify alignment with the required SLRs. We realize the nature of the HHS business changes over time. Because of this, the AR IE-BM will be flexible using its authorized administrator capabilities to accommodate changes. These can include case worker workload management and adjustments like the Federal Poverty Level (FPL) without programming modifications. Through evaluation of our end-to-end solution monitoring, we will optimize the business processes to best meet your changing business needs. We see this as an ongoing process and not just a one-time implementation event.

2.8.1 Solution Administration

Instructions: Describe the Solution Administration tools and procedures that are included in the Solution to ease the administration of the System, including any required customizations and third party tools, and how these would be integrated into the DHS Platform environment.

Describe the proposed overall management framework, including:

- Application management and monitoring
- Web services management
- Systems management and monitoring
- Event management
- Identity and Access Management
- Network management and monitoring
- Performance monitoring

- Print Prioritization & Management
- Workload Management

This response addresses requirements G8.1-8.23 contained in Tab G8 of the Technical Requirements Traceability Matrix. [REDACTED]

Application Management and Monitoring

Application management and monitoring has different functions:

- It can focus on the application monitoring ability and the steps to correct the error conditions through corrective actions
- It can be a function within the Information Technology Infrastructure Library (ITIL); many ITIL processes involve application management as noted in the T8 Requirements Traceability Matrix requirement G8.28
- It can focus on the ability to manage applications by providing you flexibility in tasks without the need for a programmer to make application modifications

We address these functions in this section.

Application Monitoring

Optum uses [REDACTED] and [REDACTED] for user-experience performance monitoring. This monitoring tool enables us to provide information on the responsiveness of customer websites and the time it takes to load the different pages within that website.

[REDACTED] requires the monitoring of agents installed on all devices. Additional servers need locating to the same facility as the monitored devices to collect information from each of the agents. These collection servers will need access to our facilities by opening firewalls and ports for communication and alerting.

We measure application response times using [REDACTED] and calculate the times for the entire application rather than a specific component. This determines the full response rate for a business function and more accurately demonstrates a user (client or case worker) experience.

[REDACTED]

ITIL Function

IT Service Management (ITSM) services oversee, govern and continuously improve our ITIL solutions, operations, metrics and reporting capabilities (i.e., incident, change, problem, configuration management, support readiness, customer support transition). ITSM verifies the use of standardized methods and procedures for efficient and prompt handling of changes. This process minimizes the impact of change-related incidents upon service quality and consequently to improve the day-to-day operations of the organization.

We also leverage an end-to-end DevOps process for application delivery. DevOps is an innovative approach to software code management and development that reduces risk and speeds solution delivery. With a strong emphasis on automation, it promotes collaboration and communication between the development and technical operations teams. To support the shorter lead times and higher deployment frequencies associated with DevOps, many areas of the ITIL processes become fully automated. This solves many problems associated with configuration and release management processes. Because DevOps requires fast detection and recovery when service incidents occur, the ITIL disciplines of service design, incident and problem management remain as relevant as ever.

Application Management

Consistent with our approach to provide you a less complex, flexible system that can adapt to an ever changing environment, our solution enables you to have control of functions without additional programming interaction. A reduction in required programming reduces your total cost of ownership. We enable this by putting the key administrative functions in the Administration Portal that an AR IE-BM administrator can modify. This allows greater flexibility without additional programming, testing and patch implementation of the AR IE-BM. One example where this opportunity can be leveraged is on the FPL determination. You will have the ability to adjust the FPL on your own, and the benefit determinations will follow from that change. Another example is the ability to adjust the workflow capability in an easy-to-use format. Changes can be completed as modifications are required to the workflow. This is most important as you adjust various processes as your staff members increase their AR IE-BM application knowledge, legislation changes or demand in service changes. The Optum IES facilitates several other opportunities for application management in our notices management and alerts management functionality.

Web Services Management

We will use CA Technologies (CA) Layer 7 (L7) API Management for Web Services Management. The CA L7 tool allows systems to open data and services APIs securely for potential service and data consumers like the Client portal, Agency portal, and any other internal or external systems. The L7 API Security Gateway provides the following capabilities:

- Authentication, Authorization, Auditing (AAA)
 - **Authentication:** The mechanism that securely identifies users. Authentication systems depend on a unique set of information known only to the individual being authenticated and the authentication system.
 - **Authorization:** The process of checking if a user has permission to perform an action on a resource. An access policy grants permission to specific users or groups to perform an action on a set of resources of a given type.

- ❑ **Auditing:** The ability to capture the various authentication and authorization functions on a permanent basis. Auditing will also will produce reports or monitor audit results online, as well as spot-check user activity by periodically auditing key personnel.
- Threat protection, such as Denial of Service, jumbo payload attacks, cross-site injections, JSON and XML code injections, schema validations, content type validations and message replays
- Throttling and dynamic routing capabilities

We confirm that external parties cannot connect to the AR IE-BM without our verification that both parties' APIs are fully functional and secure. The use of APIs verifies the secure connection to the AR IE-BM, adding an additional layer of protection for your information.

Systems Management and Monitoring

Optum and the Department of Information System (DIS) will share the responsibility for systems management. DIS will provide the hosting services, which will include system management activities. These activities will include hardware inventories, server availability monitoring, capacity management, security management, storage management and network capacity and utilization management. We will review and recommend enhancements or changes to these activities in relation to the solution, and we will partner with you and recommend approaches to implementing any agreed changes and enhancements.



Please refer to our T13 response Section 2 for more information about our system monitoring strategies.

Event Management

Optum has developed specific response and communication processes to handle events, which we detail in this section. Monitoring of alerts begins when specific conditions generate a specific severity of an alert. The event management process considers all alerts as events to be handled according to their severity as described in the following text.

Critical/Major Event Management Process

The occurrence of a Critical or Major Severity event initiates the High Priority Incident Management Process. When one of these events is detected, the Optum Maintenance and Operations (M&O) team will contact your Service Desk to open a quorum call to begin restoration efforts as quickly as possible. Optum will send impact communications to you to effectively communicate restoration status.

Minor/Warning Event Management Process

When a monitoring tool detects a threshold breach or a synthetic transaction script fails and the alert is of a Minor or Warning severity, the monitoring tool generates an alert. If the failure that generates the alert is related to the AR IE-BM Solution, the ticket will be assigned to the Optum M&O team, which will review the incident and begin restoration activities. This team will engage the Arkansas Service Desk if additional resources are required from other teams.

Identity and Access Management

Using [REDACTED]

The IAM solution provides authentication and coarse-grain authorization to the AR IE-BM Solution. The solution also provides additional fine grain authorization based on the roles associated with the user logging in. Granularity of roles allows you to segregate duties to support any task or case-based activities.

Using prevailing identity and access management technologies, we can manage access to information systems and data. Some of the methods we use to validate appropriate access and to meet minimum acceptable guidelines include RBAC or Attribute-Based Access Control (ABAC), SSO, multi-factor authentication and others. We will configure the IAM integration to meet DHS needs.

Security

We will control access to the Agent Portal and Client Portal using role-based and field-based authorization. This will limit access to applications and data by roles assigned to users through system security. The Optum security approach provides seamless user access across systems and leverages the solution's extensive security infrastructure to strictly enforce authorization and role-based access permissions. As already noted, [REDACTED] will deliver the capabilities and services to provision SSO across the entire AR IE-BM Solution.

The portal can automatically log off any user after a set time period. DHS can set and agree on this period of time, which is a configurable parameter. The portal can also be intentionally set to not force users off because of inactivity, if required, and posts a pop-up warning message to the user before the session times out.

Network Management and Monitoring

Our plan includes leveraging the Arkansas State Data Center to host the AR IE-BM Solution. As such, we will leverage the current network topology and hardware that is already in place and operational at Arkansas. Firewalls and other external components outside of the AR IE-BM Solution will be the State's responsibility.

Performance Monitoring

Optum uses [REDACTED] for end-user-experience performance monitoring. With this monitoring tool, we can provide information on the responsiveness of customer websites and the time it takes to load the different pages within that website.

As we noted earlier, [REDACTED] requires installing agents on all devices to be monitored. Our team will use [REDACTED] to measure application response times and calculate them for the entire application rather than a specific component.

Print Prioritization and Management

It is our understanding that the existing DHS print facility will be responsible for printing documents and notices. Optum will send the DHS print facility a file feed, such as a PDF file, for printing requirements.

Workload Management

Workload Management for our AR IE-BM Solution will use [REDACTED] to support our continuous deployment DevOps model in an Infrastructure as a Service (IaaS) capability. [REDACTED]

[REDACTED]

[REDACTED] his enables automating the launching of larger cluster-based applications within AR IE-BM.

2.8.2 Transaction Monitoring and Logging

- **Instructions:** Describe any Transaction Monitoring and Logging capabilities of the Vendor's System. The Vendor's response, at a minimum, should take the following topics into consideration while providing the details:
- Fault Monitoring
- Performance Monitoring
- Configuration Monitoring
- Security Monitoring
- Management and Reporting
- Root Cause Analysis

This response addresses requirements G8.24-8.32 contained in Tab G8 of the Technical Requirements Traceability Matrix. All of the requirements in this section will be met through configuration.

Fault Monitoring

We will implement a bottoms-up monitoring approach to assess the health of the individual configuration items (CI) that support the application. We take a top-down monitoring approach on the application service chain. This includes Vital Business Function (VBF) availability

monitoring by scheduling synthetic, multi-step transactions at a constant interval. We will apply fault domain isolation for availability of infrastructure components. Our monitoring services cover items, such as URL checks, Simple Object Access Protocol (SOAP), REST services, Ping, database query time, CPU/memory utilization, log file, UNIX file systems and Windows drives.

Performance Monitoring

We will use an end-to-end APM process for the AR IE-BM Solution for transaction monitoring.

[REDACTED] Our solution sends appropriate alerts if system performance drops below agreed-upon thresholds.

Our monitoring solution will oversee, chart and trend the performance of applications. We run scripted tests from various browsers, locations and user workstations for last-mile measurement. The tools can send alerts if the threshold is reached for any performance parameter. Monitoring covers a variety of the AR IE-BM functional areas, including user experience, data center real user monitoring, deep application transaction management, synthetic transactions, cloud provider and business service monitoring. Our monitoring solutions can answer basic questions like:

- Where is the time being spent?
- What is happening inside the browser when it is not communicating with the server?
- What is happening at the network level when we have an application slowdown?
- Can we replay known good transactions from key points around the Internet?

These tools will monitor the AR IE-BM Solution performance and alert us in the event of slowness or failure of the system.

For more information about our performance monitoring strategy, please refer to our response to T9 Section 2.8.7 Performance Monitoring and Management.

Configuration Monitoring

We use configuration management throughout the AR IE-BM Solution to provide the configurations needed to run the system. Configuration monitoring is a management tool on top of configuration management to capture the historical changes to the configuration and more specifically who performed the changes. The tool sends an alert when a configuration is modified and when that configuration becomes enabled if it is future dated. While configuration monitoring is performed more widely across the platform, the critical nature of the BRE module drives business value. It identifies what has changed from one point in time to another. We can accomplish this when items are in use or at any point in time. This critical capability helps us assess and triage defects to verify that we can mitigate false negatives because of environment-related issues.

Security Monitoring

Transaction security monitoring keeps track of authorized users accessing sensitive data and flags attempts to access protected files by unauthorized users. It enables IT administrators and security specialists to see user activity at a granular level, such as what services into which they were logging in and the data being accessed within the AR IE-BM Solution.

Transaction security monitoring enables you to identify case workers or other authorized representatives with a Break-the-Glass capability. This allows authorized users to access

protected data on a one-time basis by providing proof of identity using two-factor identification, such as a phone number or PIN. The system will also retain a record of that transaction. This feature allows your authorized users to access the necessary protected data, on an emergency basis, without having to go through the time-consuming process of getting permission from IT or a supervisor to access the data.

The transaction security monitoring tool should be of particular interest to regulators who need to be particularly concerned about who accessed sensitive data within the AR IE-BM Solution.

Role-Based Security

We manage role-based security, the multi-factor authentication user access, using RBAC mechanisms from prevailing authorization and authentication technologies. RBAC, using existing roles and responsibilities, will enforce appropriate data segregation and isolation based on department, role or work effort. We invest significant resources in our information security program and use various network, security monitoring and encryption technologies to protect our environment and maintain the confidentiality and integrity of the data and information entrusted to us. Our information security policies, procedures, technical protocols and operations protocols help maintain control of secured information. Encryption methods include encrypting all disk arrays, laptop disks and removable media, storing passwords and challenge responses using a one-way hashing algorithm rather than clear text. We also encrypt all data during transmission between the Web browser and the Web server using SSL 256-bit encryption validated as Federal Information Processing Standard (FIPS) 140-2 Level 2 conformant. Our solution will encrypt data in motion and at rest in all parts of the system that will include transfers from the data-providing entities.

Management and Reporting

The CommunicationForce tool, which we will leverage, uses [REDACTED] to create a visual performance reporting system for current and historical SLR and Key Performance Indicator (KPI) trending. We will measure and report on these monthly for the overall solution, as well as for specific areas of the solution according to your requirements.

Root-Cause Analysis

Our root-cause analysis method is the set of manual and automated steps we use to detect, isolate and correct malfunctions in the AR IE-BM Solution. It consists of steps that include:

- Maintaining and examining error logs
- Accepting and acting immediately on error detection notifications
- Tracing and identifying faults quickly
- Carrying out sequences of diagnostic tests
- Correcting faults
- Reporting error conditions
- Adding fault prevention measures

2.8.3 Data Archival

- **Instructions:** Describe the processes used to retrieve data from operational databases, near online, and offline data archives.

This response addresses requirements G8.21 and 8.22 contained in Tab G8 of the Technical Requirements Traceability Matrix.

Data retention pertains to the period of time or event triggers that govern how long the system should keep specific data items in its data stores. Optum will maintain the records, including documents and logs, in compliance with your records management, retention policies and applicable federal and state laws. Law, government regulations, administrative rules, best practice guidelines or project management requirements may establish more stringent retention policies. Processing cycles often require record retention for the duration of a repetitive cycle as well. Optum will verify that data entered, maintained and generated meets the requirements of 45 CFR Part 75.

We will design, maintain and operate a set of archive/purge routines to remove data from the application stores. This will occur in a way that leaves relationships with other system data in a consistent state while maintaining any required archives in a securely encrypted storage media.

As part of the data archival process, we will extract data from the AR IE-BM Solution and load it into the archival solution. This includes structured data residing in transactional databases and non-structured data (e.g., scanned documents, email communications). Users will be able to recover archived data based on their security access level. The archival solution will also support reporting and audit compliance.

We will provide a managed, scalable service to securely archive data and restore specific data on demand, in the event of a correction or a compliance or legal discovery. The system will maintain a log of archived and purged data process runs at a summary level.

2.8.4 Data Backup

- **Instructions:** Describe the Vendor's approach to support Data Backup including, but not limited to:
- Database and application backup procedures must be updated to include backups for the System
- Full online data backups must occur, as well as offline backups using tape storage

This response addresses requirements G8.19 and 8.20 contained in Tab G8 of the Technical Requirements Traceability Matrix.

Backup Procedures

Optum will use [REDACTED]

[REDACTED] We will design our data protection and recovery strategy to detect and prevent potential issues through data management functions. If any data becomes corrupted, the database management system (DBMS) backup/archive/recovery (BAR) capabilities provide critical functions to quickly restore clean data and return to normal operations. These capabilities include:

- Performing block-level corruption detection during backup and restore
- Optimizing performance and space consumption during backup with file multiplexing and backup set compression
- Accounting for database procedures before and after backup or restore, freeing dependency on operating system and SQL*Plus scripts

- Providing a common user interface for backup tasks across different host operating systems
- Using parallelization of backup/restore data streams, backup files retention policies and detailed backup histories

Online and Offline Data Backups

We typically maintain up to three copies of the data at any given time, depending on customer requirements and the mission-critical nature of the data. In addition to the active copy of production data, we maintain the most current and accessible copy in mirrored storage. We maintain daily and incremental backups of data on-site, online in the event of hardware failures. When data is more than two weeks old (or a duration defined during requirements analysis and project design), we archive it to the data center archival system. This may include secure off-site, offline storage. We also back up application data regularly. We perform production backups during off-hours. Backup processes do not affect production functionality in most applications.

2.8.5 Disaster Recovery

- **Instructions:** Describe the Vendor's approach to reestablishing operations in the event of a catastrophe, as well as its envisioned approach to developing a disaster recovery plan for DHS. Include the required components, configurations and procedures to enable a recovery.

This response addresses requirements contained in Tab G8 of the Technical Requirements Traceability Matrix.

We will work closely with DIS to define a comprehensive plan for disaster recovery services. DIS is the disaster recovery process lead and is responsible for recovery of the hosting services. Optum is responsible for defining the plan for application disaster recovery services for the AR IE-BM Solution, including detailed recovery procedures. We will assist with testing, remediation and, in the case of a disaster, application recovery.

Disaster Recovery

Optum will work with DIS to define the elements for a full disaster recovery solution. We will document the roles and responsibilities for each step in a shared Disaster Recovery Plan, customized to the AR IE-BM Solution. With the State's hosting requirement, we will work with the State to define the infrastructure components related to the solution to include them in the Disaster Recovery Plan.

Our disaster recovery strategy focuses on balancing the combination of disaster prevention and protection, which reduces both the probability and impact of a disaster. The process first eliminates or reduces disaster risk in critical areas, then plans for the most probable disaster scenarios.

Prevention – Eliminating Risk

Recovery from a disaster means minimizing downtime while restoring and bringing systems back online. Focus should be on items that assist in preventing a disaster from taking down systems in the first place. Best practice organizations invest in providing a stable, scalable environment for applications to perform at operational excellence. This investment creates the prevention, which is fundamental to effective disaster recovery programs.

Protection – Planning for Probable Scenarios

While disaster recovery programs should focus on preventing disasters, they should also address the potential for a disaster to occur. This will include strategies to protect the business during an unforeseen event. Best-practice disaster recovery programs base their work on anticipating and planning for common types of disasters and designing solutions to address them. Disaster protection addresses recovery from the most probable disaster scenarios and a worst-case scenario.

Ideally, the disaster recovery strategy identifies critical business processes and transition-critical applications, data and supporting infrastructure to an alternate recovery location. This should occur in a timely manner, reducing the impact of a technology event to critical business clients.

Re-establishing Operations after a Disaster

Our definition of a disaster is an event that causes the primary data center to become inoperative, such as a fire, flood or other disaster. Re-establishment occurs as we implement operations at a secondary data center. If the State of Arkansas declares a disaster, our approach will follow the process for re-establishing application functionality as outlined in our application Disaster Recovery Plan. The application Disaster Recovery Plan defines the processes, roles and responsibilities for verifying the applications after recovery according to standard practices of the data center owner. In Figure 7, we illustrate our recommended process for re-establishing application functionality following a disaster event.

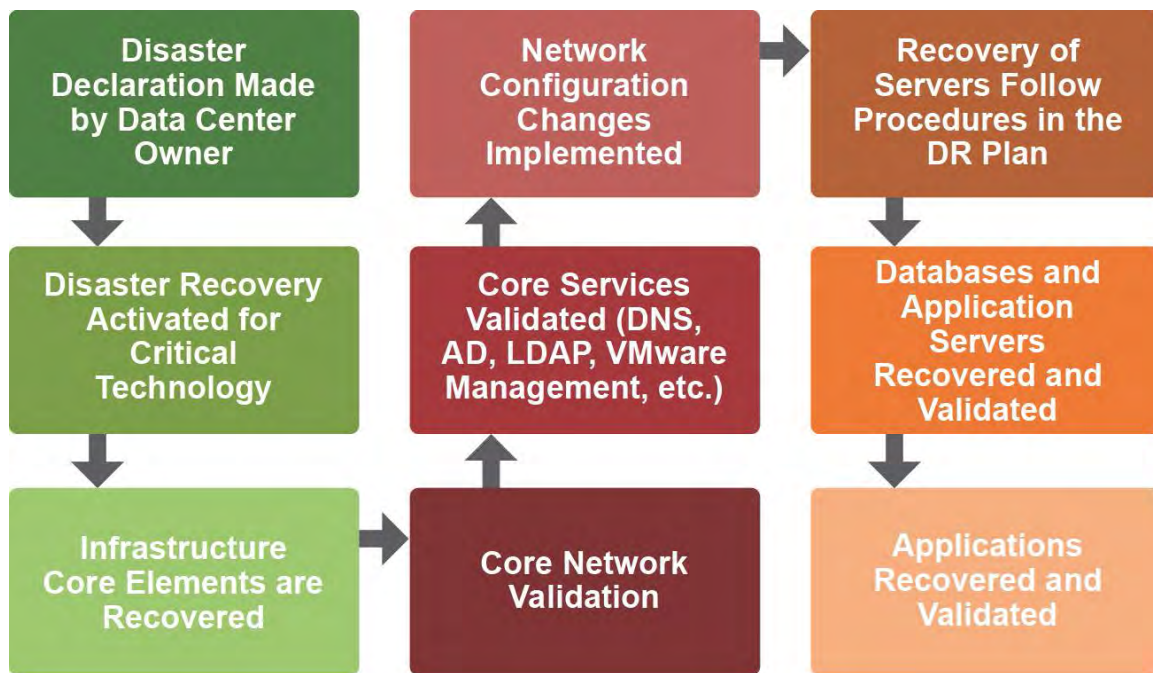


Figure 7. Optum Application Functionality Re-Establishment Process.

We will follow our proven recovery process to define and document the AR IE-BM recovery process.

Our plan will clearly define the roles and responsibilities of the Arkansas State Data Center M&O teams and the Optum team.

Application Recovery and Validation

When the Arkansas State Data Center M&O team completes the recovery of infrastructure, network, core services and application server databases, our team's application recovery work will begin. We will start the recovery and verification process according to the application Disaster Recovery Plan.

Our application recovery team will follow detailed documented processes to specify the order for application recovery. We will also provide the procedures to start up each of the applications and validate proper recovery. When the applications recovery is complete, we will use the application validation procedures to verify that the application is performing as expected.

Disaster Recovery Plan Development

We understand that Disaster Recovery Plans must be developed, exercised and maintained to limit losses caused by disruptions to critical business operations and to enable efficient and effective recovery. Because the scope of our responsibilities in this engagement is limited, our plan will focus on and be limited to the application recovery approach.

Disaster Recovery Plans

We assign an owner to each application. That application owner is responsible for a Disaster Recovery Plan for each critical business application or support system to sustain vital business processes and functions in the event of a disaster. The Disaster Recovery Plan will contain the execution procedures. We will review the Disaster Recovery Plan annually, or when major changes are made to the solution, and update it as needed. We will work with you and participate in your disaster recovery exercises and walkthroughs.

The AR IE-BM Solution Disaster Recovery Plan will require maintenance to sustain our ability to prepare for, respond to, manage and recover from disasters affecting its mission.

The objectives of our Disaster Recovery Plan include:

- Reducing the impact of a catastrophic disruptive occurrence on the AR IE-BM Solution critical business applications, clients and users
- Enabling the transition of critical application functions to your alternate recovery facility
- Verifying recovery of critical services to the affected business units and providing critical services to clients during a survival-mode stabilization period
- Providing time-phased restoration of critical business application processes and services after a disruption

Plan Assumptions

We base the AR IE-BM Solution Disaster Recovery Plan upon the following assumptions:

- The event that prompts the recovery process affects only the application's primary production site. All other public service infrastructure (e.g., fire, ambulance, police) remain intact in the surrounding area. Large-scale regional disasters affecting multiple processing facilities are beyond the scope of each application's Disaster Recovery Plan.
- The worst-case scenario is the total destruction of the AR IE-BM Solution primary production site and all application-specific data and hardware housed there. If the disaster is not worst-case scenario, we may modify procedures within the appropriate strategies to cover critical business processes affected by the disaster-level incident.

- A secure off-site storage facility will maintain backup copies of appropriate vital data records. The off-site storage location is unaffected by the disaster because distance and accessibility were considered during site selection.
- Our application and business owners understand the Recovery Time Objective (RTO) and Recovery Point Objective (RPO) for their applications, including the potential data loss from the RPO. The application can handle potential data loss, or we have methods to manually recreate the data in the impacted application following recovery.
- A reduction in operating efficiency may occur during the recovery and stabilization periods. Processing may take longer; communications may be lost or misdirected, and there may be greater instances of human error during survival-mode operation.

Plan Refresh Process

The AR IE-BM Solution Disaster Recovery Plan will follow standard lifecycle maintenance. As mentioned earlier, we will review the plan annually or as needed. This yearly refresh identifies:

- Equipment updates
- Employee changes (resignations and terminations)
- Changes in business requirements not reflected in specific plans
- Third party preparedness to validate against contractual obligations
- Inaccurate assumptions or oversights

2.8.6 Technical Documentation

- | |
|--|
| <ul style="list-style-type: none">■ Instructions: Describe the technical documentation that comes delivered with the Vendor's Solution. |
|--|

This response addresses requirements contained in Tab G8 of the Technical Requirements Traceability Matrix.

As part of our product development process, we employ rigorous standards for developing and maintaining system documentation for each software release. This includes a solution outline, software architecture documents, technical design documents, data structures, entity relationship diagrams, deployment processes, user manuals and end-user training manuals. These documents contain general technical information about the product required for a base technology (i.e., out of the box) implementation. We will develop further documentation specific to the AR IE-BM Solution implementation during design.

During design, we build on the documentation completed during requirement analysis. We create the technical specifications document for the components identified during requirements analysis and update the application interface specifications as needed. Prior to development, we verify and validate the activities for completeness.

The three main components of design are:

- **User interface design:** We develop detailed designs for all user interface components. This involves a working model of the application, detailed description of each user interface component and a graphic design. We use the Requirements Traceability Matrix as input to component design in the absence of any other defined design artifact.

- **Components design:** We create the technical specifications required to develop code components for the release. We use the Requirements Traceability Matrix as input to component design in the absence of any other defined design artifact.
- **Data architecture design:** We create the data conversion design that helps us to develop the data conversion tools. The physical data model enables the database to be built.

Our design documents include:

- Software architecture document
- User interface component specification
- Data classification document
- Logical and physical data models
- Technical specifications document
- Use cases
- Solution outline document
- Release Entry Framework (REF) checklist
- Design sign-off

We will develop a System Design Plan for the AR IE-BM Solution that incorporates our methodology. Additionally, we will adhere to defined processes, pass development gates, and create and obtain approval for required documentation, meet core operating procedures and meet quality objectives before moving into Production. Our system design will include high-level design followed by a detailed design. The AR IE-BM Solution project team will review and analyze your requirements and specifications to build the solution architecture outline, functional application and data design.

We will use the Documentation Management Plan, Requirements Traceability Matrix, and Defect Log to develop and maintain testing documentation and artifacts according to your specifications. To modify and deliver them, we will follow our established change control process and deliverable management process.

2.8.7 Performance Monitoring and Management

The Vendor will be responsible for establishing the capabilities to monitor the performance of the system. DHS currently uses Wiley for Applications monitoring and Nagios and Ganglia for infrastructure monitoring and has a preference for leveraging these tools in the IE-BM Solution.

Instructions: Describe the Vendor's methodology for monitoring and reporting System performance, as well as the Vendor's approach to technology management. This includes the methods for centrally managing System resources such as servers, backup, archiving, and recovery equipment, databases and applications. Address methods for auditing, tracing and scanning the System. Provide details on the use of specialized tools the Vendor will use to automate and track monitoring and management activities.

The Vendor's response, at a minimum, should take the following topics into consideration while providing the details:

- System and Platform activities, components and configurations monitored and logged
- Monitoring metrics provided as reports, dashboards and alerts

■ Catering for a variety of Performance Monitoring stakeholder roles

The response should also include a discussion of the tools proposed, how they will integrate into the Vendor’s approach to technology management and the appropriate justification if the Vendor is proposing tools other than DHS’ preferred tools.

This response addresses requirements G8.33-8.45 contained in Tab G8 of the Technical Requirements Traceability Matrix. All of the requirements in this section will be met through configuration of the AR IE-BM Solution.

System and Platform Monitoring and Performance Reporting

Supporting the program, we will use the end-to-end APM process for the AR IE-BM Solution. To monitor, chart and trend the performance of our Web applications, we use synthetic monitoring. We run scripted tests from various browsers, locations and user workstations for last-mile measurement. These tools can send an alert if a performance parameter exceeds a defined threshold. We describe the multiple areas in which we conduct monitoring below.

At Optum, monitoring tools evaluate capacity, performance, availability and configuration of applications and infrastructure. [REDACTED]

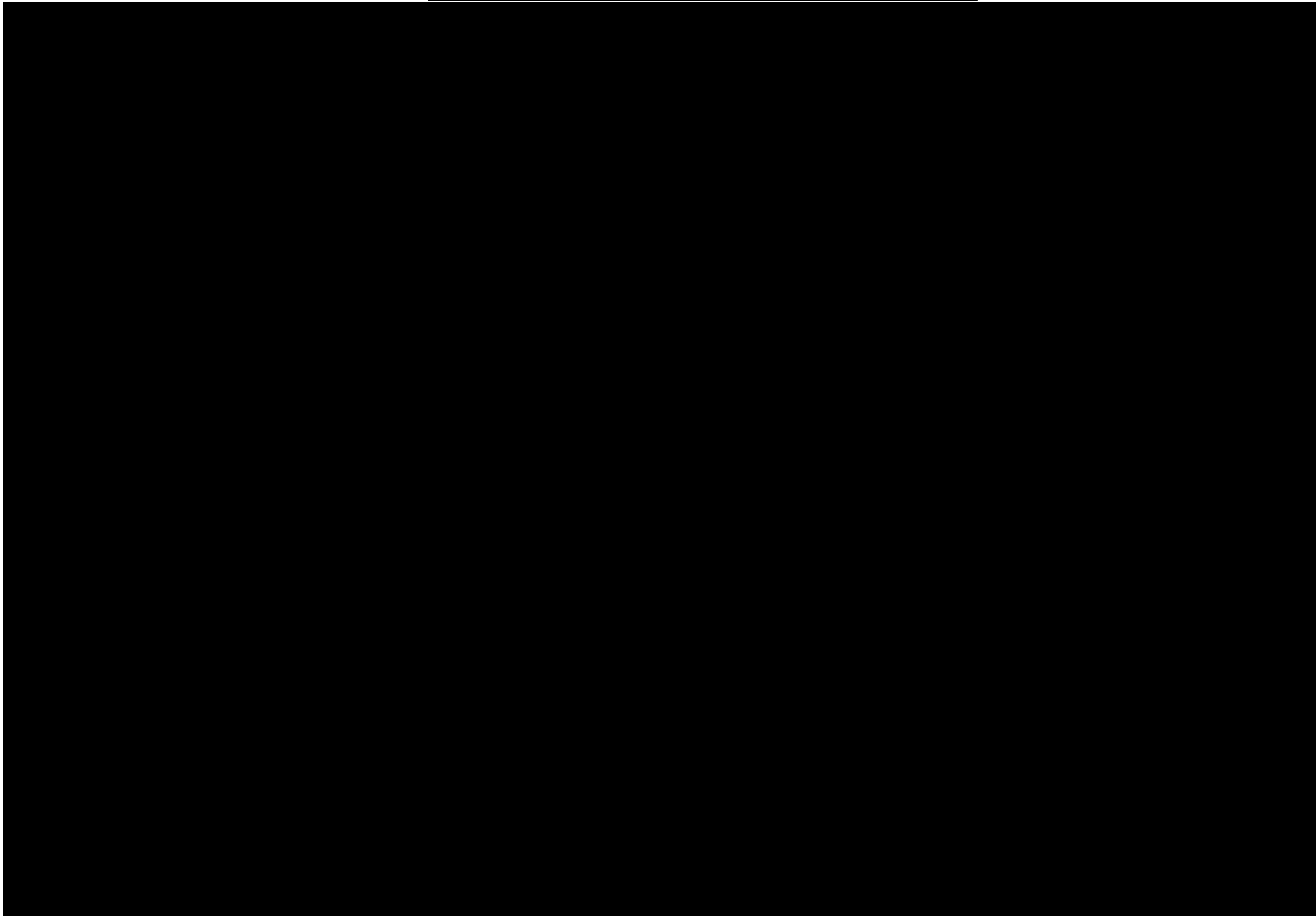


Table H: DHS Monitoring Tools in the AR IE-BM Solution Layers

Tool Name	Monitoring
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]

We use this data to draw inferences and concentrate on the root cause of the bottleneck. Our monitoring solution helps us complete the following tasks in support of your program:

- Alert when performance or availability SLR is breached
- Identify performance bottlenecks
- Trace user click-through
- Perform transaction tracing across tiers
- Drill down to the problematic line of code or SQL statement
- Provide visibility into where transaction time is spent
- Identify a user’s Internet provider
- Identify user browser types
- Provide mobile application performance dashboards for easy access to information

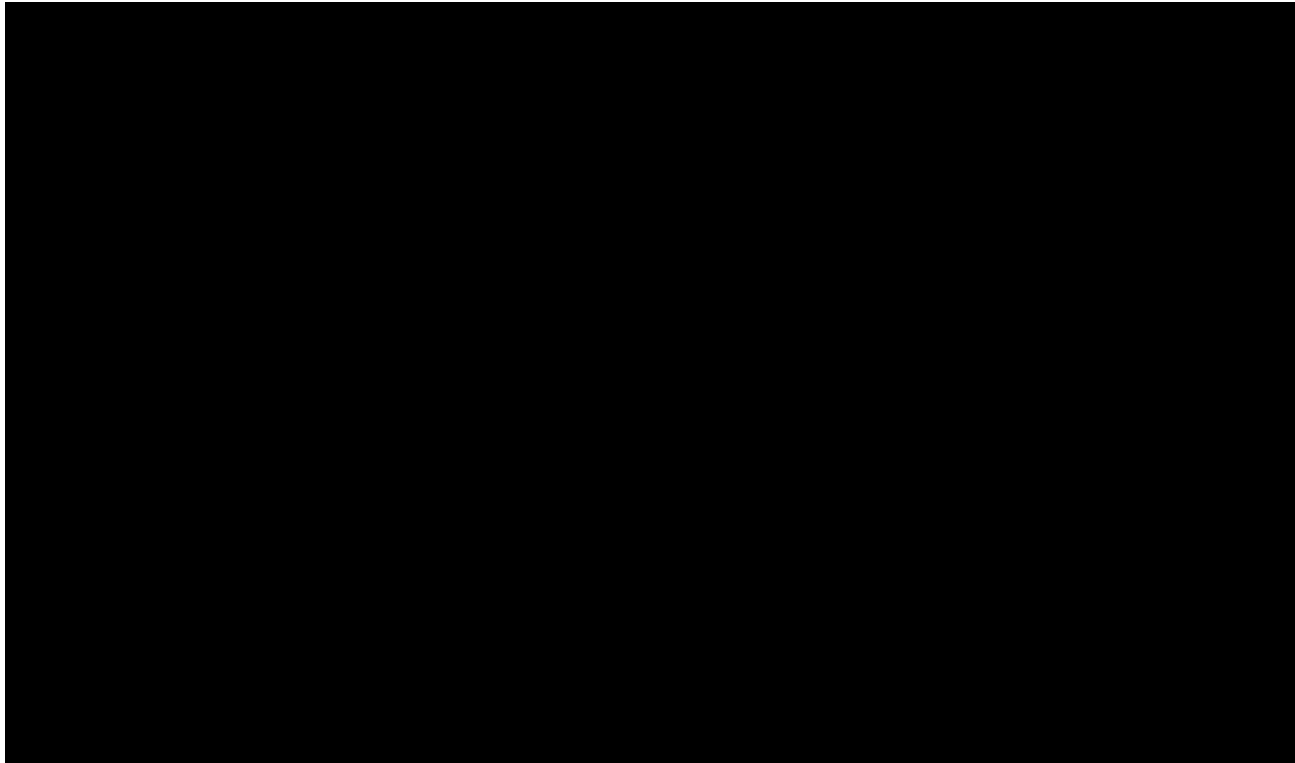
Optum will analyze incident trends to identify the functional areas and engage respective teams for workarounds and long-term resolution. We will monitor the servers, databases, user interfaces and other solution components as part of our solution health check process for issue identification and resolution.

Using these industry standard tools, we will perform proactive issue identification. We will log deviations from quality as an incident and notify the appropriate group. We will prepare a first-time use list for newly implemented functionalities and closely monitor for issues during the first run.

Performance Metrics as Reports, Dashboards and Alerts

Our monitoring solution can monitor, chart and trend the performance of applications. We run scripted tests from various browsers, locations and user workstations for last-mile measurement. The tools can send alerts if the threshold is reached for any performance parameter. Monitoring includes user experience monitoring, data center real user monitoring, deep application transaction management, synthetic monitoring, cloud provider monitoring and business service monitoring. These tools will monitor the AR IE-BM Solution performance and alert us in the event of slowness or failure of the system. We will store notifications, performance data and alerts in Optum reporting tools.

The system will log the response times for all transactions every day. In addition, we will collect data on such items as garbage collection, hung threads, database connections, queue allocation and depths. The M&O team reviews these reports and takes appropriate action to maintain system health. We also use this data to calculate the performance SLR. Figure 9 provides examples of system performance metrics reporting.



Performance Monitoring Stakeholder Roles

The Optum monitoring team will work with you on an ongoing basis to consult on aspects of infrastructure and application availability. We will maintain performance instrumentation and update it as needed to provide Arkansas with optimal visibility to, and ultimate supportability of, the solution.

The concept of continuous improvement is a standard between the M&O team and DHS. We will adjust alert thresholds as required and modify scripts whenever changes in a service's infrastructure or an application's functionality occur. We tailor alert thresholds, polling intervals, alert severity, incident creation and assignment to accommodate your changing needs and stakeholder roles. Our goal is for users and customers to understand how their monitoring operates and how to turn information into action.

2.8.8 Performance Metrics

Instructions: Describe the Vendor's approach to capture and monitor performance metrics and take appropriate action to improve performance. The Vendor's response, at a minimum, should take the following topics into consideration while providing the details:

- Approach to capturing system performance metrics and take timely action
- Approach to logging System transactions.
- Approach to detecting performance issues as well as any major errors related to one or more components
- Approach to monitoring critical performance parameters such as response time, resource availability, CPU Utilization, etc.
- Approach to Role Based Access

- Approach to providing useful information and both real-time and snapshot views.

DHS has not yet identified a preference for a performance management toolset. The Vendor should propose one or more monitoring tool(s) to proactively monitor the performance of key infrastructure components of the proposed System as well as the overall end user experience.

This response addresses requirements contained in Tab G8 of the Technical Requirements Traceability Matrix.

Performance Metrics Capture and Response

The AR IE-BM Solution will support the capture of performance metrics. As previously mentioned, the system will log the response times for transactions each day. In addition, we collect data on items such as garbage collection, hung threads, database connections, queue allocation and depths. We will implement application performance monitoring to detect performance anomalies using these data collections and notify the M&O team. The M&O team will respond to the monitoring notifications per alert severity and impact/potential impact to SLRs.

The M&O team responds to and owns the event/alert/incident ticket through full restoration of the event. There are multiple on-call resources on duty 24 hours a day, seven days a week, 365 days a year, to respond to events that may occur during non-business hours. If the event is determined to be caused by an infrastructure issue, the M&O team will work with the State help desk to reassign ownership of the ticket and engage the appropriate resources. The M&O team will remain engaged until the event is resolved and normal application performance has been achieved.

System Transaction Logging

Optum provides system transaction logging in a two-fold manner to support the AR IE-BM Solution.

First, the solution will enable capturing system logs in place to capture the events as the system processes the transactions. We capture these log files in our Log Stash solution. Elastic Search provides easy discovery of the particular events and ties them to the module that generated the event log. The Kibana tool offers a user-friendly dashboard to display the events so quick diagnostics can occur. The combination of Elastic, Log Stash, and Kibana is known as our ELK stack.

Second, as mentioned in our some of our earlier responses regarding the audit function, the AR IE-BM Solution will capture transactions as they occur. We will store these transactions in a read-only database, which are easily retrievable for consumption and evaluation.

We expect to use these logs to provide insight into the following as we work in conjunction with your administrators:

- Application improvements
- Workflow and workload improvements
- Process changes
- Both the ELK stack and the captured transactions are directly available to Arkansas technical and business staff.

Performance Issue Detection

The detection of performance issues and errors related to one or more components occurs with the use of our preferred monitoring tools described earlier. Our tools' alerting capabilities enable us to detect and triage issues in a timely fashion, usually before user experience performance degrades. Optum will configure these event monitors to support appropriate thresholds. They also help Optum identify and notify key technical users of any performance issues detected by the monitoring tools.

Critical Performance Monitoring Parameters

Optum often creates trending of particular values as inputs to our specialized technical workgroups for proactive and corrective action. For example, the [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

The Optum M&O team uses these tools to understand the current state of how solution infrastructure is functioning as well as the levels at which internal operating systems consume and use server resources. These tools help determine how application performance is impacted by the performance of supporting infrastructure. The team will contact your Service Desk to engage the appropriate hosting services' workgroup to address issues with internal operating systems and infrastructure.

Approach to Role-Based Access

We provide authorization to see private information through RBAC, which defines access control around a user's role and the set of privileges assigned to that role. This allows us to discuss multiple privileges for users to create and make changes to only that information for which they have permission. We accomplish this by assigning the unique user ID to the single role of the user. It also allows us to assign multiple privileges to one or more roles associated with a job requirement.

The Optum IES typically includes an annual certification process where authorized users need to validate their credentials in support of the roles by application group. This process verifies that as people move from position to position, the AR IE-BM Solution will appropriately maintain separation of duties. Although Arkansas' IAM will manage users, we recommend this certification process for the AR IE-BM.

The system supports the ability to perform bulk uploads of roles by application group. This helps to reduce the burden during the initial application set-up. Additionally, we define the roles separately within each system and tie each one to authentication through identity management.

Real-Time and Snapshot Views of Information

Optum will provide a comprehensive suite of operational metrics and reporting capabilities. We use advanced monitoring tools to capture detail-level metrics. We understand the importance of transparency, and we will provide status reports according to the mutually agreed-upon frequency, format and content.

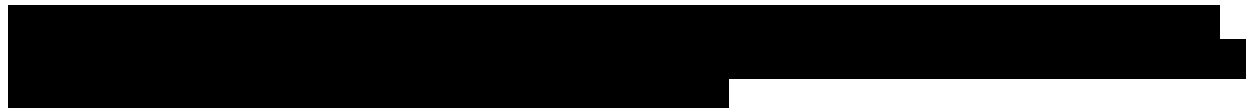
Examples of the content of monthly status reports include:

- KPIs such as availability percentages, SLR metrics, and relevant system usage metrics
- Incident volumes with resolution metrics tied to defined priorities
- Upcoming schedule maintenance windows
- Metrics related to changes including the number of changes, schedule and duration of changes and any potential risks or issues associated to a change
- Problem reporting with action plans for resolution
- Metrics related to service requests with response and resolution times

In addition, the following is a list of metrics and KPIs we use to monitor and measure system availability and performance periodically:

- Application availability, SLR monitoring, and reporting (agreed-upon SLR targets)
- Incident classification, influx, backlog, aging, and trends, upon request
- Application volume and response time charts, from five-minute intervals (e.g., daily performance health check report) to monthly interval trends

Optum will provide application-level health check reporting. Example reports include transactional volume and response time reporting, and business function IT service reporting. We can provide these reports and dashboards with standard reports and dashboards; many of these reports are also available on a mobile platform application.



3.0 DHS IE-BM Solution Alignment

Instructions: The DHS IE-BM Solution preferred approach is to use multiple COTS applications and infrastructure technologies. DHS has defined a series of mandatory and preferred technology components and services, and it would like to leverage these investments (to the extent the Vendor's proposed design allows for it) as the foundation of the technology approach and architecture for the DHS Integrated Eligibility and Benefits Management (IE-BM) Platform.

DHS preferences and investments in the existing technology components has been captured in Template T-8 – Technical Requirements Traceability Matrix, Tab T0 – Technology Solution Stack.

In this section, describe the Vendor's proposed Solution's architecture and its alignment to DHS Enterprise Standards and preferences, while providing the details of how it will meet or exceed the Components and Software Products Technology Requirements set forth in Template T-8 – Technical Requirements Traceability Matrix, Tab T0, with respect to key software technology components.

If the Vendor is proposing to use alternative technologies (in variance with DHS preferences), for any of the technology components listed in Template T-8 – Technical Requirements Traceability Matrix, Tab T0 – Technology Solution tab (except those components which are marked mandatory), the Vendor should provide the rationale and detailed justification for using the alternative technology component as part of

their Solution design as well as justification of how the proposed alternative would serve to be a better fit than what was stated as a DHS preference. This only applies to Technology products that DHS has stated their preference and are not mandatory.

The following definitions apply in specifying DHS preferences for each of the Technology Products:

- **Mandatory** – This is a DHS mandated technology product. This product has been deployed at the Enterprise level as part of other implementations. This technology product **must** be built into the proposed solution architecture.
- **Preferred** – DHS has made significant investments in this technology product. This product has been deployed as part of one or more Systems. This technology product **is preferred** to be built into the proposed solution architecture, unless the Vendor can justify a more suitable alternative product providing detailed justification.
- **No Preference** – DHS has zero or minimal investments in this technology product. Vendor can either leverage the existing investment (If any) or must propose an alternate technology product that fits the overall solution architecture.

Instructions: The Vendor should provide the complete list of their technology component stack that will be used to design and develop the IE-BM solution across each of the architecture domains as required in Template T-8 – Technical Requirements Traceability Matrix, Tab T0.

This response addresses requirements contained in Tab T0 of the Technical Requirements Traceability Matrix.

The vision of DHS is to achieve a person/family-centric model that brings traditionally disintegrated myopic programs operating in silos to a coordinated delivery of multiple services. These services must work together to improve the lives of Arkansas citizens while using tax payer dollars appropriately for technology spending and health care expenditures. We understand your desire to have a system in place that is less complex, offers flexibility to changing needs, and can be modified without expensive customization. We want to work with you to reduce your total cost of ownership by working with you to utilize your existing investments as we work together to identify and introduce efficiencies that a COTS-based solution has to offer.

The Optum IES provides an opportunity for DHS to advance to the most modern, state-of-the-art technology. This solution offers you a holistic view of your citizens who participate in various programs across the enterprise of Arkansas HHS programs. Leveraging an innovative strategy for existing and continued development, we will help you establish an IE-BM foundation for maturing Arkansas programs. The Optum IES meets your objectives, including:

- Leveraging existing, proven, modular technologies
- Giving you the flexibility to continuously modify capabilities or meet changing federal and state requirements

Optum understands your needs, programs and your technology environment from our work in similar environments in other states. We will help you achieve your goals for shared use and modernization with the new AR IE-BM Solution.

We developed our solution using industry-leading standard technologies that are compatible with your system standards. We will make sure that the software, hardware or communication

components we propose for your AR IE-BM Solution will be compatible with your most current supported versions. This will facilitate future integration of the solution with other capabilities and supporting systems not yet in scope for DHS.

The technologies we will use for

3.1 Presentation Layer

To enable a common language and approach across teams within Optum, we follow our presentation layer portal reference architecture for delivering the presentation layer. This document serves as a guide to our delivery team on the functionality and architecture principle adherence necessary to meet the needs of the specific implementation. Our Presentation Layer offers easy configurability to meet your implementation needs.

The scope of the architecture for the presentation layer includes:

- Architectural domains, including functional and non-functional requirements
- Architecture principles
- Architecture information for the following users: clients and agents

The goals for the Agent and Client Portals domain are:

- Creating centralized portal capabilities to support multiple users and products
- Delivering functionality spanning the points of interaction throughout the constituent life cycle from acquisition to service and operations/administration
- Reducing implementation and operational costs and time by delivering out-of-box functionality that is configurable and easily adaptable to align with organization needs
- Creating standardized operational processes that integrate across business/IT to support the portals' capabilities
- Optimizing the user experience through intuitive and easily customized and personalized pre-built user interfaces

3.1.1 Portal

The Vendor should ensure that the responses to this section are in alignment with the requirements set forth in Template T-8 – Technical Requirements Traceability Matrix, Tab T1.1.

Instructions: Describe the Vendor’s approach to using Portal technologies to enable access for the variety of internal and external end users of the System. The Vendor’s response, at a minimum, should take the following topics into consideration while providing the details:

- Multiple channel support
- Single Sign-on to all required resources
- Search capabilities
- Accessibility considerations
- Personalization
- Usability best practices and Federal guidance

For portal technologies, DHS currently uses Cúram Citizen Portal (part of Cúram SPMP) for the current EEF MAGI Medicaid deployment. DHS “does not have a preference” for this technical component; Vendors are encouraged to consider leveraging the investment made in proposing the best value solutions, focused on total cost of ownership and timeliness of the implementation. The vendor may propose a suitable technology with a compelling justification if it deems the alternative to be the best value approach to addressing DHS’ needs and requirements, with the lowest total cost of ownership and is suitable within the overall solution architecture being requested.

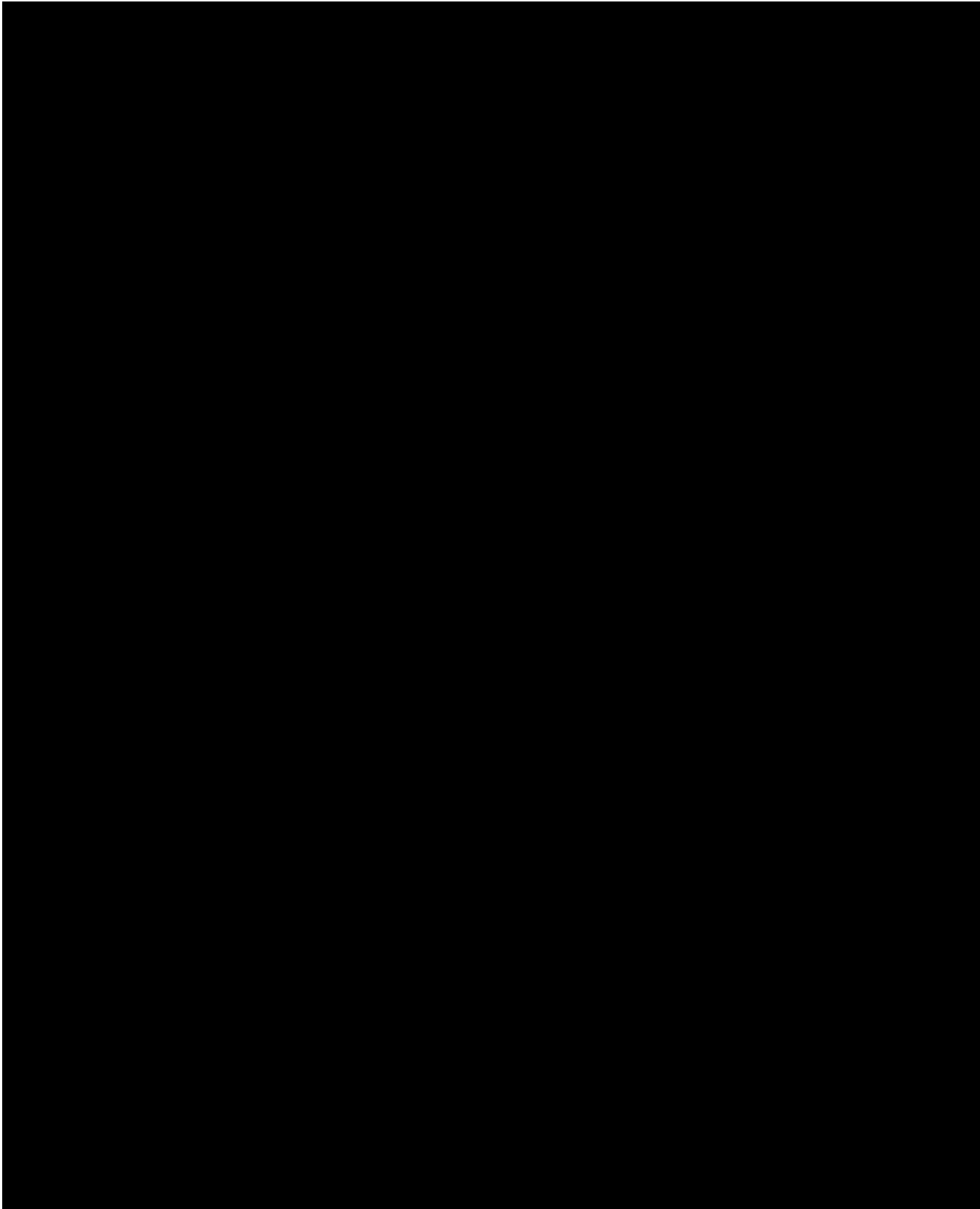
If the Vendor is proposing to leverage the existing investments in Portal technologies currently deployed as part of the EEF Project implementation (only for MAGI Medicaid), the Vendor should describe in detail how they intend to seamlessly integrate the current investments into the Vendor’s proposed solution. However, if the Vendor is proposing to use alternative products, they should provide appropriate rationale and justification for the proposed technology component and approach.

This response addresses requirements contained in Tab T1.1 of the Technical Requirements Traceability Matrix.

Our portal design aligns with your vision of a person/family-centric model. It enables a single source of truth view, migrating away from the current program-centric approach. Furthermore, the portal reference architecture of our solution is flexible and expandable. This provides opportunities for you to extend the AR IE-BM Solution to a variety of future requirements. Our proposed solution utilizes alternative products and technology components that are detailed specifically in our response below.

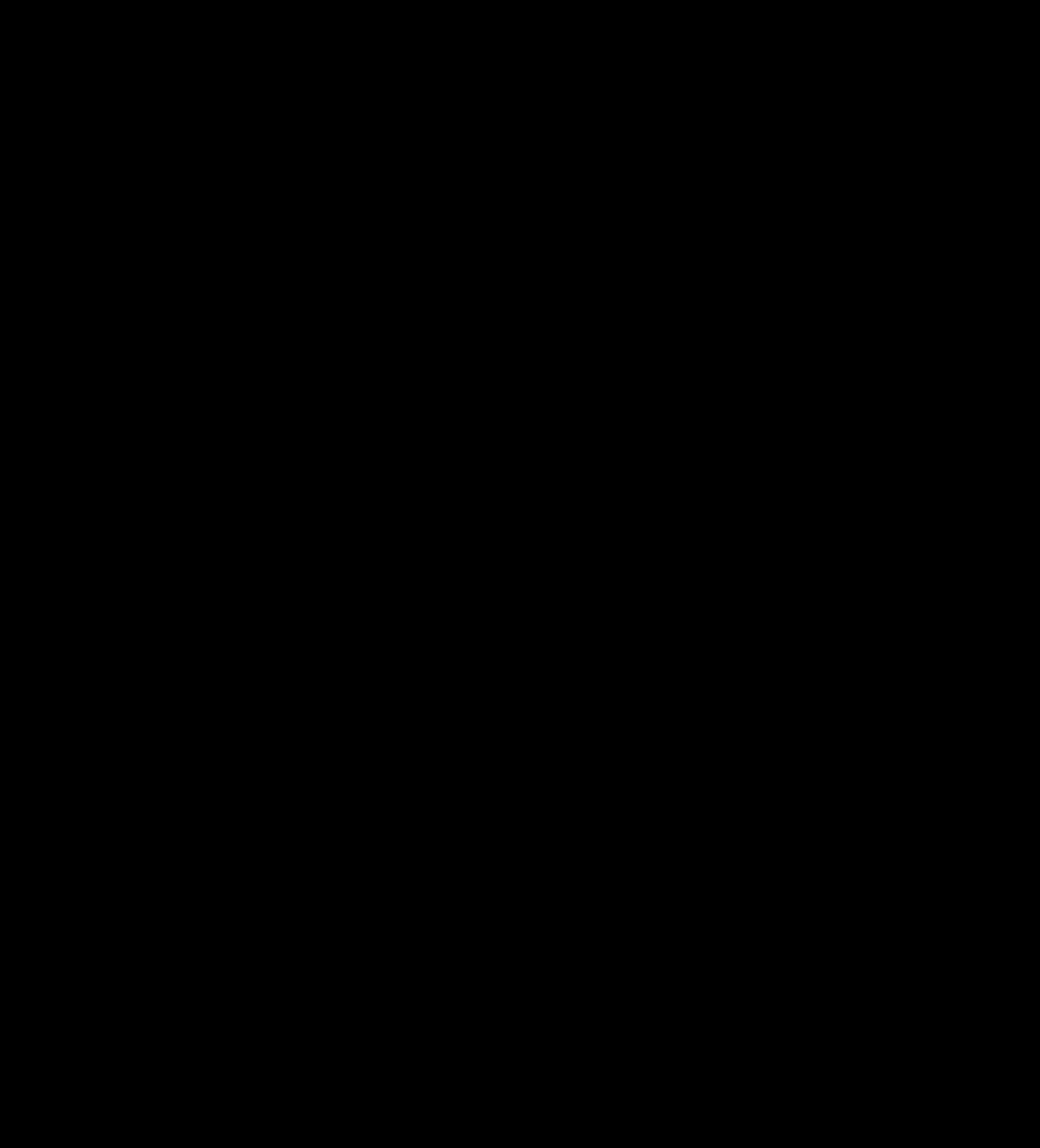
Figure 12 presents





The following table describes [REDACTED]

Table I: Optum IES Architecture Layers



Multiple Channel Support

The portal functionality in the Optum IES is part of the reusable Optum portal reference architecture framework presented previously in Figure 12. The Optum portal is a reusable

reference architecture that serves multiple constituents and channels using the same code base. At run time, the system provides various personas, depending on the business capability it delivers. We describe the characteristics of our multiple channel support in the following text.

Channels and Devices

We built the Optum IES with capabilities to work with any device using the latest technologies to provide an optimal user experience. This includes users connecting from desktops, mobiles, tablets, kiosks and the help desk.

All systems and data touched by the portal are exposed through shared services and separated from back-end systems. This provides unified functionality across all touch points.

This reusable reference architecture serves multiple constituents and channels using the same code base. The system provides various personas depending on the business capability it delivers. This architecture is common and sharable across multiple portals. The Agent Portal and Client Portal will provide access and functionality for the AR IE-BM Solution.

SSO Functionality

The Optum IES can virtually integrate with any industry-standard authentication providers. We currently integrate with Optum ID for the Commonwealth of Massachusetts eligibility and enrollment platform. We can leverage current Arkansas assets for SSO functionality (i.e., CA IAM solution).

Creating configurable user roles for the AR IE-BM Solution will provide access control at the modular level and down to the individual data group level as required. We will use the Agent Portal or Client Portal to map users to roles. This mapping can then control user access to the portals, screens within portals, options within the screens and specific data groups.

SSL Encrypted Communication

We use standard algorithms, such as the Advanced Encryption Standard (AES) or Rivest-Shamir-Adleman (RSA) cryptosystem to encrypt data in transit and at rest. Key lengths vary by encryption cipher types, symmetric and asymmetric. We use symmetric encryption algorithms at a minimum key length of 128bit encryption and asymmetric algorithms at a minimum key length of 1024-bit encryption using SSL. We have multiple levels of prevention and detection, including:

- Network and application firewalls
- Intrusion detection system monitoring
- Secure transport of data through SSL certificates and public key infrastructure signatures
- Encryption of data at rest
- Integrating SSO and authentication tools

Security

Our security measures include both SSO and RBAC. SSO is currently active across our projects, offering secure access for a variety of technology users, including DHS staff, Optum account support, program beneficiaries and other authorized program stakeholders. Users can access the appropriate information according to the predefined RBAC using a single user name

and password. System access and authorization is based on the least-privilege principle and enforced by RBAC. Our privacy and security programs support compliance with federal and state regulations. These include HIPAA requirements, CMS Acceptable Risk Safeguards (ARS) and NIST 800-53 compliance.

The use of role-based and field-based authorization will control access to the Client Portal and Agent Portal. This will limit access to applications and data by roles assigned to users through system security. Our security approach provides seamless user access across systems and leverages the solution's extensive security infrastructure to strictly enforce authorization and role-based access permissions.

The portals can automatically log off any user after a set time period of inactivity. We will work with you to determine and configure the appropriate period of time. We can also configure the portals to not force users off from inactivity, if required, and post a pop-up warning message to the user before the session times out.

Search Capabilities

The AR IE-BM Solution will provide basic and advanced search capabilities enhancing user experience and improving efficiency in daily operations. Users will have the ability to search using keywords or tags to identify the data of interest. Some of the search capabilities include:

- Case search by client or worker
- Provider directory and search by providers
- Benefit finder and online application for eligibility with provider search capability by clients

Search Results and Access Restrictions

For all programs, users with proper security can restrict access to a case, if an application contains sensitive data, or after determining that the access should be restricted on a specific case. You will have the ability to configure the levels of restriction to the functions within the AR IE-BM Solution. This prevents anyone not assigned to the application, or anyone who lacks the proper security, from accessing the information. Users will only see the appropriate search results based on their access permissions. Restricted cases or other information will not display unless the user has proper security assigned to see that case or application information.

User Documentation

The Optum team will develop and maintain training user manuals, reference documents, scenarios and eLearning videos and store them on the Arkansas Learning Management System (LMS). The relevant AR IE-BM Solution training materials will be available before training, starting with user acceptance testing (UAT). Users can search for topic-based programs and tutorials that actively lead them through application training, testing users' progress, and providing correct answers and feedback.

Guided Data Entry

We designed the Optum IES to guide the entry of client applications and client data. For example, when application intake begins for income maintenance programs, the intake process displays eight screens organized with the entry of client/applicant data first. The case workers can then search and retrieve known clients or create a new client if one is not known to the system. This process will help eliminate duplicate records in the AR IE-BM Solution. Known

client data will populate in the fields of the screens that follow. Case workers can trigger eligibility determinations upon entering the minimum necessary data. Figure 13 provides an example of the application intake function within the Optum IES.

The screenshot displays the 'Application Intake Page' in the MyStateServices system. The page is titled 'New Application' and features a navigation menu with the following tabs: Application Details, Program Request, Client Details, Additional Information, Income, Expenses, Assets, and Review & Submit. The 'Application Details' tab is selected, showing a form with the following fields:

- Application Date: 11/07/2016
- Case Number: (empty)
- Application Identification Number: (empty)
- Auto Deny Date: 12/07/2016
- Application Method: Paper (dropdown)
- Withdraw Reason: (dropdown)
- Application Status: (empty)

Below the form is a 'Primary Applicant' section with an 'Add Primary Applicant' button. A search bar is present with the following fields: First Name (John), MI (empty), Last Name (Doe), SSN (empty), Birth Date (mm/dd/yyyy), and Gender (dropdown). The search results are displayed in a table:

Select	Client ID	First Name	MI	Last Name	SSN	Birth Date	Gender	Alias
<input type="radio"/>	33019	John	James	Doe	187896000	1980-08-28		No
<input type="radio"/>	60582	John		doe	876553465		Female	No

The search results table includes a 'View 10 Per Page' dropdown and navigation buttons for 'Previous', '1', and 'Next'. There are also buttons for 'Selected From List' and 'Create New'.

Figure 13. Application Intake Page.
 Predefined required fields will prompt the user to enter data.

Member/Person Data Management

A person record is used to manage information about program clients. This applies to applicants, clients or individuals whose information is required to manage a program (e.g., a parent whose income is counted for an enrolled child). If a person is involved with DHS at multiple times for different reasons, the AR IE-BM Solution will track the person’s roles without duplicating person information. To maintain accurate person information, a search and match of the person must be complete before establishing a new record.

A user’s security role controls access to the person’s data and the ability to update information. Therefore, you can restrict access to only staff members, workers assigned to a case or the provider associated with the person. Further, you can open access to a local office.

Agent Portal Notice View

All generated forms, notices and correspondence are accessible to the worker from the Agent Portal. Workers can access documents as appropriate. In the limited circumstances that a worker should not access a form or notice, the portal will not display the document.

The notice interface allows the worker to search and filter notices by name, program, type, status and date. Additional search or filter attributes can be added as needed by the business process. The status attribute indicates if the document is awaiting delivery (pending), if it has been delivered to the client, if it was cancelled by a user or if it has been reissued.

Accessibility Considerations

We design our user interfaces for easy use with little training or assistance required. These guidelines help us design intuitive user interfaces for our solutions:

- We perform extensive analysis and user research to understand behavior and the way targeted users will engage with the product. This helps us enhance the design and make the user experience complete, efficient and free of frustration.
- We follow industry standard best practices in design and consistency across all delivery channels.
- We use a common plain language, tone and appropriate readability level to match your user goals.
- We follow the World Wide Web Consortium (W3C[®]) WCAG 2.0 standards, which covers Section 508 guidelines.
- We use wireframes to visually depict the usability and navigation requirements related to the detailed functional requirements that have user interaction.

The Optum team understands the diverse cultural makeup of the Arkansas community and includes multi-lingual support in the Optum IES. This includes Web content, documents, notices and forms viewable in English, Spanish and other languages, such as Marshallese.

Accessibility Testing

Through rigorous testing, we will validate that the AR IE-BM Solution we deliver to you is accessible to individuals with differing abilities. We will make sure users can interact with the system according to their needs and abilities.

Beginning in design, we will perform Section 508 compliance reviews on the AR IE-BM Solution user interfaces. Our graphic designers understand the needs of users with visual disabilities and know how to create a wide variety of accommodations for these users. After design, we will perform automated and manual testing of Web tools to further validate full accessibility compliance.

Personalization

With our solution, users can personalize their portal experience so it displays content relevant to them. Portal users can configure the type of notifications, their frequency and mode of receipt. Portal display and experience is personalized to users' geography, role and access. Users can also customize the display language. The Agent Portal will allow display modification of some of the Web components.

Federal Guidance and Best Practices for Usability

We built our Optum IES on the latest W3C Web standards. It complies with HTML5 and supports widely used browsers. User interface design focuses on anticipating users' needs and making sure the interface has elements that are easy to access, understand and use to perform those actions. This is made possible by following several design patterns, including a forgiving

format, breadcrumbs, required field marker, steps left, progressive disclosure, auto-save, notifications, pagination and many more.

We use [REDACTED] as our user interface framework, which cleanly separates the dynamic data from static Web content and markup. Feature toggling mechanism is built into the Optum IES, allowing us to customize the user experience. The portals use an asynchronous request-response mechanism to minimize user wait time and promote scalability in executing complex and long-running transactions connecting many systems and processes. [REDACTED]

3.2 Business Component Layer

3.2.1 CRM/Case Management Solution

The Vendor should ensure that the responses to this section address the requirements set forth in Template T-6 – Functional Requirements Traceability Matrix.

Instructions: Describe the Vendor’s approach to leveraging Case Management technologies that will enable and support DHS strategic objectives and seamlessly integrate with the DHS IE-BM Solution. At a minimum, DHS expects that the Case Management Solution component shall provide the following capabilities –

- More modern, user-friendly user interface with easy access to required data to aid in decision support
- Shared capabilities for tracking life of the case of a customer
- Improved search capabilities
- Enhanced scheduling and alert functionality
- Improved employee efficiency through an improved process flow
- Improved processes, data, and collaboration in support of case work
- Ability to perform investigations, service requests, handling incidents, and taking streamlining processes to support decision across the life of the case
- Provide a holistic view into all data, files, tasks, actions, collaborations regarding a case

For Case Management technologies, the current EEF deployment uses Cúram Rules Engine (CER). However, DHS has “No Preference” to leverage this technology product as part of the solution design.

If the Vendor is proposing to leverage the existing investments in Portal technologies currently deployed as part of the EEF Project implementation (only for MAGI Medicaid), the Vendor should describe in detail how they intend to seamlessly integrate the current investments into the Vendor’s proposed solution. However, if the Vendor is proposing to use alternative products, they should provide appropriate rationale and justification for the proposed technology component and approach.

Introduction

Our approach to leveraging case management technologies is to first validate our understanding of your strategic objectives and then evaluate the case management capabilities and technologies of your current systems, from initiation through closure, in order to identify

opportunities for efficiencies and a more seamless integration. Our evaluation would include determining if the system was a single source of truth that can pull data from various systems, if it provides version control and an audit trail, if it has the ability to determine the age of a case and its status, and finally, if it has the proper access controls and role-based permissions to make updates. We will take the results of our analysis and determine the most effective approach to leveraging the client relationship management and case management capabilities of our Optum IES Agent Portal. Our Agent Portal is primarily built using [REDACTED] Eligibility case management within the Agent Portal includes case notes, multiple case views, case worker lead reporting, search capabilities by client, by case and by case history, and the ability to add worker comments to notices. The Agent Portal also enables DHS users to manage and analyze cases at the individual, group, and organization level and provides a 360 degree view of a client's case across all of the client's programs.

In addition to [REDACTED] the Agent Portal also leverages the workflow and process management capabilities of [REDACTED]

[REDACTED] This modular and integrated approach enables us to more effectively deliver on the DHS strategic objective of “moving from a program-centric approach focused on discrete outputs to a person-centric approach focused on delivering services across programs to achieve the desired outcomes.”

Modern, User-friendly Interface

We design our user interface for ease of use with little training or assistance required. These guidelines help us design intuitive user interfaces for our solution:

- We perform extensive analysis and user research to understand behavior and the way targeted users will engage with the product. This process helps us enhance the design and make the user experience complete, efficient and free of frustration.
- We follow best practices in design and consistency across all delivery channels.
- We use a common plain language, tone and appropriate readability level to match DHS user goals.
- We follow the WCAG 2.0 standards, which covers Section 508 guidelines and more.
- We use wireframes to visually depict the usability and navigation requirements related to the detailed functional requirements that have user interaction.

Tracking Life of the Case

The audit tracking feature within the Agent Portal maintains a record of all the changes made to a case and a client. This includes case creation and status management; unique case and client identification; case assignment; forms tracking; client data management; eligibility status; and client communication. Any actions taken by workers, clients or the AR IE-BM are documented in activity logs so the solution reflects a permanent record of all services and contacts. The AR IE-BM Solution creates a comprehensive audit trail by capturing step-by-step transactional records in chronological order, including destination and source information, to provide documentary evidence of the sequence of activities taken by the client, worker or system. The audit trail contains high-level role-based security that tracks the ongoing events in a privileged mode so that it cannot be altered or modified.

Audit trails are associated with all transactional types of information performed on the Agent Portal and other key transactional systems. The solution tracks changes made to the BRE, Notices Management, and Report/Document Templates to verify these also provide documentary evidence of any changes.

The Agent Portal tracks client and case data across different domains:

- **Eligibility Case Management:** Tracks case notes, case history, and case search and ability to add worker comments to notices
- **Dashboard views:** Provide insight on processes, patterns, changes, performance, problems, trends, oversight of business rules, financial management, auditing and security
- **Program eligibility:** Allows the user to evaluate and track rule-based determination accuracy and consistency

Search Capabilities

The Agent Portal provides basic and advanced search capabilities, enhancing user experience and improving efficiency in daily operations. Case workers will have the ability to search cases using keywords or tags to identify the data of interest. Case workers can search and retrieve known clients. Figure 14 shows an example of the search capabilities within the Agent Portal.

The screenshot displays the 'MyStateServices' Agent Portal interface. At the top, there is a navigation bar with the 'MyStateServices' logo, a search icon, and a grid icon. Below this is a 'New Application' button with a plus sign. The main content area is divided into several sections:

- Application Details:** A breadcrumb-style navigation menu with tabs for 'Application Details', 'Program Request', 'Client Details', 'Additional Information', 'Income', 'Expenses', 'Assets', and 'Review & Submit'. Below this is a sub-section titled 'Application Details' with a 'Continue' and 'Exit' button. It contains several input fields: 'Application Date' (11/07/2016), 'Case Number' (empty), 'Application Identification Number' (empty), 'Auto Deny Date' (12/07/2016), 'Application Method' (Paper), 'Withdraw Reason' (empty dropdown), and 'Application Status' (empty).
- Primary Applicant:** A section titled 'Primary Applicant' with an 'Add Primary Applicant' button. Below it is a 'Search' box with a plus icon and a note: 'Search fields required at least two characters'. The search fields include: 'First Name' (John), 'MI' (empty), 'Last Name' (Doe), 'SSN' (empty), 'Birth Date' (mm/dd/yyyy), and 'Gender' (dropdown). A 'Search' button is located to the right.
- Results:** A section titled 'Results' showing 'Displaying 1 - 2 of 2'. It includes a table with columns: Select, Client ID, First Name, MI, Last Name, SSN, Birth Date, Gender, and Alias. The table contains two rows of data. Below the table are navigation controls: 'View 10 Per Page', 'Previous', '1', 'Next', and 'Selected From List' / 'Create New' buttons.

Figure 14. Agent Portal Search Capabilities.
 Case workers can search cases using keywords and tags.

For all programs, users with proper security can restrict access to a case, if an application contains sensitive data, or after determining that the access should be restricted on a specific case. You will have the ability to configure the levels of restriction to the functions within the Agent Portal. This prevents anyone not assigned to the application, or anyone who lacks the proper security, from accessing the information. Users will only see the appropriate search results based on their access permissions. Restricted cases or other information will not display unless the user has proper security assigned to see that case or information.

Scheduling and Alert Functionality

The AR IE-BM Solution will have a custom developed appointment scheduling feature for the State in the Client Portal, giving clients the option to schedule appointments at the time of application submission or at the client's convenience. Real-time worker availability is maintained in the AR IE-BM Solution to offer clients the most up-to-date information for appointment availability. Confirmations of scheduled appointments and reminders of upcoming scheduled

appointments are sent to clients and workers. System alerts can notify the worker when the client is supposed to arrive or when a client misses a scheduled appointment.

Employee Efficiency

State and county staff will access the AR IE-BM through the Agent Portal. Access is differentiated based on the user's role or program responsibility. Each user has a unique login ID, which defines the workspace the user can access. This role-based distinction recognizes the uniqueness of the business processes, client data and program administration amongst business areas. The user interface provides the appropriate, secured access to data and processes necessary for determining eligibility, enrolling clients and families, managing client data, and managing cases and services. The configuration for user interface layout and access to data is customizable and can be configured according to the State's requirements.

The Agent Portal takes into account the State and county staff's workflow to promote efficiency and ease of use for the worker. An example of this is that the AR IE-BM Solution provides single-click navigation between client and case records providing the user quick access to data with little navigational burden. When clicking to view another record, a new tab opens enabling the user to toggle between multiple records. Clicking on a name opens the client's detailed record, clicking on job will open the client income record for the job.

Processes, Data and Collaboration of Case Work

The solution will leverage queues created in the embedded workflow management tool to facilitate your management and process execution. DHS will have ability to efficiently delegate, track and re-assign staff workloads. By leveraging human interaction capabilities in a given workflow, we will provide the ability to implement role-based decisions for defined business processes.

We will automatically assign workload tasks to workers using the task queue function to increase job efficiencies. The eligibility process will automatically start when a client submits an application or a change of circumstance. The solution will create an activity during a process step and place the related task in a work queue. The assignment of the task to a worker's task queue will occur automatically based on the workload velocity of the DHS staff and priority of the activity. The workflow activities be can suspended and resumed using automation rules or through human intervention. The role-based management provides the ability to override automated assignments by using workflow management screens accessible only to agency workers with the proper authorization. This makes it easy to configure and support different users, processes, programs and changes as your needs change over time.

The AR IE-BM Solution will help you increase productivity by enabling DHS staff to perform their actions efficiently using our automated workflow management system.

Investigations, Service Requests, Handling Incidents, and Streamlining Processes

As with the other milestones in the life of a case, the caseload management, workflow, audit and appeals features of the AR IE-BM Solution, as discussed in T7 Functional Requirements Sections 1.4, 1.12 and 1.13, enable efficient processing of investigations, service requests and handling of incidents. We realize that these particular tasks may or may not be connected to each other. For example, a service request may be recognized as actually being an incident, which then results in an investigation. On the other hand, these tasks may occur in isolation as

well, for example, a staff member notices a potential income reporting irregularity in a case and initiates an investigation.

As previously described in Section T-7, workflows typically follow a sequential order to make sure all steps in the process have been completed before moving forward. However, they can be configured to modify the order of the steps making the process more efficient for specific work units. For example, if there is a work unit with experienced workers, steps could run simultaneously as opposed to sequentially, or some steps may be skipped based on State-specific business rules. The flexibility of our workflow configuration is particularly important with these tasks, which could vary considerably in complexity.

Initially, we will work with the State to implement the workflows described in the RFP and Procurement Library documents. Using reporting made available within the solution, DHS staff can examine and analyze data with respect to the effort and elapsed time for processing of investigations, service requests and incident handling. From there, additional opportunities for streamlining processes may become apparent in the spirit of continuous improvement. It might be noted, for example, that a given workflow step does not seem to be adding any value. Changing the steps in the process will be simple and straightforward. This also applies to any other workflow DHS requires.

Holistic View Regarding a Case

The AR IE-BM Solution supports the administration for all programs for a client on a single client account/case.

After an application is submitted, the AR IE-BM creates a new, unique case ID if the primary applicant does not already have an existing case in the system. If the primary applicant has an existing open case, the new programs are added to that case, retaining the existing unique case ID. If the primary applicant has an existing closed case, that case is reopened and the programs are added to that case, retaining the existing ID.

A person record is used to manage information about program participants, whether they are applicants, enrollees or individuals whose information is required to manage a program (e.g., a parent whose income is counted for an enrolled child). A person record captures basic demographic data and other information needed to determine program participation across the enterprise. Each person has a unique ID number assigned by the system. Person management interfaces with the Master Data Management (MDM) solution to maintain a single instance of the identity. The user can record multiple names, addresses, and phone numbers for each person involved in a case or associated with a case. Additional information such as background information, citizenship and immigration status, reference numbers, income and assets, adoption history, paternity, education, and medical information can also be recorded, and updated over time.

All data, files, tasks, actions, and collaborations for a client administered on the AR IE-BM platform are all recorded under the same case ID, providing easy access to all of the client's data and a holistic view of the client from a worker's perspective.

3.2.2 Notifications and Alerts Functionality

Instructions: Describe the Vendor's approach to providing an enterprise approach to managing notifications and alerts which will enable DHS' vision for communicating with clients through multiple channels and becoming person/family centric (integrating programs). At a minimum the response should include a discussion regarding:

- Multi-channel communications
- Compliance with federal regulations
- Communications rules management
- Integration with other components in the solution
- Integration of communications from multiple federal programs (e.g. Medicaid, SNAP)
- Archiving/logging of communications

DHS is currently in the initial stages of building the Notification and Alerts functionality through the Xerox DocuShare product.

If the Vendor is proposing to leverage the existing investment currently deployed as part of the EEF Project implementation (only for MAGI Medicaid), the Vendor should describe in detail how they intend to seamlessly integrate the current investments into the Vendor's proposed solution. However, if the Vendor is proposing to use alternative products, they should provide appropriate rationale and justification for the proposed technology component and approach.

Introduction

Our Notices and Alerts module will enable your vision for communicating with clients through multiple channels and becoming more person/family-centric. Our approach to managing Notices and Alerts includes our built-in Optum Document Management Service layer to integrate multiple components of the AR IE-BM solution. These include our Client and Agent Portals, BRE, and your Xerox DocuShare infrastructure. Our solution supports your multi-channel communications requirements, including e-mail, phone and U.S. mail. Further, the solution has the ability to consolidate multiple communications from the various federal programs into a single, consolidated communication to the client. Our solution is modular and modern in that it leverages our built-in workflow automation and rules engine to seamlessly integrate with both your existing Xerox DocuShare solution and your current Fulfillment Center for printing and distributing hard copy documents. Finally, our solution complies with all federal regulations and maintains an archive/log of every client communication.

Multi-channel Communications

Clients can access the My Messages section of the Client Portal to view their correspondence. When a client requests delivery by regular postal mail, the electronic version displays on the portal and the appropriate file is transmitted to print services for mailing. The client may also choose to print the document themselves or create a PDF version from the portal. The mailing service receives the primary client's preferred address to facilitate delivery to the correct address. The preferred method of communication is captured for mailing, phone and email. All correspondence to the client is only performed using the preferred method of communication. The same process applies when program policy dictates that a hard copy correspondence must be mailed.

Compliance with Federal Regulations

Clients will have a notification preference to opt-in for email notices; otherwise, they will receive notices through the U.S. Mail. All legally-required notifications will go out to clients through the U.S. Mail. These include:

- **Client events:** Clients and applicants will receive assistance requests, follow-ups, or legal notifications.
- **Workflow events:** DHS staff will receive status update and aging reminders for tasks due for completion.
- **Department events:** Through secure file transfer, the authorized print fulfillment center vendor will receive print delivery notices for printing, envelope inserting, and postal service distribution from the AR IE-BM Solution.
- **System events:** Identified system administrator-designated users will receive scheduled and unscheduled actions and issue notices

Communications Rules Management

The AR IE-BM Solution increases productivity through the use of automated workflows and a BRE for managing communications (processes and rules) for your notices and alerts. For notices, the rules engine will coordinate the notice creation and disbursement to intended clients. Using our predefined templates, we will work with your DHS staff to set up business processes to automatically trigger notices and alerts based on a preset or predefined schedule.

Driven by your business requirements, these triggers may initiate a content workflow for various processes, such as eligibility, change of circumstance, enrollment updates and any other case-related communications. DHS staff and clients will be made aware of ongoing or completed transactions through the use of event notices. The rules engine will send online alerts to DHS staff and clients when an action is required on the part of a client. Clients who have not opted-in for electronic notification will receive these reminders in the form of a notice, as described above.

Integration with Other Components in the Solution

The Optum Document Management Service will provide the ability to generate notices and alerts and store an electronic copy of them in a content repository. The document integration service that provides the adapter and simplified interface to the Optum Document Management Service will be integrated to the existing document management solution, the Xerox DocuShare system modules. We will leverage the existing platform currently used in Arkansas and deploy the centralized platform within the hosting infrastructure established by Optum. We will also provide ongoing operations for the platform for the duration of the contract.

The service will also have the ability to create reports for you to use to track the number of letters or notices generated. We will leverage your current Fulfillment Center for printing and distributing hard copy documents. Additionally, the AR IE-BM Solution will maintain a copy of each letter and notice associated with the specific client. If an exception, error or deviation from normal processing occurs during execution of these workflows, it will notify the Optum and DHS operations teams to respond using predefined channels of communication, such as email service management.

Integration of Communications from Multiple Federal Programs

Notifications to a single client may be triggered by multiple processes, and eligibility results for each program will typically be accepted by the worker in separate actions. This may result in multiple notices being generated for the same client within a single day. We will work with the State's mailing facility to combine multiple Notice files for the same client into a single envelope, where practical, thus saving on mailing costs and simplifying the user experience for the client.

Archiving/Logging of Communications

The AR IE-BM Solution will maintain up to three copies of each letter and notice associated with the specific client, depending on your logging requirements and the mission-critical nature of the data. In addition to the active copy of production data, we maintain the most current and accessible copy in mirrored storage. The maintenance of daily and incremental data backups are maintained on-site in the event of hardware failures.

With respect to your data archive and purge strategy, we will work with you to incorporate the AR IE-BM solution into your current archive and purge infrastructure in order to execute your strategy and associated data retention requirements. When the data retention date has passed, we archive it to the data center archival system.

3.3 Application Infrastructure Services Layer

The Application Infrastructure Services Layer provides key business functions within the AR IE-BM Solution. [REDACTED]

Modules within the Application Services Layer are reusable for authorized users within and across programs. For example, a citizen who wants to view the SNAP benefit information on the Web pages available through the Client Portal uses the Core Presentation Layer. The Core Presentation Layer will interact with the Application Infrastructure Services Layer to retrieve and display the benefit information the citizen has selected to view. In fact, no matter which authorized user accesses this benefit information through the Presentation Layer, the module will interact with the relevant data to accomplish the required task.

3.3.1 Business Rules Management Engine

The Vendor should ensure that the responses to this section are in alignment with the requirements set forth in Template T-8 – Technical Requirements Traceability Matrix, Tab T3.1

Instructions: Describe the Vendor's approach to leveraging Business Rules Engine technologies that will enable and support DHS strategic objectives and seamlessly integrate with the DHS IE-BM Solution. The Vendor's response, at a minimum, should take the following topics into consideration while providing the details:

- Rules engine architecture
- Rules validation, calculation, decision and generation
- Performance tuning and debugging
- Rule storage and versioning

For Rules Engine technologies, the current EEF deployment uses Cúram Rules Engine (CER). However, DHS has "No Preference" to leverage this technology product as part of the solution design.

The Vendor should describe how DHS requirements will be satisfied by the technologies included in the proposed solution design. If the Vendor is proposing to use alternative products, provide appropriate rationale and justification for the proposed technology component and approach.

This response addresses requirements contained in Tab 3.1 of the Technical Requirements Traceability Matrix. Each heading below corresponds to a requirement and we have provided details on how we will meet your requirement.

[REDACTED]

The BRE within the AR IE-BM provides DHS with flexibility required to support future modernization. The core capabilities can be leveraged to support not only eligibility and enrollment, but other rules-based decision making as well for other programs in the future. The OIL is a key differentiator of our platform because it provides the DHS with the flexibility to modernize over time while maximizing investments made in existing State assets and capabilities.

[REDACTED] is in use in multiple HHS organizations. Some specific examples include:

[REDACTED]

[REDACTED]

[REDACTED]

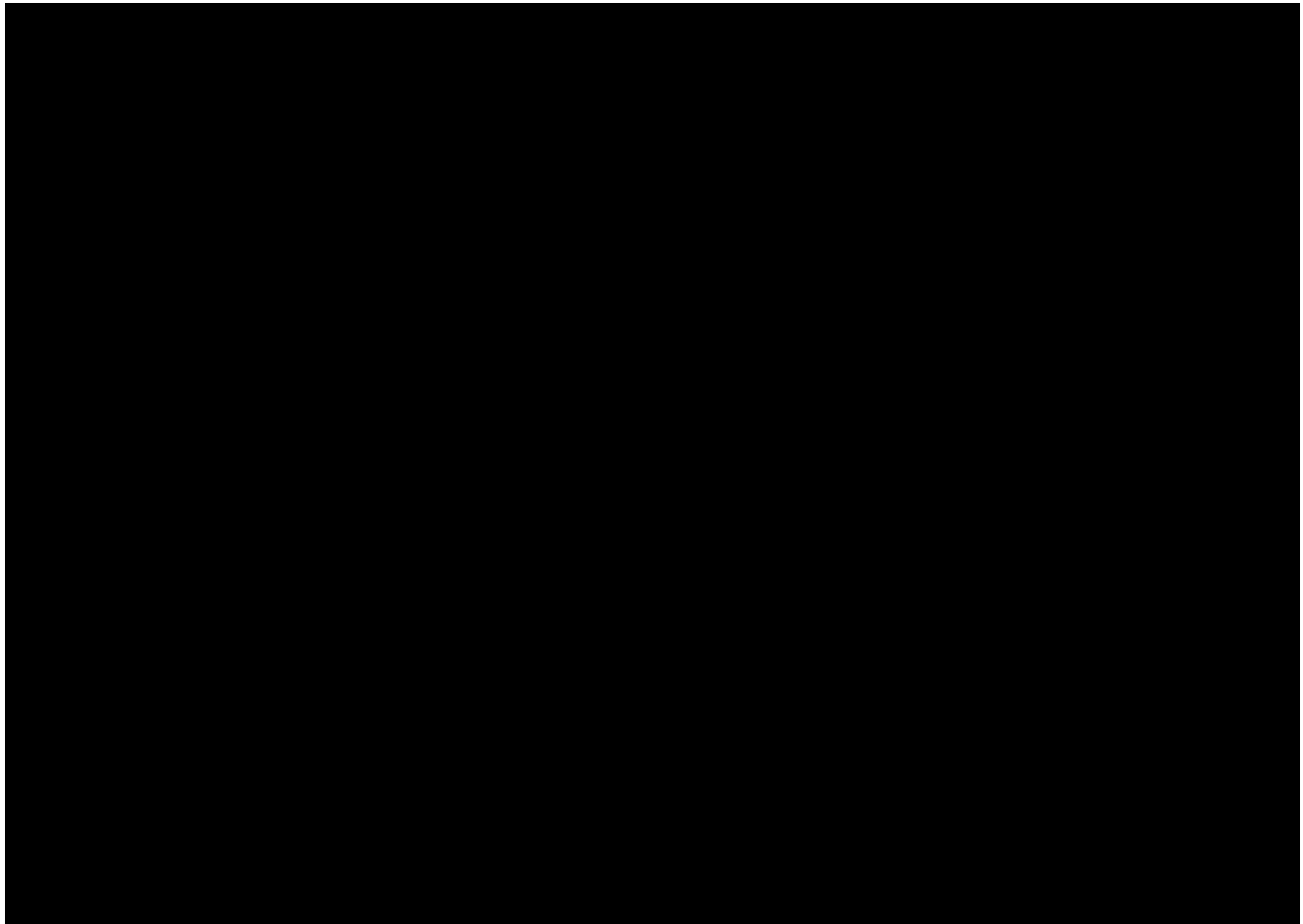
The AR IE-BM Solution BRE will facilitate business function processing between various technical components. We will integrate rules with external systems as needed. For example, we will configure eligibility determination rules for specific programs (e.g., TANF, SNAP) within our rules engine based on business need. We will integrate the rules engine with any system to request eligibility for those programs.

Rules engines and workflow also provide greater levels of validation. For example, we will define automated validation criteria to detect errors and route work to a given work queue for resolution. Using workflows and rules engines effectively can help us detect errors early and increase quality and throughput. This approach helps us resolve issues before they cause major downstream impacts.

Rule Engine Architecture

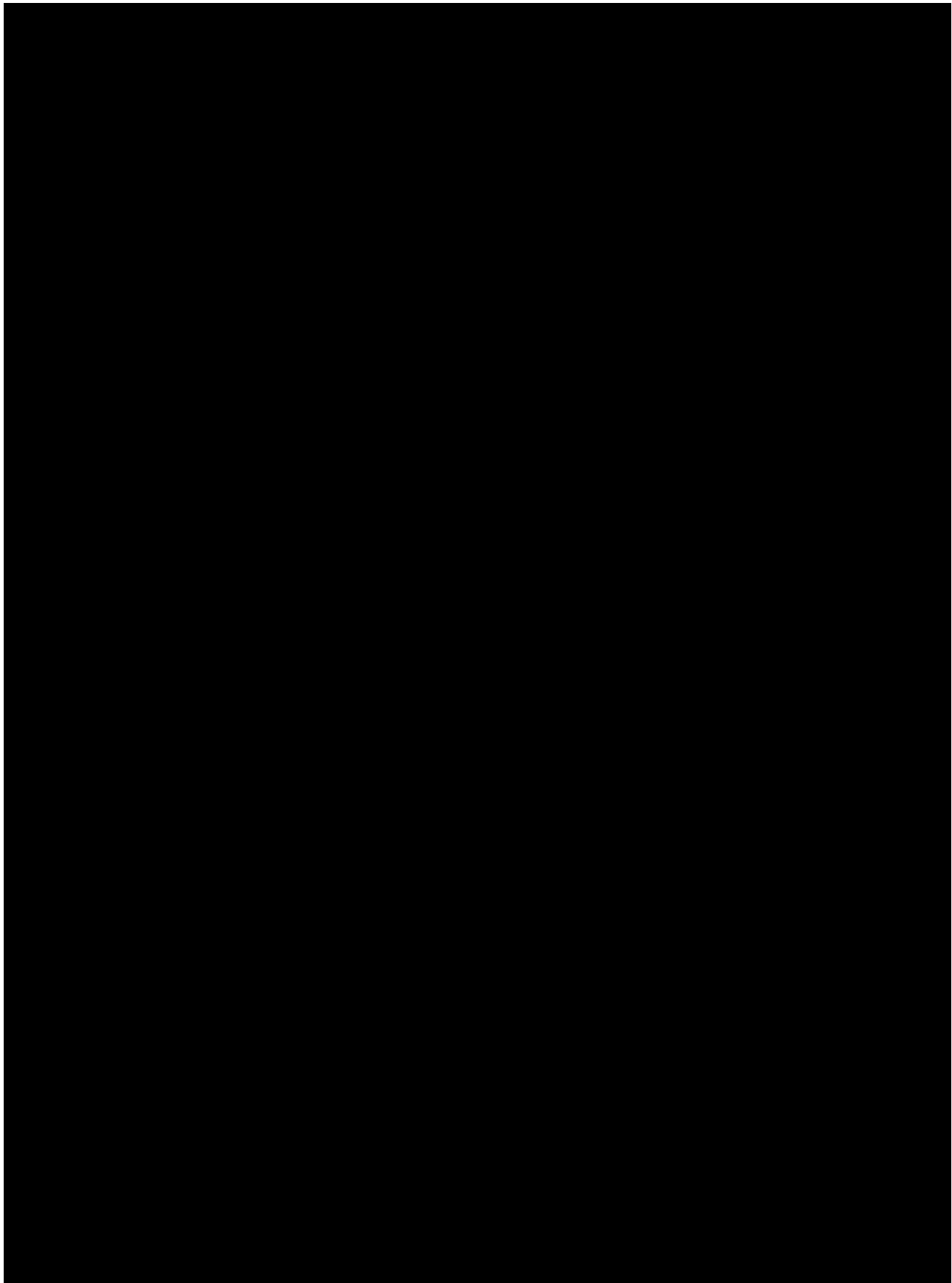
The AR IE-BM Solution's BRE architecture will enable it to process a request received from external entities with the requisite input data and return a response for each specific input request using the input data and rule flow, which can be used as a cloud solution. The AR IE-BM Solution will leverage a common workflow sequence, but it can also leverage unique rules for a specific program.

Figure 15 shows the AR IE-BM Solution rules system architecture and integration flows.



Rule Validation, Calculation, Decision and Generation





Rule Engine Performance

Optum will use the [REDACTED] COTS tool for user-experience performance monitoring. With this monitoring tool, we can provide information on the responsiveness of customer websites. [REDACTED] also offers information about the time it takes to load the different pages within that website, with propositional time taken by rules engine during execution. We provided details in our proposal T9 Section 2.8.1 response Solution Administration. Ruleset execution monitoring provides data for tuning the rules engine performance.

Rule Storage and Versioning



The following Figure 17 illustrates the ruleset versioning process.

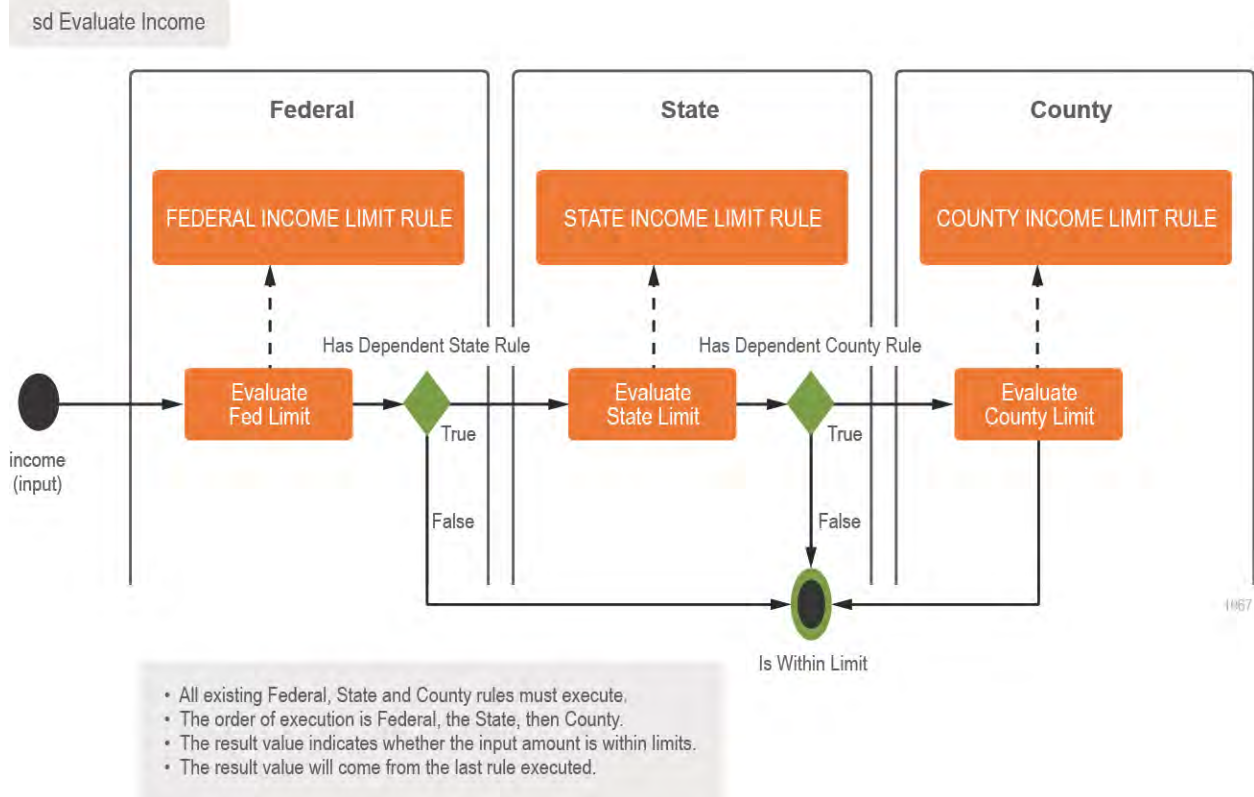


Figure 17. AR IE-BM Rules Hierarchy and Versioning.
 The ruleset versioning is based on upper hierarchy for overriding rulesets.

For development purpose, [REDACTED] will assist software developers to work together and maintain a complete history of their work. For this project, developers will [REDACTED] and then check it in to the source code repository. First, developers will check out the existing projects from the repository into their Rules Designer. If any changes are made to the existing projects, developers will then synchronize with the repository, review any remote changes and then commit their local changes back to repository. The repository's internal logic will handle source code version management for rules development.

3.3.2 Workflow, Business Process Management / BPM

The Vendor should ensure that the responses to this section are in alignment with the requirements set forth in Template T-8 – Technical Requirements Traceability Matrix, Tab T3.2.

Instructions: Describe the Workflow and Business Process Management technologies and design approach supporting the IE-BM Solution. The Vendor's response, at a minimum, should take the following topics into consideration while providing the details:

- Process and System Integration in support of Case Management, Collaboration and Scheduling
- Business Activity Monitoring
- Process Modeling
- Workflow Engine Configuration and Execution

For Business Process Workflow technologies, the current EEF deployment uses Cúram Work Flow. DHS has "No Preference" to leverage this technology product as part of the solution design.

The Vendor should describe how DHS requirements will be satisfied by the technologies included in the proposed solution design. If the Vendor is proposing to use alternative products, provide appropriate rationale and justification for the proposed technology component and approach.

This response addresses requirements contained in Tab 3.2 of the Technical Requirements Traceability Matrix. [REDACTED]

Workflow and Business Process Management Process and System Integration

The Optum AR IE-BM Solution will help you increase productivity by verifying that DHS staff members can perform their actions efficiently using our automated workflow management system. The solution will leverage queues created in the embedded workflow management tool to facilitate your management and process execution. DHS will have ability to efficiently delegate and track staff member workloads. By leveraging human interaction capabilities in a given workflow, we will provide the ability to implement role-based decisions for defined business processes.

We will automatically assign workload tasks to workers using the task queue function to increase job efficiencies. The eligibility process will automatically start when a citizen submits an application or a change of circumstance. The solution will create an activity during a process step and place the related task in a work queue. The assignment of the task to a worker's task

queue will occur automatically based on the workload velocity of the DHS staff and priority of the activity. The workflow activities be can suspended and resumed using automation rules or through human intervention. The role-based management provides the ability to override automated assignments by using workflow management screens accessible only to agency workers with the adequate authorization. This makes it easy to configure and support different users, processes, programs and changes as your needs change over time.

Business Activity Monitoring

The management dashboard in the Agent Portal will display key milestones, such as mailing a notice, verifying immigration records or receiving a verification of income. The predefined metric milestones will also generate alerts per configuration requirements. Based on workflow and business rules, the AR IE-BM Solution will generate reports at defined checkpoints, on demand and during scheduled batch process. These will enable progress monitoring, identifying impediments and expediting critical issues. This gives management and supporting staff insight and advanced notifications of pending and overdue work. The dynamically configurable reports and alerts provide delivery using multiple forms of electronic notifications including email, Instant Message (IM) and Short Message Service (SMS). You can configure reporting with variant granularity to include such items as city, office, county, region or ZIP code, using dynamic business rules.

Process Modeling

Business process modeling helps us evaluate how a proposed solution may affect business areas and is critical for understanding how the solution will potentially affect business operations. To define our proposed business process, we will begin with any existing models that describe the current business process, for example, your Life of a Case. This helps identify where we should perform any business process changes. We will validate existing business processes before we use them.

Business process models also support the development of business use cases. Use cases describe business process activities. Use case modeling is used to describe features that involve business interaction (no system involvement), business and technology interaction (actor to system), and technology interaction (system to system). We can describe an activity identified in the process flows with a use case. This may include a use case in itself, part of a use case or more than one use case.

Workflow Engine Configuration and Execution

Business process and workflow management will use a configurable and user-controllable workflow engine with its own rules engine. These will allow the AR IE-BM Solution to enforce workflow rules and confirm that activities are completed according to defined metrics.

Inherent to the workflow process and system is detailed logging and audit information. This will allow the AR IE-BM Solution to provide a detailed reporting mechanism to analyze workflow processes, actual versus planned time, averages and other normal statistical analysis reports.

3.3.3 Enterprise Content Management / ECM

The Vendor should ensure that the responses to this section are in alignment with the requirements set forth in Template T-8 – Technical Requirements Traceability Matrix, Tab T3.3.

Instructions: Describe the Vendor’s approach to leveraging the preferred Enterprise Content Management technologies for the new IE-BM solution. The Vendor’s response, at a minimum, should take the following topics into consideration while providing the necessary details:

- Store electronic forms
- Scan and store imaged documents
- Searching of documents
- Digital rights management capabilities
- Sharing of documents between programs

For ECM and Document Management technologies, DHS currently uses Xerox DocuShare. DHS has “Preference” to leverage this technology product as part of the solution design.

The Vendor should describe how DHS requirements will be satisfied by the technologies included in the proposed solution design.

If the Vendor is proposing to use alternative products, the Vendor is expected to migrate and convert all the existing documents and artifacts from DocuShare to the new technology. The Vendor should describe the appropriate rationale and justification for the proposed alternative technology component and their approach to how the migration will be undertaken.

This response addresses requirements contained in Tab 3.3 of the Technical Requirements Traceability Matrix. All but two requirements will either be handled through configuration or by leveraging the State's existing EMC solution, including the use of Xerox DocuShare.

The Optum Document Management Service will provide the ability to generate notices, letters, documents or glossy print material and store an electronic copy of them in a content repository. The document integration service that provides the adapter and simplified interface to the Optum Document Management Service will be integrated to the existing Xerox DocuShare system modules. We will leverage the existing platform currently used in Arkansas and deploy the centralized platform within the hosting infrastructure established by Optum. We will also provide ongoing operations for the platform for the duration of the contract.

Working with DHS, we will set up business processes to trigger automatically based on a preset or predefined schedule. Driven by your business requirements, these triggers may start a content workflow for various processes, such as eligibility, change of circumstances, enrollment updates and any other case-related communications.

The service will also have the ability to create reports for you to use to follow the number of letters or notices generated. We will leverage your current Fulfillment Center for printing and distributing hard copy documents. Additionally, the AR IE-BM Solution will maintain a copy of each letter and notice associated with the specific member. If an exception, error or deviation from normal processing occurs during execution of these workflows, the solution will notify the Optum and DHS operations teams to respond using predefined channels of communication, such as email service management.

Electronic Form Storage

Through an on-demand process, your staff members and program clients will have the ability to upload documents through the online secure portal capability of the AR IE-BM Solution. The citizen can also download forms and information, including completed, submitted applications

through the Client Portal. Additionally, the Web portals will securely transfer and store PHI and PII using secure transmission protocols and using secure storage.

Imaged Document Scan and Storage

The AR IE-BM Solution will start the content workflow functionality for the capture and storage of documents, forms, imaged documents and electronic files using a variety of triggers. These triggers include inbound communications from DHS staff members, case workers, community partners, call center personnel and providers. We have the ability to receive information through various channels, including the Web portal, email, phone, U.S. mail or walk in, as specified in your requirements.

Document Search Feature

Working together, the Xerox DocuShare tool and the [REDACTED] will provide a simple, secure, scalable and reliable storage solution. The Xerox DocuShare tool will enable the secure retrieval of documents stored in the system using the document ID along with additional search parameters. This solution is capable of providing document search and access features for you and your stakeholders. This can also provide authorized users access to critical health records and transforming documents like notices/forms to automate manual processing.

Digital Rights Management

We will use various technologies within the AR IE-BM Solution to restrict the use of proprietary hardware and copyrighted materials controlling the use, modification and distribution of copyrighted materials. This includes software, files and proprietary digital content, as well as systems within devices that enforce these policies. Our digital rights management techniques include using restrictive licensing agreements, which control access to digital materials, copyright and public domain. Our contractual agreement will describe in detail any usage and restriction agreements.

Document Sharing Between Programs

We will accomplish shared use of documents between programs through our platform's features for integrating with Xerox DocuShare. These include the use of open interfaces and exposed APIs, separation of business rules from core programming, and the availability of business rules in both human and machine-readable formats. Figure 18 illustrates how the OIL and DocuShare will integrate to offer the sharing of documents between authorized users and programs.

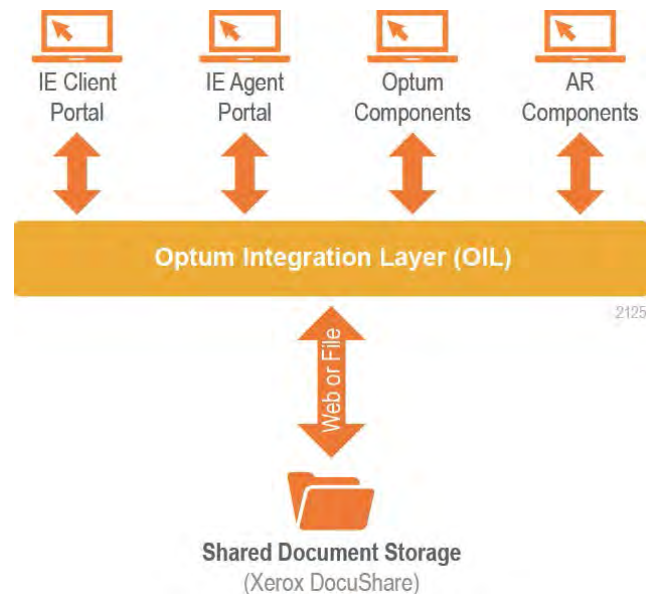


Figure 18. OIL Secure Document Sharing.

The AR IE-BM Solution OIL feature, integrated with DocuShare, will provide secure document sharing with entities outside of DHS.

The APIs of the OIL will act as an integration layer to interact with the Xerox DocuShare engine API. This will allow you to manage and securely store, search and determine access rights and share rules for program documents, forms and images.

3.3.4 Application Server

The Vendor should ensure that the responses to this section are in alignment with the requirements set forth in Template T-8 – Technical Requirements Traceability Matrix, Tab T3.4.

Instructions: Describe the Application Server technology and design approach for supporting the new IE-BM Solution and future IE-BM Solution supported Systems. The Vendor's response, at a minimum, should take the following topics into consideration while providing the details:

- Enterprise ready and scalable
- Clustering
- Administration
- Security

For Application Server technologies, the current EEF deployment uses IBM WebSphere. DHS has "Preference" to leverage this technology product as part of the solution design.

The Vendor should describe how DHS requirements will be satisfied by the technologies included in the proposed solution design. If the Vendor is proposing to use alternative products, provide appropriate rationale and justification for the proposed technology component and approach.

This response addresses requirements contained in Tab 3.4 of the Technical Requirements Traceability Matrix. [REDACTED]

Enterprise Ready and Scalable

We will deploy [REDACTED]

[REDACTED] Deployed as an IaaS, it establishes a virtual environment. Our solution is highly modularized in design, configurable and scalable to meet the current and future needs of DHS and the State of Arkansas.

The Optum IES is a set of layered services and components enabling a reusable, modular and highly scalable set of solutions that will meet your demands today and in the future.

The architecture is designed to scale [REDACTED]

[REDACTED]. Using automated configuration and deployment tools enables us to add or remove middleware capacity as needed to support operational needs. Our operating system and application stack configuration automation also support scalability. As enterprise modules are scaled or added, the OIL platform will scale to meet these needs.

Clustering

We will create and maintain a capacity plan based on your business and technical needs. With the solution's ability to scale vertically and horizontally, quickly and easily, we do not expect to request additional servers for the AR IE-BM Solution. For example, we will deploy fully established and previously deployed containers, without business impact, instead of executing a new code deployment. This capability will enable us to establish another instance of the entire AR IE-BM Solution that is fully load balanced, into a new environment within minutes, if needed.

Administration

We will leverage a performance management system called Detailed Tuning Recommendation (DTR). The AR IE-BM project team (Optum and DHS/DIS staff) will have the ability to leverage end-to-end performance monitoring tools that have hooks into each delivered module of the solution. We will continually evaluate the business process flow through the AR IE-BM Solution and indicate the amount of time that each component of the solution consumes. This will enable us to easily identify the modules that need performance improvements.

We will use HP OpenView for server monitoring, [REDACTED] for systems monitoring. We will implement a bottoms-up monitoring approach to assess the health of the individual configuration items that support the application. Additionally, we will implement a top-down monitoring of the application service chain. This includes [REDACTED] by scheduling synthetic multi-step transactions at a constant interval. We will apply fault domain isolation for availability of infrastructure components. Our monitoring services monitor items, such as URL checks, SOAP, Ping, database query time, CPU/memory utilization, log file, file system-UNIX and C drive-Wintel.

Security

Users can access the appropriate information according to the predefined RBAC using a single user name and password. System access and authorization is based on the least-privilege principle and enforced by RBAC. Our privacy and security programs support compliance with federal and state regulations. These include MARS-E, HIPAA, CMS ARS and NIST 800-53 compliance.

3.4 Integration Services Layer

The OIL is a key differentiator of our AR IE-BM Solution platform. It enables a modular approach to the overall solution providing flexibility to meet changing project requirements with minimal impact across the whole solution.

Optum uses an API-driven approach to achieve loosely coupled modules. This approach leverages a library of health care and human service specific connectors and APIs. The connectors combine from the library to interconnect technologies, reducing or preventing tightly coupled integrations.

An API-driven approach allows us to use industry-standard ASC X12 and HL7 International normalized data for service communication and internal transformation. This minimizes implementation-specific transformations or API customization. Not constrained to industry-standard formats, our Integration Services Layer can also proxy and provide transformation services for non-standard technologies or data types.

3.4.1 Application Integration and Enterprise Service Bus (ESB)

The Vendor should ensure that the responses to this section are in alignment with the requirements set forth in Template T-8 – Technical Requirements Traceability Matrix, Tab T4.1 and T4.2.

Instructions: Describe the Vendor's approach to leveraging the application and data integration hub technologies and services for the DHS IE-BM Solution. The Vendor's response, at a minimum, should take the following topics into consideration while providing the details:

- Application integration within DHS and across State Agencies
- Data integration, integrity and performance
- Messaging and standards support
- Workflow Engine Configuration and Execution

For Enterprise Service Bus and Application Integration technologies, the current EEF deployment uses RedHat JBoss ESB, but in a limited footprint. For Data Integration technologies, the current EEF deployment uses IBM Infosphere.

The State has a "Preference" for a Hybrid Integration Platform that combines traditional on premise ESB capabilities and the emerging iPaaS (Integration Platform as a Service). For ESB, DHS has "No Preference" and for iPaaS, the "Preference" is Informatica Cloud. The Vendor is free to suggest suitable ESB and Integration technologies that can meet the requirements specified in the RTM along with appropriate rationale and justification.

The Vendor should describe how DHS requirements will be satisfied by the technologies included in the proposed solution design. If the Vendor is proposing to use alternative products, provide appropriate rationale and justification for the proposed technology component and approach.

This response addresses requirements contained in Tabs T4.1 and T4.2 of the Technical Requirements Traceability Matrix. For the AR IE-BM solution, Optum will leverage the State's existing data warehousing and data integration software, including the use of Informatica and SQL Server.

Application Integration

The technical architecture for the AR IE-BM Solution is a multi-tier SOA, implementing OIL as the Service Integration Layer. OIL is a hybrid integration platform that has the ability to leverage and integrate with almost any existing solution, asset or system.

We based the OIL on the highly regarded [REDACTED] [REDACTED] provides capabilities to enable Arkansas to implement data, application, API and process integration projects spanning cloud-resident (such as Informatica Cloud and Amazon Web Services [AWS]) and on-premises endpoints. [REDACTED]

We based the OIL on [REDACTED]

[REDACTED] Originally designed to integrate legacy platforms with modern systems in these domains, the OIL is well suited for use in the AR IE-BM Solution consisting of both types of systems.

The OIL allows for adaptability without point-to-point interfaces between modules and hence facilitates upgradability, reusability and expandability. The OIL is a key differentiator of our platform because it will provide you with the flexibility to modernize over time while maximizing investments made in existing DHS assets and capabilities. For example, within the programmatic administration modules, you may decide to leverage an existing application for a period of time during the modernization effort and then subsequently upgrade to another similar application later. The OIL also allows expansion using multiple, similar applications, if desired.

Data Integration, Integrity and Performance

Our integration solution for the AR IE-BM Solution is based on the OIL, which is equipped with a library of service adapters and data models configured to integrate solution modules with internal, other government, or third-party systems. The OIL service library contains support for the X12 health care EDI transaction set, the HL7 health care API, as well as support for numerous CMS and FDSH services. The OIL internal canonical data model is also based on these standards.

We can deploy the library of adapters to support both transactional and asynchronous integrations. The solution supports both modern Web services and legacy file transfer or structured data from a mainframe environment. Integration of non-standard or legacy systems is straightforward. The AR IE-BM Solution will use simple proxy adapters that interpret and translate legacy or non-standard interfaces that wrap around the standard library. This promotes reuse of the library and modules and minimizes customizations needed to implement integrations, reducing overall costs to Arkansas.

To implement each of the AR IE-BM Solution integrations, we use the following process to configure the OIL and related modules:

- Identify the functional need for the integration, based on existing integration inventory and requirements gathering during project implementation
- Validate that existing integrations are needed in the AR IE-BM Solution to meet functional needs
- Remove redundant or deprecated integrations from the inventory and update the inventory with newly required integrations

- Analyze each existing interface, if present, by reviewing functional and technical documentation, interface control documents or companion guides, APIs, file, or data formats for producer and consumer modules or systems
- Determine if the existing interface technology is reusable or needs to be implemented by the OIL
- Identify volume, velocity or performance SLRs needed to meet the functional need; for new interfaces added to the inventory, gather and analyze the same information
- Collect producer and consumer module information, interface APIs or file formats and SLRs; review the information to determine whether the integration can be supported by the existing OIL library and data model; determine if proxy wrappers are needed to support the integration and if data model changes or data translations are needed (new integrations with a high likelihood of reuse may be candidates for inclusion in the OIL library and developed accordingly)
- Perform configuration for the integration, verify capacity and connectivity, test the interface end-to-end and deploy the integration for integrations that are fully supported by the OIL library
- Customize and unit test the wrapper logic and transformation, configure library components for the integration, verify capacity and connectivity, test the interface end-to-end and deploy the integration for integrations that require proxy wrapper
- Customize the translational logic or model extensions; implement either in the proxy wrapper, core data model, or both, and unit test; configure library components for the integration; verify capacity and connectivity; test the interface end-to-end and deploy the integration for integrations that require data model changes or data translation
- Develop new interfaces and data model enhancements that become part of the OIL library; perform configuration for the integration; make sure capacity and connectivity is verified; test the interface end-to-end; and deploy the integration for integrations that are identified as having a high degree of reuse

Some interfaces may require a combination of the above steps for the complete implementation of modules.

Messaging and Standards Support

We will employ SOA using RESTful and SOAP APIs for integration with our internal products and external vendors. When it is not possible to use RESTful or SOAP Web services, the OIL will use file transfer and translational services. The ESB platform integrates to provide a modular, flexible and configurable solution. We can support a variety of COTS installations and customizations; application interfaces; data transformations between disparate systems; custom Web services; and other eCommerce/EDI requirements. The OIL service library contains support for the X12 health care EDI transaction set, the HL7 API, as well as support for numerous CMS FDSH services. The OIL internal data model is also based on these standards.

Workflow Engine

We will integrate with the workflow engine, which follows our modular approach. Our workflow engine comprises our Optum IES workflow engine and other Java aspects to support these engine capabilities within the AR IE-BM Solution.

Instructions: Describe the Vendor’s approach to SOA Governance for the DHS IE-BM Solution. The Vendor’s response, at a minimum, should take the following topics into consideration while providing the details:

- Use of Metadata Repository and Service Registry
- SOA governance approach (

For Enterprise Service Bus and Application Integration technologies, the current EEF deployment uses RedHat JBoss ESB, but in a limited footprint. For Data Integration technologies, the current EEF deployment uses IBM Infosphere.

The State has a “Preference” for a Hybrid Integration Platform that combines traditional on premise ESB capabilities and the emerging iPaaS (Integration Platform as a Service). For ESB, DHS has “No Preference” and for iPaaS, the “Preference” is Informatica Cloud. The Vendor is free to suggest suitable ESB and Integration technologies that can meet the requirements specified in the RTM along with appropriate rationale and justification.

This response addresses requirements contained in Tabs T4.1 and T4.2 of the Technical Requirements Traceability Matrix.

Metadata Repository And Service Registry



Our APIs are readily accessible, reusable and open to understanding by your technical resources. We have observed that APIs in use elsewhere in less configurable non-modular solutions are not easily adaptable to the optimal range of use in an environment like DHS.

SOA Governance Approach

Optum’s approach to SOA governance establishes the following:

- A chain of responsibility to empower people
- A measurement to gauge effectiveness of APIs
- A policy to guide the organization to meet its goals with APIs
- A control mechanism to verify compliance to established security policies and guidelines
- A communication mechanism to keep all required parties informed

The following table defines the components in the SOA governance approach.

Table J: Optum Components Addressing SOA Governance

Solution Component	Meeting Design Requirements for User Functionality

Figure 19 illustrates our approach to SOA governance.

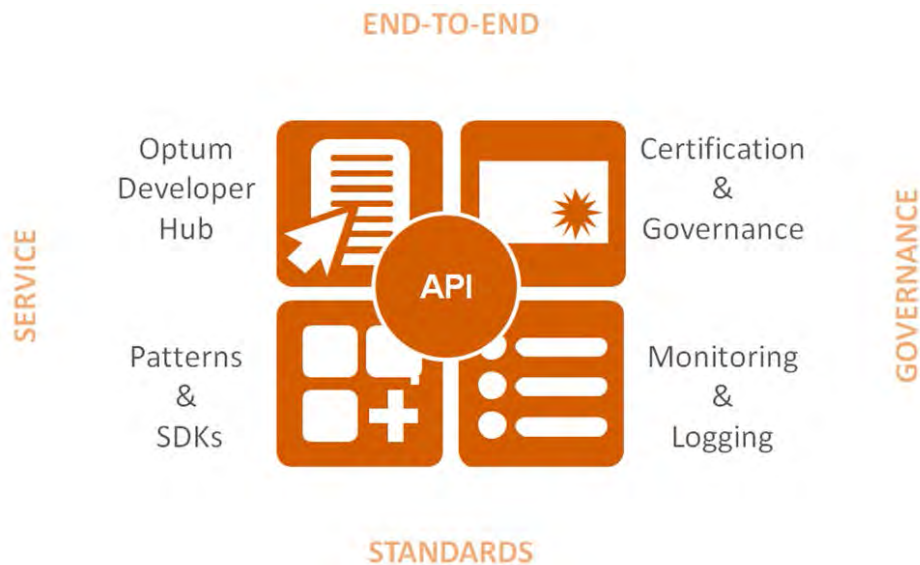


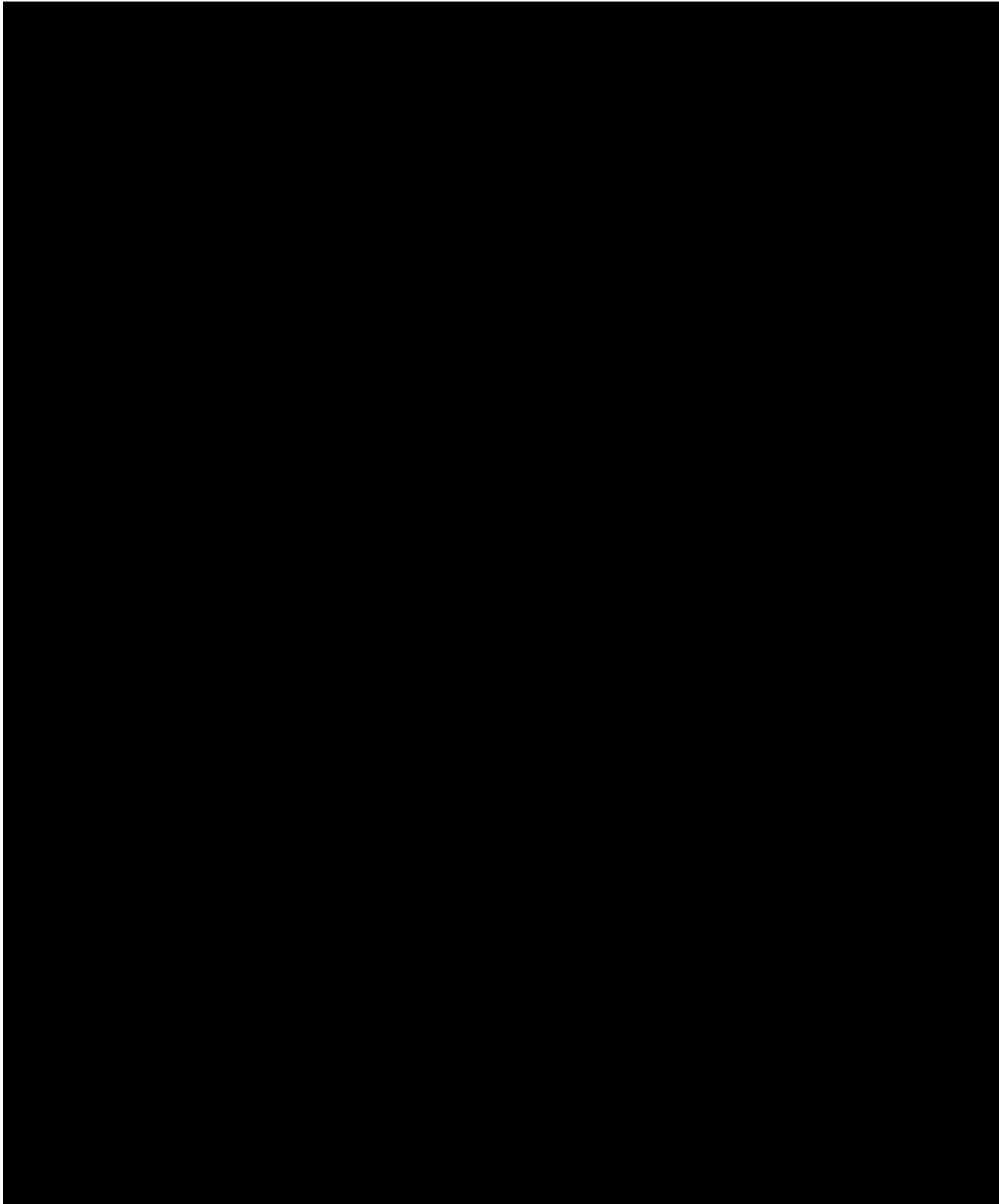
Figure 19. Optum SOA Governance Approach Overview.

We use a defined, practiced approach to effecting control over SOA solution services.

The SOA governance approach for Optum APIs is a multi-step process. Through this approach, we can verify that each API is categorized, checked for quality, certified, published and authorized for access. We follow these steps to certify and publish an API:

Step 1:





3.4.2 Data Integration, Quality and ETL (Extraction, Transformation and Load)

The Vendor should ensure that the responses to this section are in alignment with the requirements set forth in Template T-8 – Technical Requirements Traceability Matrix, Tab T4.2.

Instructions: Describe the Vendor’s approach to Data Integration and supporting technologies for Data Extraction, Transformation and Load (ETL) into appropriate reporting and analytics target systems. The Vendor’s response, at a minimum, should take the following topics into consideration while providing the details:

- Connectivity/adaptor capabilities (data source and target support))
- Data delivery capabilities
- Data transformation capabilities
- Metadata and data modeling capabilities
- Commonality, consistency and interoperability between components of the toolset
- Design and development environment capabilities
- Data governance capabilities (interoperation with data quality, profiling and mining capabilities)
- Deployment options and runtime platform capabilities
- Operations and administration capabilities
- Service enablement capabilities

For ETL technologies, the current EEF deployment uses Informatica Powercenter. DHS has a “Preference” to use Informatica PowerCenter or IBM InfoSphere as the standard tools for data integration functionality.

If the Vendor is proposing to use an alternative product, provide appropriate rationale and justification for the proposed technology component and approach.

This response addresses requirements contained in Tab T4.2 of the Technical Requirements Traceability Matrix. For the AR IE-BM Solution, Optum will leverage the State's existing data warehousing and data integration software, including the use of Informatica and SQL Server.

Connectivity and Adapter

We will review the Integrating the Healthcare Enterprise (IHE) initiative information; HL7 Continuity of Care Document (CCD[®]) C32 profile and Office of the National Coordinator for Health Information Technology (ONC) Direct Project structures; the source data dictionary; and layouts. This review will help us to determine the appropriate data elements that should be available to your users. We will include input from subject matter experts, users and staff to make sure we include the necessary information. We will identify the historical and active data in scope for data conversion. This includes your operational data, AR IE-related reports, notices, and imaged documents that are applicable to, and needed by, the new AR IE-BM Solution.

Our team will document the mapping required from the source system to new AR IE-BM Solution using Microsoft SQL Server Integration Services (SSIS) data mapping utilities. This will help us identify the data relationships that are part of data lineage analysis. We will identify approved data cleansing rules as we perform data mapping.

Connecting to, and extracting from, data sources is a key feature of SSIS. It supports connectivity to a wide range of data stores using out-of-the-box adapters and extensibility features. We use source adapters to read data from external sources, whereas destination adapters write data to external destinations.

Among the most important built-in source and destination adapters in SSIS are the following:

- Object Linking and Embedding (OLE) database (DB) source and destination
- ADO.NET source and destination
- Open Database Connectivity (ODBC) source and destination
- Flat file source and destination
- Excel source and destination
- Oracle source and destination
- Teradata source and destination
- SAP business intelligence source and destination
- XML source

We will also use the following SSIS components for developing custom adapters:

- **Script Source and Destination:** This component empowers developers to author code to connect to data stores not supported by built-in adapters in SSIS.
- **Special-purpose adapters:** Some of the adapters are specific to a particular data store and depend on a specific API. This feature includes adapters to connect to sources and destinations like SharePoint servers or Salesforce servers.
- **Custom adapters:** Using the extensibility mechanism in SSIS, we can build adapters to connect to data stores that do not have any built-in support in SSIS.

When required, we also use SSIS plug-ins such as Task Factory that provide various adapters and connectivity options to systems like SharePoint and Salesforce.

Data Delivery

During implementation, we will move data to the target database. Loading the converted data from the staging environment into the system database will consist of running the files through a set of ETL processes to load the data into test and production tables. Final target loading will start from scratch on a production database with proven data conversion procedures. We will collect target audit statistics and verify them against source data statistics and expectations. The target database will load to the approved and tested model with tested, profiled and transformed data.

Our data modeling, metadata management and approach to transformation reveal further optimization. We refined our baseline data models based on years of warehousing and enriching health care data experience. They are extensive and flexible. In our many customer sites, we support multi-million and even billion plus rows of data. We maintain data so that update history is available through date stamps and, where necessary, dimensional history. We accumulate this history from source system updates and our data-enrichment steps.

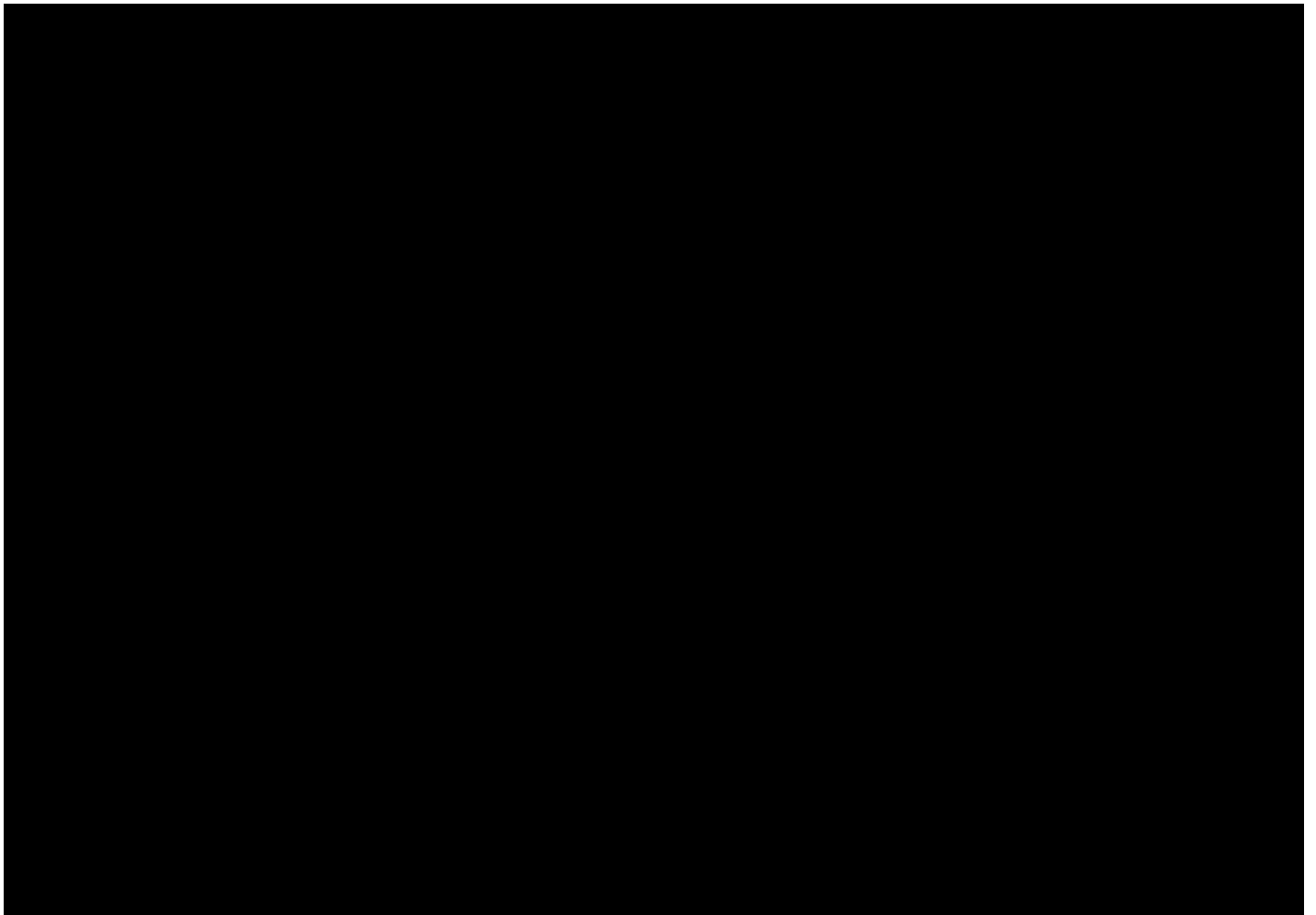
We also optimize data for retrieval and analysis. We understand that we will have to support enterprise functions, ranging from ad hoc analysis to standard summary reporting. Our experience in building and operating reporting, analysis and extraction tools will make the AR IE-BM Solution easy and intuitive for authorized data retrieval.

Our stringent data transfer and retention policies govern the data delivery between internal systems to external systems. Optum data delivery policies comply with HIPAA and related federal data transfer policies. We have well defined systems and processes in place for secure and encrypted data transfers for the AR IE-BM Solution.

Data movement can be a one-time operation during system or application migration, or it can be a recurring process periodically moving data from one data store to another. These types of transfers usually involve data transformation so the moved data conforms to the schema of the destination system. The source and destination adapters in SSIS discussed earlier can help with connecting to the old and new systems. SSIS also provides utilities to encrypt the data and transfer data using FTP and SFTP. Internal data transfer capabilities include sending data in email and zipped attachments. Our Electronic Communication Gateway enables easy and seamless encrypted data transfers with external systems. We also use SSIS features like bulk load, data split, merge, and event-based data processing to accomplish data movement.

Data Transformation

As we progress through each release, we will transform the data based on agreed-upon specifications, acting on reports and identifying any anomalies. In addition to format conversions, we will identify any additional data elements necessary to maintain business meaning and optimize processing, replication and reporting. This is a particularly important step, as many of our program iterations and pilot steps require clean program and geographic data. We will present to, and discuss with, you the results of the data profiles, and the suitability of the data for each step.



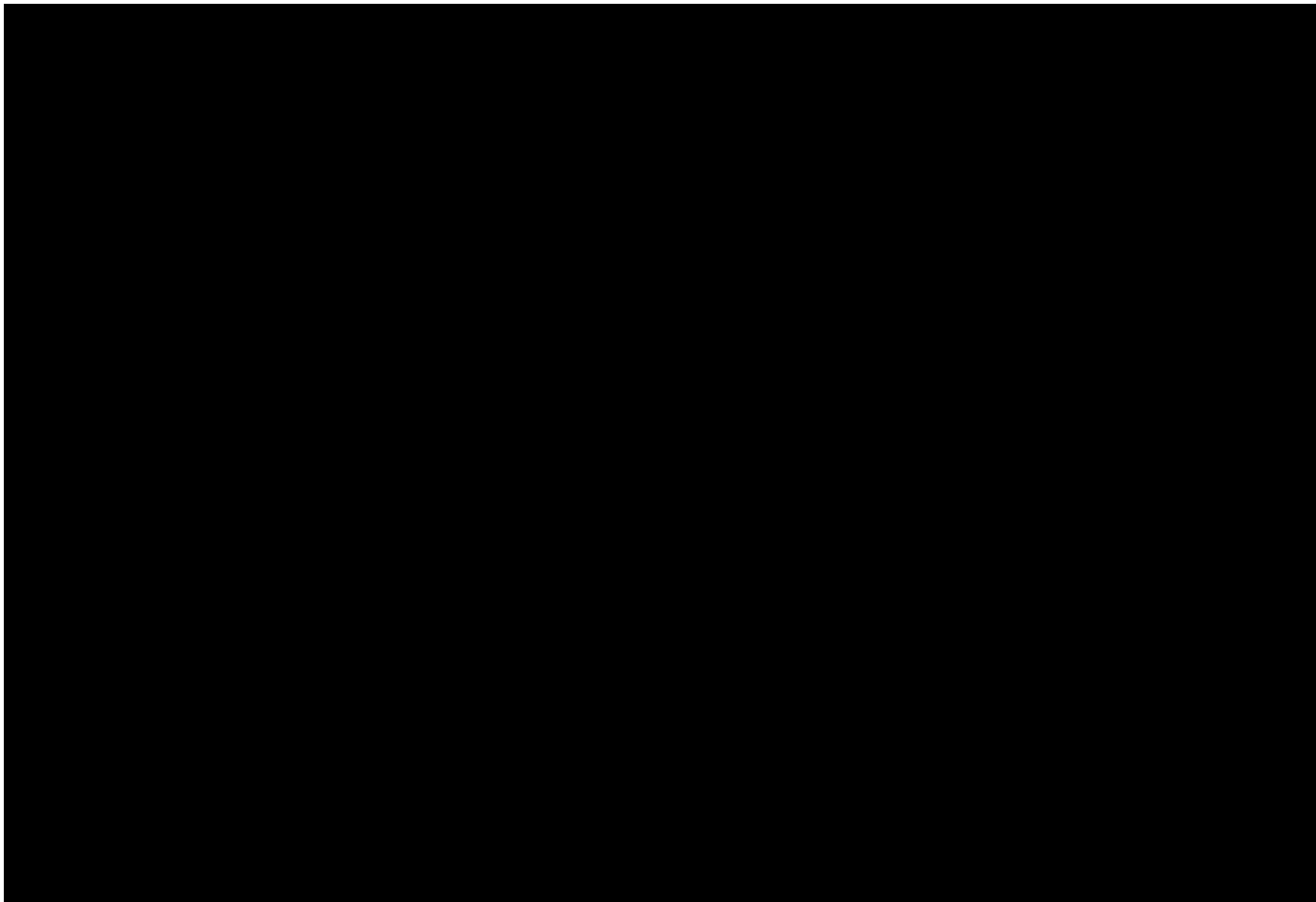
Metadata and Data Modeling

As we previously discussed under Data Delivery in this section, our data modeling, metadata management and approach to transformation reveal further optimization. We refined our baseline data models based on years of warehousing and enriching health care data experience. They are extensive and flexible. In our many customer sites, we support multi-million and even billion plus row claims and encounter data warehouses with actively maintained adjustment history. We maintain data so that update history is available through date stamps and, where necessary, dimensional history. We accumulate this history from source system updates and our data-enrichment steps.

Our Data Conversion Plan will not be limited to addressing potential data conversion challenges. Our overall approach will include identifying data conversion scope, describing the character of source and target data, and defining all appropriate object and metadata. We will include this analysis in a plan that incorporates work plans, quality and process controls, and appropriate technical and business metadata.

We also optimize for retrieval and analysis. We understand that we will support many enterprise functions, ranging from ad hoc analysis to standard summary reporting. Our experience in building and operating reporting, analysis and extraction tools makes our solution easy and intuitive for authorized data retrieval.

We incorporate metadata-driven ETL development processes; developers extract data from a relational data source to a relational database. Data transformation during the data movement is not included.



Component Commonality, Consistency and Interoperability

We minimize the number of tools used for integration and ETL to avoid inconsistency and interoperability issues across multiple vendor tools. We also use the same set of tools as much as possible to promote commonality.

Design and Development Environment

For the Design, Development and Implementation (DDI) schedule, we propose to use multiple releases and program increments to integrate with Arkansas systems. Within each release or increment, we will follow and enable the overall work by converting and synchronizing the required data. Mirroring the workflow of the overall project, we will employ our data conversion processes and tools iteratively. We will document the design, testing and execution specifications in the continual development of the Data Conversion Plan.

It is important to understand and emphasize the iterative nature of the processes. Our iterative design and development approach will employ a work breakdown methodology that is harmonious with the iterative elaboration, design and development for other key Arkansas components. We will begin with a central scope area (the core of each release) and run iterative conversion steps and tests. These steps will include more and more aspects of the given Arkansas release. We will work from small to large data volumes. We will convert, test, analyze and repeat the iterations in the development and testing environments until data quality objectives meet the criteria for the Arkansas release. When testing is complete, we will move the ETL packages to production and run the processes against the production data.

Optum will use SQL Server Data Tools (SSDT) for developing the integration services packages required for each business solution.

Data Governance

As a leading health care services organization, we have extensive expertise with large data repositories. We know how to manage data effectively, and we will bring our skills and experiences to your AR IE-BM Solution. Our approach to maintaining data integrity is to work with your team; understand and document your data definitions and semantics; and help you establish data governance, harmonization strategies, master data management, metadata and data quality processes. These efforts positively affect the quality and integrity of the data, which includes addressing the following issues:

- Identifying your data assets
- Documenting data definitions and data semantics
- Establishing a data stewardship process
- Understanding the flow of data across your enterprise (i.e., the producers and consumers of data)
- Establishing data standardization rules and harmonization strategies
- Implementing a master data management strategy
- Identifying data security requirements for all data elements

- Establishing enterprise or organizational data models and data dictionaries
- Establishing data stewardship, data quality and other related working and managerial committees to affect the management of the defined processes

Deployment Options and Runtime Platform

We have an enterprise-level managed infrastructure set up to support both 32-bit and 64-bit runtime platforms. If the application is a 32-bit application, we can configure [REDACTED] to use the 32-bit data provider; otherwise, it will use the 64-bit mode. We will use well-defined deployment and change management processes we have in place.

The SQL Server integration services support two deployment model options, the project deployment model and the legacy package deployment model. Our development teams are conversant with both models. The model we select will be based on the agreed terms and business requirements. We will leverage the expertise of the release management team to help the development through the deployment and validation processes as well as support during warranty period.

Operations and Administration

We have dedicated operations and maintenance teams available who are well versed with the service management processes. Leveraging the tasks available in [REDACTED] we will perform database maintenance operations. These tasks are useful in building database maintenance plans in SQL Server Management Studio and in SQL Server Data Tools, along with other tasks that you can use when constructing control flow in [REDACTED]. Some of the database maintenance tasks we typically perform are the following:

- Database backups
- Index rebuilds in SQL Server database tables and views
- Information updates about the distribution of key values for one or more sets of statistics on the specified table or view
- Size reduction of SQL Server database data and log files
- Regularly scheduled administrative operations and maintenance steps using SQL Server Agent to automate execution of SSIS packages

For any data maintenance or processing functionality not available in [REDACTED] we can implement it using the script task to complete the work.

Service Enablement

[REDACTED]

Instructions: Describe the Vendor's approach to leveraging the preferred Data Quality technologies for the IE-BM Solution. The Vendor's response, at a minimum, should take the following topics into consideration while providing the details:

- Data Formats catered for

- Profiling capabilities
- Parsing
- Standardization, Cleansing and Enriching
- Stewardship Support
- Deduplication

For Data Quality and ETL technologies, the current EEF deployment uses Informatica Powercenter. DHS has a “Preference” to use Informatica PowerCenter or IBM InfoSphere as the standard tools for data quality functionality.

If the Vendor is proposing to use an alternative product, provide appropriate rationale and justification for the proposed technology component and approach.

This response addresses requirements contained in Tab T4.2 of the Technical Requirements Traceability Matrix. For the AR IE-BM Solution, Optum will leverage the State's existing Informatica Powercenter as the tool for this functionality.

Data Formats

The Optum toolset can support any-to-any data format transformations for structured, semi-structured and unstructured data while complying with the multiple standards that govern those formats. Our ETL teams use Informatica B2B Data Exchange to manage data events enabling users to view, monitor, notify, reconcile and diagnose them. This allows transactions to occur in an appropriate and timely manner. It also provides visibility and transparency into various health care-related processes. Using the power of the universal data transformation capabilities for complex hierarchical industry standards, we will support industry data structures, such as HIPAA 5010, HL-7 2.5, X12, SNOMED, LOINC, RxNorm, ICD-9/ICD-10, and most other standard data formats.

Profiling Capabilities

Our business analysts and data stewards can easily profile data and monitor data issues on an ongoing basis with browser-based tools designed especially for them. With the Informatica Analyst COTS tool, our ETL developers can rapidly discover and analyze data using prebuilt rules and a single, unified development environment. This also enables reusing data profiling results across projects, which boosts productivity and helps eliminate errors.

Our team will provide data profiling and analysis with the flexibility to filter and drill down on specific records for better problem detection. Authorized users can readily monitor and share data quality metrics with scorecards and reports by emailing a URL to colleagues. Specification, validation, configuration and testing of quality rules become streamlined, improving collaboration between business and IT. Our architects and developers will quickly discover and access the data sources, regardless of whether those sources are on premise or in the cloud. This can help improve the process of analyzing, profiling, validating and cleansing data. We will combine data quality rules with sophisticated data transformation logic and conduct midstream and comparative profiling to validate and debug logic as it is developed.

Our team will connect to existing databases and profile data directly from the database. This will enable us to quickly profile data in existing systems without the cost of extracting the data and loading it into the tool. If needed, we will extract data from external sources and load it locally so the external data can be profiled in the same context as the existing databases.

Our selected technology includes a set of unified, role-based data discovery and profiling tools for quickly identifying critical data problems hidden across the enterprise. Powerful and versatile, these tools help assess which data quality problems affect the operation the most. Quality designations include:

- **First-level quality:** Valid values in the basic transformation process will make sure empty or null columns are not allowed. Data quality rules will make certain all columns contain values that meet specific criteria.
- **Second-level quality:** Data quality rules will enforce valid values when transformation occurs (as stated for first level).
- **Third-level quality:** Duplicate record checking is part of the master data management facility of data quality and assists in integrating and eliminating duplicates.
- **Fourth-level quality:** Identifying dependent relationships is part of the master data management facility of data quality, performing the linking and matching tasks that assist in building the master indexes.

The user will have the ability to create and save customized data profile patterns for analyzing data sources. Saved data profile patterns provide reusability across multiple data sources to ensure the quality of the data and save time.

Parsing

Informatica data integration includes a number of parsing capabilities. These capabilities include the ability to parse delimited text files, CSV files, or fixed-length input files. The tool provides custom parsing rules.

In addition, parsing sources with the formats of PDF files, Excel spreadsheets, and COBOL copybook records can be accomplished using an interface that enables the user to view a data sample in original or text formats. The tool allows the use of pre-defined parsing rules. It can also leverage packaged knowledge bases to parse custom terms and names and create new knowledge bases.

Standardization, Cleansing and Enriching

We will use the Informatica PowerCenter toolset for a wide range of transformations. The transformations can range from simple to very complex transformation rules. This includes simple data type conversions (e.g., data-type conversions, string splitting and concatenation operations). Additionally, we will handle moderately complex transformations, such as look-up and replace operations. With this toolset, we have the ability for sophisticated parsing operations on free-form text and rich media.

We can use prebuilt rules for common cleansing operations, such as formatting addresses or telephone, Social Security numbers and Tax ID numbers when performing transformations. Our team can also develop custom transformations and extend packaged transformations as needed.

Informatica PowerCenter allows us to cleanse and enrich party data quality issues by standardization of names, addresses, contact details and hierarchies, along with merging of duplicate party records. It also includes support for standardization and cleansing of location-related data. The tool includes libraries certified by relevant postal authorities.

In addition, we will support the following:

- U.S. Postal Service's ZIP +4 code lookup
- Change of address notification
- Delivery point validation
- Email validation at the domain level or user level

The existing data from the current database tables and/or files will run through the data quality checks and all data quality issues will be reported to DHS. We will perform necessary corrective action under DHS supervision before final data conversion takes place.

Stewardship Support

Optum will support stewardship functions through the COTS tool user interface. This interface allows our data steward to perform data-quality-related tasks and activities including:

- Steps to perform common quality tasks (e.g., providing values for incomplete data, resolving conflicts of duplicate records, specifying custom rules for merging records, profiling, auditing) through packaged processes
- Exposed quality processes and issues to business users, stewards and others
- Functionality to manage the data quality issue resolution process through the stewardship workflow (e.g., status tracking, escalation and monitoring of the issue resolution process)
- Ability to customize the user interface and workflow of the resolution process
- Ability to execute data quality resolution steps in the context of a process orchestrated by business process management (BPM) tools (e.g., packaged integration or other ability to work with popular BPM suites)

Deduplication

Our team will provide matching/relationship identification capabilities, including:

- Predefined rules for performing exact value-based matching
- Predefined algorithms/rules for matching, based on mathematical models, rather than on exact data values
- Linguistic techniques and other types of matching algorithms, for example (indicate types in comments column)
- Entity identification/resolution across data of differing linguistic and cultural nuances
- Ability to weight, prioritize and tune matching rules (to optimize the frequency and number of potential matches, or the tightness or looseness of matching, for example)
- Facilities for implementing and customizing rules by which duplicate or related records can be merged into a single survivor—the golden record
- Automatic removal of duplicate records based on rules for determining survival
- Ability to create logical groups of records by relating those with user-determined properties
- Ability for users to extend and/or customize the algorithms for matching, merging, linking and deleting duplications

- Ability to switch on/off record data masking so users can address data quality issues without compromising privacy and data security rules

3.4.3 Master Data Management

The Vendor should ensure that the responses to this section are in alignment with the requirements set forth in Template T-8 – Technical Requirements Traceability Matrix, Tab T4.3.

Instructions: Describe the Vendor’s approach to leveraging the MDM technologies and/or services that will integrate with and support the Enterprise Master Person Index and Enterprise Master Provider Index strategy for the DHS IE-BM Solution. The Vendor’s response, at a minimum, should take the following topics into consideration while providing the details:

- Intra enterprise EMPI
- Probabilistic record matching
- Tunable record matching
- Configurable interface capability
- Master Data Governance Support

There is currently no MDM deployment for the EEF solution.

DHS strategic direction for Enterprise MDM technology includes “Preference” for Informatica’s MDM product or IBM Infosphere Initiate product.

If the Vendor is proposing to use an alternative product, provide appropriate rationale and justification for the proposed technology component and approach.

This response addresses requirements contained in Tab T4.3 of the Technical Requirements Traceability Matrix. [REDACTED]

Our data quality management tools, data governance and associated processes handle the root cause of data problems before they can infect the data warehouse and analytics results. Our solution profiles and discovers data anomalies, structure and overall suitability before any data migration effort begins. It matches records and identifies relationships across multiple members, providers and other data domains. We score the perceived quality of data items and the relevance of business rules to gauge the overall health of data that feeds data quality metrics and KPIs. We apply reusable data quality rules and processes to master enterprise data across multiple sources, applications and systems in batch or by using Web services. Our solution corrects misplaced, misspelled and misfielded data to capture valuable information that would otherwise be lost. Precise, consistently reliable data leads to more accurate operational models, projections and analyses. Quality data equals trusted results.

Enterprise Master Person Index (EMPI) Intra Enterprise

Using [REDACTED] Optum will implement a Master Client Index (MCI) built on the existing data sources designated as part of the AR IE-BM project scope. We will design and implement this MCI as an independent module. It will act as a single source of truth for all client information. The MCI will have an easily navigable user interface with appropriate access controls built in for authorized DHS staff access. This addresses one of the key goals you have for the new system.

Our MDM solution will allow you to follow a single citizen across application and enrollment in any of your plans or programs. You will be able to follow a person geographically, no matter which system provided the relevant attribute. In other words, the harmonization of an individual identifier across the source systems supports recognition of people who have different identifiers on different source systems. They are recognizable at the unique individual level for tracking, not as separate people on separate systems.

Probabilistic Record Matching

One challenge you indicate in the RFP as a key tactical issue is duplicate eligibility. A potential cause of this situation is duplicate records. The solution for creating the MCI incorporates a probabilistic matching algorithm that is highly flexible with tolerance to avoid false positives. We will build the complete client profile solution around the business rules established in concert with your stakeholders during the project. This includes creating an information source hierarchy that aligns to your data governance project determination of which source system provides the most accurate source for each data element.

Tunable Record Matching

Data integration with [REDACTED] will provide dynamically configurable rules for comparing and reconciling semantics across data sources, matching (both probabilistic and tunable) across changing demographic data structures and linking data. It will also manage the merging and unmerging of client and provider records with full auditability and survivability. As noted above, we can tune tolerance of probabilistic matching to avoid false positives. Tuning the probabilistic matching algorithm minimizes the risk of generating duplicate records while creating the MCI.

Where data is matched by a proxy rather than the actual identifier (e.g., client or provider ID), integration with [REDACTED] will load data no less quickly, efficiently or accurately. Using a proxy rather than the actual identifier for integration with [REDACTED] will not have a performance impact in data loading. Data integration will comprise integration middleware, including publishing and subscription mechanisms, to provide a communication backbone for the bidirectional flow of client and provider data between the central repository and the spoke data integration/MDM components, whether copies or subsets of the repository or remote applications. Data integration with Informatica MDM will provide the tools to validate and manage all client and provider addresses to include all address types (e.g., mailing, residential, E-911). Data integration will leverage a range of integration and ESB products to data sources, including all State and trading partner data sources, and expose health care industry-standard interfaces.

Data integration will support integration with different latency characteristics and styles (e.g., real-time, batch). The data integration with [REDACTED] will provide flexible and comprehensive workflow capabilities to enable business users and client and provider data managers to collaborate effectively in the authoring and management of client and provider data across the multiple source systems.

Configurable Interface Capability

As discussed in detail in Section 3.0, Optum employs an intuitive, Web-based user portal with highly configurable data visualizations and can interact with underlying data components in a customizable manner. Our experienced team knows how to interface with other vendors,

organizations and teams to bring projects to successful conclusion. We will follow our proven governance approach to provide interaction points for the project at the strategic, managerial and operational levels.

We have created an MCI in many data warehouses with Medicaid and human services data. In one project, the MCI links data from 19 separate data feeds with plans to add still more sources. In that application, we are also using the MCI as the source file for MDM activities across the enterprise. In support of the CMS Multi-Payer Claims Database (MPCD) project, we maintain a Unique Client Identifier (UCI) that spans numerous payers, including Medicare and Medicaid data. These MCIs enable cross-program studies that facilitate analyses built on a visibility to a client's benefits and experience across multiple programs and services.

Our work for the Michigan Department of Health and Human Services (DHHS) illustrates the near-unlimited breadth of an MCI effort and the analytical power of an MCI. DHHS uses the enterprise data warehouse (EDW) as a broad-based business intelligence solution to manage health care programs and outcomes. Optum has integrated 12 separate HHS-related program areas and 34 separate data sources into a single EDW. This is a critical integration, as many of DHHS' members are enrolled in more than one program—as is the case in Arkansas.

Our substantial experience with the complicated exercise of creating an MCI will accelerate your progress and help you find creative solutions for the challenges that lie ahead. As we have accomplished for other states, we will help you achieve the following:

- Standardize data and address data quality issues from disparate and often outdated legacy source systems before matching
- Use enhanced algorithms, including match windows, hierarchical matching rules, grading, transposition allowance, phonetic character recognition and geocoding—the results of which should replicate a human review
- Establish a plan to manage large amounts of data on a population that tends to move often
- Develop matching rules for every data source
- Conduct iterative analysis of the match results in search of remaining issues to achieve the best MCI results

Our approach to maintaining data integrity involves close alignment with your team, as well as understanding and documenting your data definitions and semantics. We will help you establish data governance, harmonization strategies, master data management, metadata and data quality processes. These efforts positively affect the quality and integrity of the data, which includes, without limitation, addressing the following objectives:

- Identifying your data assets
- Documenting data definitions and data semantics
- Establishing a data stewardship process
- Understanding the flow of data across your enterprise (i.e., the producers and consumers of data)
- Establishing data standardization rules and harmonization strategies
- Implementing a master data management strategy
- Identifying data security requirements for all data elements

- Establishing data stewardship, data quality and other related working and managerial committees to affect the management of the defined processes

3.5 Data Services Layer

The Data Services Layer (DSL) is part of our data management service and is as an abstraction layer outside of the physical schema. The DSL provides a consistent interface (known as the data service façade) for accessing data, independent of the object-relational mapping framework. We discuss components of the DSL, including data access, transformation and integration, in this section.

Data Protection

[REDACTED]

Data Governance and Quality

Our solution uses powerful, integrated business rules to maintain data reliability and accountability. We continually monitor and evaluate data against rules to identify potential discrepancies. If we find discrepancies, we immediately communicate these to our operational or technical support teams for corrective action.

[REDACTED]

Data reliability and workflow automation verifies that processes essential for corporate governance are executed 100 percent of the time per legislation. For example, as new legislative rule updates or changes come into effect or as life events occur, the applicant eligibility status automatically maintains and re-determines as appropriate. It will also prevent multiple parents or stepparents from claiming exempt status for work requirements based on care for a disabled family member exemption.

The maintenance of individual data provides identification by eligibility group and program. We use data maintenance constraints to cross-reference an applicant ID or case type against other State or federal programs.

Data Quality and Privacy

The Optum IES controls data quality through relationship constraints, triggers and validation rules. The data isolates logically using horizontal partitioning, which controls data access at an instance or record level according to role permissions.

We will use Arkansas-specific, business rule-driven data processing constraints to identify confidential records. System-wide data synchronization will occur automatically. The solution also securely maintains eligibility information to provide access to these needed health care services.

Data constraints will verify accurate, unduplicated count of members receiving benefits for each program in the AR IE-BM Solution. The Arkansas business rule-driven data processing constraints will allow for modified access, maintenance and processing of member records flagged as confidential.

Data Integrity

Data usage, data creation, and any identity associated with data usage will have an audit trail created. We will maintain provider information in a master data repository to verify a single unique identifier. A master data record maintained in an integrated repository will include a single unique identifier that is not a Social Security Number. File maintenance processing constraints will detect duplicate files or records and isolate them for manual review and further processing.

We will use DHS rule-driven case data management constraints to verify duplicate client and case records are merged or unmerged as appropriate. Using standardized case data management constraints will help us make sure duplicate members and cases are merged into a consolidated single record or unmerged as appropriate.

3.5.1 Database Management Systems

The Vendor should ensure that the responses to this section are in alignment with the requirements set forth in Template T-8 – Technical Requirements Traceability Matrix, Tab T4.3 and T5.1.

Instructions: Describe the Vendor’s approach to transactional and analytical “persistent” Database Management. The Database Management approach for the System should take into account the following four major types of data repositories:

- Online Transaction Processing databases shall be the read-write stores of DHS transactional services and systems, and must be the primary source of transactional data management within the System
- Operational Data Store databases shall be used to support operational and tactical data consolidation and data access needs of DHS. The data contained in an Operational Data Store must originate in one or more of the Online Transaction Processing databases.
- Data Warehouse databases shall primarily support managerial and strategic decision making for DHS. A data warehouse may contain de-normalized and/or summarized data rather than detailed data as in an Operational Data Store.
- Data Mart databases shall support departmental decision-making for DHS. The scope of information stored within the data mart data stores will generally be much smaller than within the data warehouse, and is focused on the needs of its unique stakeholders.

The current EEF implementation uses DB2. DHS has “Preference” for DB2 or MS SQL Server RDBMS.

Describe whether the Vendor can leverage DHS preferred RDBMS technologies and how they intend to do so.

If the Vendor is proposing to use alternative DBMS technology platform, provide appropriate rationale and justification for the proposed technology component and approach.

This response addresses requirements contained in Tabs T4.3 and T5.1 of the Technical Requirements Traceability Matrix. All of the requirements in this section will be met through configuration.

Online Transaction Processing Databases

Our relational database management system (RDBMS) of choice for the AR IE-BM Solution is [REDACTED]. We have experience managing multi-terabyte SQL server databases in the Optum Cloud and multiple vendor locations. Our in-depth experience in managing SQL Server installations includes Online Transaction Processing (OLTP) databases, data marts and large data warehouses.

[REDACTED] is one of the industry-leading, high-performing, compliant-persistent read-write data store with atomicity, consistency, isolation and durability (ACID) properties. It supports a wide variety of data model constructs, including complex entity relationships. It also maintains security based on appropriate roles, providing online full, incremental and transaction log backup and recovery capabilities. [REDACTED] combines a memory-optimized table for extreme OLTP and in-memory analytics using columnstore to deliver real-time operational analytics, without changes to operational workload. It supports hybrid transactional/analytical processing, advanced analytics and machine learning, mobile business intelligence (BI), data integration, always-encrypted query processing capabilities and in-memory transactions with persistence. Some of the [REDACTED] security features include:

- Row-level security
- Always encrypted
- Basic and fine-grained auditing
- Transparent data encryption and encryption for backups
- User-defined roles

Operational Data Store Databases

For operational data store databases, we also propose the [REDACTED] database platform, as we described previously. [REDACTED] scalability and performance features include:

- In-memory OLTP
- Multi-instance support
- Table and index partitioning
- Data compression
- Partitioned table parallelism
- Non-Uniform Memory Access (NUMA) aware, large page memory and buffer array allocation

Data Warehouse Databases

For data warehouse databases, we will leverage [REDACTED] for its extensive data warehouse features. Some of the major features offering data optimization include:

- Parallel query processing on partitioned tables and indexes
- Star join query optimization

- Auto-generate staging and data warehouse schema
- Global batch aggregation
- Support for JSON
- Enhanced in-memory columnstore

Data Mart Databases

Optum will use an enterprise data warehouse (EDW) for reporting needs, leveraging the [REDACTED]. Because a data mart is a scaled-down data warehouse and only contains a subset of the data, we do not plan to use data marts within our AR IE-BM Solution. The full data warehouse will maintain the required data and meet reporting requirements for program stakeholders without service degradation. Maintaining a single data warehouse instead of multiple data marts will reduce complexity of the overall solution and increase access to data and information.

3.5.2 Business Intelligence and Reporting Infrastructure

The Vendor should ensure that the responses to this section are in alignment with the requirements set forth in Template T-8 – Technical Requirements Traceability Matrix, Tab T5.2.

Instructions: Describe the Vendor’s approach to support the BI functions that should deliver a balanced set of capabilities to DHS users across the three areas of data integration, information delivery and analysis. Additionally discuss the Vendor’s approach on how the proposed BI Component design will provide a list of Out -of-Box standard set of Reports, Dashboards and visualizations that serve most of expected Reporting needs.

The Vendor’s response, at a minimum, should take the following topics into consideration while providing the details:

- BI Infrastructure
- Reporting approach for both canned, ad-hoc reports, discovery and dashboards
- Scalable Data Architecture
- Data Integration Tools

The current EEF implementation uses Cognos. DHS “Preferred” technology for BI and reporting includes Cognos or Business Objects

If the Vendor is proposing to use an alternative product, provide appropriate rationale and justification for the proposed technology component and approach.

We designed the Optum IE-BI solution to be a highly secure, flexible and scalable enterprise data and analytic solution. We want you to receive the most from your data and gain the insights necessary to better achieve your program objectives—both today and in the future.

This response addresses requirements contained in Tab T5.2 of the Technical Requirements Traceability Matrix.

BI Infrastructure

For the AR IE-BM Solution, Optum is leveraging the State's existing Business Intelligence platform, which includes reporting and analytics using Cognos and Tableau. These natural elements of our solution are already in use in Arkansas.

Our solution combines the architecture of a centralized enterprise data warehouse with integrated analytics and reporting capabilities. This combination will serve your business imperatives across your many State programs.

Our solution aligns to the MITA framework architectures: business, information and technical.

Our architectural design is based on best practices, using open standards and COTS solutions. A key advantage of our BI solution approach is our experience delivering large-scale systems based on HIPAA, NIST and common State security guidelines. CMS requires an environment for SOA Web service development, as such services access federated data similar to those found in the enterprise data warehouse. These are all inherent design components in our architecture.

Our AR IE-BI Solution provides business-critical information on demand. Our proposed COTS technology stack for BI includes:

- **Enterprise Data Warehouse Foundation:** Our enterprise-scale infrastructure to support industry leading systems as follows:
 - **Database Management Systems:** [REDACTED] providing enterprise performance for the EDW; ETL; relational data marts; metadata and document management
 - **ETL Systems:** [REDACTED] providing data acquisition (real-time, scheduled), business and quality rules, and data enrichment
 - **Data Enrichment:** [REDACTED] for grouping, rating and coding data according to advanced business rules and algorithms
 - **Security and Systems Management:** Tools from the largest solution providers, including [REDACTED]
- **BI/Publish Layer:** Enabling data access to users and subscribing systems:
 - [REDACTED] for reports, which have already been created
 - All new reports, dashboards and visualizations, as well as ad hoc and drill-down capability delivered using [REDACTED]
 - Advanced visualization, statistics, geospatial analysis and mapping [REDACTED]
 - BI and analytic capability [REDACTED]
- **User Access Portal:** A single point of entry for all users and roles:
 - Role-based access to all IE-BI components
 - Analytics to drive a better understanding of how the different components of our solution affect overall productivity for population, ecosystem, provider, financial and engagement
- **Metadata Layer:** An enterprise metadata repository to manage:
 - Data architecture, definition, taxonomy, currency
 - Business rules
 - Business and system metrics
 - Configuration management

We configured the Arkansas IE-BM Solution BI data model to meet your needs; beginning with the most frequently used reporting and analytic dimensions and commonalities. Our solution gives you easy access to retrospective reporting, while also supporting your strategic planning efforts and overall goals.

Users will have role-based access to all components of the solution through our Web-based portal. All users will arrive at their individually tailored home page and will gain access to information and analytical tools specific to their roles and business needs when they need it and how they need it.

Reporting Approach

Our BI/Publish Layer enables data access to users and subscribing systems for the following AR IE-BM Solution reporting capabilities:

- [REDACTED] for reports, which have already been created
- All new reports, dashboards and visualizations, as well as ad hoc and drill-down capability delivered using [REDACTED]
- Offering advanced visualization, statistics, geospatial analysis and mapping with [REDACTED]
- BI and analytic capability with [REDACTED]

Scalable Data Architecture

Our BI solution uses a scalable data model, configurable to meet your current and future needs. Our solution includes the flexibility to acquire additional resources as needed to accommodate changing resource demands, as often as occurs during periods of peak user activity. It also has the ability to scale to Petabyte volumes to incorporate your State and external data.

Data Integration Tools

The data for BI typically resides in multiple systems and applications at different levels of detail, as well as with different data element names, formats, values and data types. It is essential the data from these sources is gathered, matched and transformed in a manner that preserves the inherent value of the data. We accomplish this while normalizing the data into a common level of granularity and understanding to achieve accurate comparisons and reporting. For this critical function, we will use [REDACTED]. Our ETL function will provide data acquisition in either real-time or batch and then apply a series of business and quality rules to translate and enrich the data. From this point, it will then load the data into the designated data warehouse system for enterprise-wide analysis and reporting.

3.6 Security and Privacy Services Layer

Protecting citizen confidentiality is a top priority at Optum. Our solutions follow industry best practices and compliance requirements of applicable federal and state standards and regulations. We integrate security architecture into our SDLC, which determines the solution design and resulting operational processes. This enables us to identify and verify the regulatory requirements and controls required to meet compliance.

3.6.1 Security - Identity and Access Management (IAM)

The Vendor should ensure that the responses to this section are in alignment with the requirements set forth in Template T-8 – Technical Requirements Traceability Matrix, Tab T6.1.

Instructions: Describe the Vendor’s approach to leveraging the Identity and Access Management technologies and services that are available through the DHS IE-BM Solution. The Vendor’s response, at a minimum, should take the following topics into consideration while providing the details:

- Enabling DHS to identify users in different contexts so that DHS policies and user preferences can be applied consistently
- Delivering an integrated login experience for users across DHS systems and channels
- Enabling coherent audit trails and chain of custody records needed for security forensics and compliance requirements
- Supporting the proactive management of user access to DHS resources including de-provisioning when needed
- Enable DHS to consistently identify external users so that customer service can be made more effective

For IAM technologies, the current EEF deployment uses CA IAM. DHS has a “Preference” to use CA IAM.

- If the Vendor is proposing to use an alternative product, provide appropriate rationale and justification for the proposed technology component and approach.

This response addresses requirements contained in Tab G6.1 of the Technical Requirements Traceability Matrix.

User Identification in Different Contexts

Using Arkansas’ CA Identity Access Management (IAM) solution, our solution will deliver centralized, secure identity management. This will enable an SSO to the modules within the AR IE-BM Solution. Upon entering the DHS Enterprise, users will use the IAM solution to seamlessly access the provisioned applications, including the AR IE-BM Solution. Within the IAM application, users can access self-service tools for password and user ID recovery, and maintain their profiles.

The IAM solution provides authentication and coarse-grain authorization to the AR IE-BM Solution. IAM also provides additional fine-grain authorization based on the roles and/or contexts. Granularity of the roles and/or contexts allows you to segregate duties to support any task or case-based activities.

The management of access to information systems and data will use prevailing identity and access management technologies. Some of the methods we use to validate appropriate access and to meet minimum acceptable guidelines are RBAC or ABAC, SSO, multi-factor authentication and others. We will customize the IAM integration to meet your needs.

Integrated Login Experience

The Optum IES has the ability to leverage an existing security solution to identify and authenticate users, using your CA IAM solution. When the IAM solution authenticates and authorizes a user access to a resource (e.g., the AR IE-BM Solution), IAM will pass a user

credential, such as Security Assertion Markup Language (SAML) or Open Authorization (OAuth) to the AR IE-BM Solution for user identification. After successfully authenticating, the AR IE-BM Solution will display a system use notification banner to notify users of PII and PHI.

The portal can automatically log any user off after a set time period of inactivity. DHS can determine this period of time, which is a configurable parameter. We can also set the portal to not force users off due to inactivity, if required, and post a pop-up warning message to the user before the session times out.

Figure 21 illustrates how the Optum IES has the ability to leverage any IAM solution.

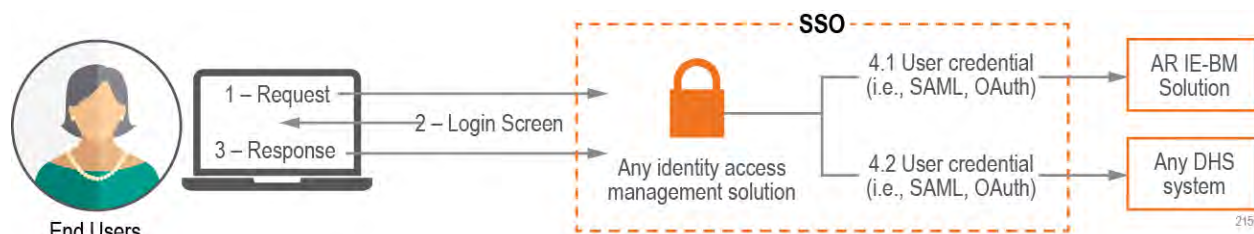


Figure 21. Optum IES Leveraging IAM.

The Optum IES can leverage any IAM user identification and SSO.

Audit Trails and Chain of Custody Records

Our solution meets stringent security regulations, including federal and State policies and regulations. We accomplish this through embedded controls designed and based on a layered SOA model and associated threats to each layer. We distribute security controls across the environment to prevent unauthorized access. The techniques and mechanisms we will use to protect data include the following:

- Advanced data protection
- Application and platform hardening
- Encryption and entitlement review
- Multi-factor authentication
- RBAC
- Physical, logical and virtual isolation

We will use a defense-in-depth approach leveraging the State of Arkansas' security products to secure the AR IE-BM Solution. This will involve multiple layers of technology, network segmentation and processes to detect and prevent cyber threats. This will include multiple security technologies deployed on the network; intrusion prevention and detection systems; Web application firewalls; network firewalls; and network segmentation and access controls.

Continuous monitoring of the AR IE-BM Solution will measure the ongoing effectiveness of deployed security controls; changes in information systems and operational environments; and compliance with legislation, directives, policies and standards. This information is vital input to rapidly identify risks and problems, and maintain ongoing security and compliance of the AR IE-BM Solution. Optum will monitor events on the information systems to detect anomalies and suspect activity. Our monitoring and incident response teams operate 24 hours a day, seven days a week to address any potential security threats. We will provide routine reports (e.g., inappropriate access, Break the Glass and others) to DHS. We will use the Arkansas CA IAM solution as part of a Security Information and Event Management (SIEM) solution for log

aggregation and monitoring to identify anomalous, unauthorized or inappropriate access according to our information security procedures and industry best practices. We will investigate anomalies discovered using additional information captured in our logs for forensic purposes. Log information will be available to DHS upon request.

We will perform at minimum an annual security assessment or sooner when there is a change in threat posture, to review the technical and non-technical policies, procedures and controls that protect Arkansas data and services from internal and external threats. Information collected from these assessments is important for us to continuously improve our security posture and we will share this with DHS as appropriate.

User Access Management

Creating configurable user roles, our solution will provide access control at the modular level and down to the individual data group level as required. The Agent Portal or the Client Portal will map users to roles. This mapping can control user access to the portals, screens within portals, options within the screens and specific data groups. The administrative module can retrieve lost account information and reset passwords online. This feature aligns with the CA IAM component within the AR IE-BM Solution integration services. CA IAM capabilities include managing complex credential requirements, account lockout after defined number of failed login attempts, self-service account recovery and challenge response (security questions that are asked during the reset or change password process) as secondary authentication.

External User Identification

CA IAM identifies external users through roles specific to the Client Portal. The roles will be fixed specific to Client Portal without access to the other modules, such as the Agent Portal. The same benefits of RBAC, SSO and multi-factor authentication will extend to citizens. The single IAM solution allows common reporting, auditing and user access management for internal or external users.

3.6.2 Privacy & Consent

The Vendor should ensure that the responses to this section are in alignment with the requirements set forth in Template T-8 – Technical Requirements Traceability Matrix, Tab T6.2.

Instructions: Describe the Vendor's approach to leveraging Privacy & Consent technologies and services made available through the DHS IE-BM Solution. The Vendor's response, at a minimum, should take the following topics into consideration while providing the details:

- How the Consent Management capabilities will support privacy
- Seamlessness of the approach
- Integration of Consent Services and role-based security
- The current EEF implementation doesn't have a Privacy and Consent management technology component. DHS has not yet identified a standard technology component for Consent Management nor has a preference.

This response addresses requirements contained in Tab G6.2 of the Technical Requirements Traceability Matrix. All of the requirements in this section will be addressed through configuration of the AR IE-BM.

Consent Management Capabilities

As a health care company, Optum takes data privacy very seriously within all our business systems and capabilities. This extends into consent management for the AR IE-BM Solution. Optum follows guidelines associated with the Data Segmentation for Privacy (DS4P) initiative and the Consent2Share architecture guidelines. Consent management gives clients easy-to-use, real-time ability to select various opt-out options on how the AR IE-BM Solution, case workers or providers contact the client. This functional domain governs the specific types of PII data shared through electronic transfers. The consent management module tracks the historical events and changes by User ID and retains a record of all modifications. This tracking ability will verify the integrity of your communication desires for program PII data.

Seamless Approach

The Client Portal is the catalyst for the front end of consent management. This is where you will have the ability to select the information and the channels for content delivery. The Consent Management module integrates into OIL and displays to the other AR IE-BM Solution components. This enables the modules access within the AR IE-BM Solution to the content within the consent management module to verify compliance and conformity. In particular, the case workers will have access to the client's data within consent management. The case worker can then review the settings for the client if there is a question about receiving or not receiving emails and correspondence.

Consent Services and Role-Based Security

Consent management is a system, process or set of policies for allowing consumers and patients to determine what PII or PHI they are willing to permit their various case managers, navigators, or other household members to access or view.

The Consent Management module integrates with the RBAC functionality. This maintains conformity between case workers or resources that have access to the citizen's data, and it makes sure they are the only ones who can access the associated citizen consent data.

3.7 Infrastructure Services Layer

The Vendor should ensure that the responses to this section are in alignment with the DHS preferences set forth in Template T-8 – Technical Requirements Traceability Matrix, Tab T7.

To support the Arkansas business capabilities while satisfying the technical requirements, Optum proposes to deploy the AR IE-BM Solution within your Arkansas State Data Center. The development, testing, training, stage, disaster recovery and production environments will be housed within your data center. Optum provides the technical specifications on the hardware needed for the entire package deployments. We will perform our deployment as an IaaS, where beyond the bare metal of the hardware, Optum will be responsible for the AR IE-BM components. We will follow our DevOps methodology of continuous deployment and integration. Our goal is to maximize the infrastructure in which Arkansas has already invested, while delivering a solution that will achieve your current and future business objectives.

3.7.1 Technical Environments

- **Instructions:** Describe the Vendor's detailed approach to establishing the various technical environments for DHS IE-BM Solution:

- Multiple environments (e.g., development, testing, training, staging, and production)
- Procedures used to migrate software from one environment to another
- Steps needed to maintain the synchronization between environments, as appropriate

This response addresses requirements contained in Tab 7 of the Technical Requirements Traceability Matrix.

Multiple Environments

Optum will establish multiple technical environments for the AR IE-BM Solution within the Arkansas State Data Center. We will deploy to different non-production test environments depending on the purpose of the test or testing. We may also use the production environment for pre-production testing. This may include performance testing, security testing or implementation/operational readiness testing. For most of our testing, we will use non-production environments that include development, test (can be multiple), training, stage, and disaster recovery. In the rare occasion where production data had a contributing factor to the defect, we will only leverage production data to verify the corrective action resolved the defect.

We will establish an environment dedicated to development and unit testing for the AR IE-BM Solution, for use by the developers. The number of subsequent test environments will depend on various key factors. These factors include the complexity of the solution, mix of technologies, required testing, delivery speed and number of overlapping releases. We will use a separate test environment for system testing, system integration testing (black box or white box), regression testing and some component-based performance testing. This environment contains everything required for the test cycles and typically contains a subset of production data.

We perform user acceptance, parallel, operational readiness testing (ORT), usability/accessibility and security testing in a separate environment reserved for business functional testing. It typically contains production-like data. It can also contain a copy of the production environment as in the example stated previously. This environment is where we will conduct our advanced performance testing. Additionally, we will perform data conversion testing throughout the test cycles in the appropriate environments. Depending on the AR IE-BM component, we will use automated testing tools that may engage additional test environments. We move tested code into a final staging (or pre-production) environment. We complete final performance and regression testing in this environment. When we move code into production, we move it from this environment.

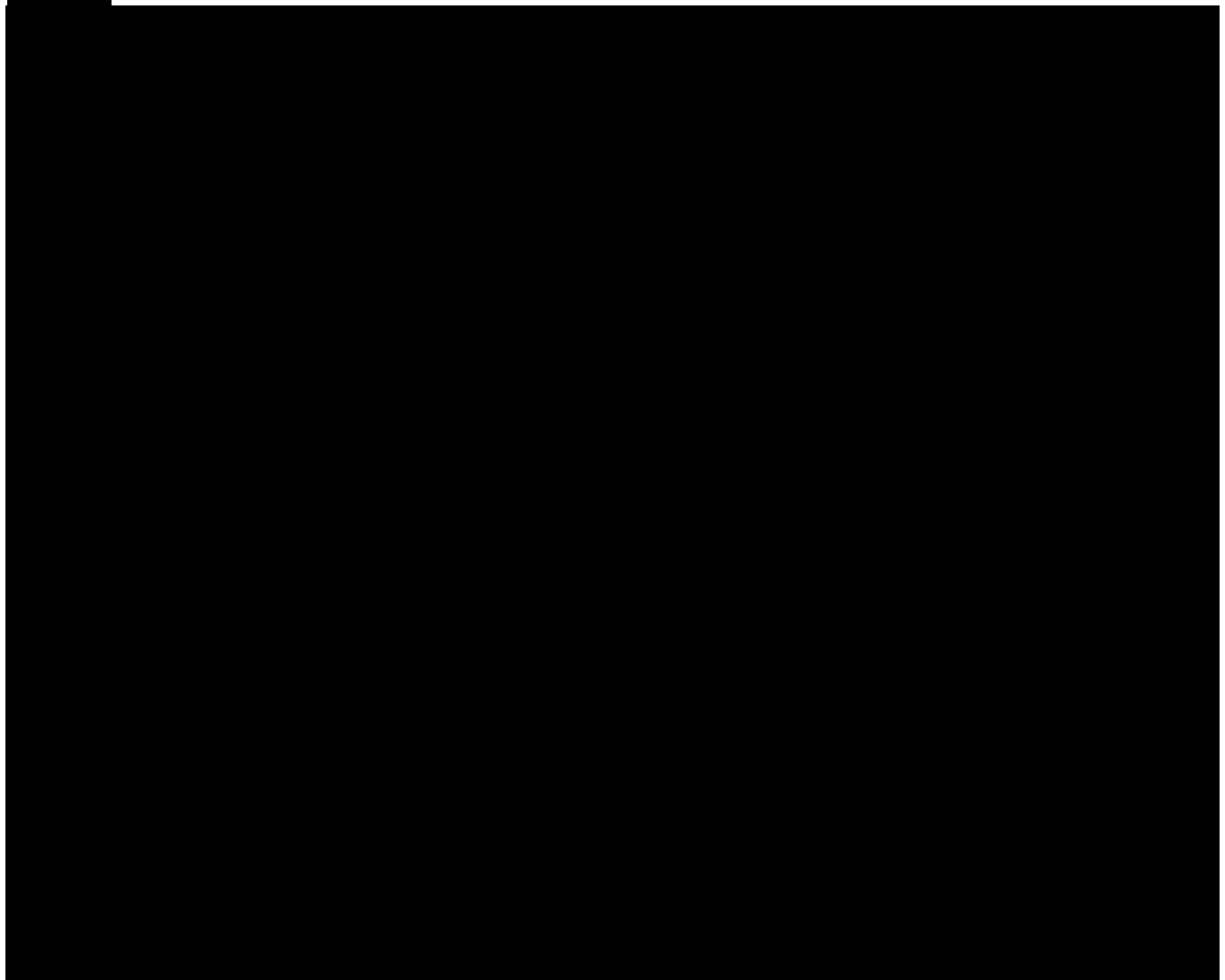
Software Migration Between Environments

As we configure and deploy the AR IE-BM Solution, we will use the DevOps continuous development and deployment model. DevOps is an innovative approach to software code management and development that reduces risk, while expediting solution delivery. With a strong emphasis on automation, it promotes collaboration and communication between the development and technical operations teams. This approach will give our teams more control over the solution and respond to your requirements more quickly.

We will use our DevOps deployment tools to build our code for the AR IE-BM Solution into virtual components called containers, providing speed and agility for testing and deployment processes. As a result, the project team will develop quality deliverables for you more quickly than with more traditional approaches. In contrast to traditional architectures, this approach will enable us to distribute the AR IE-BM Solution into several independent services. For example, a

container may include code for the TANF program module. Containers will enable us to deliver only the module that we need for deployment to a particular environment.

Figure 22 shows the DevOps



Environment Synchronization

As Figure 22 shows, we will use the DevOps framework to develop code for the different AR IE-BM Solution components, such as the Agent Portal. We will check code into the source code repository and build the code. After the code build, we will deploy it to the development environment for code analysis and regression testing. Then, we will build the container of code and load it into the container registry. When we need to deploy a container into an environment, we will then obtain the needed container from the registry and deploy it into the appropriate environment. The container will exit the environment or promote to the next environment, depending on the requirements.

As part of our standard operating procedure, the containers will pass stage gates before promotion into the next environment. We will modify the container as needed based on user feedback, monitoring results and performance. After we complete our modifications, we will load the container back into the source code repository. This model has been used successfully to

maintain and retire older, non-functioning code for the Health Service Enterprise platform in other engagements, where we removed a non-Optum code base that was not functioning properly with the overall design. This approach will work well for problematic areas of your current system described in your *Key Tactical Issues* section of the RFP.

We will use [REDACTED] to manage code in each of the AR IE-BM environments. We will maintain the code in a source control repository with the necessary attributes applied to version the code. This control will verify visibility into the evolution of the code. We apply versioning, or tagging, of the code that will enable us to build packages that pull in the necessary tagged code allowing repeatable packaging. The source control system will also enable us to revert to versions of code to a prior desired state of operation. This will be important for troubleshooting, replicating incidents and system roll back.

3.7.2 Server Architecture

- **Instructions:** Describe the supported OS platforms and Server Configurations for the Vendor's System. Include minimum recommended specifications to support the System in all required environments (e.g., development, testing, training, and production).

This response addresses requirements contained in Tab 7 of the Technical Requirements Traceability Matrix.

Supported OS Platforms

Our approach to the server architecture includes creating [REDACTED]. This enables dynamic scaling of the environment to support the varying demands of the benefit periods and verifies peak performance. [REDACTED] we have the ability to containerize our solution component changes in a more stable, continuous integration and continuous delivery model. This makes a flexible iterative development and maintenance model much more achievable.

Server Configurations

The deployment of our [REDACTED] reduces the need to manage server configurations. We complete configurations within the [REDACTED]

There is no need to manage server configurations from one environment to the other in verifying that the test configuration matches the staging environment configuration. [REDACTED] is deployed in staging it is the same container deployed in test so that the environments match.

We will use the physical server components of the Arkansas State Data Center as needed in support of the application IE portfolio. To achieve the level of availability and diversity required, we will virtualize servers as our primary practice. Only on an exception basis will we deploy physical server infrastructure. Our team will verify optimal performance resources are balanced and optimized to maintain application performance metrics. We accomplish this by balancing resources to the application portfolio to make sure there is adequate capacity during peak periods.

3.7.3 Client Architecture

- **Instructions:** Describe the Client (desktop) Architecture for the Vendor's System. Include minimum recommended specifications (e.g., RAM, video RAM, disk space, processor speed) to support the System, as well virtualized configurations to improve manageability and reduce operational costs.

This response addresses requirements contained in Tab 7 of the Technical Requirements Traceability Matrix.

Minimum Recommended Specifications

For the client architecture, we leverage a Web user interface to access the AR IE-BM Solution components using Web browsers. Using this approach, we reduce the need of significant RAM and disk space for desktop machines. We will support a variety of Web browsers to access our AR IE-BM Solution, including, but not limited to, Microsoft® Internet Explorer® (versions 7, 8, 9, 10 and 11), Microsoft Edge®, Google Chrome (the most recent, stable version), Safari (versions 5x and 6x), or Mozilla Firefox (the most recent stable version), without degrading usability or performance.

The responsive design of our architecture enables use on various mobile devices that also support standard browser formats.

Virtualized Configurations

As we discussed earlier in the Minimum Recommended Specifications section, our client architecture uses Web browser access to the system components. No footprint of code is deployed on the client machines, so no virtualization of components is needed.

Although there will be no specific requirement for the desktop virtualization from the browser-based application and zero footprint configuration, Optum will heavily use virtualization at the server, storage, load balancing and network layers. Our approach to virtualization permits us to provide a higher level of diversity, availability and scalability. By having a completely virtualized solution, we maintain desired State configurations and a level of continuity across the State's solution. Full virtualization will also enable you to capitalize on future capabilities into a hybrid cloud or hosted solution.

3.7.4 Data Storage Architecture

- **Instructions:** Provide details on the Data Storage software and hardware components the Vendor proposes to use in its proposed Solution architecture.

This response addresses requirements contained in Tab 7 of the Technical Requirements Traceability Matrix.

Data Storage Software and Hardware Components

Storage architecture is designed to remain compliant with Federal Information Security Management Act (FISMA), FedRAMP and HIPAA security controls. This includes data protection through in-flight and at-rest encryption, as an example. Our solution includes tiered levels of storage to meet the specific needs of the organization. The storage solution tiers align with the customer requirements, while remaining vendor friendly.

The management, retention and security of the PII are more complex because of increasing compliance requirements. Optum will handle the ever-changing government regulations and your organization's operational expectations in the following ways:

- Storing more data for longer periods—in many cases, indefinitely—to adhere to State and federal data compliance requirements, keeping in mind that data archiving is not only permissible, but optimal for best system performance
- Backing up data within a specified period of time to meet specified RPOs, RTOs and recovery time actual (RTA)
- Meeting recovery point objectives with a defined disaster recovery plan and the appropriate service levels aligned to the technical solution, replication, redundancy or diversity of the data
- Improving SLRs by applying process improvement based on best practices, such as ITILv3 Continuous Service Improvement (CSI), Kaizen and Deming
- Maintaining high levels of data security aligning with security controls outlined in NIST 800-53 Rev 4 and to the levels defined in FISMA and FedRAMP

With the improvement of business intelligence and analytics along with increasing client data growth, there is a growing need to manage that data effectively and retrieve it quickly. Doing so will enable your DHS staff to serve clients better, especially at the point of contact. Our storage solution using Microsoft SQL Server aligns to the specific needs of the organization, while adhering to the financial goals and objectives.

The complexity of benefit programs and the data those programs leverage create a stronger need for high availability, snapshots and replication for primary data protection while containing costs. The service storage tiers provide the flexibility of performance and security as seen in these examples:

- **Performance**
 - The use of flash storage for high-performing applications
 - The use of large capacity, mechanical drive for less-performing applications
 - Partitioning of storage tuned to the database or data structure
- **Security**
 - Applying FISMA controls based on the regulatory requirements:
 - FISMA high, moderate or low categorization
 - HIPAA and meaningful use
 - Payment Card Industry Data Security Standard (PCI DSS) credit card processing

3.7.5 Network Architecture

- **Instructions:** Describe the Vendor's System approach to network topology and hardware required to achieve the desired architecture (e.g., load balancing utilizing hardware and software based load balancers ahead of the Web servers, Virtual Private Networks (VPNs), creation of DMZs by firewalls.

This response addresses requirements contained in Tab 7 of the Technical Requirements Traceability Matrix.

Network Topology and Hardware

Our plan includes leveraging the Arkansas State Data Center to host the AR IE-BM Solution. As such, we will leverage the current network topology and hardware already in place and operational at the current data center. Firewalls and other external components outside the AR IE-BM Solution will be the State's responsibility; however, Optum can provide best-practice consulting for the initial setup and ongoing support if needed.

3.7.6 Peripheral Architecture

- **Instructions:** Describe the architecture of other devices such as printers, scanners and electronic signature pads etc., which are necessary for the Vendor's proposed Solution. Include minimum and recommended specifications to support the Solution.

This response addresses requirements contained in Tab 7 of the Technical Requirements Traceability Matrix.

Solution Support Devices

Our solution is based on a modern and modularized architecture designed to interact with standard plug-and-play devices, including printers and scanners. Our Web-based Client and Agent Portals use industry-standard API methods of communicating with such devices. They also leverage digital replacements for physical peripherals whenever feasible. For example, we use SignNow eSignature technology for capturing digital signatures rather than using electronic signature pads.

For mailroom integration, the interaction between our product and your mailroom generally uses file transfer. The peripheral devices presently in your mailroom will function with the AR IE-BM Solution.

3.7.7 Design, Build and Operational Support Tools

DHS expects the Vendor to leverage tools to support their activities and, as the vendor needs to integrate into the broader DHS environment, will require the vendor to leverage some of the DHS standard tools. The vendor must leverage the following tools:

- JIRA for defect management and help desk

The following tools are installed at DHS and the vendor is encouraged to leverage these tools:

- Jenkins for deployment automation
- Subversion (SVN) for code versioning
- SharePoint for document management
- AutoSys for batch scheduling
- Rational Test Manager, Selenium to support testing efforts

If the vendor recommends the use of other tools, those tools will be purchased by DHS, will be installed in DHS' environment and the vendor's proposal must include the migration to DHS' standards at the end of the contract.

Instructions: Describe in detail the tools the Vendor plans to leverage to design, build, test, deploy, report, monitor and operate the proposed Solution.

The response should include a discussion of the capabilities the Vendor plans to leverage for each tool, why the Vendor plans to leverage DHS' standard tools or the justification for implementing different tools. The response should also include a discussion of any additional tools which will provide capabilities which currently are not supported by DHS' current tools.

- If the Vendor proposes tools other than the DHS standards, the response should also include a discussion of the challenges and risks to migrating all IE-BM related materials to the DHS tools at the end of the contract and how their proposed approach will mitigate those challenges and risks.

This response addresses requirements contained in Tab 7 of the Technical Requirements Traceability Matrix. Each heading below corresponds to a requirement and we have provided details on how we will meet your requirement.

Solution Tools and Utilities

Optum has a dedicated Center of Excellence for user experience, the Optum UX Design Studio (UXDS). UXDS comprises a team of more than 150 designers, researchers, user interface developers, accessibility experts, and other professionals who provide guidance to developers on user experience and accessibility. Our developers have access to the latest tools, training, templates and frameworks recommended by experts to support accessibility.

As a standard software development practice, we configure the individual developer machine to have the required compilers and integrated development environments. These may include COTS products, such as [REDACTED] or other required compilers and environments.

We use standard Optum tools, techniques and processes to perform rigorous code evaluations before code check-in. This includes COTS products like [REDACTED] that perform static and dynamic source code evaluation. These tools help development teams write code that others can maintain easily. Using these tools, we establish target thresholds before code check-in to build quality into our solution. These tools identify and run the automated JUnit scripts that developers create to perform automated unit testing. Leveraging these tools and analyzing the results will determine our code coverage targets. This approach will also tell us when code will be available to check out for the build process into our QA testing process.

As part of our continuous integration and delivery strategy, we follow [REDACTED]

[REDACTED]

With respect to build automation, [REDACTED] for orchestrating the build, deployment, and upgrade of applications. We have automated code compiling and testing as part of the delivery pipeline. An automated vulnerability scan finds any issues much earlier in the build process. The application is also automatically containerized, along with its

dependencies and configurations. These containerized applications provide the ability to quickly perform blue-green upgrades of an application [REDACTED]

As part of our deployment strategy, we will provide both functional validation of applications and performance testing under load. By incorporating application testing under load, we can verify that specific application functions critical to the business operations can withstand peak load to provide optimal performance. In a coordinated effort with you, we can develop functional and performance user scripts to emulate users and the functions they perform. This extra step makes sure the integration with dependent applications does not adversely affect performance, capacity and availability. Additionally we will use [REDACTED]

[REDACTED]

We will leverage a [REDACTED] DevOps will enable the AR IE-BM project team to leverage end-to-end performance monitoring tools that have hooks into each delivered module of the AR IE-BM Solution. These tools will continually evaluate the business process flow through the AR IE-BM Solution and indicate the amount of time that each component of the solution consumes. This will enable us to easily identify the modules that require performance improvements.

4.0 Software Components

Instructions: The Contract may include the acquisition of COTS software to support the Project. DHS anticipates the Vendor will leverage some of the software components already within DHS Enterprise and install additional software as required.

The following questions pertaining to Software components should be answered. Please refer to the General System Design (GSD) and other reference documents in the Procurement Library for additional details.

The Vendor should use Table 1 if they intend to leverage any existing licenses that DHS owns within their enterprise as part of their current deployments. The list of all currently owned DHS software licenses is provided as part of the Procurement Library.

The Vendor should use Table 2 to list all the new COTS packages the Vendor is proposing as part of their solution design that are not currently owned by DHS.

The Vendor can add rows as needed; each row must correlate with a DHS IE-BM Solution technology component captured in the RFP Cost workbook. Add rows as necessary. Do not change any of the completed cells. Any changes to the completed cells could lead to the disqualification of the Proposal.

Table 1. Existing DHS COTS Software that the Vendor intends to leverage for the IE-BM Solution

SOFTWARE ITEM #	SOFTWARE ITEM	ENVIRONMENT (E.G., Development, Test, Training, Production)	MANUFACTURER	LICENSE TYPE (E.G., Enterprise, Per User, Per Server)	BRAND NAME	MODULE NAME	VERSION NUMBER	UTILITY/ SYSTEMS MGMT SOFTWARE, DBMS, DATA WAREHOUSE, OTHER	DETAILED DESCRIPTION (E.G., Functionality, Purpose)	OS	EARLIEST PROPOSED PURCHASE DATE
1.											
2.											

SOFT WARE ITEM #	SOFT WARE ITEM	ENVIRONMENT (E.G., Development, Test, Training, Production)	MANUFACTURER	LICENSE TYPE (E.G., Enterprise, Per User, Per Server)	BRAND NAME	MODULE NAME	VERSION NUMBER	UTILITY/ SYSTEMS MGMT SOFTWARE, DBMS, DATA WAREHOUSE, OTHER	DETAILED DESCRIPTION (E.G., Functionality, Purpose)	OS	EARLIEST PROPOSED PURCHASE DATE
3.											
4.											
5.											
6.											
7.											
8.											

Table 2. Proposed New Packaged Software by Vendor

SOFT WARE ITEM #	SOFT WARE ITEM	ENVIRONMENT (E.G. Development, Test, Training, Production)	MANUFACTURER	LICENSE TYPE (E.G., Enterprise, Per User, Per Server)	BRAND NAME	MODULE NAME	VERSION #	Type of Software (E.g. RDBMS, Rules Engine etc.)	DETAILED DESCRIPTION [E.g. Functionality, Purpose]	OS	Proposed Time line [E.g. 30 days after Project Planning Phase completes]
1.											
2.											
3.											
4.											
5.											
6.											

SOFT WARE ITEM #	SOFT WARE ITEM	ENVIRONMENT (E.G. Development, Test, Training, Production)	MANUFACTURER	LICENSE TYPE (E.G., Enterprise, Per User, Per Server)	BRAND NAME	MODULE NAME	VERSION #	Type of Software (E.g. RDBMS, Rules Engine etc.)	DETAILED DESCRIPTION [E.g. Functionality, Purpose]	OS	Proposed Time line [E.g. 30 days after Project Planning Phase completes]
7.											
8.											
9.											
10.											

If the System will include software to be licensed from the Vendor, Vendors should include software licensing requirements and anticipated volume. The Vendor should propose the licensing options available and recommend the advantages of those various options. For example, licensing options may include:

- Named user
- Per server
- Per work team
- Concurrent User
- Enterprise (unrestricted)

Optum acknowledges and will comply with this requirement. All software indicated in Tables 1 and 2 that are not current State assets are included in the Optum IES Solution.

5.0 Proposed Hardware Technical Specifications

The Contract may include the acquisition of additional hardware in support of the System. DHS has a preference that the System be built using the established DHS standards. However, DHS understands hardware that does not conform to its standards may be required.

Please refer to the RFP and General System Design and other reference documents in the Procurement Library for additional details.

Instructions: Please list all the specifications of the proposed Hardware in the Tables below. Add rows as necessary. Do not change any of the completed cells. Any changes to the completed cells could lead to the disqualification of the Proposal.

Table 3. Leveraged DHS Hardware/Infrastructure

HARDWARE ITEM #	HARDWARE ITEM	ENVIRONMENT (E.G., Development, Test Training, Production)	MANUFACTURER	DETAILED DESCRIPTION (E.G., Number of processors, Amount and type of storage and memory, Type of network card)	OS	Proposed Time line (E.g. 30 days after Project Planning Phase completes)
1						
2						
3						
4						
5						
6						
7						

Table 4. Proposed New Hardware/Infrastructure

HARDWARE ITEM #	HARDWARE ITEM	ENVIRONMENT (E.G., Development, Test, Training, Production)	MANUFACTURER	DETAILED DESCRIPTION (E.G., Number of processors, Amount and type of storage and memory, Type of network card)	OS	Proposed Time line (E.g. 30 days after Project Planning Phase completes)
1						

6.0 Technical Requirements Assumptions

Instructions: Document the assumptions related to the Technical Requirements in the below Table. Add rows as necessary. Do not change any of the completed cells. Any changes to the completed cells could lead to the disqualification of the Proposal.

Table 5. Technical Requirement Assumptions

ITEM #	REFERENCE (Section, Page, Paragraph)	DESCRIPTION	RATIONALE
1.	T8 RTM: Tab T0. Technology Solution Stack	Assuming the State has a solution to provide secure file transfer (Electronic Customer Gateway and Datafile Mgmt) that we can leverage.	Not listed in table, but Optum assumes the State has a solution in place today
2.	Security – Identity and Access Management (IAM) (Section 3.6.1, Page 114, Paragraph 1)	Optum plans to leverage the State’s IAM solution, assuming it meets this requirement.	Arkansas has an existing solution that we assume meets the requirements.
3.	T8 RTM: G2.13 (G2 Audit & Compliance)	The System will generate and protect consent audit events at the same or better levels as other data access audit records.	Optum assumes client consent records and the audit process associated with client consent records are protected at the same or better than other data access records.
4.	T8 RTM: G4.11 (G4 Interoperability – Interfaces)	The System will provide the ability to publish services and related data for different types and classes of service consumers to use.	We will leverage an API gateway for interoperability, which is consistent with the Optum IES architecture design and the State’s enterprise integration strategy.
5.	T8 RTM: G4.18 (G4 Interoperability – Interfaces)	We will review, classify and catalog all System services prior to use. The Documentation Artifacts will be modeled per ISO/IEC/IEEE 42010 Architecture Description Template.	We will conform to standards through development.
6.	T8 RTM: G4.35 (G4 Interoperability – Interfaces)	The System will include the telephony integration required to satisfy the ability to dial a phone number directly from data within the	Optum assumes the State’s call center supports Open-CTI standards.

ITEM #	REFERENCE (Section, Page, Paragraph)	DESCRIPTION	RATIONALE
		System based on user request. It will also provide the capability to automatically bring up the caller's record upon the receipt of an incoming call.	
7.	T8 RTM: G4.36 (G4 Interoperability – Interfaces)	The System will have access to user calendars outside of the System (Microsoft Outlook) and will automatically synchronize.	Optum assumes proper licensing is in place.
8.	T8 RTM: G5.4 (G5 Scalability & Extensibility)	The System will provide screens that are highly re-configurable, providing ability to reposition and rename field labels/data fields, remove or turn-off unused fields, maintain data and enable the addition of custom-defined fields.	Configurable at the product level, not at the individual user preference level.
9.	T8 RTM: G6.24 (G6 Regulatory & Security)	The Vendor will monitor, alert and protect against Web application attacks of Internet-facing applications.	Since the AR IE-BM Solution will be hosted in the AR data center, monitoring will be a combined integrated effort between AR and Optum. This will use Wiley, Dynatrace SaaS and Managed (formerly Ruxit) for Application Monitoring; Nagios and Ganglia for infrastructure monitoring. This is compliant with the State of Arkansas' technology and architecture standards as outlined at http://www.dis.arkansas.gov/policiesStandards/Pages/default.aspx .
10.	T8 RTM: G6.28 (G6 Regulatory & Security)	The System will restrict access to summarized information according to organizational policy, scope of practice, and jurisdictional law	AR will provide "Organizational Policy" specifics
11.			

ITEM #	REFERENCE (Section, Page, Paragraph)	DESCRIPTION	RATIONALE
12.	T8 RTM: G8.3 (G8 Solution Mgmt, Admin & Perf)	The System will maintain an archival process so that accumulated historical records and log files do not consume large amounts of disk space.	Optum will work with the state to define a common understanding on the anticipated retention policy and archival process.
13.	T8 RTM: T3.3.1 (T3.3 ECM-Document Management)	The ECM/Document Management component will provide the ability to capture System generated documents and store them at appropriate level (e.g. individual, case, program, application, various workflow/process)	Assumption that for AR IE-BM solution, Optum is leveraging the State's existing EMC solution, including the use of Xerox DocuShare, and assuming that it currently meets or will meet all listed requirements.
14.	T8 RTM: T3.3.2 (T3.3 ECM-Document Management)	The ECM/Document Management component will provide the ability to store electronic forms (System generated or 3rd-party generated forms)	Assumption that for AR IE-BM solution, Optum is leveraging the State's existing EMC solution, including the use of Xerox DocuShare, and assuming that it currently meets or will meet all listed requirements.
15.	T8 RTM: T3.3.3 (T3.3 ECM-Document Management)	The ECM/Document Management component will provide the capability to scan and store imaged documents and electronic files	Assumption that for AR IE-BM solution, Optum is leveraging the State's existing EMC solution, including the use of Xerox DocuShare, and assuming that it currently meets or will meet all listed requirements.
16.	T8 RTM: T3.3.4 (T3.3 ECM-Document Management)	The ECM/Document Management component will enable indexing and searching of documents by a variety of user-defined metadata attributes	Assumption that for AR IE-BM solution, Optum is leveraging the State's existing EMC solution, including the use of Xerox DocuShare, and assuming that it currently meets or will meet all

ITEM #	REFERENCE (Section, Page, Paragraph)	DESCRIPTION	RATIONALE
			listed requirements.
17.	T8 RTM: T3.3.5 (T3.3 ECM-Document Management)	The ECM/Document Management component will provide support for full text search.	Assumption that for AR IE-BM solution, Optum is leveraging the State's existing EMC solution, including the use of Xerox DocuShare, and assuming that it currently meets or will meet all listed requirements.
18.	T8 RTM: T3.3.10 (T3.3 ECM-Document Management)	The ECM/Document Management component will allow rollback to a previous version of a document.	Assumption that for AR IE-BM solution, Optum is leveraging the State's existing EMC solution, including the use of Xerox DocuShare, and assuming that it currently meets or will meet all listed requirements.
19.	T8 RTM: T3.3.11 (T3.3 ECM-Document Management)	The ECM/Document Management component will enable collaborative document creation and/or markup.	Assuming all legal parameters are followed.
20.	T8 RTM: T3.3.13 (T3.3 ECM-Document Management)	The ECM/Document Management component will utilize the System authorization and access control for file level security	Assumption that for AR IE-BM solution, Optum is leveraging the State's existing EMC solution, including the use of Xerox DocuShare, and assuming that it currently meets or will meet all listed requirements.
21.	T8 RTM: T3.3.21 (T3.3 ECM-Document Management)	The ECM/Document Management component will provide scanning software that is configurable to accommodate user-defined field edits such as the exclusion or inclusion of special characters.	Assumption that for AR IE-BM solution, Optum is leveraging the State's existing EMC solution, including the use of Xerox DocuShare, and assuming that it currently meets or will meet all listed requirements.
22.	T8 RTM: T3.3.22 (T3.3 ECM-Document)	The ECM/Document Management component design will accommodate multiple imaging	Assumption that for AR IE-BM solution, Optum is leveraging the State's

ITEM #	REFERENCE (Section, Page, Paragraph)	DESCRIPTION	RATIONALE
	Management)	locations.	existing EMC solution, including the use of Xerox DocuShare, and assuming that it currently meets or will meet all listed requirements.
23.	T8 RTM: T3.3.23 (T3.3 ECM-Document Management)	The ECM/Document Management component will integrate the Imaging and Document Management capabilities.	Assumption that for AR IE-BM solution, Optum is leveraging the State's existing EMC solution, including the use of Xerox DocuShare, and assuming that it currently meets or will meet all listed requirements.
24.	T8 RTM: T3.3.25 (T3.3 ECM-Document Management)	The ECM/Document Management component will provide the capability to send and receive faxed and e-form documents, process the data and image directly into and out of the System including the ability to automatically send confirmation of transmission to the sender.	Assumption that for AR IE-BM solution, Optum is leveraging the State's existing EMC solution, including the use of Xerox DocuShare, and assuming that it currently meets or will meet all listed requirements.
25.	T8 RTM: T3.3.32 (T3.3 ECM-Document Management)	The ECM/Document Management component will provide the capability for documents to be grouped together during scanning based on user defined criteria.	Assumption that for AR IE-BM solution, Optum is leveraging the State's existing EMC solution, including the use of Xerox DocuShare, and assuming that it currently meets or will meet all listed requirements.
26.	T8 RTM: T3.3.33 (T3.3 ECM-Document Management)	The ECM/Document Management component will provide the capability to allow the User to manually remove, rescan and replace a previously scanned image or document(s).	Assumption that for AR IE-BM solution, Optum is leveraging the State's existing EMC solution, including the use of Xerox DocuShare, and assuming that it currently meets or will meet all listed requirements.
27.	T8 RTM: T3.3.35 (T3.3 ECM-	The ECM/Document Management component will provide the	Assumption that for AR IE-BM solution, Optum is

ITEM #	REFERENCE (Section, Page, Paragraph)	DESCRIPTION	RATIONALE
	Document Management)	capability to validate data captured from specific fields on forms electronically read by OCR/OMR/ICR.	leveraging the State's existing EMC solution, including the use of Xerox DocuShare, and assuming that it currently meets or will meet all listed requirements.
28.	T8 RTM: T3.3.42 (T3.3 ECM-Document Management)	The ECM/Document Management component will provide an imaging capability that includes advanced Optical Character Recognition, Intelligent Character Recognition, and Optical Mark Recognition capabilities with a minimum 90% accuracy rate and the ability to regulate the error percentage between 90 and 100 percent by document type.	Assumption that for AR IE-BM solution, Optum is leveraging the State's existing EMC solution, including the use of Xerox DocuShare, and assuming that it currently meets or will meet all listed requirements.
29.	T8 RTM: T3.3.51 (T3.3 ECM-Document Management)	The ECM/Document Management component will have the capability to check records in and out using barcodes, with adherence to security permissions and support the use of barcode scanners for the purpose	Assumption that for AR IE-BM solution, Optum is leveraging the State's existing EMC solution, including the use of Xerox DocuShare, and assuming that it currently meets or will meet all listed requirements.
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ITEM #	REFERENCE (Section, Page, Paragraph)	DESCRIPTION	RATIONALE
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ITEM #	REFERENCE (Section, Page, Paragraph)	DESCRIPTION	RATIONALE
37.	T8 RTM: T4.2 (All) (T4.2 Data Integ, Quality, ETL)	All requirements	For the AR IE-BM Solution, Optum will be leveraging the State existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
38.	T8 RTM: T5.2 (All) (T5.2 BI Platform)	All requirements	For the AR IE-BM, Optum is leveraging the State's existing Business Intelligence platform which includes reporting & analytics using Cognos

ITEM #	REFERENCE (Section, Page, Paragraph)	DESCRIPTION	RATIONALE
			and Tableau.
39.	T8 RTM: T6.1.1 (T6.1 IAM)	The IAM component design will comply with U.S. Department of Health & Human Services and U.S. Department of Education privacy and data security requirements, including, but not limited to, the Health Insurance Portability and Accountability Act (HIPAA), the Family Educational Rights and Privacy Act (FERPA) and the Health Information Technology for Economic and Clinical Health (HITECH) Act provisions of the American Recovery and Reinvestment Act (ARRA) of 2009.	Optum is leveraging the State's existing IAM solution (CA IAM). The IAM technical capabilities will be implemented in R0. Specific IAM setup and requirements will be fulfilled in R1 (for UI) and R2 (for HHS programs) and R3 (for State Hub).
40.	T8 RTM: T6.1.2 (T6.1 IAM)	The IAM component will comply with all applicable State security policies.	Optum is leveraging the State's existing IAM solution (CA IAM)
41.	T8 RTM: T6.1.3 (T6.1 IAM)	The IAM component will implement security controls in accordance with all federal and State security policy and regulations.	Optum is leveraging the State's existing IAM solution (CA IAM)
42.	T8 RTM: T6.1.4 (T6.1 IAM)	The IAM component will meet: a. NIST 800-53A and NIST 800-53 rev3 Moderate baseline b. IRS pub 1075, which points back to NIST 800-53 rev 3 c. NIST 800-53A rev1 guidance (http://csrc.nist.gov/publications/nist_pubs/800-53A-rev1/sp800-53A-rev1-final.pdf) and Harmonized Security and Privacy Framework	Optum is leveraging the State's existing IAM solution (CA IAM)
43.	T8 RTM: T6.1.5 (T6.1 IAM)	The IAM component design will adhere to the principle of Fail Safe to make sure that an IAM component in a failed state does not reveal any sensitive information or leave any access controls open for attacks.	Optum is leveraging the State's existing IAM solution (CA IAM)
44.	T8 RTM: T6.1.6 (T6.1 IAM)	The IAM component will provide controlled access to participant records. Users will be able to view	Optum is leveraging the State's existing IAM solution (CA IAM)

ITEM #	REFERENCE (Section, Page, Paragraph)	DESCRIPTION	RATIONALE
		participant data within the IAM component at the DHS-defined levels of access based on user security privileges.	
45.	T8 RTM: T6.1.7 (T6.1 IAM)	The IAM component will provide for security concepts covering the following components: Virtual Private Network (VPN), firewall technology and Demilitarized Zone (DMZ), virus-/intrusion detection, mail/content filtering avoiding fault positives, encryption and Public Key Infrastructure (PKI).	Optum is leveraging the State's existing IAM solution (CA IAM)
46.	T8 RTM: T6.1.8 (T6.1 IAM)	The IAM component will maintain a level of security that is commensurate with the risk and magnitude of the harm that could result from the loss, misuse, disclosure or modification of information.	Optum is leveraging the State's existing IAM solution (CA IAM)
47.	T8 RTM: T6.1.9 (T6.1 IAM)	Information security will be built into the IAM component from its inception rather than bolted on after the IAM component has been implemented.	Optum is leveraging the State's existing IAM solution (CA IAM)
48.	T8 RTM: T6.1.18 (T6.1 IAM)	The IAM component, when storing PHI on any portable/removable device (e.g. smartphones, portable computers, portable storage devices), will support use of a standards based encrypted format using 3DES, AES or their successors.	If there is a requirement to store PHI data on a mobile device, we will need to perform some development to provide this capability since we do not currently have a need to store any data on a local device. We will be happy to address this requirement with you during the requirements validation phase.
49.	T8 RTM: T6.1.19 (T6.1 IAM)	The IAM component, prior to access to any PHI, will display a configurable warning or login banner (e.g. "The System should only be accessed by authorized users").	Optum is leveraging the State's existing IAM solution (CA IAM)

ITEM #	REFERENCE (Section, Page, Paragraph)	DESCRIPTION	RATIONALE
		In the event that an IAM component does not support pre-login capabilities, the IAM component will display the banner immediately following authorization.	
50.	T8 RTM: T6.1.20 (T6.1 IAM)	The IAM component will support a form of user authentication.	Optum is leveraging the State's existing IAM solution (CA IAM)
51.	T8 RTM: T6.1.21 (T6.1 IAM)	The IAM component design must use an advanced form of user authentication utilizing multiple form factors and/or "biometric" mechanisms. The design must account for advanced forms of user authentication (including two-factor authentication using hardware tokens, biometric devices, confirmation codes sent to a mobile phone, etc.) that will maximize effectiveness and minimize inconvenience for DHS and legitimate users.	Optum is leveraging the State's existing IAM solution (CA IAM)
52.	T8 RTM: T6.1.23 (T6.1 IAM)	The IAM component will enforce a limit of (configurable) consecutive invalid access attempts by a user. The IAM component will protect against further, possibly malicious, user authentication attempts using an appropriate mechanism (e.g. locks the account/node until released by an administrator, locks the account/node for a configurable time period, or delays the next login prompt according to a configurable delay algorithm).	Optum is leveraging the State's existing IAM solution (CA IAM)
53.	T8 RTM: T6.1.31 (T6.1 IAM)	The IAM component must be able to associate permissions with a user using one or more of the following access controls: 1) user-based (access rights assigned to each user) 2) RBAC; users are grouped by role and access rights assigned to these	Optum is leveraging the State's existing IAM solution (CA IAM)

ITEM #	REFERENCE (Section, Page, Paragraph)	DESCRIPTION	RATIONALE
		groups) 3) context-based (role-based with additional access rights assigned or restricted based on the context of the transaction such as time-of-day, workstation-location, emergency-mode, etc.)	
54.	T8 RTM: T6.1.40 (T6.1 IAM)	The IAM component will be capable of operating within an RBAC infrastructure conforming to ANSI INCITS 359-2004, American National Standard for Information Technology – Role Based Access Control.	Optum is leveraging the State's existing IAM solution (CA IAM)
55.	T8 RTM: T6.1.41 (T6.1 IAM)	The IAM component will provide more-advanced session management abilities such as prevention of duplicate logins, remote logout and location-specific session timeouts.	Optum is leveraging the State's existing IAM solution (CA IAM)
56.	T8 RTM: T6.1.44 (T6.1 IAM)	The IAM component will provide the capability to integrate with existing authentication and authorization mechanisms.	Optum is leveraging the State's existing IAM solution (CA IAM)
57.	T8 RTM: T6.1.45 (T6.1 IAM)	The IAM component will provide the capability to create temporary and emergency accounts and terminate those accounts automatically after a user defined period of time.	Optum is leveraging the State's existing IAM solution (CA IAM)
58.	T8 RTM: T6.1.47 (T6.1 IAM)	The IAM component will allow an individual with active eligibility under a different user id to reapply under their own user id.	Optum is leveraging the State's existing IAM solution (CA IAM)
59.	T8 RTM: T6.1.48 (T6.1 IAM)	The IAM component will provide the capability to monitor events and detect attacks, and provide identification of unauthorized use of the System.	Optum is leveraging the State's existing IAM solution (CA IAM)
60.	T8 RTM: T6.1.49 (T6.1 IAM)	The IAM component will provide the capability to identify and report on inappropriate access to information in the System, based on user defined criteria.	Optum is leveraging the State's existing IAM solution (CA IAM)
61.	T8 RTM: T7.3	For Server Infrastructure	We intend to use the

ITEM #	REFERENCE (Section, Page, Paragraph)	DESCRIPTION	RATIONALE
	(T7 Infrastructure)	requirements, the State prefers the Vendor to propose one or more of the following technologies as part of their Solution Architecture - Power 770, Linux, Wintel Servers (Preferred). The vendor may propose an alternate technology with a detailed and compelling justification if it deems it suitable within the overall solution architecture being proposed	State's preferred technology in addition to providing requirements that will allow for integration into our platform to address possible compatibility with the P-770 Platform
62.	T8 RTM: T7.4 (T7 Infrastructure)	For Data center/Hosting Infrastructure requirements, the State has a "Mandatory" requirement for the Vendor to utilize DIS Hosting Facilities in Little Rock (Mandatory) as part of their Solution design and implementation. The vendor must include this tool in their system architecture	We intend to use the State's preferred technology, as listed.
63.	T8 RTM: T7.5 (T7 Infrastructure)	For Networking Infrastructure requirements, the State has a "Mandatory" requirement for the Vendor to utilize DIS Network Infrastructure (Mandatory) as part of their Solution design and implementation. The vendor must include this tool in their system architecture	We intend to use the State's preferred technology, as listed.
64.	T8 RTM: T7.6 (T7 Infrastructure)	For Applications Monitoring the State has a "Preference" the Vendor proposes Wiley as part of their solution architecture (Preferred). The vendor may propose an alternate technology with a detailed and compelling justification if it deems it suitable within the overall solution architecture being proposed	We intend to use the State's preferred technology, as listed.
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ITEM #	REFERENCE (Section, Page, Paragraph)	DESCRIPTION	RATIONALE
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Introduction

This document captures the Implementation Requirements for the State of Arkansas's IE-BM Engagement. This document should be read in conjunction with the Solution Overview section of the RFP, which documents the State's guidelines and expectations for the Solution development approach. Together, these requirements and the Solution Approach section must be used to inform the Vendor's cost and schedule estimates and final fixed bid for the design, development, implementation and ongoing support of the IE-BM System.

The Implementation Requirements document contains the following sections:

- 1) Instructions
- 2) Implementation Requirements

Within the Implementation Requirements, the requirements are categorized by area as detailed below. Each category has its own tab in this workbook.

ID	Section Title
I	Implementation Requirement Section
I1	Project Management and Monitoring
I2	Planning
I3	Technical Environment Setup and Management
I4	Solution Design, Development & Implementation (DDI)
I5	Data Conversion and Migration
I6	Testing
I7	Organizational Change Management, Training and Knowledge Transfer
I8	Pilot, Roll-Out and Go-Live
I9	Warranty Support and Close Out
I10	Service-Level Requirements

Instructions

This workbook contains Implementation Requirements desired by the State of Arkansas for the IE-BM System and captures the tasks the Vendor will be responsible for performing.

The response codes below should be used by the Vendor to indicate whether the it agrees to perform the requirements identified to be completed by the Vendor or whether the Vendor recommends changes to the tasks being performed.

This template must be submitted as an MS Excel file as part of the Vendor Proposal and should be thoroughly completed.

Field	Definition / Instructions
Req. #	Requirement Identification Number: This should be used to refer to requirements in correspondence. DO NOT EDIT THIS FIELD.
Requirement Description	Requirement: The detailed description of requirement. DO NOT EDIT THIS FIELD.
Requirement Met	Vendor response to whether the Implementation Requirement will be met by the Vendor's solution DDI approach. For tabs I1 - I9, indicate whether the requirement, as currently written, will be met by the Vendor's proposal: Yes or Clarification. For each Service Level Requirement, indicate agreement with each and all of the SLRs. The Vendor is expected to show in its Proposal how it will ensure compliance with the SLRs: Yes or No.
Vendor Proposed Clarifying Comments (for I1 to I9)	If the Response Code is set to "Clarifications" the Vendor must provide clarifying comments To provide more detail regarding the approach for meeting an implementation, use the Implementation Approach Narrative Templates (Template T-11 - Implementation Approach) and provide a reference to the appropriate RFP Req. #(s) in this template.
Proposed Liquidated Damages Amount	For each Service Level Requirement, provide a recommended Liquidated Damages amount per measure of SLR Measurement of Non-Compliance.

Project Management and Monitoring

Req #	Requirement Description	Requirement Met	Vendor Proposed Clarifying Comments
11.1	Provide, employ, maintain, and execute a robust project management methodology that complies with the Project Management Institute (PMI) standards and other industry best practices and aligns and integrates with DHS PMO's processes.	Yes	
11.2	Develop each of the Project Management Deliverables outlined in the Scope of Work (SOW) in the main RFP document. These will be reviewed and formally approved by DHS staff, to be identified by the State, through the process outlined in the Project Management Plan. The Vendor shall complete these deliverables in compliance with the Project Schedule and complete the deliverables approval process (e.g. invoice) in a timely manner as agreed to in the final contract.	Yes	
11.3	Collaborate with the DHS PMO staff to ensure the DHS and Vendor project managers work "shoulder-to-shoulder". Although the Vendor will be responsible for managing the project they also must ensure DHS project managers have enough involvement to ensure the processes align and integrate with DHS PMO's processes and are being followed, allowing the deliverables to be approved in a timely manner.	Yes	
11.4	Produce a Deliverables Expectation Document (DED) for each deliverable and submit for review by the DHS prior to commencing work on any deliverable. Any work done not in compliance with these is completely at risk by the Vendor.	Yes	
11.5	Perform all project management processes outlined in the PMP throughout the duration of the project	Yes	
11.6	Provide all project management documents (e.g., Project Management Plan, Project Schedule, Work Breakdown Structure, etc.) using Microsoft software products and/or pdf. The software version to be used must match the State's approved standards.	Yes	
11.7	Provide training to the State project team on the COTS packages (out-of-the-box functionality), software development methodology (including best practices, lessons learned from previous projects), selected tools (e.g. document management tools), case management/business process re-engineering (lessons learned and best practices) and project specific content (to enable team members to become familiar with the Project). These trainings can be provided through a variety of methods (e.g. targeted product seminars (preferred), workshops, self-learning). Initial project team training must occur before requirements validation activities commence however materials must be maintained/available throughout the Project.	Yes	
11.8	Leverage the DHS and/or other Statewide standards and templates for deliverables or receive approval from DHS to use Vendor's own templates.	Yes	
11.9	Lead the project communications effort in compliance with the Project Communications Management Plan for the duration of the Project	Yes	
11.10	Ensure all project management reports are developed in alignment with DHS processes and standards.	Yes	

I1. Project Management

Req #	Requirement Description	Requirement Met	Vendor Proposed Clarifying Comments
I1.11	Provide weekly Status Reports and monthly Executive Status Reports containing the contents outlined in the Scope of Work.	Yes	
I1.12	Lead and/or participate in all Status meetings as outlined in the Project Communications Plan.	Yes	
I1.13	Manage the risk, issues, action item and decision management processes and logs in compliance with the approach outlined in the Project Management Plan.	Yes	
I1.14	Collaborate with DHS staff in mitigating risks, resolving issues, completing action items and driving decisions.	Yes	
I1.15	Track progress against the baselined schedule and report any deviations to DHS. At DHS' discretion, the Vendor shall develop recovery plans to address major deviations.	Yes	
I1.16	Prepare for and present to DHS detailed progress and variance reports at specific Project gate reviews.	Yes	
I1.17	Develop recovery plans to address major deviations to the baselined Project schedule (if required).	Yes	
I1.18	Develop DHS resource demands to perform tasks outlined in the Project schedule.	Yes	
I1.19	Structure the DDI team and implement policies to minimize staff turn-over.	Yes	
I1.20	Provide, in writing, the reason for changes to any key project resources and provide a completed staff experience and references form and resume for the substitute personnel.	Yes	
I1.21	In the event of a transition between employees, ensure roles are filled by qualified personnel during the transition.	Yes	
I1.22	Provide a minimum of one full-time assigned PMI Certified Project Manager.	Yes	
I1.23	Establish project staffing policies designed to minimize personnel turn-over during Project execution.	Yes	
I1.24	Perform the tasks required to close out the Project including updating all appropriate documentation, migrating the documentation to the DHS PMO team control and providing support during the transition.	Yes	
I1.25	Develop formal Change Requests for any changes to the project's scope, schedule or budget and submit through DHS' Project Change Request process	Yes	
I1.26	Perform in compliance with SLAs and provide a process for reviewing performance against SLAs.	Yes	
I1.27	Invoice for approved deliverables in a timely manner as agreed to in the final Contract.	Yes	
I1.28	Provide an Engagement Manager who will serve as DHS' single point of contact for the duration of the Project. The Engagement Manager must be empowered to act on behalf of the organization. S/he must resolve any problems and contract disputes in an efficient and timely manner related to items such as roles, responsibilities, performance against SLAs or Change Requests..	Yes	
I1.29	Must be responsible for documentation management in alignment with the DHS' document management policies.	Yes	
I1.30	Must support DHS oversight activities in their attempts to produce their oversight reports.	Yes	
I1.31	Must be responsible for suggesting technology and process improvements.	Yes	
I1.32	Must actively maintain Project documentation (e.g. Requirements Traceability Matrix, Project Roster) for the duration of the Project on the DHS approved document repository.	Yes	
I1.33	Must trace requirements through the entire development process and produce a finalized Requirements Traceability Matrix which maps the requirements to specific test cases. This must include removing and adding requirements as the scope changes through change requests	Yes	
I1.34	Must comply with the State's security and ethical standards and policies.	Yes	

11. Project Management

Req #	Requirement Description	Requirement Met	Vendor Proposed Clarifying Comments
I1.35	Provide document repository tool and administer security permissions for that tool. DHS must approve in the definition of approach (e.g. roles, process and folder structure) including any changes throughout the process.	Yes	
I1.36	Must ensure that the Vendor's Project team will not transmit or store any Personally Identifiable Information (PII) using publically available storage over the internet or wireless communications device unless 1) the PII is "de-identified" in accordance with 45 C.F.R § 164.514(b) (2); or 2) encrypted in accordance with applicable law, including the American Recovery and Reinvestment Act of 2009 and as required by policies and procedures established by DHS.	Yes	
I1.37	Must ensure that the Vendor's Project team has passed privacy/security and FTI data handling training.	Yes	
I1.38	Throughout the Project, adhere to the Quality Management Plan including, but not limited to, responding to the oversight team's requests for information, complying with any audit requests and any other requests from DHS	Yes	
I1.39	The Vendor will collaborate with the DHS PMO to align all project management processes, templates and standards with the DHS standards or receive approvals for exceptions	Yes	
Project Tools			
I1.40	The Vendor will leverage a document management solution as a repository for all system related documentation. DHS prefers the Vendor leverage their installation of SharePoint though the vendor can leverage other technologies, with appropriate justification. If the Vendor recommends an alternate document management solution it will be installed on Arkansas' environment and owned by DHS	Yes	
I1.41	The Vendor will propose other tools to be leveraged during the DDI phase of the engagement. DHS prefers the Vendor leverages technologies already being leveraged by DHS (see RFP Section 3.3.6 and 3.6.7) though the Vendor can propose alternate technologies with appropriate justification. If the Vendor recommends an alternate document management solution it will be installed on Arkansas' environment and owned by DHS	Yes	
Project Closeout			
I1.42	Provide all training materials developed for the System to DHS. Those materials will become the property of DHS and may be modified and duplicated by DHS.	Yes	
I1.43	Provide electronic copies of all training materials (end-user, technical, trainee and instructor) in a format that can be easily accessed, updated and printed by DHS Staff using software for which DHS owns licenses, prior to deployment onto the staging platform. This includes, but is not limited to, CDs/DVDs and online channels.	Yes	
I1.44	Provide training for the DHS training department on the training materials, tools and procedures to ensure a smooth transition into ongoing training support.	Yes	
I1.45	Be available to the DHS training team to ensure the knowledge transfer activities have been effective and ownership of training delivery transitions smoothly from the Project team to the DHS training team.	Yes	
I1.46	Align with the Medicaid Enterprise Certification Toolkit (MECT)/Medicaid Enterprise Certification Lifecycle (MECL) to help ensure the System meets all federal requirements and satisfy the objectives described in the State's Advance Planning Document (APD).	Yes	
I1.47	Support DHS in preparing for any federal reviews and certifications (e.g. Medicaid and FNS) by, at a minimum, developing a preparing required documentation throughout the project, attending interviews and providing additional documentation	Yes	

Project Planning

Req #	Requirement Description	Requirement Met	Vendor Proposed Clarifying Comments
I2.1	The Vendor must develop planning documents that comprise the entire project life cycle as outlined in the SOW. These will be reviewed and formally approved by DHS staff through the process outlined in the Project Management Plan. The Vendor shall complete these deliverables in compliance with the Project Schedule and complete the deliverables approval process (e.g. invoice) in a timely manner as agreed to in the final Contract.	Yes	
I2.2	Vendor will align each of the SDLC planning deliverables to align with industry best practices (IEEE, ISO etc.), State standards, Federal standards as well as any specific guidelines identified in the SOW for that particular planning deliverable.	Yes	
I2.3	The Vendor will provide a detailed plan on the SDLC methodology that will be used for the project (E.g. Modified Waterfall, Agile, Scrum etc.) which includes an overview of the different SDLC phases, the number of iterations (releases) being proposed and how each release will flow through the different phases of SDLC including planning, design, configuration, testing, roll-out etc.	Yes	
I2.4	The Vendor must revisit and update each of the SDLC planning deliverables to reflect all changes that occur in downstream phases (design, development, testing etc.) at agreed upon time intervals. This frequency of updates will occur according to the planning during project initiation phase and upon DHS request.	Yes	
I2.5	Prior to conducting planning sessions and documenting of each of the SDLC deliverables, the Vendor must review DHS Repository of all available documentation regarding existing plans and processes in place to ensure that each of these planning deliverables are aligned to State's standards.	Yes	
I2.6	The Vendor must also review all State and Federal standards and methods that will affect the project and incorporate these into SDLC planning deliverables.	Yes	
I2.7	The Vendor must provide planning deliverables as defined in the SOW (e.g., Security plan, Capacity plan etc.) using Microsoft software products and/or pdf. The software version to be used must match the State's approved standards. The software version must be no less than a version still available on the common market and that is still supported by the manufacturer. DHS will work with the Vendor in approving specific versions to assure that the application is synchronized with the PMO standards and any broader DHS ESM Platform plans and schedules.	Yes	

Technical Environment Setup and Management

Req #	Requirement Description	Requirement Met	Vendor Proposed Clarifying Comments
I3.1	The Vendor must develop each of the Environment Management and Support Deliverables outlined in the SOW. These will be reviewed and formally approved by DHS staff through the process outlined in the Project Management Plan. The Vendor shall complete these deliverables in compliance with the Project Schedule and complete the deliverables approval process (e.g. invoice) in a timely manner as agreed to in the final Contract.	Yes	
I3.2	The Vendor must develop and maintain detailed specifications for all necessary hardware, software and tools requested/required to support the functionality on the DHS IE-BM Solution (aligned with DHS' standard policies and procedures) for the six (6) environments listed below for the duration of the Project. The six (6) environments include: 1. Production 2. Staging 3. User Acceptance Testing 4. System Integration Testing 5. Development 6. Disaster Recovery *(potentially a temporary data conversion environment) As a part of its Proposal, the Vendor shall submit specifications for all software, hardware, and tools that would be inclusive of the full SDLC.	Yes	
I3.3	The Vendor must provide service requests for any changes to the infrastructure and/or middleware required by the Vendor to support the Solution.	Yes	
I3.4	The Vendor must manage all COTS software that is part of the IE-BM Solution	Yes	
I3.5	The Vendor must provide deployment scripts and procedures to allow a 3rd party to perform deployment of development/configurations to any of the environments	Yes	

13. Technical Environment Spec

Req #	Requirement Description	Requirement Met	Vendor Proposed Clarifying Comments
13.6	<p>When functionality is ready to be delivered to DHS for User Acceptance Testing (UAT), the Vendor must deliver the Solution in the form of a pre-production release (defined as ready for production in every respect but just not yet in production). The pre-production release is equivalent to a production release and requires the rigor associated with a production release including a Pre-Production Release Plan.</p> <p>Each pre-production release will include the following:</p> <ul style="list-style-type: none"> a. Release-specific hardware and software System components b. Release description including architecture or design updates, new functionality introduced, defects fixed, modifications to interfaces with other systems, other changes to existing code, and any software and hardware configuration changes c. Release contents including a description of the release structure and contents and instructions for assembling and/or configuring the components of the release d. Test Plan and test execution results e. Detailed hardware and software configuration information including any software and hardware dependencies and instructions at a level of detail that will enable administration staff to rebuild and configure the hardware environment without outside assistance f. Database documentation conforming to industry standards g. Detailed configuration information for any 3rd party hardware and software h. Detailed step-by-step, hour by hour, deployment instructions i. Deployment scripts that need to be run as part of the step-by-step instructions j. Contingency Plan including timelines with key milestones when different contingencies are no longer an option (e.g. rolling back) 	Yes	
13.7	<p>Upon successful completion of UAT, the Vendor must create a Production Release Plan that will consist of an updated Pre-Production Release Plan. It must include, but not be limited to, the following components:</p> <ul style="list-style-type: none"> a. Updated Configuration Information required satisfying the System production configuration management requirements b. Updated System Architecture c. Updated Detailed Design, including detailed system, technical, and user documentation d. Deployment schedule e. Backout plan (complete/incremental) 	Yes	
13.8	<p>The Vendor must Transition ownership of all Solution environments specifications to the State M&O team or State contracted M&O team during Project close out.</p>	Yes	

Solution Design, Development and Implementation (DDI)

Req #	Requirement Description	Requirement Met	Vendor Proposed Clarifying Comments
I4.1	The Vendor must develop each of the Solution Design, Development and Implementation Deliverables outlined in the RFP. These will be reviewed and formally approved by DHS staff, to be identified by DHS, through the process outlined in the Project Management Plan. The Vendor shall complete these deliverables in compliance with the Project Schedule and complete the deliverables approval process (e.g., invoice) in a timely manner as agreed to in the final Contract.	Yes	
I4.2	Support DHS staff in their review and approval of all of the Solution Design, Development and Customization DEDs and Deliverables outlined in the SOW.	Yes	
I4.3	Develop a plan to conduct interviews, Usability Studies, group workshops and surveys to refine the requirements.	Yes	
I4.4	Support DHS in identifying all the staff with the required business knowledge attend the workshops.	Yes	
I4.5	Perform usability studies with end users, Clients or Service Providers	Yes	
I4.6	Coordinate and facilitate workshops with DHS' users to develop the detailed design based on the Use Cases and Functional Requirements.	Yes	
I4.7	Maintain the Use Cases captured in the BPA. All changes must be reviewed and approved by DHS.	Yes	
I4.8	Support DHS staff in their review and approval of any changes to the Use Cases and Functional Requirements.	Yes	
I4.9	Drive to support the in-scope functionality leveraging the COTS packages. Perform detailed gap analysis to identify any custom development required.	Yes	
I4.10	Develop and document the Detailed Functional and Technical Design including detailed documentation regarding business rules.	Yes	
I4.11	Incorporate feedback provided by the DHS staff on the Detailed Functional and Technical Design while the documents are being developed.	Yes	
I4.12	Support the DHS staff in their review and approval of the Detailed Functional and Technical Design documents.	Yes	
I4.13	Based on the Organizational Assessment and detailed design, develop a Security Matrix which defines the Security profiles and identifies the roles and permissions each user will receive.	Yes	
I4.14	As part of the detailed design, define the specific reports required and identify opportunities to consolidate reports into ad-hoc, parameter driven reports.	Yes	
I4.15	Perform all necessary configuration, development and unit testing required to implement the functional and technical design.	Yes	
I4.16	Incorporate feedback from DHS staff on all DDI activities.	Yes	
I4.17	Provide tools to manage the version control on software configurations and custom development.	Yes	
I4.18	Support discussions with external and internal data source staffing teams.	Yes	
I4.19	Facilitate design sessions required in support of the development of interfaces to external and internal data sources.	Yes	
I4.20	Develop a detailed plan for each interface with support from the external system resources. These will include, at a minimum, the technical approach, tasks required (including development and testing timing and approach), design documentation, data format and support approach.	Yes	
I4.21	Perform all necessary design, configuration, development and unit testing activities required to implement the interfaces.	Yes	

I4. Design, Develop & Implement

Req #	Requirement Description	Requirement Met	Vendor Proposed Clarifying Comments
I4.22	Provide input and conform to the direction for DHS Enterprise architectural standards.	Yes	
I4.23	Lead architecture and design discussions including identifying components and services that should be shared across the DHS enterprise.	Yes	
I4.24	Participate in architecture and design discussions to identify potential components and services that can be shared with other systems using the IE-BM Solution.	Yes	
I4.25	Analyze and present decision reports on what services should be exposed as shared services across the entire platform.	Yes	
I4.26	Develop components and services that DHS deems to have the potential to be shared across other systems so that they will be available and have adequate documentation.	Yes	
I4.27	Apply consistent development standards for all development work as described in the Vendor's SDLC approach including coding, database and field naming conventions.	Yes	
I4.28	Provide DHS access to both source/object codes for software components and documentation.	Clarification	Yes, we will provide this for any custom development and configurations. This is not possible for some COTS Original Equipment Manufacturer (OEM) products that make up the AR IE-BM Solution, but we will provide all documentation necessary for proper usage, maintenance and enhancements.
I4.29	Perform code reviews to ensure customized software and interfaces comply with coding standards to reduce defects	Yes	
I4.30	Support the DHS staff in reviews of documentation and code to ensure the solution is conforming to the IE-BM standards.	Yes	
I4.31	Provide DHS with well documented, readable source code and object (executable) code, documentation for all functionality developed by the Vendor outside of COTS configuration. All new software functionality built on top of COTS software will be owned by DHS.	Yes	

I4. Design,Develop & Implement

Req #	Requirement Description	Requirement Met	Vendor Proposed Clarifying Comments
I4.32	Provide DHS with well documented readable source code and object (executable) code, and documentation for all COTS functionality and escrow of source code for the custom developed and/or integration related code. All new software functionality built on top of COTS software will be owned by DHS.	Clarification	Yes, Optum will deposit the following materials with a third party escrow agent: (1) source code and object (executable) code for the custom developed and integration related code, and (2) for any COTS product, Optum will deposit object code (i.e., the medium necessary to reinstall that version as part of the IES platform). Updated deposits to these escrowed materials shall be made periodically during the term of the Agreement. Optum will also place in escrow one (1) paper copy and one (1) electronic copy of all available documentation for the deposited materials. All new software functionality that is custom developed and paid for by DHS that is built on top of COTS software will be owned by DHS. The escrow agreement will provide industry standard terms for release of such escrowed material.
I4.33	The Vendor shall deposit into escrow the Software source code, together with any subsequent updates to the source code as and when they become available, and DHS will have the right to access the Software source code upon the occurrence of an Insolvency Event, in which case DHS may continue to use the Software for the remainder of the Term or the Renewal Term, as the case may be.	Yes	
I4.34	Conduct and provide the results of a security risk and impact assessment prior to releasing the solution into UAT in alignment with NIST 800-30 guidance methodology and certify that the CWE/SNAS Top 25 Most Dangerous Software Errors (http://cwe.mitre.org/top25) have been mitigated (and document the mitigation).	Yes	
I4.35	Complete all required State and Federal security documents including, but not limited to, System Security Plan, Risk Assessment and Contingency Plan.	Yes	
I4.36	Get authorization from DHS for the use of production System resources (e.g., source files), or data derived from DHS' production resources.	Yes	
I4.37	Follow the process and procedures defined by DHS or its designee with respect to use of all shared technical and business services and components.	Yes	
I4.38	Complete all required State and Federal security documents including, but not limited to, System Security Plan (SSP), Risk Assessment (RA), and Contingency Plan (CP).	Yes	
I4.39	Provide and implement Application Life-Cycle Management to manage requirements through the entire SDLC process.	Yes	

15. Data Conversion

State of Arkansas Department of Human Services
 Integrated Eligibility and Benefit Management (IE-BM) System
 RFP #: SP-17-0012
 Template T-10 - Implementation Requirements Traceability Matrix

Volume 1 - Technical Proposal

Data Conversion

Req #	Requirement Description	Requirement Met	Vendor Proposed Clarifying Comments
Data Conversion and Migration			
I5.1	Develop each of the Data Conversion and Management Deliverables outlined in the SOW. These will be reviewed and formally approved by DHS staff, to be identified by DHS, through the process outlined in the Project Management Plan. The Vendor shall complete these deliverables in compliance with the Project Schedule and complete the deliverables approval process (e.g. invoice) in a timely manner as agreed to in the final Contract.	Yes	
I5.2	Migrate data from the identified source systems (as detailed in the SOW) ensuring no duplicate records, standardized demographic information and other items required to ensure the DHS IE-BM Solution reflects one accurate record for each client/individual/family, in alignment with DHS' data standards.	Yes	
I5.3	Support DHS staff in the review and approval of all of the Data Conversion and Data Management DEDs and Deliverables outlined in the SOW.	Yes	
I5.4	In alignment with the Data Conversion Plan, develop procedures for converting data from legacy systems.	Yes	
I5.5	In alignment with the Data Conversion Plan, develop scripts to automatically convert high volume data objects.	Yes	
I5.6	Lead data conversion activities including developing a schedule for all data mapping and conversion activities including DHS resources.	Yes	
I5.7	Except when DHS input is required, perform data conversion, mapping and loading.	Yes	
I5.8	Perform data testing and validation and provide tools to DHS to confirm the data testing results.	Yes	
I5.9	Perform and pass, at a minimum, one trial data conversion prior to UAT using a full or partial dataset as determined by DHS during planning phase.	Yes	
I5.10	Support the review and approval of data conversion testing results	Yes	
I5.11	Acquire authorization from DHS for the use of production System resources (legacy data or source files), or data derived from the State's production resources.	Yes	
I5.12	Coordinate all automated and manual data loads during data conversion testing and UAT.	Yes	
I5.13	Provide a data dictionary, data models, data flow models, process models and other related planning and design documents to DHS.	Yes	
I5.14	Ensure data dictionary, data models, data flow models, process models and other related planning and design documents are in alignment with DHS standards	Yes	
I5.15	Be an active member on the data governance body and adhere to the data governance standards established by the governance body.	Yes	

I5. Data Conversion

Req #	Requirement Description	Requirement Met	Vendor Proposed Clarifying Comments
I5.16	Provide tools to minimize manual effort required to convert data from the legacy solution and/or synchronize the data between the initial release and the retirement of legacy care management systems (assuming the new System is implemented in multiple releases).	Yes	
I5.17	Provide tools to help data conversion by identifying common error conditions (e.g. duplicate records) and minimizing manual effort during the data conversion and migration process by automating where possible the corrective action process (e.g. merging duplicate records).	Yes	
I5.18	If the Vendor selects not to use DocuShare as their CRM, the Vendor must migrate all existing documents from DocuShare to the new CRM solution	Yes	

Testing Requirements

Req #	Requirement Description	Requirement Met	Vendor Proposed Clarifying Comments
Test Planning			
16.1	Develop each of the Testing Deliverables outlined in the SOW. These will be reviewed and formally approved by DHS staff, to be identified by DHS, through the process outlined in the Project Management Plan. The Vendor shall complete these deliverables in compliance with the Project Schedule and complete the deliverables approval process (e.g. invoice) in a timely manner as agreed to in the final Contract.	Yes	
16.2	Support DHS staff in review and approval of each of the Testing DEDs and Deliverables outlined in the SOW.	Yes	
16.3	Participate in check-point meetings including testing phase entrance and exit gates and provide relevant information for DHS to make informed decisions to migrate into/out of specific testing phases.	Yes	
16.4	Ensure schedule accommodates for the provision of the required test data for each testing cycle and produce a de-identified test data set.	Yes	
16.5	Refine the test documents, procedures, and scripts throughout development and through full System acceptance to reflect the as-built design and current requirements.	Yes	
16.6	Run validation and testing software against externally facing Internet applications to help identify potential security issues, and must agree to repair any deficiencies found during this testing.	Yes	
16.7	Support DHS staff in evaluating test results.	Yes	
16.8	Testing must include testing of time-sensitive elements. As System events contain date and time-sensitive elements, the testing infrastructure must provide a method of altering and synchronizing the System date throughout each test phase. This requires the ability to change the System date and time in some scenarios.	Yes	
16.9	Provide and leverage a testing tool/test harness which supports automated regression testing and other testing functions.	Yes	
16.10	Develop test plans for each testing cycle including entrance and exit criteria, approach to defect management, progress tracking.	Yes	
16.11	Develop test scripts covering all of the functionality included in the release for each testing cycle in collaboration with DHS.	Yes	
System Integration Testing - SIT (pre-User Acceptance Testing)			
16.12	Manage each test cycle up to UAT, tracking progress and producing progress and quality reports.	Yes	
16.13	Execute the test scripts and provide testing results for all test cycles except UAT with minimal assistance from DHS. Prior to being promoted to UAT, the test scripts must pass with user security/permissions enabled (aligned with the Security Plan).	Yes	
16.14	Provide and use a defect tracking tool to track progress in resolving identified defects.	Yes	

Testing Requirements

Req #	Requirement Description	Requirement Met	Vendor Proposed Clarifying Comments
16.15	Resolve all defects identified during testing.	Clarification	
16.16	Re-test a test script in its entirety (and associated test scripts) when a failure occurs at any stage of testing (e.g., a failure in Acceptance Testing that necessitates a code change will require the component to go back through Unit Testing, Integration Testing, and so forth).	Yes	
16.17	Develop a suite of automated regression test scripts to automate regression testing for the entire Solution, leveraging the test harness.	Clarification	Yes, we will automate regression testing to the extent possible; however, some regression testing may need to be manual due to the type of testing or timeframe required. In some cases, manual testing may result in faster results and assist the project team to remain on schedule.
16.18	Execute the automated regression test scripts prior to submitting the changes to the pre-production environment for UAT and report results.	Yes	

Testing Requirements

Req #	Requirement Description	Requirement Met	Vendor Proposed Clarifying Comments
User Acceptance Testing - UAT (pre-production testing)			
16.20	Vendor must support DHS staff or another DHS appointed contractor in developing UAT test scripts including developing test data sets.	Yes	
16.21	Support the testing environment throughout the UAT cycle including, but not limited to, creating the dataset, resetting the data to support re-running of test scripts	Yes	
16.22	Provide staff to DHS to answer questions and address any problems that may arise during testing conducted by the State.	Yes	
16.23	Develop performance and security testing scripts and lead testing effort	Yes	
16.24	Support DHS in performing end-to-end testing.	Yes	
16.25	Schedule time for Federal review of the test results both Pre-UAT and Post-UAT (e.g. before the Pilot).	Yes	
16.26	Conform to all Federal testing guidelines and develop reports and supporting materials required to pass any required or requested Federal review of the testing results.	Yes	
16.27	Execute the automated regression test scripts as required to ensure changes to other components on the DHS IE-BM Solution do not break the intended functionality.	Yes	

Organizational Change Management (OCM), Training (T), and Knowledge Transfer (KT)

Req #	Requirement Description	Requirement Met	Vendor Proposed Clarifying Comments
General Requirements			
17.1	The Vendor must develop each of the Organizational Change Management, Training and Knowledge Transfer Deliverables outlined in the SOW. These will be reviewed and formally approved by DHS staff, to be identified by DHS, through the process outlined in the Project Management Plan. The Vendor shall complete these deliverables in compliance with the Project Schedule and complete the deliverables approval process (e.g. invoice) in a timely manner as agreed to in the final Contract.	Yes	
17.2	Support the DHS staff in the review and approval of Change Management, Training and Knowledge Transfer DEDs and Deliverables outlined in the SOW.	Yes	
17.3	During the detailed design phase, identify the level of process change that will occur and use this information to drive the Change Management, Knowledge Transfer and Training plans and activities.	Yes	
17.4	Provide a software tool(s) that supports the generation, presentation and maintenance of on-line trainings, captures attendance and other features required to meet the on-line and off-line training requirements captured in the RFP package	Yes	
17.5	Support the training environment including, but not limited to, providing training data sets and providing procedures to reset the training environment.	Yes	
Organizational Change Management			
17.6	Lead and perform Change Management activities throughout the Project and provide a Change Management framework including communications targeted at specific stakeholders (e.g. type of end-user, supervisors, executives), surveys, etc.	Yes	
Training Planning and Development			
17.7	Produce all required training materials to address training needs identified through the initial analysis. This will include, but may not be limited to, instructor lead classroom training, on-line trainings, workshops, training manuals and interactive trainings.	Yes	
17.8	Produce all help files including interactive on-line help files targeted at System users.	Yes	
17.9	Support the DHS staff in the review and approval of all training plans and material.	Yes	
17.10	Provide DHS a training course outline and schedule for review and acceptance at least two months prior to the beginning of scheduled training.	Yes	
17.11	Submit all training packages to DHS for review and acceptance at least one month prior to the beginning of scheduled training.	Yes	

17. OCM-Training-KT

Req #	Requirement Description	Requirement Met	Vendor Proposed Clarifying Comments
17.12	Schedule all training during regular work hours as approved by DHS, unless the Vendor receives advance approval from the State for specific training at other times.	Yes	
17.13	Provide all training within the State of Arkansas, at locations convenient to the attendees of the training, unless the Vendor receives advance approval from the State for specific training at other locations.	Yes	
17.14	Schedule staff training in a manner that is least disruptive to the normal business operations.	Yes	
17.15	Track staff attendance at the training sessions.	Yes	
17.16	Prior to completing training sessions, survey the end-users, super users and support staff to validate adequate training/knowledge transfer has been performed. Any identified gaps will be addressed before formal Release close out.	Yes	
17.17	Provide web based trainings/CBTs including in course progress quizzes to ensure trainees understand the material prior to proceeding.	Yes	
17.18	Produce training data set to be deployed to the training environment along with deployment instructions to the DHS.	Yes	
17.19	Train the State's training team and hand off materials	Yes	
Knowledge Management			
17.20	Identify the level of knowledge transfer required between the Project team and the operations team (M&O, super users and support teams) to support, maintain and operate the System as well as the skill sets necessary, with DHS' agreement.	Yes	
17.21	Based on the initial assessment, perform Knowledge Transfer activities throughout the Project and measure progress.	Yes	
17.22	Coordinate with DHS throughout the project lifecycle to ensure that DHS staff is available in a timely manner for knowledge transfer activities.	Yes	
17.23	For the duration of the Project, provide training to the technical/operations team on any System changes/changes in System components functionality/architecture.	Yes	

Pilot, Roll-Out and Go-Live Requirements

Req #	Requirement Description	Requirement Met	Vendor Proposed Clarifying Comments
General			
18.1	The Vendor must develop each of the Deployment/Roll-Out Deliverables outlined in the SOW. These will be reviewed and formally approved by DHS staff, to be identified by DHS, through the process outlined in the Project Management Plan. The Vendor shall complete these deliverables in compliance with the Project Schedule and complete the deliverables approval process (e.g. invoice) in a timely manner as agreed to in the final Contract.	Yes	
Pilot Program			
18.2	Provide input into the development of the pilot program including identifying the scope, participants and timeline.	Yes	
18.3	Manage the Pilot Program and collaborate with FNS and DHS throughout the process	Yes	
18.4	Identify and track all issues identified during the pilot.	Yes	
18.5	Address issues identified during the pilot.	Yes	
18.6	Lead check-point meetings including entrance and exit gates and provide relevant documentation and results to help DHS make informed decisions to migrate into/out of the pilot.	Yes	
18.7	Develop reports and supporting materials required to pass any required or requested Federal review of the pilot results. This must be in compliance with Title 7 for 277.18(g)(2)(ii) "Prior to statewide rollout of the system there must be a test of the fully operational system in a live production environment. Pilots must operate until a state of routine operation is reached with the full caseload in the pilot area. The design of this pilot shall provide an opportunity to test all components of the system as well as the data conversion process and system performance. The duration of the pilot must be for a sufficient period of time to thoroughly evaluate the system and must be at least three months in duration. The State agency must provide documentation to FNS of the pilot evaluation. FNS approval to implement the system more broadly is a condition for continued FFP"	Yes	
Go-Live/Roll-Out			
18.8	Assess the pre-implementation readiness of each part of the organization and document the status in a pre-implementation readiness assessment.	Yes	
18.9	Develop the roll-out plan.	Yes	

Pilot, Roll-Out and Go-Live Requirements

Req #	Requirement Description	Requirement Met	Vendor Proposed Clarifying Comments
18.10	Manage the roll-out including, but not limited to, providing additional support to new user groups and enabling security access.	Yes	
18.11	Provide input into check-point meetings to assess health of the roll-out and decide if changes are required.	Yes	
18.12	Provide post release support (for each release), up to the contracted time period, after the System has been rolled out to all users, resolving go-live issues, defects and enabling a smooth transition to ongoing M&O support processes.	Yes	
18.13	As part of Project close out activities, update all documentation and assist in the smooth transition to the M&O team.	Yes	
18.14	Collaborate with DHS to update the DHS IE-BM Solution M&O documentation.	Yes	
18.15	Assist in developing the Maintenance and Operations documentation including, but not limited to the following: a. Maintenance and Operations Plan b. Staffing Requirements c. System Maintenance Procedures d. Support Plans and Processes	Yes	

Warranty Support

Req #	Requirement Description	Requirement Met	Vendor Proposed Clarifying Comments
Warranty and Steady-State			
I9.1	Integrate Warranty Support into M&O activities.	Yes	
I9.2	Follow the processes outlined in the M&O Plan to resolve any defects identified after go-live for a pre-determined length of time. These fixes will be completed at no cost to DHS. A defect is defined as the System not conforming to the specifications documented as part of the Project.	Yes	
I9.3	Provide warranty support for 12 months after all of the System functionality has been rolled out to all users, from the date of each release.	Yes	
I9.4	Provide transition support at the end of the term of the Contract.	Yes	

Implementation Service Level Requirements

I10-1 - Scheduled Deliverable		Requirement Met	Proposed Liquidated Damages Amount
SLR Description/Objective	To avoid costly delays, all deliverables must be approved according to the baseline schedule	Yes	
Target	100% of all deliverables are approved on schedule		
Measurement	Date approved - planned approval date (captured in the baseline schedule)		
SLA Reporting Period	per deliverable		
SLR Measurement of Non-Compliance	per day the deliverable is late		

I10. Implementation SLRs

I10-2 - Deliverable Quality		Requirement Met	Proposed Liquidated Damages Amount
SLR Description/Objective	The deliverables submitted to DHS for review should be to a quality standard that allows for one DHS review, one update and approval	Yes	
Target	100% approved within 2 review cycles		
Measurement	Each review cycle required beyond 2 cycles		
SLA Reporting Period	per deliverable		
SLR Measurement of Non-Compliance	per review cycle		

I10. Implementation SLRs

I10-3 – Benefit Payment Accuracy		Requirement Met	Proposed Liquidated Damages Amount
SLR Description/Objective	The benefits match rate (benefits to be paid by the new system as compared to benefits that would have been paid out of the legacy system) must be 100%	Yes	
Target	100% of client payments must be to the same client and for the same amount (excluding explainable differences) both before going live and immediately after going live		
Measurement	Each payment		
SLA Reporting Period	Twice - immediately prior to go-live (projected) and immediately after go-live		
SLR Measurement of Non-Compliance	# of payments made to the incorrect person and wrong amount		

I10. Implementation SLRs

I10-4 - Additional Vendor Proposed SLRs	Requirement Met	Proposed Liquidated Damages Amount
<p>Additional Vendor Proposed SLRs</p>	<p>To help the State in managing a more robust performance based contract, vendors are highly encouraged to propose additional SLRs. Vendors can add additional rows below, in this Section I10-4, to propose any additional SLRs.</p> <p>These additional SLRs will be evaluated by the State as part of Value added services provided by the vendor, during the proposal evaluation and selection process.</p>	<p>Yes</p>

Template T-11
Implementation Requirements
Approach
Response Template
RFP #: SP-17-0012

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Implementation Requirements Approach

The Vendor should provide a narrative overview of how the System will meet the Integrated Eligibility and Benefits Management (IE-BM) Project Implementation (SDLC) requirements. The following questions pertaining to Implementation should be answered by the Vendor.

While responding, the Vendor should reference the IE-BM SOW as well as all other documentation provided as part of the Procurement Library, to gain an overall understanding of the current application and infrastructure environment and future DHS vision.

Please use these response sections to provide specific details of the proposed approach to meeting DHS requirements in each area. Responses should, when necessary, reference requirements using the appropriate RFP Requirement Numbers from Template T-10 – Implementation Traceability Matrix.

Responses for the M&O Requirements Approach should be highly focused on the specific requirements and must not simply provide generic or marketing descriptions of technology or product capabilities. Also, include one (1) or more diagrams where necessary that detail the proposed design and the relationships between key technical components.

1.0 Approach to Managing the Project

The Vendor should ensure that the responses to this section are in alignment with the requirements set forth in Template T-10 – Implementation Requirements Traceability Matrix, Section I1.

As outlined in T-10 Section I1, Optum meets all of the 47 listed requirements. We have answered each of these with a “Yes” and without any clarifying comments. The Optum approach to managing projects mirrors our corporate core values of integrity, compassion, relationships, innovation and performance, all working together to make the health care system work better for everyone. Our success in project management has been demonstrated previously with DHS and the Division of Medicaid through our successful implementation, management, and operation of the Arkansas Medicaid Enterprise (AME) Decision Support System (DSS), Fraud and Abuse Detection System (FADS) and Program Integrity Services.

Our dedication and sole focus on health and human services differentiates our approach to managing projects from the traditional system integrator. While Optum has extensive experience with more than 40 state clients and over 20 years of experience in effective program and project management using our Optum Delivery Model (ODM), we are sized for nimbleness, flexibility and adaptability. As such, we place a premium on our ability to build strong, trusting relationships that lead to a collaborative and innovative working environment. Furthermore, it is our fundamental belief that the most effective way to forge such trusting relationships is through our relentless commitment to deliver quality and performance to our clients and to the health care industry.

In Section 1.1, we will introduce you to the ODM and will illustrate how we have woven our core values into the fabric of our project management philosophy and methodology. You will learn that while ODM is based on the solid fundamental underpinnings of the Project Management Institute (PMI) Project Management Body of Knowledge (PMBOK) and uses industry standard processes and procedures, our commitment to Agile-based delivery affords us the flexibility to adapt those processes and procedures to align with those of DHS, thus creating an Integrated Delivery Model.

You will see how our approach to Relationship Management, as described in Section 1.7, works in unison with our approach to Quality Management (Section 1.4), resulting in a refreshingly innovative approach to Risk and Issues Management, as described in Section 1.2. You will read about our work with other customers where our trusted relationships and quality performance enabled us to drive toward a zero-dollar change control mentality.

Section 1.4 also describes how our quality assurance processes drive our commitment to performance and innovation through the use of industry standards such as the MITA framework and MITA Maturity Model. You will see how our approach to planning, designing, and obtaining approval for your IE Business Architecture (BA) aligns with your current practice. You will also see how our innovative approach extends your current practice to leverage the MITA Business Process Template (BPT) and the Business Capability Matrix (BCM).

Finally, we conclude our discussion of our Approach to Managing the Project with a brief glimpse of how our Agile-based project management approach drives our adoption of continuous integration and continuous build and test practices. While the marriage of our Agile-based ODM and our SDLC is introduced here, it sets the recurring theme throughout the entire T-11 document: our approach to delivering world-class health care initiatives is refreshingly different than the traditional system integrator.

1.1 Project Management

The selected Vendor shall agree to follow project management methodologies that are consistent with the PMI's PMBOK Guide. The Vendor Project Manager will be held responsible for establishing and managing to these standards throughout the Project.

The DHS Project Manager or delegate shall supervise the Vendor's performance to the extent necessary to ensure that the Vendor meets performance expectations and standards as it relates to effective project management.

The Vendor should provide a narrative overview of how the proposed System will meet DHS' requirements. The following information pertaining to project management methodology should be provided.

This section should include detail sufficient to give DHS an understanding of how the Vendor's knowledge and approach will assist them to effectively:

- Manage the Project
- Guide Project execution
- Document planning assumptions and decisions
- Facilitate communication among stakeholders
- Define key management review as to content, scope and schedule

Instructions: Describe the Vendor's project management methodology, tools and techniques that will be used to support the Project from initiation through M&O which addresses DHS' business needs including deployment of the new System, and support of the System throughout its lifecycle. Describe policies and procedures employed to ensure the timely completion of tasks to a level of quality expected of a professional firm.

This response addresses requirements I1.1-1.4, 1.7-1.9, 1.17, 1.24-1.27, 1.30-1.33, 1.39 and 1.40-1.45 in Tab 11 of the Implementation Requirements Traceability Matrix.

Overview

Optum has extensive experience with more than 40 state clients in effective program and project management and execution using the ODM, our Project Management Institute (PMI) aligned, Agile-based project management methodology. Our program and project management framework features a comprehensive approach to strategy alignment, process optimization, quality assurance and management of contract performance.

An output of the ODM is the Project Management Plan (PMP), which defines the governance structure that enables us to effectively manage the project and guides project execution. We use formal procedures modeled after internationally recognized standards as discussed later in this section. We understand that DHS has an established Program Management Office (PMO) with defined project management standards, templates and processes. Our on-site AR IE-BM management team will coordinate with the DHS PMO to align our program and project management processes and procedures with those of DHS. This alignment will create a fully integrated PMP and delivery model.

We will work with the DHS PMO to develop approved performance management measures. These measures will provide visibility into the status and health of the project and define gates for key management reviews of content, scope and schedule. Regular status meetings and reports will make sure DHS participates in key management reviews of all deliverables and changes to project scope and schedule. Throughout the project, we will work with you to define how we can best facilitate communication among stakeholders as well.

The sub-plans we provide as part of the PMP will help us define how we manage the project, guide execution, document assumptions, facilitate stakeholder communication and define key management reviews throughout the duration of the project as required in Requirement I1.5. For example, the Project Communication Management Plan will facilitate communication between stakeholders. The plan will describe methods of communication between DHS, Optum and other project stakeholders. It will address communicators, audiences, messages, communication channels, feedback mechanisms and message timing and create a mapping between them.

The following sections describe our project management approach, methodology and deliverables as outlined in the Statement of Work in more detail.

Project Management Methodology

Using an integrated delivery model we will apply proven project management principles required for appropriate management, monitoring, documentation, traceability and communication for the AR IE-BM Solution. We based our systematic, mature and measureable project management methodology on the PMI PMBOK Guide (which aligns with the DHS methodology), and the Carnegie Mellon Software Engineering Institute (SEI) principles described in the Capability Maturity Model Integration (CMMI) framework. Optum also adheres to American National Standards Institute (ANSI) and Information Technology Infrastructure (ITIL) standards where applicable. As evidence of our proven processes, we were awarded PMI recognition in partnership with the Department of Health Care Services (DHCS) in California for applying the use of a standard overarching project plan that governed many sub-projects and vendors.

We will implement an integrated PMP for the AR IE-BM that defines a project management approach and governance structure to manage and execute the project that is agreed upon by the DHS PMO and that focuses on the following six core project management objectives:

1. Staffing projects with the proper mix of personnel who bring the right qualifications to perform all of the required tasks
2. Delivering the solution and required project deliverables on time, within budget and within the agreed upon level of expectation.
3. Implementing project communications and oversight to stakeholders
4. Delivering quality solutions that reduce errors and improve effectiveness
5. Performing appropriate risk management and internal controls
6. Maintaining continuous process improvement through collaboration, surveys and thorough customer communications

Tools

Optum uses a variety of standard tools to facilitate project management activities and maximize the effectiveness of the Optum project manager. Our experienced project management teams are proficient in using industry standard PM tools, such as Microsoft Office, Microsoft Project and the HP Application Lifecycle Management (ALM) as well as Rally ALM tools, to track and manage facets of the project management process. During the project planning process, we will confirm that the versions of our software tools comply with DHS approved standards. Versions include:

- **Microsoft Office:** This suite of tools is used to prepare reports, documentation, spreadsheets, presentations and other documents.
- **Microsoft Project:** This tool is used to develop and maintain the AR IE-BM Project Schedule; and to generate schedule reports for status reporting to DHS.
- **Microsoft SharePoint:** This tool is used to create and maintain a central repository of key project artifacts and information. Optum will use an internal SharePoint site to store working and final documents. DHS will provide a shared SharePoint site for storage of pertinent project artifacts and final deliverables that can be readily accessible by authorized DHS and Optum project personnel.
- **Microsoft Visio:** This tool is used to create technical, architectural or other infrastructure diagrams relevant to the project.
- **IRAAD (Issues, Risks, Actions, Assumptions, and Decisions):** The IRAAD tool is used as a central repository for all identified issues, risks, actions, assumptions and decisions, as well as their current status. Use of IRAAD allows DHS and Optum leadership to have a common understanding of project activities that may affect the project schedule.
- Optum will create and maintain an Excel-based tracking log for this purpose, the Issue/Risk Tracking Log. The log will be stored on the DHS SharePoint site where it will be readily accessible by authorized DHS and Optum project personnel.
- Alternatively, Optum will work with the State to create an online SharePoint IRAAD log (on the DHS SharePoint site) if that is the preferred tool of choice.
- **HP ALM and Rally ALM:** These tools are used for application lifecycle management. They are Web-based tools that enable management of the AR IE-BM Project requirements, test cycles (including cases and results), and defects, with full traceability and reporting capabilities.

- **Deliverable Tracker (automated Optum internal tracker and shared Excel tracker):** These tools track the progress of all contract deliverables from inception to signoff. The shared Deliverable Tracker provides a visual summary of each deliverable, and is a comprehensive resource for project audits.
- **PPM Optics:** This is a project portfolio management tool that Optum uses internally. It enables project resources to track time against the AR IE-BM Project. Data is extracted from this system into financial workbooks that enable us to track and manage our project finances - budget, actual labor costs, projected labor costs and variance.

We will provide continuous operational reporting to DHS in alignment with DHS processes and standards as required in Requirement I1.10. This includes status reports, meeting minutes and other special reports, as requested, as we build the deliverables, perform the tasks and present the final outputs for acceptance.

Project Management Techniques

We will align processes and procedures used in the ODM to those of the DHS PMO. This will assist us in creating an Integrated Delivery Model conducive to achieving successful AR IE-BM Project delivery.

Integrated Project Management and Governance for the AR IE-BM Project

A close partnership with DHS is crucial for meeting program objectives, as well as delivering and maintaining a best value solution. Our partnership approach will enable open communications, promote cooperation and maintain the positive working relationship necessary for success of the AR IE-BM. Our methodology and approach interacts effectively with the overarching project plan, which was developed in alignment with industry project management standards. We will work cooperatively with DHS, the AR IE-BM Project team, the AR IE-BM Project management team, vendors and other stakeholders for the overall success of the project and better outcomes for Arkansans. We use the same methodology with our partners so the entire AR IE-BM portfolio is aligned.

We will partner with you to mutually agree upon and adhere to the integrated project management framework for the AR IE-BM. As part of the implemented PMP, we will develop a Project Communication Management Plan as outlined in Requirement I1.9 that will guide AR IE-BM Project communications. Early in the project, we will meet with you to determine communications requirements and incorporate your feedback in the Project Communication Management Plan. Project communications will include project status reporting, monitoring activities, and the processes required to support appropriate planning, collection, creation, distribution, storage, retrieval, management, control and monitoring activities.

Optum PMO for the AR IE-BM Project

Our PMO will be responsible for promoting and contributing to project governance; managing the implementation effort, Optum finance and contract management; change management; and enforcing the overall project management methodology, policies and procedures as applied to the AR IE-BM Project. Our project manager will manage to our PMBOK-based project management standards throughout the project, with any adaptations required based on DHS governance and input from the DHS PMO. The DHS project director or designee will supervise our work to make sure we perform to project management expectations.

Our PMO is not an additional layer of management, but part of the operational team. Dedicated resources with more than 200 years of combined experience include the following: engagement

director/executive, project manager, PMO lead, integration manager/functional lead, training lead, testing lead, technical lead, architect lead and security expert.

Our PMO team will actively support and monitor the overall status of the project. This team will support the technical and functional teams as they execute their responsibilities. We will be responsible for making sure the project team adheres to established project standards, policies and procedures. The team will also serve as a central collection point for project status, metrics and for overall project status reporting. As we have done on many previous projects, the Optum PMO will also work collaboratively with all stakeholders, including the incumbent vendor, the DHS IV&V vendor and any DHS audit teams.

Figure 1 shows the planning, tracking and administrative activities of the Optum PMO team.

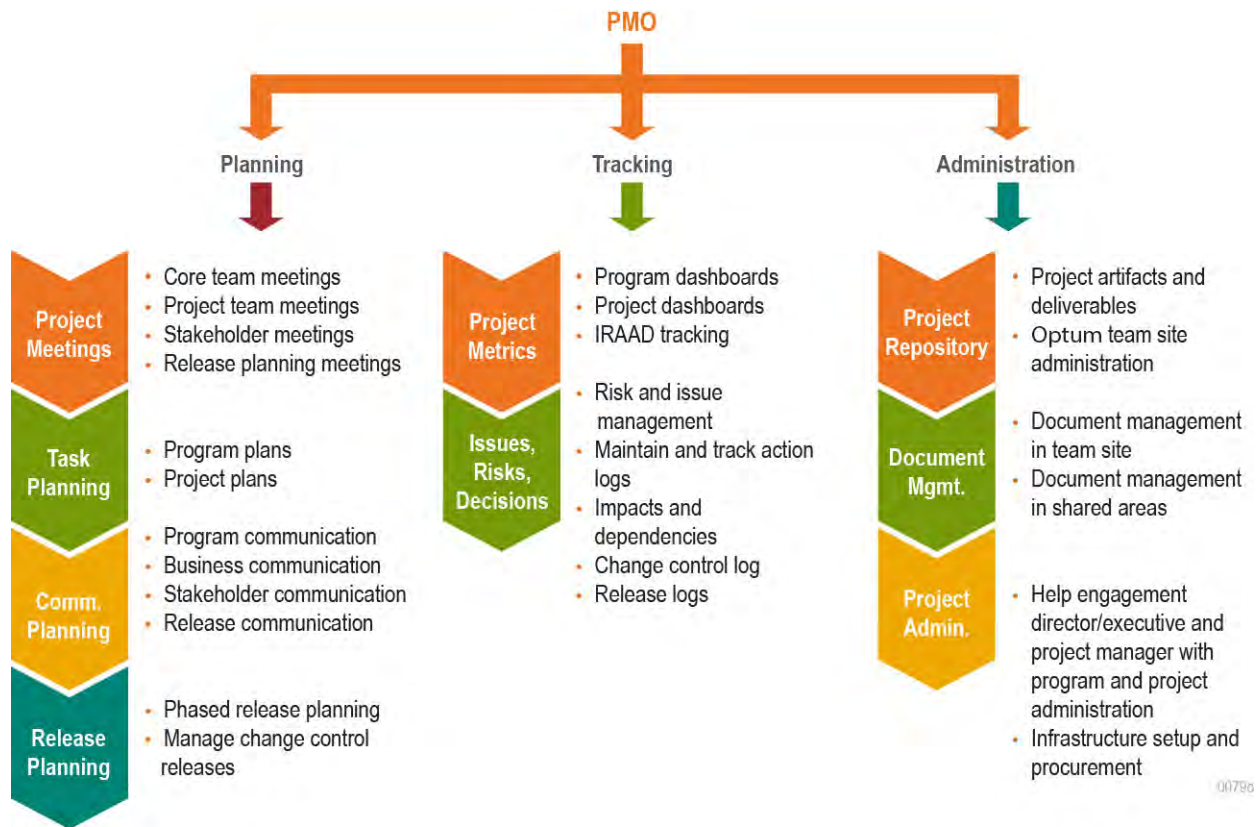


Figure 1. Optum PMO Team Responsibilities.

The Optum PMO team will actively and continuously monitor and manage the AR IE-BM Project.

All staff on the PMO team will receive training on the processes and procedures established for the AR IE-BM Project as well as the COTS packages methodologies and tools as outlined in Requirement I1.7. During all phases of the project, we will work collaboratively with DHS. Our engagement director/executive will serve as the primary point of contact for DHS leadership throughout the engagement.

Project Communication Management Plan

Our organized, open and transparent approach enables our teams to quickly grasp, mitigate and respond to potential issues. In the rapidly evolving health and human services environment, systems and organizations must align closely to provide quick and reliable support. The Project

Communication Management Plan will align with DHS requirements and address those requirements during DDI and Maintenance and Operations (M&O). We are flexible and can suggest various approaches that have been successful with other clients.

For example, the Commonwealth of Massachusetts required an approach that supports the client's broad set of stakeholders and decision-makers. In this case, Optum employed a model that included committees to engage different levels of leadership to prioritize strategic and tactical communications assuring all stakeholders received timely, clear and appropriate information. Optum provided weekly status reports, daily status meetings and release-specific status meetings, and facilitated weekly executive steering committee meetings as required in Requirement I1.11.

In another health care project example, the state required a more flexible model for a more consolidated set of leaders with broad accountability that is similar to Arkansas. This model employed weekly status reports, weekly status and prioritization meetings, as well as on-demand reporting and real-time dialogue to support the State's time sensitive business needs.

We will work with you to define a communication plan that provides regular and frequent communication with DHS and is flexible to make changes as we seek to continuously improve and adjust to changing needs and requirements. Weekly meetings will provide a status update and plan of the week's activities. Optum will lead and collaborate with DHS in regularly scheduled, formal status meetings that will provide a status of activities, scheduled between Optum managers and their DHS partners. Monthly meetings will be held between DHS leadership and the Optum AR IE-BM engagement director / executive to discuss overall project activities and the status of tasks in progress. Our project organization will enable transparent governance and flexible partnership. Our engagement director/executive will facilitate ongoing communications between DHS contacts and the Optum team.

We will work as partners to manage the relationship and expectations by:

- Enabling strategic alignment to the DHS business goals
- Allocating resources to meet business requirements
- Reviewing our approach to new tasks and establishing clear roles and responsibilities for decision-making, issue resolution and service delivery
- Meeting schedules and contractual obligations through service level agreements (SLAs)
- Continuously evaluating performance, user satisfaction and effectiveness
- Providing regular and frequent communication across all DHS stakeholders

Delivery Model

We will implement our best practices-based ODM developed by integrating the PMBOK and Scaled Agile Framework (SAFe) principles. Our delivery model provides a disciplined system development methodology and structure for managing project activities and assessing status. It will facilitate and assess communications with the AR IE-BM Project team. It includes an integrated set of project management disciplines that we adapted to meet or exceed contract requirements.

Our on-site AR IE-BM management team will coordinate with the DHS Program Management Office (PMO) to adapt our program and project management processes and procedures to align with those of DHS, thus creating an Integrated Delivery Model. We will work with the DHS PMO

to develop approved performance management measures that will maintain visibility into the status and health of the project throughout the project lifecycle.

Figure 2 shows our delivery model for the AR IE-BM Project.



Figure 2. Optum Integrated Delivery Model.

Our delivery model aligns with PMI, SAFe and other DHS and industry standards to provide integrated management across all project phases.

Our Optum Integrated Delivery Model will govern each stage of the AR IE-BM Project within the broader overarching project plan. The following describes each stage of our PMI-aligned project management methodology.

Initiation: As we begin the AR IE-BM Project, we will work with DHS and other project stakeholders to clarify project objectives; understand deliverables; set milestones and schedules for all project deliverables, phases and releases; confirm roles and responsibilities; establish clear lines of accountability; and implement a framework for effective project management and control. We will schedule a kick-off meeting within the first thirty days of contract execution, and initial working sessions with DHS and other appropriate stakeholders and members of the Optum team. It will also include any other project stakeholders that you would like us to include. The kick-off meeting will provide a forum for participants to meet each other and establish a common framework for project execution.

Planning: To guide the project, we will create a comprehensive and integrated project management plan (PMP) as shown in Figure 3. The PMP and other planning deliverables will define the agreed upon processes, methods, tools and resources that we will use to manage project activities.



Figure 3. Integrated Project Management Plan.

Our PMP integrates project management processes and data sources into a holistic approach to deliver the AR IE-BM Project.

We will leverage both DHS and our existing library of project planning documents and templates for each of the Project Management Deliverables to kick-start project delivery as required in Requirement I1.2. During planning, we will work with you to tailor the content of the PMP and related planning deliverables to meet your requirements and recommendations. The PMP will also align to our project Work Plan and identify required project deliverables. We include draft versions of the Work Plan in Attachment 3 and PMP in Attachment 4. Also included in Attachment 4 are additional sample draft plans.

We will develop a detailed Microsoft Project schedule (Work Plan) that reflects the phases, tasks, schedule, effort, duration and resources required to complete the project as defined in the RFP. We will base the AR IE-BM detailed project schedule on proven methodology and our understanding of the RFP requirements. It will include key milestone dates, along with critical path analysis to understand tasks that we cannot move without affecting milestone dates.

We will create a detailed project schedule baseline at the end of initial project planning and deliver it to you. We will monitor all variations in schedule against this baseline and will develop recovery plans if necessary to address any deviations from the baseline to meet Requirement I1.17. We will only revise the baseline project schedule through approved change control procedures with appropriate DHS and Optum management. Together, the PMP, detailed project schedule and other planning deliverables will serve as the roadmap to coordinate project activities for timely implementation.

Additionally, we will work with you to develop a deliverable tracker (a snapshot view) that we will use to track the due date, delivery, completion and signoff of all contract deliverables, which will be posted on the DHS SharePoint site. The tracker provides metrics and can provide input to status reports, the project Work Plan, as well as management and executive reporting. The tracker has also proven to be a great reference tool for project audits because it provides a full audit trail for deliverables from contract execution to project closeout to meet Requirement I1.16.

Execution: Using the PMP and project schedule, we will work with you to validate and finalize the project plans, placing the agreed-upon baseline plans under configuration management

control. Our experienced management teams are proficient in using industry standard tools such as Microsoft Project, the HP Application Lifecycle Management (ALM), and Rally ALM tools. We will provide continuous operational reporting to you, including status reports, meeting minutes and other special reports as requested. The Execution and Implementation stages include the Design, Development and Implementation (DDI) of two releases of AR IE-BM functionality. Please refer to proposal Section T14, Work Plan, for a detailed discussion on our proposed DDI delivery schedule. During project execution, we will keep all stakeholders informed with the progress (planned versus actual) with periodic status reviews, as needed, by the engagement. Our experienced project management team has expertise with proactive issues resolution and effective risk mitigation throughout the execution phase.

Control: We continuously monitor and control the progress of all project phases and releases. Our delivery model and tools will enable us to produce metrics, schedules and deliverables to show that we continuously perform to SLA expectations. We incorporate a quality control and auditing into our successful, verifiable approach to monitoring and controlling performance. Our risk, issue and quality management plans result in the generation of quality artifacts to demonstrate project performance. The Optum PMO will update the project Work Plan schedules weekly to reflect the status of the project.

As part of project control activities, the AR IE-BM Project team will prepare and provide weekly and monthly status reports and briefings to you. Both the weekly and monthly AR IE-BM Project status reports will include a dashboard of project health at various levels. We will work with DHS to define standard health measures as well as the project health criteria and definitions (i.e., Red, Yellow, Green) to manage the project through closeout. Figure 4 shows an example of the project health measures we will use.

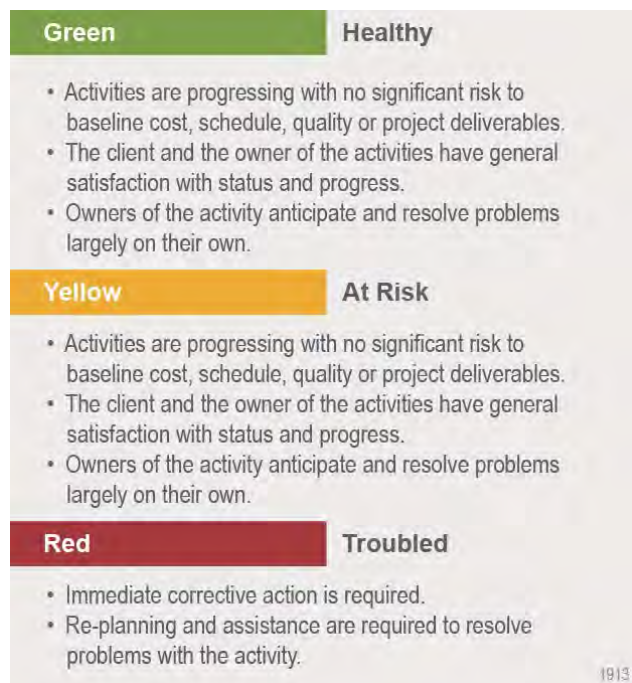


Figure 4. Project Health Status.

Our weekly and monthly AR IE-BM Project status reports will include a dashboard of project health at various levels.

Closeout: We will conduct lessons learned exercises, as appropriate, for each release and review the lessons learned with you during a walkthrough meeting. We will summarize the

results of these meetings in a Lessons Learned Report. We will develop and deliver the report according to your deliverable requirements. Lastly, we will provide a Project Closeout Report deliverable for your review and approval. Proposal Section T14, Work Plan, includes our detailed project schedule for the AR IE-BM.

Sample Artifacts: During planning, we will work with you to review deliverable artifacts and management plans to align them with your expectations and industry best practices.

1.2 Risks and Issues Management

Throughout the Project and M&O phases, DHS will rely upon the identification and mitigation/resolution of risks and issues to manage potential and realized problems. The Vendor must actively contribute to this process in every aspect of its work to anticipate and identify these risks and issues, as well as contribute to the solution of these. The Vendor should provide a description of the Vendor's internal Project issue resolution process including an escalation plan, where the escalation plan includes contact information for each person identified in the proposed problem reporting and escalation procedure and describes the amount of time elapsed before a problem is escalated within its organization

Instructions: Describe the Vendor's risk and issues management approach, including interactions between the Vendor and DHS in this process. Describe any expected risk areas and initial mitigation plans. Include references to the use of any specific methodologies, as well as any specific tools being used.

This response addresses requirements contained in Requirements I1.3, I1.13-1.18 in Tab I1 of the Implementation Requirements Traceability Matrix.

Approach and Methodology

Well-defined risk and issues management is essential to managing requirements and any changes to requirements. Unlike traditional approaches to risk and issues management that rely heavily on change orders to react to and remediate risks and issues, our approach is to leverage our trusted relationship with you to work collaboratively to minimize and progressively reduce exposure to events that threaten accomplishment of the objectives of the project. Advanced planning reduces the likelihood of a risk becoming a reality. As a result, we will work with you to prepare a Risk and Issues Management Plan as part of our overall PMP. DHS and Optum will participate in the risk management process and will be responsible for elevating potential risks to the appropriate project management level.

Key elements of risk management include the following:

- Identify the preferred communication method for risk management activities
- Evaluate the risk level
- Potential cost/value of adverse outcome
- Risk mitigation strategies and, if appropriate, an action plan in the event of adverse action
- Using metrics to determine the effectiveness of mitigation strategies

- Identify the responsible party for implementing mitigation strategies
- Risk assessment and reduction tools
- Risk management tools

As noted in the Tools Section of this document, we will document and manage project risks, issues, decisions and action items assigned to us using our IRAAD tool (Issues, Risks, Actions, Assumptions and Decisions). The SharePoint-based IRAAD tool is a workbook that helps teams and project managers at Optum drive more predictable outcomes by identifying key risk areas across a product or project development initiative.

We will use the change control log, IRAAD log, and a version managed Project Requirements Document as the source of all changes to your requirements. This will have a direct impact on test cases and test execution. All logs and project documentation will be posted on the DHS SharePoint site.

We leverage quality best practices from PMBOK and standards from International Standards Organization (ISO) for all of our work for government agencies. Throughout the AR IE-BM Project, we will monitor routine quality assurance measures to validate that our daily activities adhere to quality guidelines. Our quality processes cover the major processes as defined by PMBOK: quality planning, quality assurance and quality control. We will identify, document and manage gaps in business processes, opportunities for automation and risks to solutions. Figure 5 shows our risk management approach.

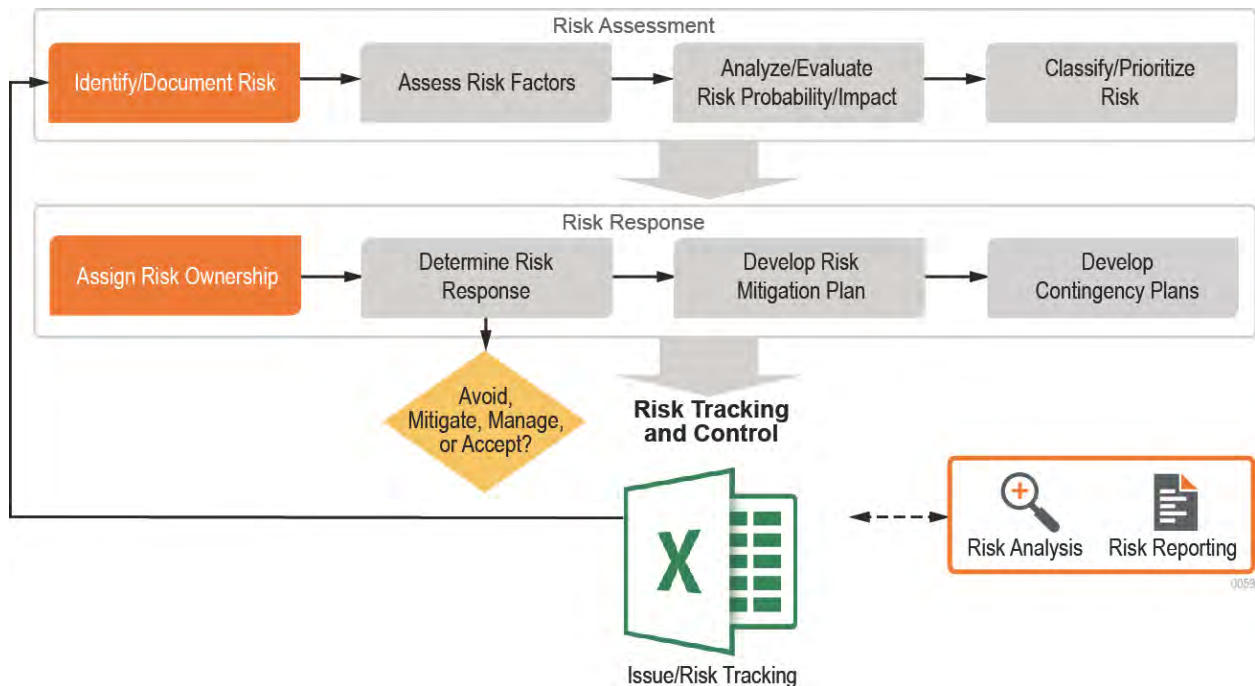


Figure 5. Optum Risk Management Approach.

We will use proven risk management techniques to identify potential problems and issues and provide for contingencies.

Our risk assessment activities involve identifying, documenting, assessing, analyzing, classifying and prioritizing risks. We assign each risk an owner and determine whether we will avoid, mitigate or manage the risk. We work with the State to develop risk mitigation plans and

contingency plans as needed to track, control and report on risks and issues. The Risk and Issues Management Plan describes our risk management approach in more detail.

Interaction with the State

Our Risk and Issues Management Plan will follow the formats you require. We will submit these deliverables, their acceptance criteria, and outlines to you and your stakeholders for review and approval. We will document changes, issues, risks and any defects from early requirements testing and communicate them to you. We will review and collaborate on each risk with DHS to identify risk reduction actions.

Expected Risk Areas and Initial Mitigation Plans

Risks may be identified at any point before or during the project. As a proactive partner, Optum does not expect to encounter specific risks for this project; however, we have identified some potential project risks along with initial mitigation actions in the table below. In general, mitigations may include items such as the following:

- Changes to project scope, schedule or budget
- Changes in technology
- Introduction of new activities in the project plan

We will document, address and resolve or mitigate identified risks without compromising the project’s success. The owner of each risk or issue will track the status of the risk and provide weekly updates as part of our joint status reporting. Risks, issues and opportunities will be tracked until their ultimate resolution and approval. The following table describes potential projected risks. DHS and Optum will work shoulder-to-shoulder to support collaboration and oversight as required in Requirement I1.3.

Table A: Projected Risks and Mitigation Plans

#	Potential Project Risk	Initial Mitigation Plan
1	CMS/Federal requirements may change mid-project	DHS and Optum will assess changing requirements impact on project scope, schedule and budget, and revise implementation strategy as required to meet changing requirements.
2	State is not in agreement on phased implementation strategy.	DHS and Optum will review and discuss current strategy and reasoning, discuss dependencies, and agree on an alternative strategy if necessary (identifying impacts/changes to scope, schedule and budget).
3	Vendor partner cannot meet planned timeline	DHS/Optum team will discuss and determine whether identified roadblocks can be removed or mitigated and assess impacts to scope, schedule and budget. If necessary, an alternate timeline and implementation strategy will be developed.
4	Staffing – selected resources cannot be procured as early as desired	Optum will either find a qualified, alternate internal resource to fill the role short-term or reach out to our vendor partners to procure a qualified, alternate resource to fill the role short-term.

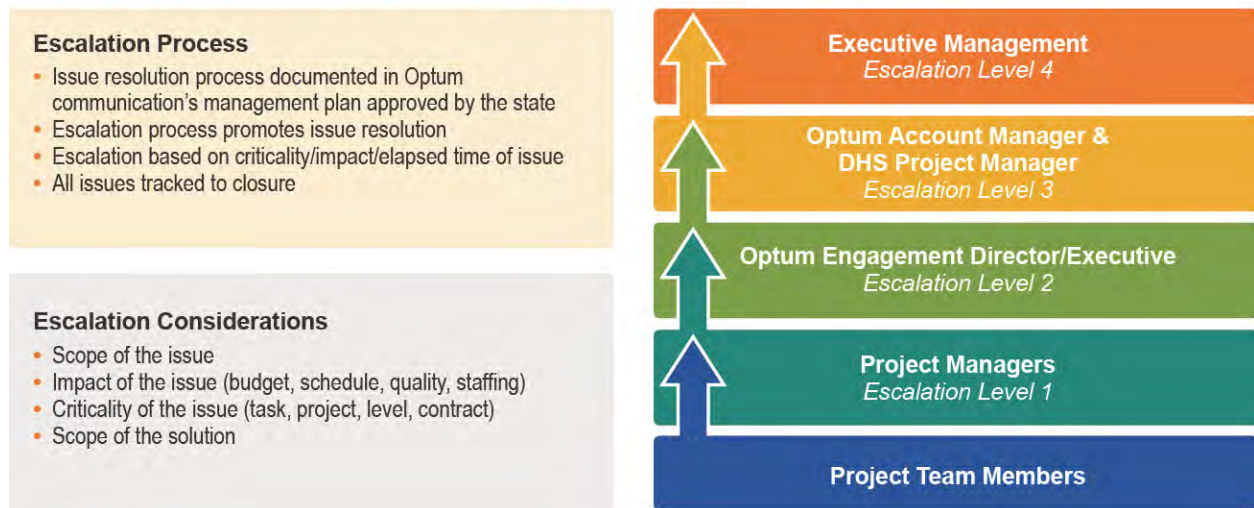
#	Potential Project Risk	Initial Mitigation Plan
5	Insufficient Environments	Because of the current limitation of one test environment used for SIT, Performance Testing and UAT, any defect fixes applied for a production fix must be tested using a non-production release.

Issue Escalation and Resolution Process

Issues may need to be escalated for different reasons. Individuals and groups may disagree on whether an issue exists. They may also disagree on the time it should take to resolve an issue or on the resolution recommended. Our issue escalation process includes defined lines of communication, roles and responsibilities, and span-of-control parameters. Our issue escalation procedures defined in the Risk and Issues Management Plan will define when, how, and to whom we will escalate the issue to the next level.

When necessary, we will involve DHS and Optum executive management to expedite the resolution of mission-critical issues. Optum will partner with DHS to develop the escalation process for the AR IE-BM Project. We will follow this process when conditions and severity of the issue warrant escalation. During the escalation process, our trusted relationship and commitment to performance will play a key role in driving issue resolution. Our approach leverages our collaborative working relationships to drive more cost-effective and innovative resolutions. Traditional escalation approaches rely on change orders to mitigate issues, which can actually increase project risk due to cost escalation and increased schedule pressures. Our AR IE-BM Project team will focus less on the need for change orders and more on our overall quality and commitment to performance. We have used this approach successfully for State health care customers to drive engagements toward a zero-dollar change control model, as appropriate. Figure 6 shows our proposed issue escalation process.

DOCUMENTED ESCALATION PROCESS



0132g

Figure 6. Issue Escalation Process.

Our issue management approach mandates timely communication and proactive monitoring until each issue is resolved.

The escalation process identifies the individuals to contact and the sequence for contacting them to resolve escalated issues. If the originator or owner of an issue is not satisfied with the issue management, attention to resolution, or resolution provided, we may employ the following escalation process:

1. The issue owner will gather the issue-related documentation and clearly document the reason for the escalation. The DHS and Optum staff responsible for the issue will work together to update issue-related documentation. They will also validate that they have executed any necessary corrective action before engaging management in an escalation.
2. The information will be forwarded to the Optum project manager, who will collaborate with the DHS project manager as needed. They will work together to reconcile any differences.
3. If the DHS and Optum project managers are unable to reconcile differences, they will forward the information to the designated DHS and Optum executive sponsors in a timely manner for review. The group will work together to resolve the differences.
4. The Optum engagement director/executive will document the result of the escalation and maintain this information in Issue/Risk Tracking Log.

While most project issues are resolved in a timely manner, some issues require immediate resolution. Unresolved issues will escalate based on criticality of need or elapsed time since initial notification. For these types of issues, the escalation process helps promote resolution and closure.

After an issue is resolved, the engagement director/executive will prepare a closure statement, notify the originator and the DHS project manager, and change the issue status to closed in the Issue/Risk Tracking Log. We will maintain the closure statement for backup documentation. After issue resolution is completed, we will evaluate the issue record for use in the development of lessons learned to prevent issues that may affect the AR IE-BM Project or similar projects in the future.

Tools

Optum will use an Issue/Risk Tracking Log maintained in an Excel spreadsheet to track risks and the associated resolutions. We will work with you to finalize the template. We suggest it contain the following comprehensive information:

- | | | |
|---------------|-------------------|---|
| ■ ID number | ■ State Owner | ■ Risk Probability |
| ■ Status | ■ Optum Owner | ■ Target Resolution Date |
| ■ Priority | ■ Assigned To | ■ Date Closed |
| ■ Category | ■ Description | ■ Risk Response |
| ■ Date Opened | ■ Resolution Plan | ■ Closure Details |
| ■ Title | ■ Impact | ■ Associated Change Request (If Applicable) |

In addition to the Issue/Risk Tracking Log, we will use an industry standard Risk Priority Number (RPN)-based risk model used for assessment and mitigation of all major identified risks. This model will provide objective evaluation and classification of all risks, with a numerical score assigned to each risk based on the project impact and probability of occurrence. Each risk will

also be measured against its influence on project timelines and costs, with timely updates on key risks reported to all stakeholders through comprehensive reporting mechanisms.

1.3 Project Data and Document Management

It will be the Vendor's responsibility to provide the tools and processes to manage the Project data and documents.

Instructions: Describe the Vendor's approach to managing the Project lifecycle and M&O documentation. This should include, at a minimum, a discussion regarding the repository that will be used to store and share Project and M&O documentation, and the approach to ensuring Project team members use the repository, maintaining documents, document security, repository back-up and transition of ownership at the end of the Contract period.

This response addresses Requirements I1.5-1.6, 1.29 contained in Tab I1 of the Implementation Requirements Traceability Matrix.

Managing Project Data and Documentation

We will follow our established project management approach to provide comprehensive and transparent project data and documentation throughout the life of the project. As previously described, we will work together with DHS to review deliverable artifacts and management plans during planning to align them with your expectations.

During planning, we will work with you to develop and deliver a Document Management Plan and a Data Management Plan for the AR IE-BM.

- **Document Management Plan:** This plan will define the process we will use to develop and maintain project documentation and other key project artifacts. It will describe the process we will follow to make these artifacts readily available to authorized users for the AR IE-BM.
- **Data Management Plan:** This plan will define the process we will use to manage program data and records for the AR IE-BM. It will describe how we will maintain data integrity, consistency, accuracy and timeliness of the Arkansas data.

Our approach provides a disciplined delivery methodology and a PMBOK-driven structure for managing project activities and deliverables, assessing status and communicating with you and your stakeholders.

Documentation Repository Maintenance and Security

We will establish a Microsoft SharePoint project repository that our team can use to store and manage project and M&O documentation, such as work in process documents and final deliverables. It will facilitate document management and control of documents throughout the project. When we are ready to share a draft document with DHS, we will copy the document to the shared project repository SharePoint site provided by DHS. The Optum PMO will work with DHS to align our documentation management policies and procedures to yours. We will also conduct periodic audits using the deliverable tracker to validate that all final and approved contract deliverables have been posted to the DHS document repository. We typically post all approved contract deliverables in a sub-folder under the associated contract folder; this approach provides an easily accessible audit trail for identified contract deliverables.

We expect that both our SharePoint site and the DHS-provided SharePoint site will maintain version control and provide our teams with secure, role-based access to key project documents. SharePoint is easy to use and intuitive, and minimal training is required to begin using the AR IE-BM Project repository. Our teams will follow our standard approach for maintaining the performance, security, backup and recovery of our repositories.

The repositories will be leveraged to organize, store, protect and in the case of the DHS provided SharePoint site, share documentation and deliverables. Within SharePoint, as prescribed by industry best practices or the State, users will be required to check out a document from the library prior to editing and check in the document when they are finished.

The benefits of the check-out and check-in features include:

- **Control over when document versions are created:** When a document is checked out, the author can save the document without checking it back in. Only the author can view these drafts and changes. A new version that is visible to other users is only created when the author checks in the document.
- **Control over and accurate retention of changes made by more than one author:** When a document is checked out, only one person at a time can edit that document. This prevents multiple contributing authors from making simultaneous document changes that might be unknowingly overwritten and lost when the documents are saved on top of each other.
- **Capture of historical revision information:** When checking in a document, the author can add comments describing the changes made to the document, creating a historical record of revisions that can be maintained ongoing.

Transition of Data and Documentation

At the end of the contract, the Optum PMO will perform a project audit to validate that all contracted work products, deliverables and project artifacts we developed for you have been posted to your Microsoft SharePoint site. We will securely transfer required data, documentation, services and licenses to you or your designee as needed. Optum operates within the rigorous controls of HIPAA and safeguarding PHI. We will protect your customer data using administrative, technical and physical controls during the transition of project data and documentation.

1.4 Quality Management

A quality solution is the result of a focus on quality throughout the implementation process to ensure quality work products are produced, including:

- The approach to managing the quality of the Solution as it relates to the requirements. This includes the identification of inconsistencies between the requirements and the detailed design/work products.
- The practices and procedures the Vendor leverages to ensure the detailed design results in a System that addresses the business goals including techniques to solicit user input.
- The practices and procedures that will be followed for reporting, tracking and resolving problems or issues identified in software design, development, System transition and System maintenance.

- The processes to ensure high quality work products are developed, delivered and maintained by Vendor's subcontractors/partners.
- The approach to identification and management of business process and policy changes that will be required to deliver the highest quality System (i.e., usage of the System results in the highest quality business processes).
- The configuration management activities that include baseline control and monitoring the software library. Approved changes to baseline software and/or documentation should be made properly and consistently in all products, and no unauthorized changes can be made.
- The Vendor's approach to tracking quality metrics throughout the Project. This should describe how measurements will be identified, collected and analyzed to ensure quality goals, including management and DHS' Project goals, are being met. It should also describe the types of Project metrics used.
- The Vendor's organizational structure, and the roles and responsibilities of Vendor staff, as they relate to quality management including the Vendor's internal QA processes and policies.
- A description of the processes and management of the Defect and Issue Tracking Solution for resolution of items and, if applicable, how corrective action plans will be developed to address more significant issues.

Instructions: Describe the Vendor's approach to ensure the quality of the Project and System, and include details on: management of requirements through the traceability matrices, change readiness, metrics to analyze quality goals and management of defect and issue tracking.

This response addresses Requirement I1.38 contained in Tab I1 of the Implementation Requirements Traceability Matrix.

Managing the Quality of the Solution

Optum will provide the required quality processes, controls and assurances to support a successful delivery of the AR IE-BM Solution and begins in the planning phase. We verify adherence to stated DHS and CMS requirements with traceability into test cases to maximize features and the value to DHS. We verify that our project plan and requirements adhere to the applicable industry standards such as PMI, ISO, MITA and XLC, which enables effective implementation and enhances product quality.

During implementation, we employ automated tools in code development and test to maximize our test early and often discipline, which greatly reduces defects and rework. Lastly, we have controls and assurances in place to monitor and manage defects, test case execution and coverage of test cases to requirements which enables continuous improvement on a daily, tactical basis and on a more holistic operational level.

Managing Requirements through Traceability

Quality management requires proper management of requirements and supporting specification documents. These documents are the basis for our test cases. Non-functional requirements and other attributes of quality (e.g., maintainability, compatibility and reliability) are critical to availability, performance, and security. They also provide significant quality improvement opportunities for every release. Non-functional requirements and your relevant functional

requirements will be the standards we follow to measure project success. We will use scanning tools like SONAR, Fortify and the results of our testing from HP ALM or other testing management system.

We will review and confirm our understanding of your requirements through joint design preview sessions. During these sessions, we will review, refine and seek approval for all preliminary requirements in the RFP. We will document modifications to requirements using our collaborative requirements gathering tools and produce system requirements specification documents and other key deliverables. Upon your approval, these requirements will become the basis for the RTM for the rest of the project.

Within the requirements development process, traceability will begin with current RFP requirement and feedback from the design preview sessions that we document. We will be able to provide traceability from a business goal and objective down to the most detailed requirement statement. We will maintain the RTM throughout the project.

Well-defined change management, issue and risk management, and deliverable management processes will help us manage requirements and any changes to requirements. We will use the change control log, IRAAD log, and a version managed Project Requirements Document as the source of all changes to your requirements. This will have a direct impact on test cases and test execution.

Test planning and preparation will enable us to manage the schedule, scope, proactive management of risks and issues, and reporting at multiple levels of management. Identifying issues and risks with data and the test environments is essential to validating schedule adherence.

We will leverage the best quality practices from the PMBOK, requirements management, test management and standards from ISO for all of our work for the AR IE-BM.

Aligning the Detailed Design with Business Goals

The AR IE-BM Project will adhere to defined processes; pass development gates; create and obtain approval for required documentation; meet core, operating procedures; and meet quality objectives before moving into production. Our design will include high-level and detailed design.

During detailed design, we will identify the detailed behavior of the applications, component interaction details and activities, and data flow for the solution. We will outline the detailed logical and physical data model and infrastructure and deployment details for each solution component. Outputs from this phase will include detailed architectural and design specifications, physical data models and definitions, and an application interface specification.

Testing Issue Management Reporting, Tracking and Resolution

Our proven issue management process will help teams to work collaboratively to remediate defects. This process of collaboration will begin during design and continue through the SDLC into operational readiness. DHS, your stakeholders and Optum will engage in defect management through triage meetings and work sessions. This collaboration will help us reduce the time it takes to triage and fix defects. We will begin defect management early in the SDLC to make sure we continually assess and improve the quality of the AR IE-BM through the various phases and iterations.

We will complete each step of the defect management process for each identified defect. At a high level, we will identify, triage, remediate and validate each defect. Our defect management steps and any notable rules or considerations are as follows:

- Potential defect identified
- Defect further understood to be a valid issue or an existing issue
- Defect created with the necessary information (e.g., summary, description, severity, steps to reproduce, attachments)
- Defect is triaged. Triage meetings, with representation from all necessary stakeholders, will review the defects. They will make sure that:
 - Each defect is valid
 - Defect attributes are correctly set
 - Defects are being updated and worked in a timely manner
 - Fixes are being scheduled, where necessary
 - Defect is assigned. The output of the triage is that a defect is assigned to a responsible party based on the status of the defect. The goal is for the assigned team to work the defect through the remediation effort
 - Defect is closed; After a defect has been confirmed as fixed or invalid, it will then be closed; Upon closing, we will review the defect to make sure we have identified the proper comments and attributes concerning the reason for the defect and the root cause; We will complete a root cause analysis for statistical purposes to make sure we identify the correct root cause

Overseeing Subcontractor/Partner Work

As the prime contractor, we will ultimately be held accountable by DHS for the success of this project and all deliverables. We will leverage our subcontractors to provide exceptional skills and experience to complement our team and provide you with the best support to meet your business objectives.

We establish formal subcontractor agreement with all contractors and we will incorporate any relevant DHS, State and federal flow-down requirements to facilitate consistency of delivery and to make sure all parties are invested in the project's success. We will hold our subcontractors accountable for the same high-quality work processes and deliverables we expect from our own staff. In all cases, we will maintain project leadership as the prime contractor and we will provide appropriate coordination and oversight of subcontractors throughout the project.

Managing Business Processes and Policy Changes

We developed a suite of HHS business, information and technical capabilities in complete alignment with the MITA business, information and technology architectures. By making this investment and commitment, we keep our products and services current with emerging technologies and industry standards in the MITA 3.0 formats. This enables us to support the approval process and significantly enhance the MITA State Self-Assessment (SS-A) process. We have supported the MITA vision and guidance since its inception. It drives our services and provides the framework for the systems and processes we produce.

We are pleased to read that your agency uses the MITA framework and MITA Maturity Model to represent your business, information, and technical architectures and capabilities. Our approach to planning, designing, and obtaining approval for your IE business architecture (BA) aligns with your current practice. Our approach extends your current practice to also leverage the MITA BPT and the BCM. We see the BPM as one of three key elements to define an IE solution's as-

is and to-be business architecture and operational environments. This aligns to and is driven by the MITA Maturity Model. The additional elements that we will use to build the IE business architecture include the following:

- BPT defines the specifics of all business processes
- BCM defines the capabilities

The MITA framework development approach is a good framework to use in defining an Agency’s business, information and technical architecture. We will use this framework to develop your IE architecture, artifacts and deliverables. Figure 7 shows the MITA framework development approach we will use.

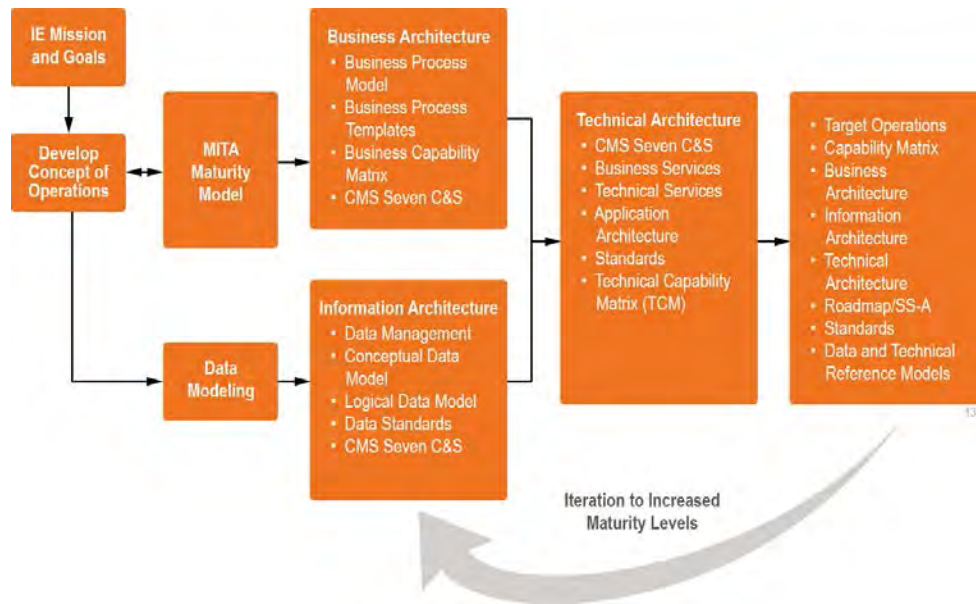


Figure 7. MITA Framework Development Approach.

Our approach to planning, designing and obtaining approval for BPMs follows the MITA framework development approach.

As components of the MITA Framework Development Approach, we will use the MITA templates and models to produce the specific artifacts. This includes the BPM, BPT and BCM. This will provide the framework for the specific business processes that will link to the specific MITA business areas.

The following table shows the elements of the MITA BPT we will use to define each AR IE-BM business process in detail. This table represents the MITA definition for all elements that define each BP. This will serve as our starting framework. We have added an owner to this table list to provide active governance for the change management process. As we progress through DDI, we may agree to add to this list for your IE business processes. The MITA business process template is a key element of the business architecture framework.

Table B: MITA BPT

Element	Description
Description	Brief statement describing roles and activity conducted during the business process
Owner	Position/Title of the business owner

Element	Description
Trigger Event	One or more events that start a process
Result	One or more outcomes from the execution of the business process and rules
Business Process Steps	The sequence of steps that complete the entire business process
Shared Data	The data that is stored and at rest to be used to complete a step in the business process
Predecessor	The business process and result(s) that proceed the activity conducted in this business process
Successor	The succeeding business process to the activity conducted in this process; generally, the result of this process becomes the trigger to the next
Constraints	Conditions that CMS expects states to meet for a general process to execute (e.g., enrolling participants can require different information/data based on program qualification)
Failures	Exit points throughout the business process where a rule indicates that the process should be terminated
Performance Measures	<p>A key performance indicator (KPI) measuring the process or result; KPIs can be:</p> <p>Quantitative: Usually numerical</p> <p>Practical: Interface with existing processes</p> <p>Directional: Measure of improvement</p> <p>Actionable: Tasks/decisions that are within State Medicaid Agency (SMA) control to effect change</p> <p>Financial: Results and measures that the SMA and CMS use to monitor and measure performance of a process</p> <p>The BPT will include types of measures and the business process will identify specific KPIs and measurements.</p>

We will assign each business process a unique sequential identification number for quick reference for audit, management and maintenance. We will link each process identification assignment to a specific business area and business category and define each process by the five levels of maturity. The BPT and BCM will further define each process in more detail. The BCM will include the five capability questions and six capability qualities that define the levels of maturity for each of the five levels of the MITA Maturity Model. Specifically, each BCM will include the following:

- Business capability description
- Capability questions
 - Is the process manual or automated?
 - Does the SMA use standards in the process?

- How does the SMA collaborate with other agencies or entities in performing the process?
- Business capability qualities
 - Timeliness
 - Data access and accuracy
 - Cost effectiveness
 - Effort to perform – efficiency
 - Accuracy of process results
 - Value to stakeholders

Our process follows the prescribed MITA Business Architecture (BA) Framework. It uses the framework models to align the BPMs with the MMM and incorporate the six measurable qualities as requested. To accomplish the AR IE-BM BA deliverable, we will document all IE business processes and business capability matrices as part of the IE business architecture. The final deliverable will be a single IE business architecture and will represent the as-is foundation from which we build a to-be maturity roadmap. The AR IE-BM roadmap becomes one of the drivers for future changes.

In leveraging the MITA framework development approach, we will have a framework to build the BA content, which is what the framework is intended to provide. We have found that using the MITA framework development approach helps us tightly align the artifacts and deliverables with the MITA framework, and it will provide three distinct and significant benefits to you into the future:

- Creates a working model for you to extend and leverage to other MITA and/or HHS business areas that are not within the scope of this project
- Creates alignment with the MITA framework, which will make ongoing CMS guidance and changes less costly to adopt and quicker to implement
- Supports future State self-assessments, CMS approval and certification process, and future audits

During DDI, we will identify all of the in-scope BPMs. We will need to look outside of MITA for IE business process content. MITA has four primary business processes to cover eligibility and enrollment. We will leverage other agency content to complete the IE business architecture. During this phase, we will build the initial, current state, business architecture, approval function and roadmap, and change management process before transitioning to operations.

We will work with you to identify the AR IE-BM BAs, BPMs and business processes that are well documented with the HHS agencies. We can also work the processes in reverse, beginning with our technology and information architectures which will help define new BPMs and business processes needed to be in scope for this project and that are required.

Figure 8 shows the relationship between the MITA BA elements and how we will align the MMM, the five capability questions and six measures to the BPMs and subsequent business processes and BCMs.

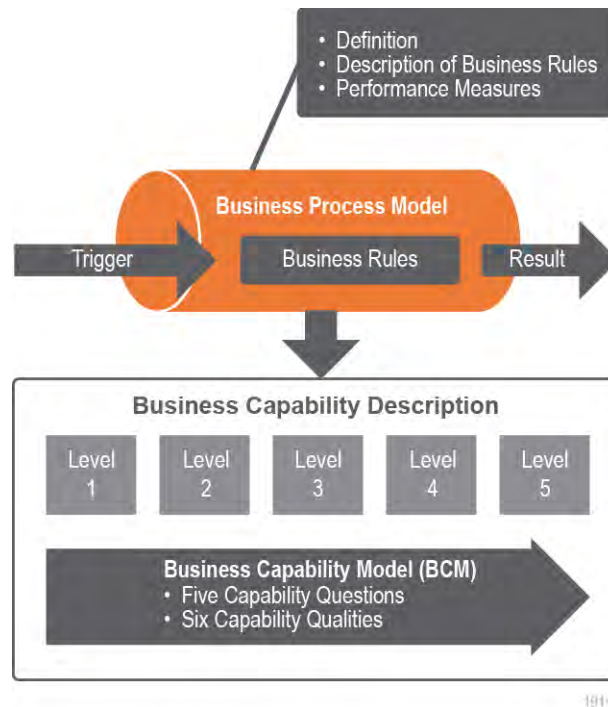


Figure 8. MITA BA elements relationship.

We will align the MMM, the capability questions and the six measures to the BPMs and subsequent business processes and BCs.

We designed our AR IE-BM to support a MITA Maturity Level 3 for most, if not all, affected IE business processes and BPMs. As part of DDI, we will work with you to confirm define existing and new business processes that will be within scope for this project. We will define the five levels of maturity for each business process and again, align each business process to the six measurable qualities that distinguish performance from one level of maturity to the next.

The final deliverable for DDI will be a completed MITA-aligned AR IE-BM BA with supporting details. We will use this deliverable as the starting point for managing and maintaining changes, additions and deletions to the AR IE-BM BA. We will maintain the structure and content of the AR IE-BM BA using our document repository system and leverage our established business process management practices to recommend and agree on a change management process.

As we create the BPMs and establish the AR IE-BM BA, we will identify state owners who will own each BPM. The BPM owner matrix will be available through the document repository system and updated as new information is provided.

Much like data governance, it is critical to define state owners as a source of governance and authority for ongoing changes to each BPM. We will establish a process to initiate, design, develop, test and implement changes to any BPM. The BPM owner will be responsible for approval of the request.

Reasons for a BPM change include the following:

- Desire to move to next level of maturity for a specific BPM or business capability
- Desire to improve specific performance or quality improvement
- Desire to improve cost of delivery
- Regulatory compliance

- Technology improvements

A BPM change request form will be completed with the appropriate reason for change indicated. The request will also include:

- Name and reference code of BPM
- Name and contact of requester
- Date of request
- Reason for request
- Process impacted
- Impact of change

Upon submitting the request, it will route to the BPM owner for approval consideration. If approved, it will be added to the change management process to be further documented, prioritized, staffed and managed. If it is not approved, the requestor will receive an email stating the reason for non-approval.

Figure 9 shows the expected BPM management process.

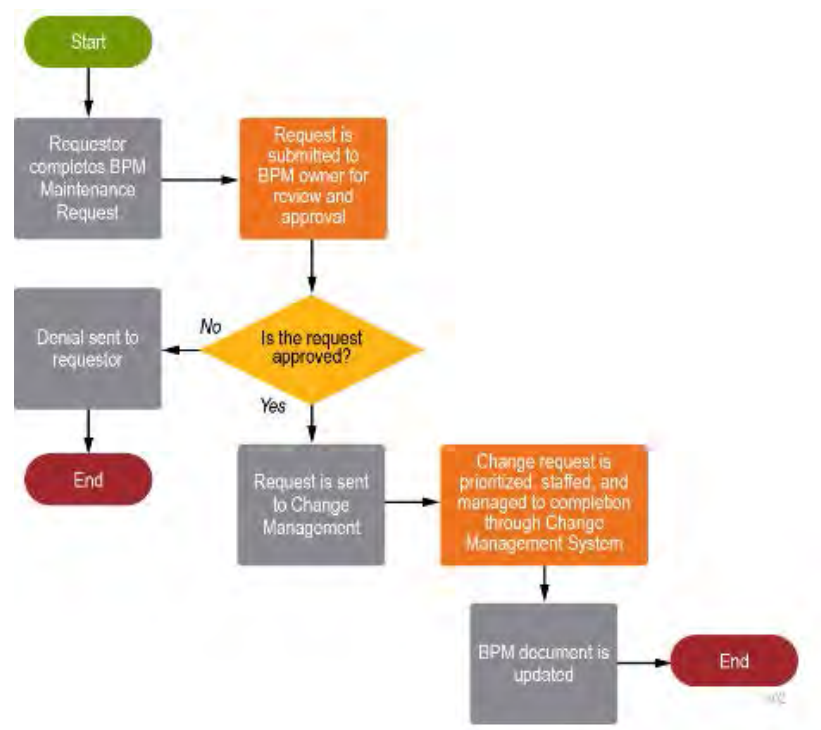


Figure 9. BPM Management Process.

We will use our mature BPM management process to manage and control change for the AR IE-BM Project.

We will work with you to establish the BA framework you can leverage to all other areas of your HHS areas. We have provided a summary of the processes and systems that we will bring to move you forward in your current and future MITA roadmap objectives. We fully understand the MITA BA framework and elements, and we will leverage them to build your AR IE-BM BA. Complementing this is our team of experts who are well suited to help you achieve your objectives in creating and maintaining the MITA BA and aligning it to the MMM.

Configuration Management

We will use quality control for technical activities throughout the project. These methods will include test strategies, plans, scripts, software defect tracking, deliverable walkthroughs, peer reviews and configuration management. The Quality Management Plan will establish all quality control and monitoring activities appropriate to project planning, problem tracking and reporting, configuration management, training and operations.

A key element of our quality control is the tracking and rollback capability of our source control tools (Git, Maven, Jenkins and HP ALM), which help prevent accidental or unauthorized modification of source code and project documentation. For example, we use a continuous integration and continuous build methodology to build machine configuration requirements. After we check the code and application configuration details into the source code repository, it is secured and ready for code build. After the code build, we deploy it to the development environment for code analysis and regression testing. For each step in this process, we leverage a separation of duties. Developers checking in code are not conducting build activities and configuration management architects conducting code analysis and regression testing are not, either. Finally, we will perform quality checks throughout the project to validate the security of our code and documentation artifacts and to make sure the configuration management discipline adheres to our strict separation of duties from the development and testing functions.

Quality Metrics

We will leverage quality metrics from traceability, results from code scans, and metrics from defects for our quality assurance process. These metrics and results will facilitate quality inspections, trends and other analytics that enable quality control and overall process improvements for the AR IE-BM.

Optum will report these metrics in various reporting test status updates, summary metrics and summary outputs from an overall testing strategy. Our reporting will cover different areas. Because each solution release may differ, reports may differ based on factors such as frequency, location and responsibility of each report type. The Release Test Plan will describe each report and the project plan will manage the report where applicable.

Optum Differentiator

Our AR IE-BM Solution will report on 650 quality metrics out of the box.

Figure 10 shows a sample Test Progress report and Figure 11 shows a Day-Over-Day Plan report example.

AR IE-BM Roles and Responsibilities

Our quality organization uses a proven, scalable model to manage quality across our customer engagements. We will use this model to build quality into the AR IE-BM. We will assign a testing lead for this engagement to look across all efforts and all components of quality. This role will be accountable to DHS and Optum to deliver quality throughout the AR IE-BM Project. This role will be accountable and responsible to deliver quality in accordance with this section and the Quality Management Plan.

For each major effort we define, Quality Assurance (QA) leads will manage the day-to-day quality requirements for each effort. The QA leads will be responsible for delivering test management according to the Master Test Plan. The QA lead will manage the quality analysts for the AR IE-BM Project and will report to the testing lead. Depending on the solution and scope of work, testers that specialize in the data or environment undergoing testing will report to the QA leads. The QA and testing organization is embedded as part of the overall project organization shown in Section T4, Vendor Engagement.

Assisting the testing lead and QA leads will be an assigned quality data /environment manager. This role will help define solutions for the management of test cases, test data and test scripts. This quality data /environment manager will also help the testing lead with automation for the project. This role works across multiple efforts and is instrumental in defining reuse and applying lessons learned.

Our organization will include the following roles:

- **Testing Lead:** This role is accountable and responsible to deliver quality according to the Quality Management Plan and the Test Management Plan.
- **QA Lead:** Accountable to the testing lead and directly responsible for executing testing activities according to the Test Management Plan. One or many testers for a given effort report up to the QA Lead.
- **QA Analysts:** Responsible for manual test design and execution across all respective phases.
- **Quality Data/Environment Manager:** Accountable for data and environment preparation, file management, and environment management.

Corrective Action Planning:

When a KPI is not met, we will provide a written detailed Corrective Action Plan (CAP) for approval by the State within required time frames. The CAP will include the missed KPI; full description of the issue; cause of the problem; risks related to the issue; the resolution, including any failed solutions implemented prior to resolution; and proposed corrective action going forward to avoid missing the KPI in the future. Optum will implement any proposed corrective action only upon DHS approval of the CAP. The Risk and Issues Management Plan we create and deliver for DHS will describe the process we will follow to document and resolve CAPs.

Tools and Reports

We have several reports and metrics that we will leverage for this essential reporting. For example, our Test Execution Report will report information such as the number of tests, the number of tests executed, the percent passed, percent blocked, number failed and the tests planned versus actual tests over time.

Test Case Design and Traceability

We will use the acceptance criteria for the Requirements Specification Document (RSD) and Detailed System Design (DSD) requirements to design test cases for the solution. We will work with the State on building test cases that exercise that functionality and provide that acceptance understanding. As part of this effort, we will employ full traceability of requirements. We will tailor this approach to your stakeholders' needs and any relevant governance standards (e.g., CMS, Food and Drug Administration). This will involve tracing the requirements to test cases and any subsequent defects. Our goal will be to understand the full impact analysis of all development aspects, from design to execution. Tracing the requirements to the design artifacts will help us accomplish that. It will also facilitate assessment and analysis at all necessary levels of test design. This approach will help us as we enter operational readiness. It will let us assess the risk of the test design to production.

Key data elements we will leverage in our requirements traceability process include the following:

- **Requirement ID:** This column will contain the unique identifier of the requirement.
- **Requirement Name:** This column will contain the name of the requirement.
- **Requirement Description:** This column will populate with a brief description of the requirement.
- **Requirement Design:** This column will populate with design artifact locations applicable to the requirement.

- **Direct Cover Status:** This column will populate with the coverage status of the requirements. The status will be based on the execution status of the test case linked to the requirement.
- **Test Case ID:** This column will contain the unique identifier of the test case.
- **Test Case Name:** This column will populate with the Test Case Name.
- **Test Case Description:** This column will populate with the test case description.
- **Test Execution Status:** This column will populate with the test execution status of the test case.

1.5 Team/Resource Management

DHS views resources as one of the most important success factors of this Project. The Vendor should provide a compelling approach to managing resources, from identification of the resource needs, through onboarding and retention. This should include the processes the Vendor will use to identify the required skills/resources the Project requires and identifying, selecting and onboarding team members and to address any performance issues with members of the Project team.

Instructions: Describe the process the Vendor will establish to manage the Vendor's Project team composition, as well as the coordination approach with other project entities including incumbent EEF Vendor staff, DHS/DIS staff and others.

This response addresses Requirements I1.6, 1.19-1.23 and 1.28 in Tab I1 of the Implementation Requirements Traceability Matrix.

Hiring Staff

As a leading provider of health services for federal and state agencies, we have a record of accomplishment. It demonstrates our ability to recruit, hire and retain employees with the skills and talent required to fulfill your requirements. Our culture is based on working with you to understand your requirements and the roles and skills required to meet them. We manage our teams using effective communication and strong leadership in support of your program. Our management team will provide program feedback to the project team and establish objectives for our team that enables measurement to milestones.

To bring the best and brightest talent to Optum, we depend on our professional human resources organization, our IT leadership and talented employees. We have human capital professionals dedicated to employee services throughout the United States. We position our teams strategically to meet the staffing requirements of each engagement. Working with our human capital professionals, we will hire staff members for the AR IE-BM Project whose education, experience and background meet contract requirements. We will prioritize qualified talent in the Little Rock area based on recommendations from our local staff and local staffing organizations.

We will only assign skilled staff members to the project with your advance approval. If DHS or Optum identifies a staff member whose work is unacceptable, we will work with you to get the individual back on track. If that is not possible and we need to remove an individual from the project, we will notify you in writing in advance. We understand that removing key staff,

assigning replacements, changing staffing levels or skill levels can only happen with your advance written permission.

Onboarding and Training

Our commitment to excellence in staffing extends to our attention to detail in training and development. We provide many types of employee training that will benefit you. This includes new hire training, ongoing system and business knowledge training, and project management training.

Company-wide, we have mandatory annual training on topics such as privacy and security. The 2017 Privacy and Security Annual Training is designed to confirm that employees and contractors demonstrate their knowledge of Optum privacy and security policies and how to protect protected and confidential information. Our employee training will help us provide knowledgeable and effective support for the AR IE-BM Project. Our employees and contractors will protect your information assets and the confidentiality of your private information in accordance with applicable legislation, policies and procedures. These include 45 C.F.R § 164.514(b) (2), the American Recovery and Reinvestment Act (ARRA) of 2009, and DHS policies and procedures as communicated to Optum.

Our approaches for staffing and development include training, collaboration and communication within the project team. We will provide project staff with the tools, resources and mentors required to perform at advanced levels throughout the life of the project. Our training includes project-specific vendor or product training, project-specific functional training, certification training and our Web-based training portal.

Resource Management

One of our employee focused management practices is performance management. Optum management conducts annual employee performance reviews that include input from the employee, peers and managers. Management also monitors and provides feedback on employee work quality throughout the year. We stay in touch with project team members, the customer and stakeholders to make sure employee performance is acceptable.

As part of our standard operating procedures, we will require staff assigned to the AR IE-BM to participate in job rotation and cross training. This will help us maintain continuity in the event of planned and unplanned absences. We will augment this cross training with support from our corporate training staff, as needed. This will keep applicable information and training documentation current and minimize the impact of staff changes throughout the contract.

Staff Retention and Continuity

A key factor in retaining staff and providing continuity for our customers is hiring the right people. We hire people who share our cultural values of integrity, compassion, relationships, innovation and performance, which align with the values we see in your mission. Figure 12 describes those values in more detail.



Figure 12. Optum Cultural Values.

Our core values drive the high levels of confidence and engagement our customers have in us.

These common principles result in cohesive groups of individuals committing themselves to excellence in their work and in their lives. Our staff possesses the appropriate combination of expertise and versatility to adapt and respond to changing customer needs. For the AR IE-BM Project, we will provide staff continuity throughout the project by:

- Dedicating our staff to the project for applicable phases
- Executing well-established development, staffing and employee satisfaction programs that result in low turnover and high retention
- Implementing a smooth transition with overlap
- Using local partners, subcontractors and the Optum human resources organization to acquire replacement staff in a timely manner, as needed

We provide more detail in our Draft Human Resources Management Plan, Attachment 4.

1.6 Project Team Security Requirement

Ensuring security of Project information is critical to the success of the Project.

Instructions: Describe how the Vendor will ensure the Project team will conform to the State's and DHS' staff security requirements. This should include any applicable training the Vendor's employees complete, and any subcontractor requirements and policies.

This response addresses Requirements I1.34-1.37 contained in Tab I1 of the Implementation Requirements Traceability Matrix.

We appreciate the importance of security and confidentiality for your assets and data. Mature security policies and procedures are the cornerstones of our business. Our clients trust us to protect more than 50 million health records compliantly. We design, deploy and maintain security solutions through industry best practice, a blend of applicable regulatory obligations, and client considerations. We also support compliance to prevailing control authorities and information security requirements.

We will apply our expertise and best practices in security and confidentiality to the AR IE-BM Project. We will work with you to review and assess standard Optum security protocols as compared to DHS security requirements. Working together, we will identify any gaps that may need to be addressed. The following sections describe key Optum security protocols in more detail.

Physical Office Security

The AR IE-BM Project team will comply with current security policies and procedures of DHS, and we will comply with future security policies as applicable. This will include compliance with security policies related to facility access and possible access to sensitive areas.

All our facilities follow security regulations and standards that our employees follow. We use moderate controls from prevailing regulations and standards as our baseline. Where state statutes are more stringent, they supersede Optum and regulatory requirements. Contractual agreements deemed more stringent supersede statutes. When DHS policy is more stringent, it will take final precedence. If gaps are found with the applicable security controls, Optum will capture these as Plan of Action & Milestones (POA&M), assigning ownership and a timeline for remediation or mitigation. We will share this information with the State to gain concurrence with our approach and timelines.

Privacy and Security Training

All Optum employees and contractors must receive required training on privacy annually as part of their responsibilities to safeguard the confidentiality of private information. We require staff members to complete annual training on protected health information policies and required procedures, Optum security requirements, and the Optum ethics program. We monitor participation in this training. We offer training through corporate integrity and compliance training (privacy overview modules) and through employee business area training programs. Resources, including policies, procedures and the Privacy Office, are available to employees to provide guidance and address issues to support ongoing compliance with privacy requirements.

State-Required Training

As part of Optum taking over support of your program, we will meet with you to understand your State-specific training requirements and incorporate them into our training program for our employees. The training will be based on State requirements as well as any required training (e.g., IRS 1075 requirements).

Authentication and Role-based Access Security

We provide full support for Role-Based Access Control (RBAC). We recognize that users, including subcontractors, fall into one or more roles, where each role corresponds to a discrete set of job functions. For a system with significant and complex protected information, such as the AR IE-BM, each role's set of job functions must be restricted to the systems and data he or she requires based on business needs. Our solution uses role membership to control what

applications users can access, the data they can see, and what actions they can take on that data.

1.7 Relationship Management

The Vendor will need to effectively manage relationships with other entities including at least DHS, DIS, incumbent EEF vendor, and State’s subcontractors to manage PMO, QA, Vendor’s own subcontractors, partner vendors and suppliers (e.g. software and hardware).

Instructions: Describe how the Vendor organization will manage relationships with other entities. This should include a discussion of the treatment of account management, status reporting, performance review meetings, contract management, audits, quality assurance, planning, priority setting and service request management, and issue escalation processes.

This response addresses Requirements I1.10-1.12 contained in Tab I1 of the Implementation Requirements Traceability Matrix.

Relationships with Other Entities

One of our five corporate core values is “Relationships: Build trust through collaboration.” We honor this value and strive to integrate it into everything we do. Our entire team works diligently, every day, to develop relationships that are open and engaging.

Our Project Communication Management Plan will establish a calendar of frequent communication, built in during the project planning phase. We will also work with you and other stakeholders to understand interrelationships and dependencies among projects so that we can incorporate appropriate tasks, milestones and dependencies into our AR IE-BM Project Work Plan.

For example, for one State health insurance exchange, Optum served as the system integration vendor. We partnered with the State and with Exeter, the vendor that provided the core HIX OneGate software solution; Benaissance/WEXHealth, the vendor that provided the premium billing and payment solution; and various contracting partners, including the State’s security vendor, NuHarbor, and both internal and external auditing teams. Optum worked so closely with Exeter that when Exeter went out of business just prior to a major implementation, we took over the development and maintenance responsibilities of the Exeter OneGate product to assist the State without disruption.

We have more than two decades of experience in delivering complex implementations for our clients, many of which have involved multiple stakeholders and vendors; we endeavor to create an interdisciplinary team with the right set of skills to achieve project success in the most creative and effective manner possible. For example, in Massachusetts, we are the prime systems integrator for the MA Health Connector, a Web-based application that integrates the Medicaid and health insurance exchange eligibility intake and determinations. Similarly, we provide the DDI, M&O and hosting services for another State, built upon the Health Services Enterprise Platform (HSEP). As the prime vendor on these engagements, we have gained tremendous insight and experience on how to build and effectively manage an integrated project team.

Our goal is to cultivate a collaborative environment with all project stakeholders. We view open and transparent communication as the cornerstone of project success; this approach clearly enhances and promotes discussion and the sharing of information and ideas.

We look forward to continuing to work collaboratively with DHS and your other stakeholders and vendors. We understand the challenges of inter-vendor coordination, and we have adapted our project management processes to include best practices for these exact situations.

Collaboration and communication will allow us to meet the challenges of the AR IE-BM Project within the context of the overall multi-vendor environment. This project represents a large initiative with multiple components, each with its own set of goals and objectives. The key to accomplishing these goals will be coordinated communications.

A close partnership with you, your IV&V vendor, and other vendors and stakeholders will be critical to the success of the project. Our goal for the AR IE-BM Project is to foster open communications, a spirit of cooperation and a positive working environment. We will work with you to follow a coordinated approach that includes regular communication with the DHS and other solution providers. We will establish both formal and informal communication channels and document our approach in the Project Communication Management Plan developed during project planning. Risk and issues management approaches, processes for escalating problems for prompt resolution and other project management processes will also be coordinated with you and other stakeholders.

Account Management

We have a record of building strong relationships with our state government customers to manage projects and accounts. As the current data warehouse vendor for Arkansas, we already have well-established relationships with DHS staff. Many of our staff members have previous State government management experience and understand the challenges states face and how to overcome challenges and move projects from planning to successful implementation. This engagement will strengthen our ties and commitment to Arkansas as we work together. Our engagement director/executive and project manager, along with our PMO lead, will continue to work with your Governance Body to manage the contract and engagement throughout the project. This collaboration will help resolve issues and risks and meet your project objectives.

Status Reporting

Throughout the project lifecycle, the Optum project team will provide weekly and monthly status reports/briefings to DHS. Both the weekly and monthly project status reports will include a dashboard of project health at various levels, using DHS-standard health indicators.

Our weekly status meetings are a key tool for communication of project status to all relevant project stakeholders; it provides a mechanism to communicate a summary of recent accomplishments, upcoming activities, key project milestones, a high-level assessment of progress against plan noting any areas of concern, risks and issues, and mitigation plans across work streams and partner organizations. The status meetings also promote discussion and facilitate planning, coordination and collaboration across teams, which is critical to overall project success.

Performance Reviews and Audits

Optum will conduct program performance reviews with DHS in an agreed upon frequency. During these meetings, we will conduct standard project management review activities to determine the overall health and status of the project. These activities will include reviewing

performance against the project baseline schedule and baseline budget and validating project deliverable quality and accuracy.

Similarly, we will work with you and our legal team to conduct financial and contract compliance audits to confirm we are following and meeting the contract terms and conditions. These audits will focus on the fulfillment of the legal obligations specified in the statement of work (SOW), such as service level agreement (SLA) adherence, delivery of contract deliverables, fulfillment of responsibilities, identification and resolution of contractual issues and disputes, and financial compliance.

Contract Management

Our PMO will conduct contract management throughout the life of the project, where contract management is within the context of our contracts with DHS and DIS, and our contracts with our business partners (subcontractors, partner vendors, and software and hardware suppliers). In this capacity, Optum will provide program management responsibilities and help DHS and your third-party vendors coordinate their responsibilities and functions as defined in the SOW.

Our contracts with you will be based on the DDI and M&O SOWs we include as part of our response. It is our expectation and assumption that while we are working with you to finalize these SOWs, we will move forward in parallel with assembling our teams, establishing our PMO operations, and beginning our requirements analysis efforts.

For our subcontracts with our business partners, each of our partners will be under a Non-Disclosure Agreement (NDA) and either a Partner Agreement or a Statement of Work. In all cases, we will leverage these contracts to pass-through the same terms and conditions, including SLAs and penalties, defined in our contract with you. In this manner, we will contractually hold our partners, contractors and vendors accountable to the same standards and results to which we are held. In addition, each partner, contractor and vendor shall remain responsible for its own obligations under its agreements with Optum. However, we will provide technical direction and control of our personnel and will provide the framework for and coordination of project planning, communications, reporting, and procedural and contractual activity.

Quality Assurance

Quality assurance (QA) is an ongoing series of project-wide quality activities that we plan and leverage during project execution to make sure we meet your project requirements. QA helps us improve and stabilize operational processes to avoid and minimize issues that lead to defects.

Planning

The Optum Project Management Office (PMO) has achieved a level of maturity that provides us with established procedures and best practices that enables project management standardization and promotes efficiencies program-wide.

During the planning phase of the project, the Optum PMO will actively collaborate with DHS and other stakeholders to develop plans, processes and procedures that integrate feedback from all parties and reflect newly defined best practices resulting from our collective knowledge and experience. We will jointly assess PMO artifacts from both organizations in order to agree on templates, formats, content and structure of the various project management documents and deliverables.

Additionally, we will coordinate with DHS on governance policies and procedures to communicate and integrate that framework across the integrated project team. Our goal is to establish transparency and trust between our organizations, and integrate our corporate core values into our PMO practices. Optum corporate values are:

- Integrity: Honor commitments. never compromise ethics
- Compassion: Walk in the shoes of people we serve, and those with whom we work
- Relationships: Build trust through collaboration
- Innovation: Invent the future and learn from the past
- Performance: Demonstrate excellence in everything we do

Optum will create a comprehensive and Integrated Project Management Plan (PMP) to guide the project and promote best practices. The PMP and other planning deliverables will define the processes, methods, tools and resources that we will use to manage project activities. We will work with DHS to tailor the content of the PMP to closely align with DHS PMO standards and guidelines and will receive approval from DHS to use any other templates as outlined in Requirement I1.8. Together, the PMP, charter, schedule and other planning deliverables will serve as the roadmap to coordinate project activities for timely implementation. They will reflect our Optum Integrated Delivery Model and include the tasks, milestones and deliverables necessary to fulfill requirements and successfully deliver the Arkansas IE-BM solution.

Priority Setting and Service Request Management

Priority setting, in the context of relationship management, is key to validating our alignment in strategy and execution. As part of our account management discipline, we will work with you to establish a governance process to identify, prioritize, execute and deliver to your service requests. This governance process spans the entire spectrum, from our involvement in your high level strategic roadmap and multi-year planning processes to the more tactical, day-to-day response to immediate and urgent needs. At the long-term, strategic perspective, we will align our capabilities with your long-term priorities to make sure we are prepared to help you deliver on those priorities. At the same time, we will establish a service request process with you (or work within your existing process) to field, prioritize, plan, track and deliver service requests, including break-fix and system enhancements. This process is further described in document T13 - M&O Requirements Section 4.0, Approach to System Modifications/Enhancements.

Issue Escalation Processes

As described in Section 1.2, Risk and Issues Management, our issue escalation process includes defined lines of communication, roles and responsibilities, and span-of-control parameters. Our issue escalation procedures defined in the Risk and Issues Management Plan will define when and how to escalate the issue to the next level. When necessary, we will involve Optum and DHS executive management to expedite the resolution of mission-critical issues. Optum will partner with DHS to develop the escalation process for the AR IE-BM Project. We will invoke this process when conditions and severity of the issue warrant escalation.

1.8 Relationships with Third Parties

Instructions: Describe any financial relationship between the Vendor and any third party hardware, software, or other vendors that may be used to provide services or products in
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connection with any phase of the Project, and whether such third party will be used by the Vendor as a subcontractor or contracted directly by DHS. The Vendor should also disclose any known or perceived conflicts of interest it or its leadership may have that would impact the Project and/or M&O.

Optum has no financial interest in any of the vendors or subcontractors proposed as part of the AR IE-BM and all contractual relationships will be through Optum. There are no known or perceived conflicts of interest with Optum or with DHS.

2.0 Approach to Planning the Software Development Life Cycle (SDLC)

The Vendor should ensure that the responses to this section are in alignment with the requirements set forth in Template T-10 – Implementation Requirements Traceability Matrix, Section I2.

DHS plans to have the Project follow the Vendor's SDLC and expects this to be comprehensive. DHS does not envision a pure waterfall (with one phase and a big bang go-live) nor extreme agile methodologies with high number of release cycles, but does envision adopting certain best practices such as:

- Breaking the project into smaller releases, but within manageable range
- Not waiting until development is complete before testing – DHS anticipates testing completed functionality while developing other functionality
- Leveraging automated testing tools to support regression testing and help ensure functionality built/tested early on does not break with latter releases
- Including user validation/usability testing as an integral part of the development methodology and iterate on the user interface design
- Co-locating DHS functional staff for the duration of the project to resolve ambiguous items real-time, usability, policy decisions/changes and ongoing testing
- Continually/frequently consolidating code to support ongoing testing
- Leveraging application life-cycle management tool

Instructions: Describe the Vendor's SDLC methodology. Include in the response a description of what the Vendor believes will be an effective SDLC methodology (e.g., Waterfall model, Rapid Application Development, etc.) for both the Vendor and for DHS during the implementation of the proposed System. This should focus on how the different phases inter-relate to ensure the requirements and Use Cases are further defined and result in a tested Solution which addresses DHS' business objectives.

This response addresses requirements contained in Tab I2 of the Implementation Requirements Traceability Matrix. Optum meets all of the requirements in this Tab.

In Section 1.0, we introduced the marriage of our project management methodology and our SDLC in the form of our ODM. In this section, we will extend that narrative with a more detailed look into our SDLC methodology.

Just as our project management methodology is a hybrid of industry standard processes and procedures executed in an innovative and flexible approach, our SDLC methodology is a hybrid of Agile and waterfall best practices that focus on quality and has been proven through our successful work in more than 40 health and human services projects. The key benefit of this hybrid approach is that it blends the rigor, familiarity and discipline inherent in the traditional SDLC phases while breaking the project into smaller, more manageable releases. Within these phases, we use an Agile approach providing rapid design and flexibility. We will accomplish this by integrating design, build and testing activities into smaller, more manageable units of work (called sprints).

We have designed our hybrid methodology to bring the structure and rigor necessary for a project undertaking of this size. Using Agile and sprints provides the flexibility and nimbleness to deliver functionality and minimize delivery risk by incorporating the concepts of continuous iteration and integration of code into the testing process. This methodology provides a roadmap to produce a stable, sustainable system while reducing project risks that affects budget, schedule and performance. We also understand that DHS has your own standards and existing procedures. We will adapt our work and tailor our methods to meet your requirements for managing the AR IE-BM Project.

We align with industry standards such as IEEE and ISO. To accomplish this, we review the current standards and discuss them in meetings with you when we elicit requirements necessary to build your solution. Through this effort, we will make certain that the requirements and your solution align with industry standards as required.

Our approach is based on SAFe principles that also incorporate Lean Software Development principles and values. Lean emphasizes values such as eliminating waste, building in quality early, delivering quickly and empowering people. Figure 13 provides an example of the SAFe framework.

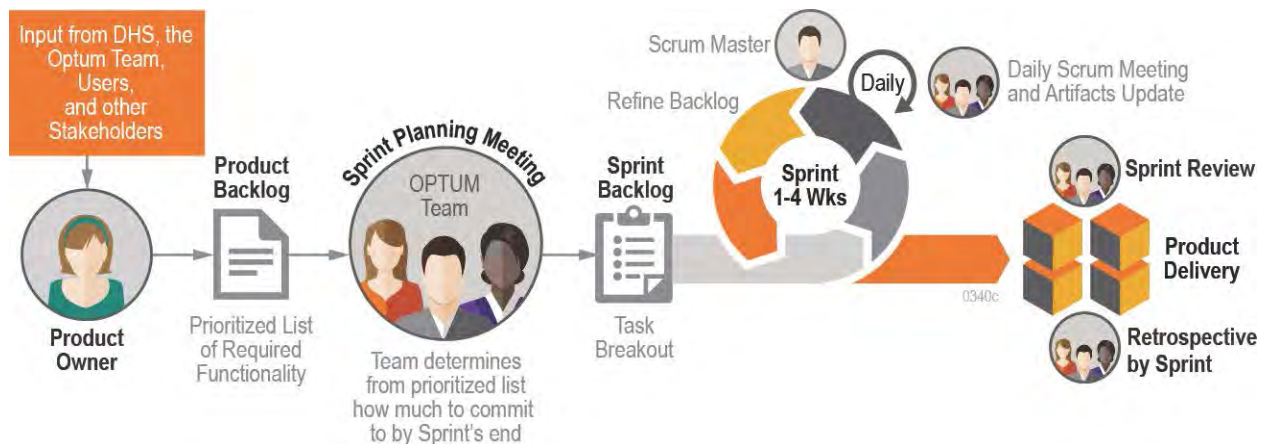


Figure 13. SAFe Framework.

The SAFe framework and process includes analysis of the relative effectiveness of development practices in order to improve upon them while providing a framework within which complex products can be developed.

Delivery initiation for the AR IE-BM project begins with a program backlog, which is a list of the Arkansas requirements written as a list of prioritized capabilities and features defined by the product owners of Optum and DHS. The program backlog is a single, definitive repository for future work that will advance the Program Increments (PIs), otherwise known as a release.

The project team will review the criteria detailed in the program backlog and create strategies to configure and deliver all AR IE-BM Solution features according to these criteria. The project

team members will then conduct the first PI Planning event. The PI Planning event will occur before the first PI. Using the prioritized capabilities and features in the program backlog, the project team will create the team backlog, which is the detailed user stories and tasks for the selected capabilities and features they must meet during the PI. After defining an executable plan and committing to the work, the project team will begin sprinting for that PI.

The AR IE-BM Project team will complete the sprints to configure, test, and release working software according to the team backlog specifications and the PI milestones. The goal of this stage will be to deliver working software frequently. The project team will complete this work on a fast, predictive, synchronous cadence.

While sprinting is underway, the project team will continuously update the detailed plan for the next PI and refine the backlogs. When planning and backlog work are complete, the project team will prepare to hold the next PI Planning event.

When the project team conducts PI Close activities, they will demonstrate to key stakeholders the AR IE-BM solution software package released during this PI. The project team will load the released software package into the Model Office environment for validation and approval in the Model Office sessions, while the released software package also undergoes additional testing phases. We will conduct a lessons learned exercise to improve performance over time. After the PI Close activities are complete, the next PI will begin.

After we complete all initial configuration PIs, the completed software will enter additional PIs focused on subsequent testing phases and defect fixes before implementation into a production environment for go-live and the beginning of operations.

Delivery Close occurs for the AR IE-BM Project when Implementation is complete. Implementation will be complete after the program transitions into operations and system certification is successful. During this phase, we will complete the final traceability review of released deliverables to make sure they satisfy your requirements.

Multiple Releases

As described in the Work Plan, our proposed DDI strategy incorporates a hybrid Agile and waterfall approach to break up the delivery of key functionality into multiple releases. Each release has multiple sprints consisting of design, development and testing. Each release culminates in a holistic end-to-end testing and user acceptance testing before we release it into production as a pilot.

Each of these test phases will focus on the correct level of testing that corresponds to the software release lifecycle. We will work with you to determine the staff and stakeholders we will engage for reviews, meetings and status reporting. Together, we will define the entrance and exit criteria for each phase. This will help us make sure we build quality into each testing phase. As we discover defects, we will conduct defect triage meetings with you and your stakeholders. We will determine the agreed remediation and track all details with requirements traceability. This approach will verify that everyone stays informed of the affected areas.

We will work with you and your stakeholders to manage defects through defect triage meetings, day-to-day execution, and status reporting. When appropriate, we will automate test scripts, providing added value and enabling us to perform more efficient testing. We will engage the appropriate technical and business stakeholders identified in the RSD, DSD and other relevant documents.

Testing Functionality

System integration testing (SIT) assesses the new functionality that is in scope for a release based on the functional requirements. SIT testing will include exercising the in-scope system functionality, system integration points, data conversion testing and system compatibility where applicable. Any identified defects will be stored in the defect management system. The defects will be tracked through the defect management process until remediation. We will communicate the status of activities and results following our standard agreed upon communication procedures.

We will align our defect management process to the test scenarios and requirements. We will base the scripts and procedures we create on those scenarios and we will trace them to the requirements. This approach will align with our traceability strategy as defined in our overall quality strategy.

Automated Testing Tools

When we identify a candidate for test automation (i.e., regression), the project team will validate that the framework is an appropriate technical solution. The project team will review the functionality to automate with the test scripter. They will identify the need for new framework functionality. The test scripter will work with the project team to map the necessary fields, create the needed test data, and build the test cases.

User Acceptance Testing

User acceptance testing (UAT) involves a business assessment of the system and its function, and may include data conversion testing. UAT is a scenario-based testing approach and unlike SIT, we do not scope UAT based solely upon the requirements.

We will work with you to develop the UAT Plan, including the timeline and description of the overall processes we will leverage throughout UAT. It will include a responsibility assignment matrix (RACI) with responsibilities clearly defined. We will use agreed upon scenarios, dependencies, and data needs that you have reviewed and approved. We will build them into our scripts and procedures that you have approved.

To build out the scripts and procedures, we will create data sets in the environments that we identified for use in our testing. We will use different quality gates to indicate that the data we created is ready for use as part of the entrance into the UAT execution phase.

We will store UAT results in the test management application and leverage the standard strategies defined in the Quality Management Plan and Test Management Plan. Any identified defects will be stored in the defect management system. The defects will be tracked through the defect management process until we remediate them. We will communicate the status of activities and results following our standard agreed upon communication procedures.

We will align our defect management process to the test scenarios and requirements. We will base the scripts and procedures we create on those scenarios and we will trace them to the requirements. This approach will align with our traceability strategy as defined in our overall quality strategy. As part of UAT, we will create a Test Summary Report that will describe all activities for traceability, execution, defects and any known risks or issues.

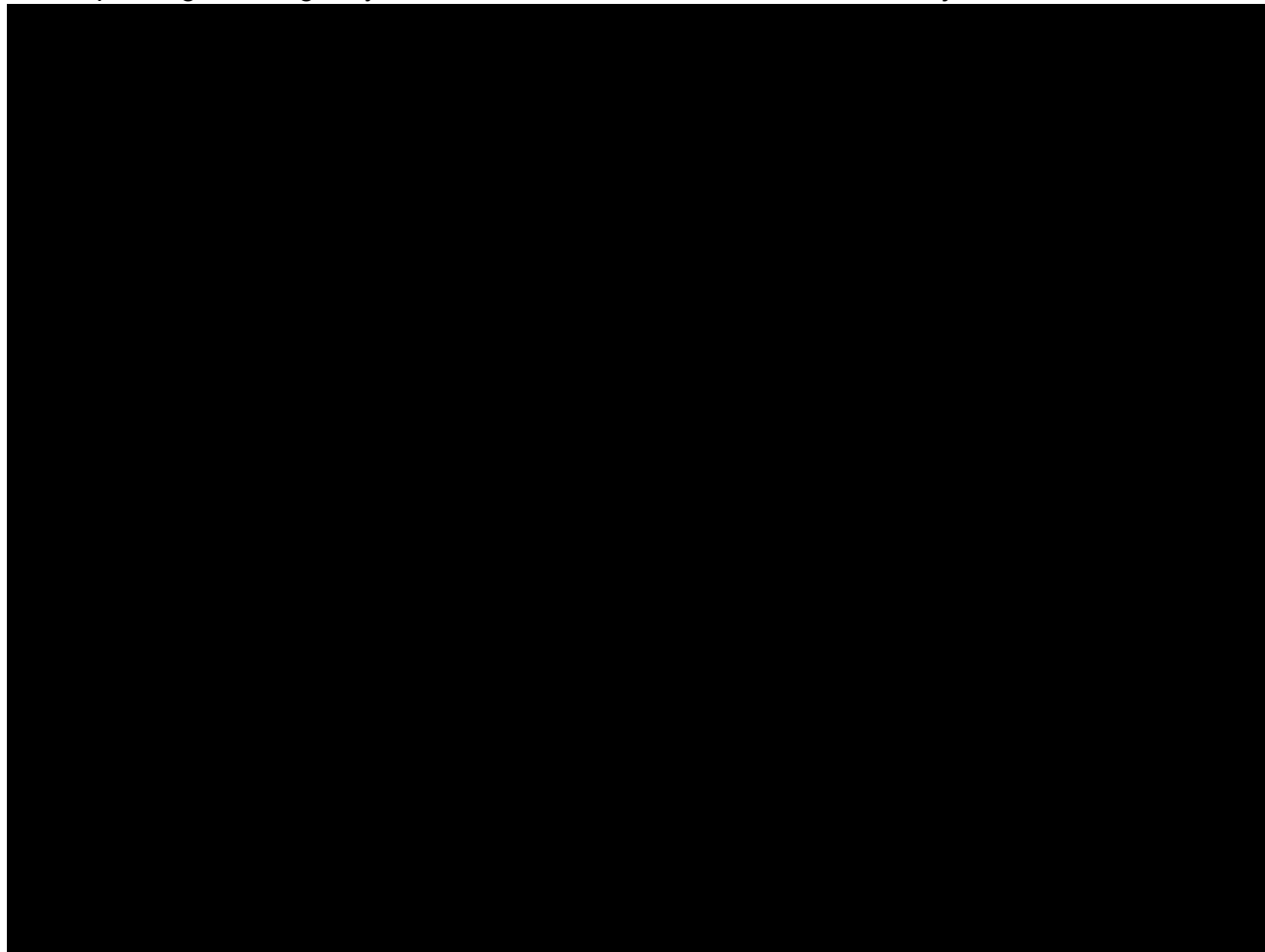
Co-locating Staff

Close collaboration with our customers is a hallmark of our approach to client implementations and operations. Our key staff members will be customer-facing positions throughout the project.

Our experience shows that integration and colocation with State staff and stakeholders is often vital to the success of the project. We will work with you to determine the project staff members that we will co-locate with DHS staff.

Continuous Code Consolidation (Integration) and Continuous Testing

The purpose of our continuous integration and delivery strategy is to deliver working code frequently through continuous code delivery and auto-build processes that leverage our existing DevOps tooling (Git, Maven and Jenkins). We will use our DevOps deployment tools to build our code for the AR IE-BM Solution into virtual components called containers, providing speed and agility for testing and deployment processes. As a result, the project team will develop quality deliverables for you more quickly. In contrast to traditional architectures, this approach will enable us to break the AR IE-BM codebase into several independent services. For example, a container may include code for the solution TANF module. Containers will enable us to deliver only the module that we need for deployment to a particular environment. Figure 14 show the DevOps integrated eligibility framework we will use for the AR IE-BM Project.



After we build a code container, it is loaded to the container registry. Then, when we need to deploy a container into an environment, we will use our deployment tools to obtain the needed container from the registry and deploy it to the appropriate environment. For example, after the initial code build, we will deploy it to the development environment for automated unit testing using JUNIT scripts and source code analysis using tools such as SonarQube and Fortify. After

passing unit testing and code analysis, the container will be promoted to the test environment where it will undergo functional test automation, integration smoke test and defect remediation as needed. Each time, promotion to the next environment occurs only after passing predetermined stage gates.

It is through this continuous process, enabled by our DevOps framework, which enables us to accelerate our velocity and the number of development iterations during our Agile sprints. Ultimately, this accelerated velocity helps us to deliver higher quality code in a shorter amount of time, when compared to traditional software development approaches.

Application Lifecycle Management Tool

Our approach to Application Lifecycle Management (ALM) encompasses software development (and documentation) as well as ongoing O&M support and governance. Our experienced management teams are proficient in using industry standard ALM tools such as Rally ALM, HP ALM, along with Microsoft Project and SharePoint. We will use Rally ALM primarily for requirements management, including the creation and maintenance of RTMs, user stories, backlogs, release plans and test scripts. We use HP ALM primarily for test planning and functional testing, and defect management. Finally, we use Microsoft Project and SharePoint for traditional project, product and support artifacts such as software architecture and design documentation, testing results, release management and change management documentation, as well as standard DDI and M&O project management documentation (e.g., status reports, issues/risk plans, SLR reports, outage report, root cause analyses).

It is the intersection of how these tools are used that lend themselves to a holistic ALM capability that supports real-time collaboration, access to centralized information, cross-tool and cross-project visibility, and better monitoring and reporting.

3.0 Approach to Managing the Environments

The Vendor should ensure that the responses to this section are in alignment with the requirements set forth in Template T-10 – Implementation Requirements Traceability Matrix, Section I3. Optum meets all of the requirements in this section.

In this section, we will describe our approach to managing the various environments required to successfully deliver the AR IE-BM Solution. While our general approach to managing these environments is very much in alignment with industry standards, we will illustrate our innovative use of DevOps to streamline these processes in order to improve our overall delivery performance. We will also describe our approach to integrating our operational processes with your existing processes with an eye toward helping you mature your alignment with ITIL v3 standards (e.g., Change/Release, Configuration, Incident Management). Ultimately, our focus on driving delivery excellence, collaboration and innovation will lead to our mutual success and will empower DHS resources with the tools and knowledge needed to support the new AR IE-BM Solution.

3.1 Environment Specification

It is the State's intention to provide the production, non-production and disaster recovery environments/infrastructure to the IE-BM project within the State's data centers. This will include the core technology infrastructure (e.g., servers, storage, and network). The State expects the Vendor to propose to leverage the existing COTS software and/or provide COTS software for

the DHS IE-BM Solution as well as non-production type environments using the State's architecture guidance. There are currently six (6) environments (development, integration test, user acceptance testing, staging (sub-production), production and disaster recovery) and the expectation is a similar configuration will be required for the IE-BM solution. However the Vendor can combine and/or include other environments as it deems appropriate.

Instructions: Describe the environments the Vendor requires to complete this Project and the necessary hardware, software and tools required for the required environments. This should include all environments being proposed. This description should include all hardware and software items that will be required to make the environments functional and how these will leverage/can be leveraged by other DHS IE-BM Solution related efforts.

As described in T9 Technical Requirements Section 3.6.1 Technical Environments, in order to support the Arkansas business capabilities while satisfying the technical requirements Optum proposes to deploy the AR IE-BM Solution within your Arkansas State Data Center. For DDI, seven types of technical environments will be needed -- Development, Test, User Acceptance Testing (UAT), Interface Test, Training, Stage, Production and Disaster Recovery.

We will establish a single Development environment dedicated to development and unit testing, which all developers will use. The number of Test environments will depend on various key factors, including the complexity of the solution, mix of technologies, required testing, velocity of delivery, and number of overlapping releases. We will use separate Test environments for system testing, system integration testing, regression testing, data conversion testing, and some component-based performance testing. These environments will contain everything required for the test cycles and will contain our suite of automated testing tools appropriate for the AR IE-BM component(s) being tested.

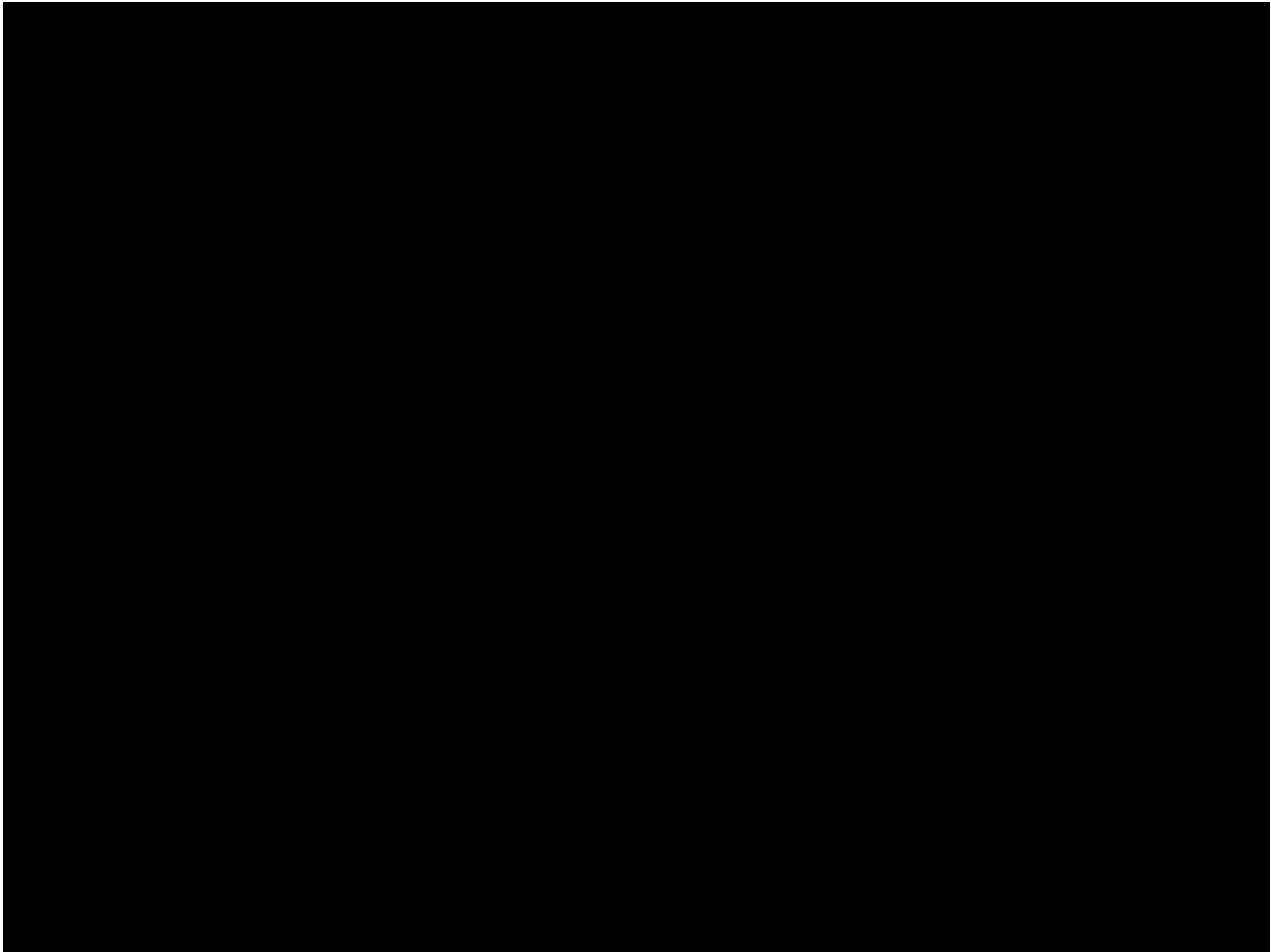
We will perform user acceptance, parallel, operational readiness, usability/accessibility and security testing in a separate UAT environment reserved for business functional testing typically containing production-like data. This environment is where we will also perform our advanced performance testing. Our experience has shown that a separate, dedicated test environment is best for testing all interfaces. This Interface Test environment will be set up with test data for each applicable interface. Similarly, we will use a Training environment for conducting system demonstrations and training end-users on how to use the system.

The Stage (or pre-production) environment will mirror the Production environment. We typically move fully tested code into a Stage environment. While we can complete final performance or regression testing in this environment, it is intended to contain production-ready code. When we move code into production, we move it from this environment. Production and Disaster Recovery environments will be used in their typical capacity. Finally, we will perform data conversion testing throughout the test cycles in the Test and Stage environments.

The hardware and software items that will be required to make the environments functional are listed in T9 Technical Requirements Section 4.0 Software Components and Section 5.0 Proposed Hardware Technical Specifications.

As was more fully described in T9 Technical Requirements Section 3.6.7 Design, Build, and Operational Support Tools, we configure the individual developer machine to have the required compilers and integrated development tools as a standard software development practice. These tools will include Commercial Off-the-Shelf (COTS) products such as JBoss Developer, SQL Developer, Internet Explorer and Firefox. We use standard Optum tools, techniques and processes to perform rigorous code evaluations before code check-in. This includes products such as SonarQube and Fortify that perform static and dynamic source code evaluation. These

tools help development teams write code that others can maintain easily. Using these tools, we establish target thresholds before code check-in to build quality into our solution. These tools identify and run the automated JUnit scripts that developers create to perform automated unit testing. Leveraging these tools and analyzing the results will determine our code coverage targets. This approach will also tell us when code will be available to check out for the build process into our QA testing process. The following table shows the software and tools that will be deployed on the developer desktop or that will be used in our DevOps Software processes.



3.2 Integration with Operational Processes

As the DHS IE-BM Solution is a critical foundation to the future of DHS, the IE-BM Project will need to drive the maturation of some of the existing operational processes across the State enterprise (DIS/DHS) as the State embarks on maturing their alignment with ITIL v3 processes (e.g., Change/Release, Configuration, Incident Management etc.).

Instructions: Describe the Vendor’s approach to integrating a major implementation project with State’s existing operational processes as well as with the State’s continuous improvement goal to align with ITIL v3 processes. Detail any experiences the Vendor has in a similar environment and situation, the challenges faced and how these challenges were overcome.

We will use our Release Entry Framework (REF) methodology to manage successful and smooth releases into the environment. We will also manage existing State processes by using a series of checklists and validation steps. Our approach to operations is proactive and collaborative as we work with our on-site operations team (i.e., the AME, DSS and FADS support team) and your staff in real time and throughout the implementation. We will infuse our DDI team into your existing operational processes, such as change management, business process integration and data governance.

Our operations approach, as depicted in Figure 15, provides complete integration of your operational processes both during and after implementation by including our REF, gatekeeper process, release management process and performance management process.



Figure 15. Optum Operations Approach.

We will begin our M&O activities for the IE-BM early in the software development lifecycle.

While these processes, as well as our Lessons Learned from previous engagements, are explained in more detail in deliverable T13, their foundation is based on ITIL v3 standards and includes the following:

- Incident management
- Program management
- Change management
- Release management
- Event management
- Master data management
- Capacity management
- Availability management
- Knowledge management
- Service asset and configuration management
- Identity and access management services
- Enterprise content management services

We will collaborate with our existing on-site team and your staff to integrate and align these processes with your existing operational processes at the appropriate points within the SDLC to help drive their maturation while we manage any operational issues.

Our experience in delivering our ITIL-based service management approach has been demonstrated in state projects, where our delivery performance and innovative approach to integrating these processes into the fabric of their existing operational framework has been the foundation of our trusted relationship. We will work with you to establish the same level of collaboration. We will conduct a gap analysis of your current ITIL processes, and we will review the gaps against industry standard ITIL processes and provide recommendations on how to move from current state to future state.

3.3 Environment Coordination

The DHS IE-BM Solution will be installed and maintained in a State controlled facility(s) either by State resources and/or another Infrastructure Vendor acting on behalf of the State to perform some of the tasks. The Vendor must collaborate with State resources and/or Infrastructure Vendor to identify, mitigate and resolve any issues arising from ongoing implementation.

Instructions: Describe the approach to deploying solution components to minimize the potential for issues resulting from concurrent development (e.g., ensuring the development environment has the most current versions) and how these activities should be coordinated.

A key component of our REF is our DevOps framework, which we use to develop and deploy code for the different AR IE-BM components. We will use our source code repository to control the source code and prevent issues such as accidental over-writes or misaligned configuration files. When a build is requested, we will build a code container and load it into the container registry. When we need to deploy a container into an environment, we will use our deployment tools and scripts to obtain the needed container from the registry and deploy it to the appropriate environment. The container will exit the environment or be promoted to the next environment, depending on the requirements.

As part of our standard operating procedure, we will follow our change control processes (open a change ticket, schedule the deployment and conduct post-implementation verification). This makes sure the containers pass the appropriate stage gates before promotion into the next environment. We will modify the container as needed based on user feedback, monitoring results and performance. After we complete our modifications, we will load the container back into the source code repository.

This approach has proven to be very effective and enabled us to unwind older, non-functioning, code for a State customer, where we took out a code base that was not functioning properly within the overall design. This approach is also very transportable and may easily be adopted and performed by the State or other third parties, as needed.

Not only is our REF process effective, the DevOps component makes it highly portable to other parts of the DHS organization. As we collaborate with your State resources, they will be equipped with the necessary tools and procedures to perform deployments on their own, using our DevOps framework, which is consistent with ITIL v3 processes. In this way, we will work with you to advance your maturity and alignment with ITIL v3.

Throughout environment coordination, we will collaborate with you and any vendor supporting the infrastructure by following the PMP sub-plans. The Communication Management Plan defines the roles and responsibilities of Optum, DHS and project stakeholders and vendors in sharing information about key project processes, events, documents and milestone. The Risk and Issues Management Plan describes how we will identify, track and resolve risks and issues that occur during implementation and our performance of contract requirements. These plans will help all parties work together and stay informed about activities, milestones and issues related to environment coordination.

3.4 Security and Regulatory Management

The Vendor must provide policies and practices to prevent, detect and resolve security breaches. In addition, the Vendor should demonstrate experience and ability to meet all regulatory requirements.

Instructions: Describe how the Vendor intends to maintain physical and logical security of the IE-BM technology stack and its implementation relative to the services it provides as part of the proposed Solution.

We meet stringent security regulations through embedded controls designed and based on a layered Service Oriented Architecture (SOA) model and associated threats to each layer. We distribute security controls across the environment to prevent unauthorized opportunistic access. The techniques and mechanisms we will use to protect data include advanced data protection; application and platform hardening; encryption and entitlement review; multi-factor authentication; physical, logical and virtual isolation; and RBAC.

We use a defense-in-depth approach to security comprising multiple layers of technology, network segmentation, and processes to detect and prevent cyber threats. This approach includes multiple security technologies deployed on the network; intrusion prevention and detection systems; firewalls; and network segmentation and access controls.

Continuous monitoring of the AR IE-BM measures the ongoing effectiveness of deployed security controls, changes in information systems and operational environments, and compliance with legislation, directives, policies and standards. This information is vital input to make sure we quickly identify risks and problems and maintain ongoing security and compliance of the AR IE-BM. We monitor events on the information systems to detect anomalies and suspect activity. Our monitoring and incident response teams operate 24 hours a day, seven days a week to address any potential security threats. We will provide routine reports to DHS. A Security Information and Event Management solution for log aggregation and monitoring will help us to identify anomalous, unauthorized or inappropriate access according our information security procedures and industry best practices. We will investigate anomalies discovered using additional information captured in our logs for forensic purposes. Log information will be available to DHS upon request.

We perform an annual security assessment to review the technical and non-technical policies, procedures and controls that protect Arkansas data and services from internal and external threats. Information collected from these assessments is used to enhance our security profile.

4.0 Approach to Solution Design, Development and Implementation (DDI)

The Vendor should ensure that the responses to this section are in alignment with the requirements set forth in Template T-10 – Implementation Requirements Traceability Matrix, Section I4.

This response addresses requirements contained in Tab I4 of the Implementation Requirements Traceability Matrix. Optum meets all of the requirements in this section and we have provided two clarifying comments related to source code and escrow. For the source code Requirement (Requirement I4.28), not all COTS OEM products provide us with the source code but we will provide all source code related to customizations as well as any we receive from COTS

vendors. For the escrow requirement, we will deposit source code and object (executable) code for the custom developed and integration related code, and for any COTS product, Optum will deposit object code.

In Section 1.0, we introduced our ODM as the core project management methodology we will use to manage the IE-BM Project. In Section 2.0, we illustrated how ODM is also the foundation for our SDLC. In this section, we will elaborate on how ODM specifically applies to the design, development and implementation phases within the SDLC.

As mentioned previously, ODM leverages a hybrid waterfall and Agile approach that includes iterative design, development and configuration of key solution components and follows the project phases of initiation, planning, execution, control and closeout. We explain how continuous integration and continuous testing will reduce risk and speed solution delivery by eliminating waste, building quality early, delivering quickly and empowering people.

While our DDI processes are Agile and iterative, you will also see that our solution architecture follows a strict adherence to CMS' Seven Conditions and Standards, specifically as it relates to modularity, reuse, interoperability and security. As such, we have designed a modular-based HHS framework upon which our Optum IE solution is based.

Similarly, we describe how we will design and develop the AR IE-BM to comply with secure SOA principles as defined in the Modularity Standard and the MITA Condition within CMS' Seven Conditions and Standards including the use reusable and agnostic technology standards with loosely coupled and abstracted components. This approach will enable us to replace one module with minimal impact to upstream and downstream applications. Centralized business rules management and consistent data definition will also be key elements of our solution.

Finally, we provide insight into how our AR IE-BM Solution and specifically your State Hub will leverage our Optum Integration Layer (OIL). OIL is a health and human services-specific SOA equipped with a library of service adapters and data models that are configured to integrate solution modules with internal, other government or third-party systems.

4.1 Requirements Validation and System Design Methodology

The Vendor is responsible for leading the System design process which is critical to developing a Solution that meets DHS's needs.

Instructions: Describe the Vendor's System Design methodology. This should include a description of what the Vendor believes will be an effective approach to validating the requirements and developing detailed designs (e.g., JAD sessions, usability studies, managing policy changes) and should refer to relevant items in the Project Work Plan. Provide details regarding how these design sessions will be facilitated and how this approach will translate business requirements into a System architecture and design specifications for an integrated Eligibility and Benefits Management Solution.

This section addresses Requirements I4.1-4.25 and 4.39 in Template T-10 – Implementation Requirements Traceability Matrix, Section I4.

Requirements Validation

We will review and confirm our understanding of your requirements through Joint Application Design (JAD) sessions held with your staff, our current onsite team and partners. During these sessions, we will review, refine and seek confirmation of all preliminary requirements in the

RFP. Keeping in mind the COTS nature of the Optum IE solution, we will work with you to evaluate the requirements against our out-of-the-box, configurable functionality and will explore the cost/benefit tradeoffs of any potential customizations. Next, we will document any resulting modifications to the requirements using our collaborative requirements gathering tools. We will produce system requirements specification documents and other key deliverables, which, upon your approval, will become the basis for the final RTM for the project.

We will configure our solution to meet your requirements. We will review and document the system through design preview sessions. Then, we will document the solution design in the various system design documents. We perform the Preliminary System Design (PSD) and DSD processes in a much more agile and effective manner than the traditional approach to systems requirements analysis and design. This approach will reduce the burden of DHS staff spending time in long requirements gathering sessions.

For example, with the user interface and portal, we will take an Agile-based, iterative design and development approach. A key feature of this approach is our design preview sessions. Through design previews, your stakeholders will view a live, working version of the portal and user interface. We will work with you to preview the solution, gather your feedback, update configurations tailoring to your needs and then review the updates with you. We will continue this iterative process until we have reached agreement that the solution meets your requirements. The design preview meetings have the additional benefit of acquainting future users to the system early in the process. There is a prototype nature to our design preview process. These sessions are focused, energizing and engaging, as opposed to the traditional requirement gathering process.

Another example of our nontraditional approach to analysis and design leverages our Optum decision process as the basis for defining rules within our Optum business rules engine. The full process flow of activity is available for investigation and debugging purposes. Additionally, our results will include all decisions made as part of the determination process. Our approach is to provide all critical decisions made in the rule execution as part of the eligibility response. The response contains one or more decision blocks that hold the decision type; rule ID; decision, possible dispositions; associated notices to be sent and the business process workflow associated with that rule execution. This process flow is configurable per rule per customer. Each step in the rule process is documented with each rule that was executed along the way.

An example of a decision process is as follows:

Step 1: Determining the program assistance unit or household. The determination identifies those people on the application whose non-financial and financial information is needed to determine eligibility.

Step 2: Determining the citizenship and related non-financial conditions for each person included in the assistance unit or household. The individual results are pooled into an assistance unit results where appropriate for the program. Repeat the citizenship determination process (for all other non-financial program conditions).

Step 3: Financial conditions include asset and income determinations. The asset determination considers all resources as appropriate for the program for each individual. Those amounts are

Requirements and Design Best Practices

- Collaborative design prototype and preview process
- Early and frequent exposure and input to the configuration of your AR IE-BM
- Agile-like, iterative design and development approach
- Continuous feedback and updates to RTM

pooled across the assistance unit following program rules. That result is compared to the appropriate standard. The income determination follows the same process as assets. The benefit calculation steps use the household or assistance unit income result to calculate the benefit allotment after appropriate deductions are applied.

Step 4: The final decision includes a pooled, overall program result using the person-level; assistance-level; and unit-level financial and non-financial rules outcomes. That output includes the assistance unit determination, the individual level and assistance unit-level results for each financial and non-financial condition, and the final program result.

System Design Methodology

As noted above, our system design methodology dovetails with our Agile-based requirements validation processes in that it begins with the same joint application design sessions, which serve a dual purpose to both validate requirements and develop a preliminary high-level solution design. We document the solution design in the various system design documents as we perform the PSD and DSD processes. While our design processes are Agile and iterative, our solution architecture follows a strict adherence to CMS' Seven Conditions and Standards, specifically as it relates to modularity, reuse, interoperability and security. As such, we have designed a modular-based HHS framework, upon which our Optum IE solution is based. As a result, the final solution will have the flexibility to be adaptive over time as requirements change and/or new programs are added.

For example, we will be able to phase in our solution by first delivering an Application Intake user interface that utilizes your existing Cúram rules engine rather than ours because of our modular design. Then, we will be able to bring our rules engine and integration layer online using a program-by-program rollout, replacing the existing Cúram tooling and your legacy applications over time. With this approach, which leverages our modular architecture, we can avoid a high-risk, "big bang" approach. Similarly, given this architecture, our modules may be independently upgraded or even swapped out as future technologies evolve.

An example of our experience and approach comes from an implementation that our partner Connvertex completed in support of Utah's Electronic Resource Eligibility Product (eREP) project. They migrated the State from the Cúram platform to an open source technology.

In order to use the open source technologies, it was essential that the eREP solution was upgraded from the version of Java that the State was using. They have since helped eREP upgrade to Java 6, Websphere 7, and most recently Java 8 and Websphere 9.

During the initial migration, performance issues with the Cúram rules execution were discovered. The State had no intention of upgrading Cúram licenses. Connvertex proposed replacing the rules engine with a framework supported by the Jboss Drools rules engine. There was a 35-40 percent performance improvement in production after the rollout of the new rules engine.

Additional enhancements included:

- Transitioning interfaces with external applications to an ESB which improved the efficiency and performance of data transfers
- Implementing new version control tools and processes which improved the efficiency and quality of code releases

- Breaking the monolithic eREP application into micro-services and phasing out of Websphere which improved overall system performance and significantly reduced licensing costs
- Implemented a system monitoring application and operational processes improved performance and availability, and allowed trending analysis to identify performance issues
- While our overall HHS Framework is described further in Section T9 Technical Requirements, our design methodology conforms to the modular architecture as well.

User Interfaces and Portals: We design our user interfaces to be easy to use with little training or assistance required. These guidelines help us design intuitive user interfaces for our solutions:

- We perform deep analysis and user research to understand behavior and the way targeted users will engage with the product. This helps us enhance the design and make the user experience complete, efficient and free of frustration.
- We follow best practices in design and consistency across all delivery channels.
- We use a common plain language, tone and appropriate readability level to match DHS user goals.
- We follow the Web Content Accessibility Guidelines (WCAG) 2.0 standards, which covers Section 508 guidelines.
- We use wireframes to visually depict the usability and navigation requirements related to the detailed functional requirements that have user interaction.

Our user experience design team will work with the development team to create an AR IE-BM that is intuitive for users. Our collaborative Agile environment encourages good design and a strong process. This will enable us to continually evolve our suite of products and provide a great user experience for your clients and case workers.

Business Logic and Business Rules: As described previously in our decision process example, business logic determines the process we use to create, transform or calculate data and transfer it to users or another system. Business rules are defined policy that we apply to business logic. We will use business process modeling and business use case modeling to define business logic and align it with your business requirements. We will collect your detailed business rules and evaluate them during requirements analysis and apply them to your business process.

Additionally, we will perform comprehensive business rules analysis to build the rules logic within the system helping us meet the requirements for your programs. Our business rules engine and AR IE-BM is robust and modular. We will develop formal governance around the business rules for the DHS programs so there are not federated or one-off eligibility rules proliferating in other systems. Developing formal governance will drive transparency, standardization, and efficiencies in the AR IE-BM.

Input/Output Validation: We will perform input data validation to minimize malformed data entering the system. The following input data validation will factor into the AR IE-BM design:

- **Data type validation:** Verifies that individual characters provided by users are consistent with the expected characters of known primitive data types

- **Range and constraint validation:** Verifies the user input for consistency with a minimum or maximum range or consistency
- **Crosswalk validation:** Verifies the user input by cross-referencing it with a lookup table

Workflow automation diagrams: We will identify the candidates for workflow automation during requirements gathering and solution design. Prime candidates include repeatable processes with a distinct set of decision criteria used to route and complete the activity. When identified, we will document the workflows and validate them with your stakeholders using our business process documentation tools (MS Office and Visio).

Data models: We use data models to facilitate communication between business and technology teams. Like blueprints, we create data models to remove any ambiguities about a data design. Data models conceptualize requirements at a subject area level and facilitate drilling down into the data elements. They help us understand the metadata surrounding that element, or field. Data models depict relationships and constraints between the data and enables better database and application builds.

Data models also provide a visual representation of the data that persists from existing systems. The data model depicts both the data and inter-data dependencies and illustrates dependencies by showing the relationships between data in the data model. We will use the Erwin Modeling Tool to assist in developing and refining data models from our core product for the AR IE-BM.

Data architecture: Data architecture for the AR IE-BM is a set of rules, policies, standards and models that govern and define the type of data collected. It also governs and defines how we use, store, manage and integrate data within an organization and its database systems.

We will leverage the Informatica Metadata Manager to deliver a centralized and standardized set of data and metadata definitions. It helps us answer questions about the data such as how many phone numbers we store for a member. Well-constructed data architecture helps us enforce business rules.

The data architecture also anticipates the need to make data available through landing zones and secure transport mechanisms. Our Electronic Customer Gateway (ECG) will be used for data transfer. We currently use ECG for health and human services projects in Arkansas and New York. These may be scheduled or manually triggered.

Web services: Our solution for the AR IE-BM will contain a comprehensive library of Web services which will enable the AR IE-BM to integrate with third-party applications or Web portals.

Our COTS-based solutions have predefined sets of Web services that we can use for communication between systems. The real-time services use SOAP or REST Web services APIs as part of the solution. The SOA and technology stack will integrate products and applications using our OIL solution.

Infrastructure: Our solution provides the highest degree of performance with the lowest level of risk. Our goal is to provide the right sizing of infrastructure components by allocating resources required to meet availability and performance requirements. This design reduces the overall operational expenses of the platform, provides increased capacity in a flexible manner, and includes scheduled software upgrades.

System architecture: Our preferred technical approach will leverage our high performance hosting environments and services, SOA, and a secure infrastructure. Our proposed solution will provide real-time and batch services for inbound and outbound transactions. The real-time

services will use SOAP or REST Web services APIs as part of the solution. The SOA and technology stack will integrate products and applications using the OIL solution.

Batch processing: This is an area of opportunity for modernization as older systems depend heavily on batch processing. The Optum IES uses modern data sharing techniques that avoid a heavy reliance on batch processing. However, batch processing is appropriate in certain circumstances including bulk processing of a specified population. The dependence on batch is not a limitation of the technology but in most cases a way to conform to business process that would require a total population view to certify the outcome matches the expected result. Our batch architecture is a modular approach and reusable service model that reduces complexity and leads to easier maintenance, troubleshooting and validation to provide these benefits:

- Helps minimize the risk that a change to one component will affect another component
- Standardized and reusable components that lead to significant cost savings as well as reduced development time

Our ECG solution is used to manage File Transfer through secure FTP (sFTP). The ECG is a Managed File Transfer software solution used to facilitate the secure transfer of electronic data between entities. ECG solutions are optimized to enable secure, auditable, and easy-to-manage Business-2-Business, Application-2-Application, and ad hoc information exchanges. Our batch processing will be triggered through a variety of mechanisms, including, but not limited to Tivoli Workload Scheduler and Java Quartz. All files moved during a batch transfer can be monitored by our Data File Management (DFM) team per RFP requirements.

Business process modeling approach: Business process modeling helps us evaluate how a proposed solution may affect business areas and is critical for understanding how the solution will affect business operations. To define our proposed business process, we will begin with any existing models that describe the current business process. They can help us identify where we should perform change management for the business process changes. We will validate existing business processes before using them.

Business process models also support the development of business use cases. Use cases describe business process activities. Use case modeling is used to describe features that involve business interaction (no system involvement), business and technology interaction (actor to system), and technology interaction (system to system). We can describe an activity identified in the process flows with a use case. This may include a use case in itself, part of a use case, or more than one use case.

Requirements Traceability Matrix (RTM): This deliverable links requirements to the design and solution, which we will use to validate requirements. DHS project management staff will have access to the RTM throughout the term of the contract. Once approved, the updated requirements schedule will be incorporated into the detailed project schedule. Outputs from this phase will include a PSD, including business context, and an RTM. The high-level design materials will be inputs to the next phase.

Policy Review

We will use Subject Matter Experts (SMEs) with experience in human services programs to review policy information for the AR IE-BM Project.

Approach to Completion of the Requirements Validation and Design Phase

The Optum AR IE-BM business leads and business analysts who will lead requirement sessions have significant experience on integrated eligibility engagements. We have already reviewed

and analyzed your project requirements and decomposed those requirements to the application level. Outputs from this phase will include a requirements document and gap analysis. We will analyze the requirements based on the following criteria:

- **Values:** Defines the success criteria for the goals. They must be defined at a program level and may have a more granular definition at the project level.
- **Functions:** States end required product capabilities and any explicit business rules.
- **Qualities:** Describes performance requirements (e.g., scalability, reliability, usability).
- **Features:** Documents the components of the solution either at the conceptual domain level or at the logical level by application.
- **User stories:** Focuses on the user to illustrate the relationships between activities. We use easy-to-read personas to illustrate how users navigate the system. Outputs from this phase will include the requirements document, gap analysis and usage scenarios.

The requirements materials will be input to the next phase. Figure 16 illustrates the requirements analysis overview.



Figure 16. Requirements Analysis Overview.

We will review and analyze your project requirements and decompose those requirements to the AR IE-BM application level.

Approach to Obtaining Agency Approval of the Completion of the Requirements Validation and Design Phase, including proposed Acceptance Criteria for each Milestone

Iterative approach: We will follow an iterative approach for developing business requirements. This approach will enable us to review the values, functions and qualities with you and document them in a measurable manner. Techniques, such as business process modeling, business use case modeling, architectural modeling or similar processes will help us accomplish this.

Establish business requirements traceability: Within the requirements development process, traceability will begin with current RFP requirement and feedback from the design preview sessions that we document in the PSD. We will be able to provide traceability from a business goal and objective down to the most detailed requirement statement. We will maintain the RTM throughout the lifecycle of the project.

Solution analysis: We will use our ODM for the AR IE-BM. ODM is based on continuous improvement and lean Agile principles to reduce risk and speed delivery. Our ODM methodology follows an iterative approach that provides users frequent touch points with our developers. These touch points will occur during design preview sessions and other collaborative forums such as whiteboard and wireframe design sessions, paper-based demos and daily Scrum calls. We will incorporate these sessions throughout the design, build, and test processes. We will host these sessions as often as needed for components that will benefit from frequent customer input (e.g., metadata model design, report design). Through design previews, your stakeholders will view a live, working version of the solution. We will work with you to preview the solution, obtain your feedback, tailor configurations to your needs, and review the updates with you. We will continue this iterative process until the solution meets your requirements.

Refine requirement: Business requirements updates may occur concurrently with the development of the solution description. During solution analysis, we occasionally discover additional business requirements or recognize that a stated requirement is not applicable.

Requirements validation and design: We will use requirements clarification and validation workshops to make sure the requirements deliver value to DHS. During these workshops, we will review and confirm our understanding of your requirements including the clarification of goals and objectives to meet your stakeholders' needs. We will document requirements using our collaborative requirements gathering tools and produce system requirements specification documents and other key deliverables. Upon DHS approval, these requirements will become the basis for traceability throughout the rest of the project. We will follow standard project management practices for approval and acceptances at each milestone of the SDLC.

The PMO will create a deliverable tracker to track all contract deliverables for the AR IE-BM. It provides metrics and will indicate when the deliverables are due, when they are submitted, when they receive sign-off, and which deliverables have payments tied to them. For each deliverable, we will create a Deliverable Expectations Document (DED) as required in Requirement I 1.4 that documents the agreed upon acceptance criteria and we will submit the DED to DHS for review and approval. Each DED and contract deliverable will be included in the detailed project schedule. The DDI team will maintain a traceability matrix that maps each requirement to a deliverable document (e.g., requirements document, solution architecture document, and technical design document).

Medicaid Information Technology Architecture (MITA) Requirements

Industry-based, open-architectural standards: We will design and develop the AR IE-BM to comply with secure SOA principles as defined in the Modularity Standard and the MITA Condition within the CMS Seven Conditions and Standards. The AR IE-BM will incorporate open interface and reusable technology standards. It will include methodologies that separate the presentation, business and data layers at the MITA 3.0 business process level. Aligning with the MITA 3.0 framework, the AR IE-BM architecture is driven by technology agnostic standards with loosely coupled and abstracted components. This approach will enable us to replace one module with minimal impact to upstream and downstream applications. Centralized business rules management and consistent data definition will also be key elements of our solution.

Modular components: We developed the AR IE-BM Solution around the principle of using COTS products where appropriate. By designing the Optum IES as an integrated suite of COTS components, we significantly reduce the amount of custom code we must develop as part of implementation. Our approach embraces the MITA concepts of modularity and reuse. It also reduces risk while providing an accelerated implementation timeline.

Data management: Our proposed solution and processes for the AR IE-BM align closely to the MITA Information Architecture framework as the following solution components demonstrate:

- Logical data model implemented and maintained using the Embarcadero ER/Studio toolset
- Physical data model implemented in parallel and maintained using Embarcadero ER/Studio toolset
- Comprehensive set of data standards and guiding principles established to manage the overall data model design and evolution
- Data dictionary established and maintained that aligns with the logical and physical model
- Entire software system decomposed and organized into subject area and infrastructure domains
- Each domain modeled in terms of entities, objects and interfaces
- Data management and model changes closely governed through our senior data architect
- All transaction data persisted and accumulated for past periods and reports accessible with performance information

Web and real-time processing: We will employ SOA using REST and SOAP APIs for integration with our internal products and external vendors. The ESB platform integrates to provide a modular, flexible and configurable solution. We can support a variety of COTS installations and customizations, application interfaces, data transformations between disparate systems, custom Web services and other eCommerce/electronic data interchange (EC/EDI) requirements.

Rules engine management: The Optum IES business rules engine will facilitate business function processing between various technical components. We can integrate rules with external systems as needed. For example, we can configure eligibility determination rules for specific programs (e.g., TANF, SNAP) within the rules engine based on business need. We can integrate the rules engine with any system to request eligibility for those programs.

Rules engines and workflow also provide greater levels of validation. For example, we can define automated validation criteria to detect errors and route work to a given work queue for resolution. Using workflows and rules engines effectively can help us detect errors early and increase quality and throughput. This approach helps us to resolve issues before they cause major downstream impacts.

Data privacy, security and integrity: Our SDLC enables us to identify and verify the regulatory requirements and the controls required to meet compliance. We will meet your security requirements by performing the following activities:

- Identifying applicable security and compliance requirements, system components, functional requirements, internal administrative controls during the requirements gathering phase
- Identifying existing patterns, use cases and gap analysis during the design phase
- Identifying the recommended solution, including recommendations for acquiring the solutions required to address gaps during the development phase

- Performing threat and vulnerability management through source code review and infrastructure and application penetration testing during QA
- Performing continuous vulnerability scans, flaw remediation and compliance verification during the production phase

Protecting member confidentiality is a top priority at Optum. Our solutions follow industry best practices and compliance requirements of applicable standards and regulations. We will provide data protection by following industry best practices and our proprietary SDLC process in every aspect of our technology infrastructure and business operations. We integrate security architecture into our SDLC, which drives all solution design and resulting operational processes. This enables us to identify and verify the regulatory requirements and controls required to meet compliance.

We meet stringent state and federal security regulations through embedded controls designed and based on a layered SOA model and associated threats to each layer. We distribute security controls across the environment to prevent unauthorized opportunistic access. The techniques and mechanisms we will use to protect data include the following:

- Advanced data protection
- Application and platform hardening
- Encryption and entitlement review
- Multi-factor authentication
- Physical, logical and virtual isolation
- RBAC

Optum limits access to data using RBAC that is defined by job role and function. This approach allows the minimum necessary access to validate data privacy, security and integrity.

System Design and Documentation—Agile Development Approach

The ODM follows a proven, industry recommended SDLC methodology and is the basis for the RSD. It follows a strategy of early delivery of high quality services while iteratively building the features and value users require. ODM is built on lean Agile principles and values. It provides a streamlined and simplified framework for multiple Agile teams working on large-scale implementations, executing on the same cadence and synchronization using a common backlog of features to build into the solution. The AR IE-BM Project will adhere to defined processes; pass development gates; create and obtain approval for required documentation; meet core, operating procedures; and meet quality objectives before moving into production. Our design will include a high-level design phase and a detailed design phase.

High-level design: The AR IE-BM Project team will review and analyze your requirements and specifications to build the solution architecture outline, functional application and data design. As part of our ODM methodology mentioned at the beginning of this section, the PSD will describe our high-level solution for the AR IE-BM. After we receive your approval on the PSD, we will continue defining the solution.

Requirements specification document: This deliverable represents the solution and the integration between components. A solution context diagram identifies software components of the solution, interaction between components, and actors as part of the end-to-end solution. It also shows the interfaces between the core business functionality and external entities with which it communicates. A formal review and high-level architectural design will be conducted by DHS prior to detailed design of the AR IE-BM to achieve confidence the design satisfies the system requirements and is in conformance with the enterprise architecture and prescribed design standards. This will tie back to the RTM.

Detailed design: During this phase, we will identify the detailed behavior of the applications, component interaction details and activities, and data flow for the solution. We will outline the detailed logical and physical data model and infrastructure and deployment details for each solution component. Outputs from this phase will include detailed architectural and design specifications, physical data models and definitions, and an application interface specification. As part of the ODM process, we will outline this information in solution architecture documents (SADs) and solution integration specifications (SIS). Each of these will be part of the overall DSD.

Deliverables we will create during this phase include the following:

- **Process flows** visually represent the relationships between processes. Along with the business use cases and business rules, process flows will describe the process architecture of a business. It provides the detailed views needed to depict the workflow of activities involved in the AR IE-BM system process.
- **Use case and activity diagrams** elaborate on the features of the proposed solution by providing more detail on the specifics of each feature. This includes the basic flow, alternative flows and exception flows. The activity diagrams will depict the system activities and behavioral aspects of the system processes according to the solution design. We will use these later as part of the Training module.
- **Interaction and deployment diagrams** represent the interaction between two or more components in the solution outline. The deployment diagram will identify software components of the infrastructure solution and placement of those components.
- **Application interface specification** provides details of the interfaces (data elements and definitions) for system-to-system interaction. It outlines the specification for services and batch and file-based interactions.

Because the detailed solution design drives the configuration of the AR IE-BM, it is critical to thoroughly review and approve the design before continuing to the next project phase. We designed our methodology to include a decision gate at the end of this phase. We will conclude this process with a Final System Design (FSD) document, which will give the actual implementation details of each component and sub-component from a functional and technical perspective, including final architecture implementation.

System requirements specification document: The RSD documents the specific system requirements as agreed to by DHS and Optum. This document supports a rigorous assessment of requirements before design begins in order to reduce later redesign. It provides a realistic basis for estimating product costs, risks and schedules. The RSD is the primary output of the Requirements Validation sessions. The RSD will establish Optum ownership of all system requirements by documenting the shared understanding of the expectations for each requirement between DHS and Optum.

Requirements Traceability Matrix (RTM): The RTM links all requirements for the AR IE-BM back to their origin and traces their implementation throughout the project lifecycle. The RTM will establish traceability of the solution requirements from the beginning of the project. We will update and maintain the RTM throughout the course of the project.

Requirements management and tracking system: As mentioned previously, The PMO will create a deliverable tracker for all contract deliverables for the AR IE-BM. It will provide metrics and indicate when the deliverables are due, when they are submitted, when they receive sign-off, and which deliverables have payments tied to them.

We will update project deliverables throughout the project lifecycle. Updates often result if we identify defects during the testing process. They also result from the formal Change Request process. At the end of the project or a key phase, the PMO will schedule a meeting with the project team and will review the list of deliverables and discuss whether any deliverables require additional updates.

DSD document: The DSD describes the AR IE-BM, including its architecture, procedures, data and interfaces, all in sufficient detail to enable the development and implementation of the solution to meet all requirements described in the RFP. The DSD will provide the solution design that Optum will use to satisfy the requirements of the contract. The DSD is the primary output of the Design Sessions and will include the following information:

- **DHS review:** Provides you the ability to conduct a full-program review covering the components of the program to include design specifications.
- **System files and processing architecture:** Documents the list of the files with the AR IE-BM and how they are processed to create the desired results.
- **Narrative and data flow:** Explains how information travels through the entire AR IE-BM for example, customer portal and the eligibility rules engine applications. The flow narrative includes detailed information regarding how the flow of information works within the solution.
- **Detailed description and diagram of the system architecture:** Lists the infrastructure, the AR IE-BM Solution, and how these components integrate the overall solution.
- **Subsystem narratives:** Explains each module and the interworking of AR IE-BM components.
- **Security design:** Guides the security controls we use across our ecosystem of infrastructures in compliance with our information security policies and standards. This includes network infrastructure, critical application, services and fully hosted and managed solutions. An organizationally separate audit and compliance team, as well as external parties, will perform verifications of controls. We will conduct reviews at least annually.
- **Flow diagrams and business process models:** Document the workflow for each business process supported by the AR IE-BM. They are provided at a level required to understand how the process will work with the solution, including whether changes from the current state process are required or desired. The business process models provide a step-by-step workflow of each business process to be supported by the solution.
- **Inputs and outputs:** Lists the complete lists of conversion input and output files including the mapping of input fields to output fields.
- **Hardware/software detail:** Lists all hardware and software used by the AR IE-BM Solution including all releases and phases from DDI through M&O.
- **High-level data model:** Facilitates planning for and handling of all in-scope data varieties and volumes, and understanding the complexities inherent in defining the relationship between source and target data structures. The data models provide the detailed, conceptual, logical and physical models that define the structure of the data in the solution.

4.2 System Development and Configuration Methodology

The Vendor must provide the processes and approach for managing the custom development and configurations to ensure high quality code and documentation required for supportability.

Instructions: Describe the Vendor’s System development and configuration methodology.

This response addresses Requirements I4.26-4.38 contained in Tab I4 of the Implementation Requirements Traceability Matrix.

Approach to Development

We will follow our ODM, a hybrid waterfall and Agile approach that includes iterative design and configuration of key solution components and follows the project phases of initiation, planning, execution, control and closeout.

As noted in Section 2.0, the ODM rigorous adherence to lean Agile principles, continuous integration and continuous testing will help us reduce risk and speed solution delivery for the AR IE-BM Solution. Lean software development emphasizes values such as eliminating waste, building quality early, delivering quickly and empowering people. ODM offers the following key advantages for the AR IE-BM Solution:

- Reduces delivery cycle time
- Raises the quality of developed solutions
- Improves the predictability and quality of the deployed releases
- Increases the productivity of overall development organization
- Provides transparency into our project health for the stakeholders
- Encourages higher resource engagement in deployment process

As part of ODM, we will use the Scrum Framework to develop the IE-BM. Scrum is an iterative and incremental Agile software development framework for managing product development. It will help us manage the IE-BM project and define, prioritize and estimate project work. It will help us establish the best cadence for delivery, including release and sprint planning, sprint execution and sprint demos. Like other Agile development methodologies, we can implement Scrum using a wide range of tools. We will use Rally to build and maintain IE-BM Project artifacts. These may include user stories, backlogs, release plans and test scripts. Scrum will enable us to deliver smaller changes rapidly and predictively. We will rely on our high quality code base and automation to achieve and sustain this. At the completion of each release, you will be able to view and test the iteration through case notes and user acceptance tests.

Development standards: Our development team will use the designs generated during solution design to create or update the appropriate database and application components. We will perform activities that include coding, code review, and unit testing of all release components (i.e., user interfaces, program code, job control code, databases). Before system testing begins, we will verify that we completed all activities successfully. If we identify changes to the solution design during this phase, we will update the design documents and repeat the review and approval process. The documents we generate for the AR IE-BM Solution related to development standards will include a code review and defect tracking workbook; a coding standards addendum; and a test summary report.

Individual developer machine configuration requirements: As a standard software development practice, we will configure the individual developer machine to have the required compilers and integrated development environments. These may include JBoss Developer, SQL Developer, Internet Explorer, Firefox or other required compilers and environments.

Build machine configuration requirements: We will use continuous integration and the continuous build model described in the Code Base Management section of this response to build machine configuration requirements. Using DevOps, we will develop code for the different IE-BM components, such as the Agency Portal and the Client Portal. After we check the code and application configuration details into the source code repository, we will build the code. After the code build, we will deploy it to the development environment for code analysis and regression testing.

Unit testing and code reviews: We will perform unit testing and code reviews of all release components (i.e., user interfaces, program code, job control code and databases). During the code development and unit testing phases, we will follow the DevOps approach to deploy quality code analysis tools that are integrated into the code build and development process. These tools, along with the unit tests scripts, will validate the development code against the business functionality and our standardized development methodology. This approach, which is intended to be transparent and available for DHS to participate in and review, will verify that the code we develop has the proper quality and documentation to help future developers and support staff understands the code. This step will make it easier to debug the code or modify it in the future for new functionality.

Finally, prior to the start of system testing, we will verify that we have completed all activities successfully. If we identify changes to the solution design during this phase, we will update the design documents and repeat the review and approval process for the design.

4.3 End-to-End Integration Approach (State Hub)

DHS envisions what the Vendor will lead the effort to conduct end-to-end integration to support the person-centered model of practice envisioned by the Department by building a “State Hub”. The Vendor will lead the effort to integrate with systems external to the IE-BM, and the vendors that support these systems through the State Hub – combination of a true Enterprise Service Bus (ESB) coupled with Master Data Management (MDM) functionality.

Instructions: Describe the Vendor’s approach to integration including a description of how they will interface via the DHS IE-BM Solution and approach to supporting the enablement of common shared technology components & services and shared business functionality.

Our integration solution for the AR IE-BM Solution is based on the OIL. OIL is configured to integrate solution modules with internal, other government or third-party systems and has been leveraged in similar implementations involving eligibility determination with our state customers. The OIL service library contains support for the X12 Health Care EDI transaction set, the HL7 health care API, as well as support for many CMS Federal Data Services Hub (FDSH) services. The OIL internal data model is also based on these standards and is a key component in building an extensible State Hub that uses a common, multi-domain data model to eliminate redundant data repositories and data flows across the enterprise. We will develop a canonical data model to standardize common data definitions associated with integrated business systems. Canonical schema patterns will be implemented within both the static master data

management (MDM) data repository and the OIL messaging layer to reduce the need for data model transformation during message exchanges between components.

In addition, our extensive library of adapters can be configured and deployed to support both transactional and asynchronous integrations, supporting both modern Web services as well as legacy file transfer or structured data from a mainframe environment. Using simple proxy adapters that interpret and translate legacy or non-standard interfaces that wrap around the standard library, integration of non-standard or legacy systems is straightforward. This promotes reuse of the library and modules and minimizes customizations needed to implement integrations.

For each integration point that we will implement as part of AR IE-BM Solution, the process of configuring the OIL and related modules is as follows:

- Identify the functional need for the integration, based upon existing integration inventory and/or requirements gathering during project implementation. Validate that existing integrations are needed in the AR IE-BM Solution to meet functional needs. Remove redundant or deprecated integrations from the inventory, and update the inventory with newly required integrations.
- Analyze each existing interface, if present, by reviewing functional and technical documentations, interface control documents or companion guides, APIs, file or data formats for producer and consumer modules or systems. Determine if the existing interface technology is reusable, or needs to be implemented by OIL. Identify volume, velocity, or performance SLAs needed to meet the functional need. For new interfaces added to the inventory, the same information must be gathered and analyzed.
- After producer and consumer module information, interface APIs or file formats and SLAs have been collected, the information is reviewed to determine whether the integration can be supported by the existing OIL library and data model, if proxy wrappers are needed to support the integration, and if data model changes or data translations are needed. New integrations that have a high likelihood of reuse may be candidates for inclusion in the OIL library, and developed accordingly.
- For integrations that are fully supported by the OIL library, configuration for the integration is performed, capacity and connectivity is verified, the interface is tested end-to-end and the integration is deployed.
- For integrations that require proxy wrappers, the wrapper logic and transformation is customized and unit tested. Next, library components are configured for the integration. Capacity and connectivity is verified, the interface is tested end-to-end and the integration is deployed.
- For integrations that require data model changes or data translation, the translational logic or model extensions are customized and implemented either in the proxy wrapper, core data model, or both, and unit tested. Next, library components are configured for the integration. Capacity and connectivity is verified, the interface is tested end-to-end and the integration is deployed.
- For integrations that are identified as having a high degree of reuse, new interfaces and data model enhancements are developed and become part of the OIL library. Then configuration for the integration is performed, capacity and connectivity is verified, the interface is tested end-to-end and the integration is deployed.

- Some interfaces may require a combination of the above steps for the complete implementation of modules.

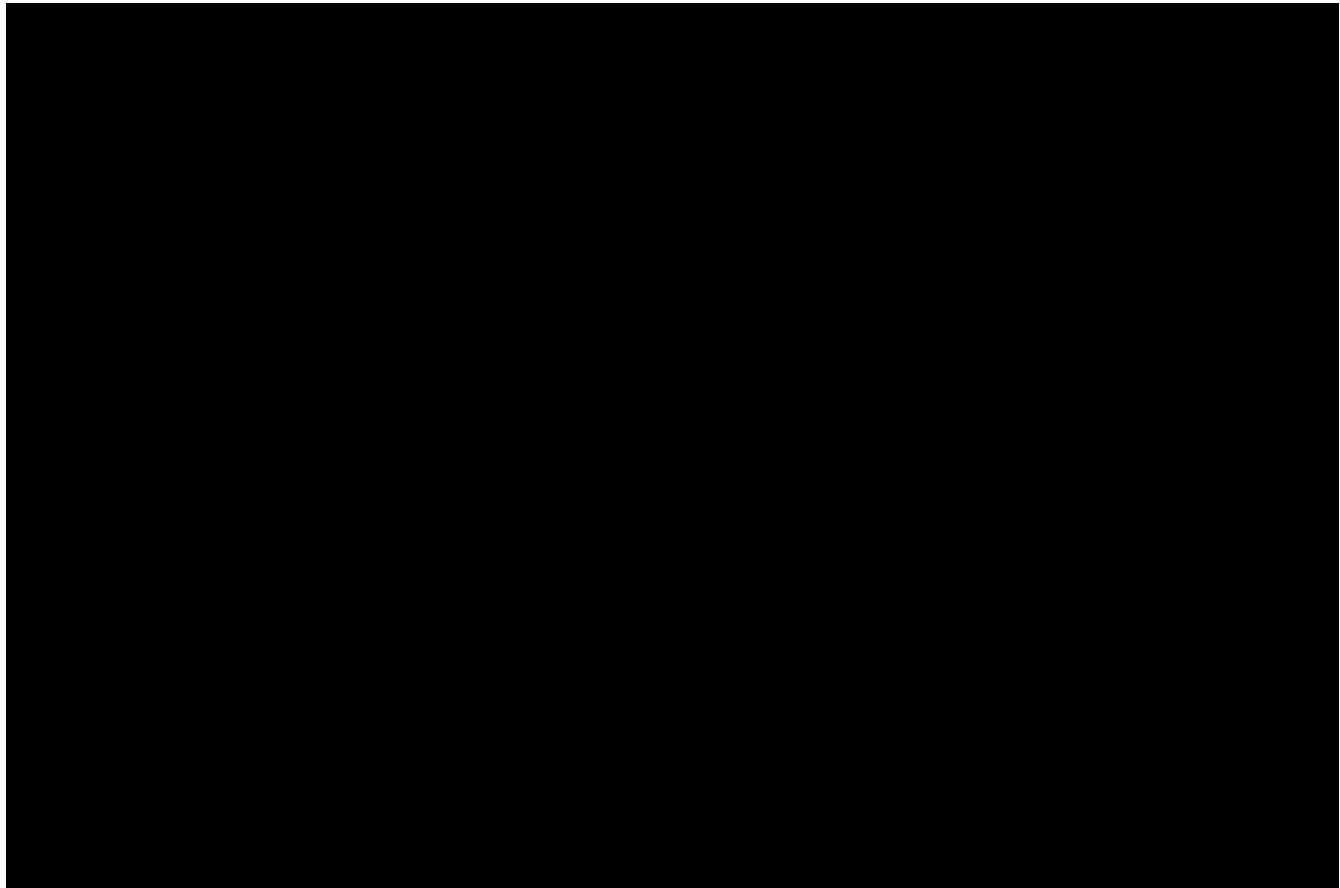
State Hub Internal and External Verifications and Integrations

To achieve your vision of a State Hub, the MDM solution will require both internal and external integrations, potentially including other state agencies, judicial entities, federal agencies, and numerous third parties when fully configured and deployed.

The collection of functional requirements presents many of the external integrations needed to support the IE-BM platform as illustrated in Figure 17; however, we will perform a full analysis of your requirements at the outset of the project to verify the required interface. The listing of potential interfaces for a complete person-centered MDM includes financial transactions and income or asset verification, identity verification, case administration and exchange of case data, exchange of criminal and judicial data, location services, and paternity status. Integrations identified from the existing inventory include not only the above categories, but also may include:

- Additional financial transactions
- Additional income or asset verifications
- Exchange of child protective data
- Exchange child support enforcement data
- Credit reporting systems
- Vehicle and drivers licensing systems
- EBT integration and reporting
- Employment and withholding data
- CMS FDSH, Federally Facilitated Marketplace (FFM) and Medicaid reporting systems
- Adult protective services systems
- AR State financial systems integration
- SSA verifications and reporting
- State and county civil courts
- Address verification
- State and county criminal courts
- Juvenile justice systems
- State Police
- State employers
- Identity Management

After the total list of integrations identified from the project requirements and inventory is identified, implementation follows the essential Optum Delivery methodology described in the previous section.



5.0 Approach to Data Conversion

The Vendor should ensure that the responses to this section are in alignment with the requirements set forth in Template T-10 – Implementation Requirements Traceability Matrix, Section I5

This response addresses requirements contained in Tab I5 of the Implementation Requirements Traceability Matrix where we meet all of the requirements and have provided a “Yes” response.

This section, details our Approach to Data Conversion. In Section 5.1, we explain our data conversion strategy and approach using our Optum Data Conversion Process. We will demonstrate how our iterative data conversion process aligns with our ODM and DDI timeline to assure data integrity and consistency through all releases of the IE-BM project. We will detail our approach as it relates to profiling, mapping and translation of data elements between the source and target systems. You will become familiar with the tools and methods we employ to automate the data extraction, translation and loading effort to achieve the desired data conversion rate. Finally, we will elaborate on our validation testing methods we will employ to achieve the desired data conversion accuracy.

Next, in Section 5.2, we will explore our approach to Data Governance. We describe our experience establishing data standards and coordinating with other projects/solutions, which have shared data standards and we illustrate how this experience will apply to the establishment of your MDM-based State Hub.

We understand the limitation of the Cúram data model and are aware of the challenges created by the current system because of its lack of extensibility and the difficulty required to convert the data from extensible legacy systems. Our approach will migrate to an open, extensible data model for the future to reduce total cost of ownership and ease of integration and conversion.

Optum, along with our business partner Connvertex, has done an assessment of your business issues and have designed an implementation approach that leverages our experience. As an example, Connvertex, in support of Utah's eREP understood that keeping the existing data structure intact was a key business requirement. Before the migration started, foreign key constraints were turned off to help improve performance. Since the responsibility for maintaining data quality was now on the developers the database quickly ended up with many orphaned records. Connvertex partnered with the Utah system stakeholders to resolve the data issues before beginning the data migration.

Initial data migration efforts on this project targeted moving large Binary Large Object (BLOBs) of data (for storing notices) to a document management system. Connvertex then focused on the development of scripts to detect changes to entities and then applying those changes to the database. The team also implemented a formal process and tool for tracking, managing, and applying database schema changes. This supported the successful migration from the DB2 database to an Oracle database.

5.1 Data Conversion Strategy, Approach and Timeline

Instructions: Describe the Vendor's approach to Data Conversion that will optimize the level of automated conversions including the tools that will be used. Describe how the Vendor will ensure data integrity and consistency through all releases of the Project.

The Vendor should describe their approach in detail around mapping of data elements between the source and target systems, extraction, transformation and load. The Vendor should provide details on how they intend to achieve the desired data conversion rate as required by SLAs and how that transforms into providing the expected benefits to every one of the participants who will transfer from the old system to the new system.

The Vendor will be responsible for all activities involving data mapping, transformation and conversion, except for Source system data cleansing, which will be the responsibility of DHS.

This response addresses Requirements I5.1-5.14 and 5.16-5.18 contained in Tab I5 of the Implementation Requirements Traceability Matrix.

Optum Data Conversion Processes

Our Optum Data Conversion Process mirrors the iterative design and development approach of our ODM, as described previously in Section 4.0. A significant advantage of ODM is the improved quality of requirements and design aggregate documents. Using the AR IE-BM RSD and the DSD documents, we will map out the necessary entities, relationships and business rules that map out the scope of each iteration. Each iteration of the conversion will include requirement and design updates uncovered and necessitated by the progressive elaboration of requirements following these documents and the overall AR IE-BM Project schedule. The progressive maintenance of data conversion rules, the repeated execution of conversion tests, and the reporting on progress of each conversion iteration are all aligned with the management of data quality, metadata and the validation of conversion results expedited by Informatica Data Quality, Metadata Manager, and Data Validation Option. Our project planning, complete with a

map of DHS programs and data scope, will find traceable and up-to-date data conversion detail. Since the data conversion often precedes transactional and data reporting and visualization functionality, our progress in updating Data Conversion Requirements will provide one of many resources DHS and stakeholders to use in overall and detailed validity and verification purposes.

The process map in Figure 18 illustrates our overall data conversion process. Each vertical box represents a key process area that we use in all of our projects. We will repeat this process for each of the release 2 work streams (PI-1: Medicaid and CHIP; PI-2: SNAP and TEA/TANF; PI-3: ARW and WIC) described in the T-14 Work Plan document.

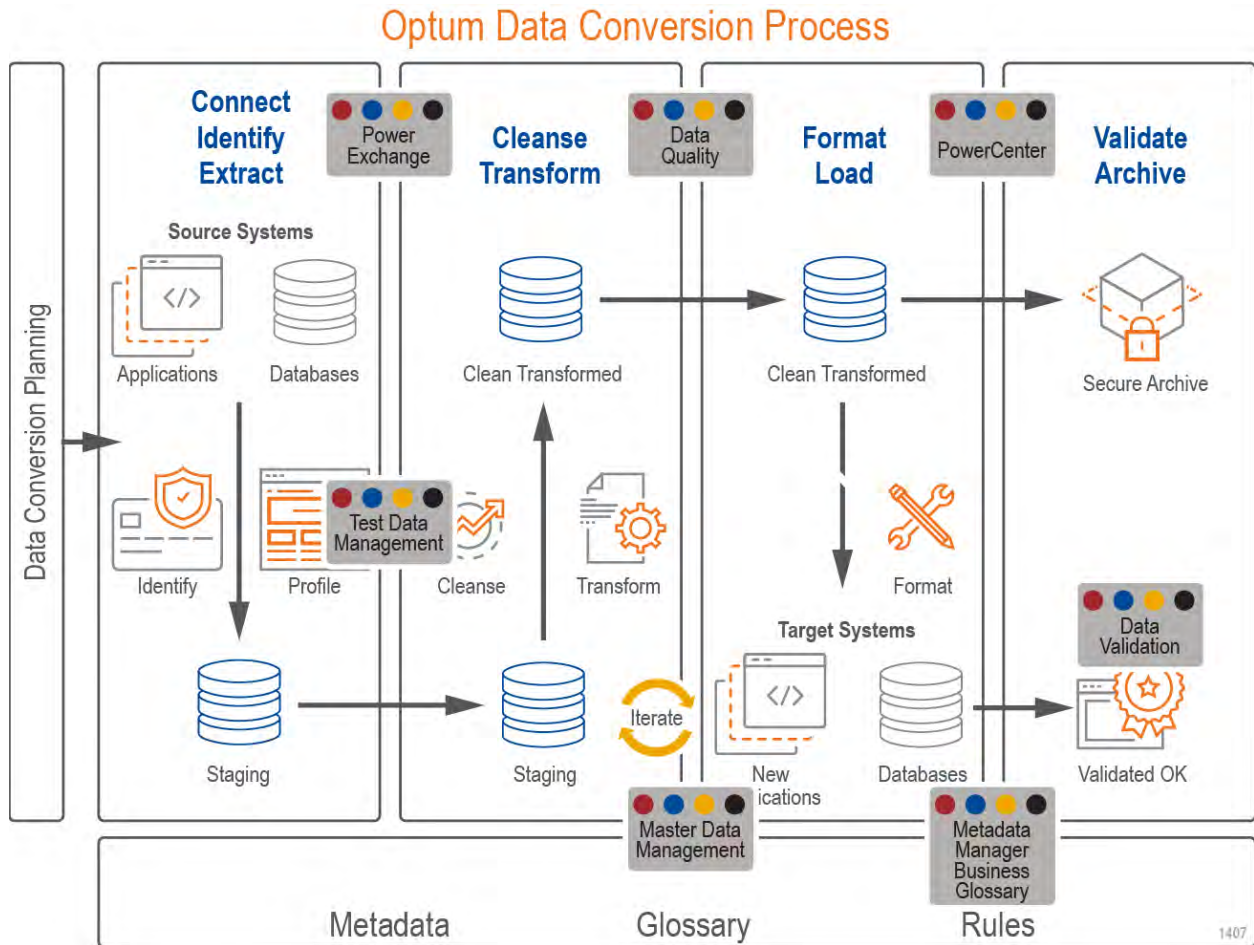


Figure 18. Optum Data Conversion Process

Our data conversion approach will employ a hybrid waterfall and Agile methodology. It will align with the iterative elaboration, design, and development for other key AR IE-BM components

Data Conversion Planning: The data conversion process begins with a planning phase. During the initial project planning phase, we will develop and submit a comprehensive Data Conversion Plan for your approval. The plan will outline all tasks and specifications associated with conversion preparation and execution, complete with a division of scope that aligns with the overall AR IE-BM releases and program increments. It will be a roadmap for conversion of the historical and active data, including all reports, notices, and imaged documents applicable to the AR IE-BM. The plan will also include considerations for data integrity and state and federal security and privacy requirements.

We begin the process of conversion planning with a methodical information gathering effort that aligns with the ongoing DDI requirements analysis and JAD sessions outlined in our ODM. We will identify the Informatica data conversion programs, tools and any existing extract routines useful in extracting data from EEF, ANSWER, ACCESS AR, FACTS and ACES, as well as other necessary data sources that you identify in the requirements identification exercises. As we work from requirements analysis to detailed system design, we will compile and document the following elements in the Data Conversion Plan:

- A description of the overall conversion strategy
- A detailed conversion schedule
- An outline of roles and responsibilities
- Pre-defined and mutually agreed upon success criteria and acceptable thresholds
- A description of all tools to be used during the conversion process
- Methods for user validation of converted data
- Procedures for tracking and correcting conversion problems when encountered
- A process to identify and mitigate risks that may be encountered during conversion
- The target data store schemas
- Detailed data element mappings, including values of the old systems data elements to the new systems data elements, new data elements to old data elements, and default values
- Specifications for manually converting unreliable data elements that cannot be converted
- Referential integrity relationships for related data

We understand that it will be necessary to gain your approval for our Data Conversion Plan for consolidating these systems into the AR IE-BM. Validation of our proposed approach, including software, configuration and data source order is essential to that approval. Our plan will outline a process to produce a series of test scripts and operations that will facilitate approval gates for the conversion infrastructure readiness in release R0 as well as the data conversion scope for release and program increment. These scripts will reflect the data diversity and aggregate character uncovered by the data profiling done on each source system, both from the source data and target AR IE-BM transactional database perspective. The AR IE-BM uses the same enterprise ETL and metadata management tools and specifications for one-time data conversion and ongoing data transformation. We will design, implement and document a scalable data acquisition service, acquiring all necessary historical and operational source system data in a timely and secure manner.

Data Profiling, Mapping and Transformation Analysis

In conjunction with the planning process, we will utilize the same JAD sessions to design and document the required data mappings and data transformations. Our iterative design and development approach fully accounts for a comprehensive data validation process and set of rules, such as those defined in the RFP. We document these rules and procedures as an outcome of data mapping, including conducting crosswalks to confirm the standardization of values and documenting (in Erwin) dependencies and entity relationships within the data model. Philosophically, we then design the conversion process in a manner that it does not affect the integrity of the data received from the source systems. Whenever approved transformations are

applied, we will retain the original content and data values using additional tables or columns within the same table

Our data quality management tools (Informatica MDM Data Governance) and associated processes handle the root cause of data problems before they reach the data warehouse and analytics results. Our solution profiles and discovers data anomalies, structure and overall suitability before any data migration effort begins. It matches records and identifies relationships across multiple members, providers, and other data domains. We score the perceived quality of data items and the relevance of business rules to gauge the overall health of data that feeds data quality metrics and key performance indicators.

Connect, identify, and extraction: We will review the EEF, ANSWER, ACCESS AR, FACTS and ACES structures, the source data dictionary, and layouts to determine the appropriate data elements that should be available to your users with input from subject matter experts, users, and staff. We will identify all the historical and active data in scope for data conversion. This data includes AR IE-BM operational data, AR IE-BM related reports, notices, and imaged documents needed by and applicable to the solution. Our team will document the mapping required from the source system to new AR IE-BM using Informatica PowerCenter, which helps identify the data relationships that are part of data lineage analysis. We will identify approved data cleansing rules as we perform data mapping.

For extraction operations, we will use PowerExchange. PowerExchange provides us with out-of-the-box connections to the source systems for EEF, ANSWER, ACCESS AR, FACTS and ACES. We use the PowerExchange family of products to enable our ETL programmers to retrieve all sources of enterprise data without having to develop custom data-access programs. Where required for the AR IE-BM, we will use a built in data retrieval capability called the Change Data Capture Option, which captures changes in various environments as they occur, enabling ETL operations to deliver near real-time data from target databases. Data extract files will be loaded in the staging area in preparation for further processing. In the staging area, we will profile and analyze the data for accuracy, formatting and content.

Data cleansing and transformation: Based on the data profile analysis, we will develop data cleansing rules for any data anomalies that do not agree with expected values. While data cleansing is a DHS-owned responsibility, we will assist your staff by helping to quantify and document data quality issues such as garbled content, invalid record relationships, data type redefinitions, or invalid content. With your guidance, our team will work with you to automate and correct misplaced, misspelled, and misfielded data to capture valuable information that would otherwise be lost. Precise, consistently reliable data leads to more accurate operational models, projections and analyses. Quality data leads to trusted results.

We will also identify data transformation rules and format conversions based on the agreed-upon specifications. In addition, we will identify any additional data elements necessary to maintain business meaning and optimize processing, replication and reporting. This step is particularly important, as many of our program iterations and pilot steps require clean program and geographic data. We will present and discuss the results of the data profiles, and the suitability of the data for each step, with you.

For cleansing and transforming AR IE-BM data, we will use Data Quality, a component of PowerCenter. Data Quality is made up of accelerators, automation and reports. It provides a complete process for measuring, monitoring, tracking, and improving data quality at multiple points across the system over time. The Data Quality component can selectively apply rules to modify data values based upon pre-determined and fully vetted conversions. As you progressively elaborate your requirements (and we record them in the Data Conversion Plan),

we will use out-of-the-box accelerators, enterprise data governance rules or selectively applied custom rules to source domain boundaries. Informatica Data Quality has a library of easily customizable components for parsing, standardization, and matching data. Combining the tools for Proactive Monitoring, Data Quality team approach to establishing data quality rules, the ability to standardize addresses using the AddressDoctor, and the ability to integrate and match identities using the new Master Data Management system, the Data Quality package is comprehensive and will meet and exceed RFP requirements.

As we use PowerCenter/PowerExchange to cleanse and transform the AR IE-BM data, we will apply rules from Master Data Management Foundation, with Consumer and Case Domains. The PowerCenter engine and instrumentation will apply formatting and loading rules from the data quality steps. They will do so in data conversion and ongoing data loading, thereby leveraging your data conversion investment throughout your ongoing AR IE-BM operational period.

Using Metadata Manager, we will store metadata on all converted data and ongoing data. From Metadata Manager, we can unify conversion rules, ongoing ETL rules, and the semantic layers from your existing and new business intelligence objects and reports. We will also use Metadata Manager to unify the source to target data lineage for all data elements. This will include all aspects of data cleansing, ranging from technical and business quality measures to all splits, merges, and aggregations. This metadata will be available in data dictionaries, data glossaries and in metadata manager itself. Because data dictionaries and glossaries are needed by stakeholders who do not use Informatica, we can extract such technical and business metadata into various formats, including text files and XML reportable formats.

Finally, we will use the Data Validation Option of PowerCenter to measure the conformance of the data, both in data conversion and ongoing operations, with the mapping and data quality rules documented in the data conversion plan.

Data formatting and loading: After completing the planning and analysis phase, we will move data to the target database. Loading the converted data from the staging files into the system database will consist of running the files through a set of extract, transform and load (ETL) processes to load the data into test and production tables. Final target loading will start from scratch on a production database with proven data conversion procedures. We will collect target audit statistics and verify them against source data statistics and expectations. The target database will load to the approved and tested model with tested, profiled and transformed data.

Our data modeling, metadata management, and approach to transformation reveal further optimization. We have refined our baseline data models based on years of warehousing and enriching health care data experience. They are extensive and flexible. In our many customer sites, we support multi-million and even billion+ row claims and encounter data warehouses with actively maintained adjustment history. We maintain data so that update history is available through date stamps and where necessary, dimensional history. We accumulate this history from source system updates and our data-enrichment steps.

We also optimize for retrieval and analysis. The AR IE-BM will support many enterprise functions, ranging from ad hoc analysis to standard summary reporting. Our experience in building and operating reporting, analysis and extraction tools makes our solution easy and intuitive for authorized data retrieval.

Validation testing: As part of our data conversion system testing, we will perform trial conversions of data using source to target mappings derived data conversion requirements analysis for the given iteration. Trial conversions strongly align with the ODM, where multiple iterations will follow the overall program and plan-based transition from legacy Arkansas system to the new Optum IE solution. The most important purpose of Informatica Data Validation Option

is the verification of conversion results. This COTS function contains off-the-shelf routines that correlate the results of tests enabled by sample data, detailed and aggregate data profile reports, and data conversion runtime recaps for each branch of the source to target data conversion stream. Each iteration will contain a battery of tests to validate the accuracy of converted data against expected results based by applying transformation rules to source data in scope for the test. We will follow processes that count the records and fields in the input files. These record and field counts can then be balanced to verify that no data was excluded during the loading process. When the data is loaded, we will perform further data integrity checks to validate that the newly loaded data displays correctly for the user. In addition to statistically significant sample size audits to check for outcome violations on various data elements, we will verify count balances at the file and table level and perform unit and system testing for conversion and load programs.

The verification process will be continual and iterative, enabling the control of the initial and ongoing data transformation and quality assessment processes. We will conduct unit testing through acceptance testing throughout the data conversion lifecycle. Before the final target loading, we will load and verify a subset of the data in a test database.

We will identify all subtasks and deliverables related to validation testing in the detailed project schedule and address them in the Data Conversion Plan, which covers:

- Development and execution of unit and system testing for all conversion and load programs
- Quality check procedures
- Post-conversion data testing and auditing
- Objective pass/fail criteria or metrics, as appropriate
- Conversion Test Results Document

Maintaining the existing EEF, ANSWER, ACCESS AR, FACTS and ACES systems and associated databases until acceptance is consistent with our best practice of performing unobtrusive development and testing. This strategy provides a comparison between the old and new system, at many levels of testing, and at the critically important stage of parallel testing. The conversion validation will follow and enable not only the underlying data, but the full range of AR IE-BM application scope. This validation is particularly important in fulfilling the acceptance criteria for each release, where we will demonstrate and validate all in-scope functions using parallel systems and underlying data.

In addition to performing parallel AR IE-BM functions, we will validate the success of the conversion to test all in-scope data has been successfully processed. We will use Informatica Data Validation for multiple iterations in operational readiness and parallel testing exercises.

Conversion test scripts: Through our successive Agile data conversion iterations, we will use our test data management tools to select target data according to test plans and scripts that you approve. These test scripts are designed to cover all of the data uniqueness uncovered by the data profiling that we run early in the development of each release. These test scripts will also verify completeness of data conversion steps in aggregate, as well as the detail of data quality and conformance for all data permutations found in data profiling. Each data conversion iteration will begin with a verification of the data source to the target mappings. The iteration will include a data profiling step that will identify all applicable accelerators and transformation routines. We can handle specific requirements on your part for some EEF, ANSWER, ACCESS AR, FACTS and ACES records to remain unconverted. In such cases, we will alter our script to

divert some of the data to a sequestration staging area, where it will be retained or archived according to your requirements. Each iteration will continue until all approved scripts verify the correct operation of the data conversion processes. This makes our tests truly representative of all the data and the variations that we will encounter when we run parallel testing scripts.

User Acceptance Test (UAT) converted data: We will supply sample data, detailed and aggregate data profile reports, and data conversion runtime recaps for each branch of the source to target data conversion stream. We will submit UAT test scripts for your approval, and provide training for users to execute and log them for gate-level decision-making. We will also provide SQL access and the appropriate technical and business metadata so that testers can run their own queries to verify correctness and completeness.

Pilot and statewide implementation data: Our plan for pilot data conversions follows the overall pilot AR IE-BM plan. We will version data and harmonize it with the legacy data used to support ongoing operations handled by the legacy systems. Our use of Informatica Data Validation Option is not limited to pilots, samples, or other subsets of the data. The work we do in the pilots, and subsequent progressive releases of data conversion work, is retained in the overall repository of data conversion rules. The same instrumentation and reports used in development and release testing will be available and useful for overall operational system-wide data verification. This is especially useful for the accumulating scope for each successive AR IE-BM release and program increment.

Contingency planning: Overall, our conversion methodology will clearly identify and define the strategies, activities and workflow required by the conversion task. This methodology includes contingency planning if it is determined that conversion cannot be accomplished as scheduled. Our iterative hybrid Waterfall and Agile methodology provides the best opportunity to mitigate these conversion challenges. When planning each iteration, we will perform exhaustive source data research and target data requirements analysis. We will build a detailed conversion plan using our data profiling tools and incorporating your overall goals and requirements. Our experience performing data conversions gives us a head start in knowing what tools and techniques are best for dealing with the work at hand and associated potential problems. Our Data Conversion Plan will outline our detailed approach and address each of the conversion challenges, including the ones you have identified. We address each conversion challenge with a mitigation tool or technique from our conversion approach in the following table.

Table C: Potential Conversion Issues, Mitigation Tools, and Conversion Plans

Potential Conversion Issue	Mitigation	Conversion Plan
Unexpectedly high data volume	We thoroughly research and document information about all data sources, associated data volumes and conversion frequencies.	Our SMEs will conduct interviews with source system owners and data stewards. We will use the AR IE-BM data profiling, data modeling and metadata tools to plan and handle all in-scope data varieties and volumes.
Complexities inherent in defining the relationship between source and target data structures	Our AR IE-BM metadata tools capture all needed relationships between source and target data. Our repository of existing data models and modeling techniques enable	Our data design experts will design target data structures to capture all required data to preserve the source business data. The relationships between source and target data will be

Potential Conversion Issue	Mitigation	Conversion Plan
	the capture and versioning of most health care and business data relationships.	documented in metadata to establish bi-directional traceability.
Differences in the data required for processing between legacy and new systems	We capture all operational metadata needed to preserve the bi-directional mapping of source and target data.	Our data design experts, in coordination with our SMEs, will design target data structures to capture all required data to preserve (and in many cases enhance), the source business data. The relationships between source and target data will be documented in metadata to establish bi-directional traceability.
History of changes to processing requirements and valid codes that may result in data inconsistencies and missing data conditions	We capture all business metadata needed to preserve the bi-directional mapping of source and target data.	Our data design experts, in coordination with our SMEs, will design target data structures to capture all required data to preserve (and in many cases enhance), the source business data. The history of changes particular to source and target data will be documented in metadata to establish bi-directional traceability.

Our AR IE-BM Data Conversion Management Plan will not be limited to addressing potential data conversion challenges. Our overall approach will include identifying data conversion scope, describing the character of source and target data, and defining all appropriate object and metadata. We will provide this analysis in a plan that incorporates Work Plans, quality and process controls, and appropriate technical and business metadata.

5.2 Data Governance

Instructions: Describe the Vendor’s experience establishing data standards and coordinating with other projects/solutions which have shared data standards. This is an important step in achieving the vision of establishing a State Hub – combination of a true Enterprise Service Bus (ESB) coupled with Master Data Management (MDM) functionality.

This response addresses Requirement I5.15 contained in Tab I5 of the Implementation Requirements Traceability Matrix.

Like many of our clients, DHS has accumulated a wealth of data on constituents, programs and benefits. However, it has been our experience that without a proper data governance foundation, complete with data stewardship and data standards, that wealth of data fails to become useful information for various reasons, including:

- Many source systems, lacking of data synchronization across those systems
- A lack of understanding of data lineage and how data flows throughout the enterprise
- Poor data quality and lack of agreed upon data standards
- Many organizations using the same data, but in an inconsistent manner and with differing interpretations

Our mission and primary goal is to provide the State with the tools and processes to maximize the potential of your data assets, helping to turn your data into accurate and meaningful information. Data governance is the essential foundation for achieving this goal.

We understand our role in supporting the State in implementing a data governance program. Our current onsite AME, DSS and FADS support team is already supporting this effort and our incoming AR IE-BM M&O team will be, as well. Our primary function will be to establish and mature your data-based policies for gathering, harmonizing and organizing information according to that policy, and publishing performance metrics to the appropriate stakeholders. We will help you identify the roles and responsibilities of key functions of your data governance program, including data stewardship, data architecture and data consumers.

Data Stewardship: A key facet of the data governance program is the discipline of stewardship and ownership. Inherent in this discipline is the notion of holding individuals accountable for data quality as well as for the management of existing data assets and resources. Data stewards need to be identified and empowered to oversee the day-to-day processes, procedures, tools, and technologies used to manage data as an enterprise asset, according to set of business-driven guiding principles, strategic vision and data standards. While it is not within the scope of the AR IE-BM program to establish a data governance organization or to identify data stewards, it is incumbent on the State to do so in order to develop the necessary data standards required to achieve the goal of a unified State Hub. We will work with your data stewards to develop such standards because without established data governance, data stewardship and data standards, the State Hub will struggle to be a trusted, single view of clients and providers that delivers consistent business value.

Data Architecture: Data modeling is a key component in building an extensible State Hub that uses a common, multi-domain data model and eliminates redundant data repositories and data flows across the enterprise. Our Data Architecture team will develop a canonical data model to standardize common data definitions associated with integrated business systems. Canonical schema patterns will be implemented within both the static MDM data repository and the ESB/SOA messaging layer to reduce the need for data model transformation during message exchanges between components. We will use ERwin Data Modeler to build conceptual, logical and physical data models that effectively communicate the underlying data structures to the subscribing business systems, while enforcing strict standards of physical database design. In addition, we will employ the Informatica data quality/governance tool suite, rated as the leader in Gartner Group 2016 Magic Quadrant for Data Quality Tools, to manage the ongoing quality of the State's data assets. Included in the tool set are the following functions:

- Informatica analyst
- Discovery search
- Data profiling
- Business rule builder
- Data quality transformation
- Data quality workflow
- Identity match
- Data domain and enterprise discovery
- Universal record ID
- Business glossary

- Reference table management
- Metadata Manager

Data Consumers: The final major component of data governance is to support the data consumers. These consumers range from the daily operational processes and reporting needs to the various IT projects and initiatives. Data governance is defined as the orchestration of policy, people, process and technology to enable an organization to leverage data as an enterprise asset. It adds dimensions of rigor and accountability through the establishment of data standards and data quality initiatives. Without governance, poor data quality can cause many business groups to make key decisions and report key metrics based on incorrect information.

High Level Approach to Deriving Data Standards

As noted, we will work with your data stewards to help establish data standards that describe the specifications for attributes, metadata, hierarchies and the relationships that will exist within the State Hub. The following table is an example of a detailed data standard:

Table D: Detailed Data Standard Example

Definition of Field	This may be taken from the source system definition of the element and may include a verbal description as well as technical details (e.g., data type, length, table location(s))
Standard of Intended Use	A statement of best practice usage of the element
Justification for the Standard	This section describes the argument for the proposed standard. It may also document areas of disagreement. Arguments may refer to the following topics: <ul style="list-style-type: none"> ■ Functionality (are functionality reqs fulfilled or limited) ■ Reporting (are reporting requirements fulfilled or limited) ■ Flexibility to adapt to organizational change ■ Data maintenance effort ■ Others
Data Ownership	Who is the owner of the element? Where and how will it be maintained? What will be the process for requesting a new element?
Use on Corporate Level	Will the element be used on this level? (Additional remarks about disagreement)
Use on Division Level	Will the element be used on this level? (Additional remarks about disagreement)
Use on Unit Level	Will the element be used on this level? (Additional remarks about disagreement)
Evaluated Alternative	Second proposed use of the data element. This is the alternate use that represents the most likely alternative.
Pros/Cons	Pros and cons of alternative

Metadata: Metadata is the glue that connects all the components of a data enterprise cohesively. Metadata provides a roadmap of all the data in the State Hub and subscribing systems. It enables effective administration, change control, and distribution of the data. This information can include business rules, data access rights, data transformation rules, summarization/aggregation levels, data aliases, technical configurations, as well as sources and uses of data. Metadata also provides the necessary details to promote data legibility, use and administration. It provides comprehension to data consumers and information concerning the management of the environment to administrators. As such, metadata must be managed properly and diligently implemented.

We will focus our metadata activities on maintaining a metadata dictionary in conjunction with ongoing development efforts. Master data definitions are easily validated as part of the data modeling activities; thus, we will use logical data models and our Metadata Manager tool as the primary source for metadata. This effort will lay the foundation for the execution of a longer term vision, outside the scope of the AR IE-BM Project, which involves a separate project to deploy a complete metadata solution. A metadata repository provides a mechanism to access information about the structure of the source data feeds, data extraction, integration and transformation rules, data quality assurance processes, security profiles, database structures and schemas, query access tools and business definitions.

Hierarchies: In addition to identifying data standards and metadata, we will work with you to identify the data hierarchies (including Industry Standard hierarchies), which will be under data governance control. Hierarchies with the most widespread usage across the State (i.e., State Hierarchies) will be of primary consideration.

In addition to State Hierarchies, source systems are likely to contain many local or organizational hierarchies. Total control of the creation and management of these local hierarchies by the data governance organization is likely to be impractical; thus, local hierarchies should be considered on a case-by-case basis for inclusion into data governance control. Regardless, documented designs and a process are important for users and developers to access existing hierarchies in order to create and modify hierarchy data and structure (e.g., nodes). Therefore, it may make sense to leverage existing Data Warehousing resources to leverage their design and support skills. Typical data hierarchy definitions include the following dimensions:

- **Number of levels:** The majority of hierarchies are simple, one-level hierarchies with multiple nodes within the single level. Multi-level hierarchies are more complex to manage. For all hierarchies, a data element may or may not be allowed to appear in more than one node in the hierarchy.
- **Time dependency:** This would apply to hierarchies where nodes are frequently added, moved, deleted or renamed. While conceptually there may be a requirement to store a snapshot of the classification groupings for a specific date or a specific period of time, it is more typical that a hierarchy is considered static.
- **Multi-language requirements:** The languages are English, Spanish and Marshallese.
- **Support levels:** Some hierarchies will receive support from the overarching data governance organization while other classification groupings will receive support at the organizational or department level.

Business process modeling: The objective of process modeling is to identify improvements to current processes that will positively affect the timing and quality of master data. To achieve such improvement, the business process should not only be analyzed for improvement

opportunities within the process itself, governance processes should also be integrated into the business process model. We will work with your data stewards to identify business process improvement opportunities, the business processes that deal with creation or augmentation of master data should first be modeled in their current, as-is state. Typically, the level of detail of these models does not necessarily need to be a fine granularity of each small task. It is a judgment based on experience as to what level of detail must be modeled. The processes will be modeled using a standard modeling method to effectively communicate the high-level processes, the dependencies, and the cross-functional department interactions. Swim lane diagrams are our preferred process modeling method for this requirement. These process model diagrams can be used as input for eventually modeling the master data processes for searching, creating, updating and archiving.

Data standards repository: The existence of data standards can help transform existing processes and change the way employees, stakeholders and business partners use its data. To make sure that data standards are communicated, understood and easily accessible, we will deploy a searchable, online repository to house your data standards. A centrally managed repository will give users one source of the truth for these new data standards. Project teams and end users will frequently need to look to the data standards to understand how each data element is being used. This repository can also be used to house applicable metadata and hierarchy standards.

6.0 Approach to Testing

The Vendor should ensure that the responses to this section are in alignment with the requirements set forth in Template T-10 – Implementation Requirements Traceability Matrix, Section I6.

Instructions: Describe what the Vendor believes to be an effective Testing approach to ensure that the System is functioning and processing the data correctly. This plan should include the testing approach from unit testing through UAT. This should also include a discussion regarding the anticipated level of automated testing scripts and how these will be handed off to the M&O team for ongoing regression testing, as well as a thorough description of how the vendor will work with IE-BM project related Federal mandates to ensure proper compliance for testing guidance and requirements.

This response addresses requirements contained in Tab I6 of the Implementation Requirements Traceability Matrix. Optum has provided a “Yes” response 26 of the 27 requirements. Our one point of clarification is related to defect resolution. We will fix any and all Severity Level 1 and 2 defects during DDI and our suggestion is that we mutually agree upon a schedule and fix Severity Level 3 issues that maximizes the delivery timeframe for critical issues while allowing non-critical issues to be resolved on a separate timeframe.

Overview

Our proven quality management approach makes sure testing is a priority so that the end product meets the customer requirements. It requires complete and thorough inputs, including requirements, data flows and current state diagrams. Detailed planning of environments, data, test cases, resources and other solution components is essential. Well-defined tools and reports are also important for a comprehensive testing approach, providing you visibility into every

aspect of your solution. The key to effective testing for the solution is our team of skilled resources who understand the elements of solution testing. They combine our proven testing methodology and will maintain transparent communication with you to deliver a solution fully compliant with your requirements.

Your requirements and supporting artifacts will define the needed items for testing. Requirements will include both functional and non-functional requirements. Non-functional requirements will cover topics such as performance, security, recoverability (disaster and normal operations), maintainability, availability, privacy and compatibility. Artifacts that we will assess to complete our test strategy include business process flows, companion guides, industry standards, ISO/IEEE standards, and technical specifications for performance testing. We will use this assessment to develop the Test Management Plan that will dictate the specific phases for each identified deliverable.

We will develop an overall approach for establishing and maintaining the environments for testing. We will assess each test phase against your desired releases and deliverables, helping us determine the demand on the environments. We will follow the standard environment management approach, as well as follow your desired deliverable schedule and defined phases for each deliverable. In addition, we will begin looking for automation opportunities in the data, environments and test case execution early in the engagement.

We will establish our resource management and staffing for our testing approach. Our testing lead will be accountable to Optum and stakeholders to make sure we adhere to our quality management processes throughout the life of the project.

Each phase of testing will begin a process of detailed test planning. We will leverage supporting artifacts and engage business resources, stakeholder and technical resources as needed.

Typical test planning activities include the following:

- Identify entry and exit criteria for each phase of testing
- Define test cases (negative and positive) for applicable requirements
- Define entry and exit criteria for each test case
- Define data requirements (e.g., identify sources of data, concurrency of data, PHI/PII constraints)
- Define unique test environment configurations (e.g., identify time-based use cases where date & time attributes are a key aspect of the test)
- Complete environment management schedule (e.g., data refreshes, source code updates)
- Complete testing schedule
- Assign testing resources
- Define day-by-day test execution schedule
- Populate test cases in the test case/defect management tool
- Initiate Project Communication Management Plan to cover topics such as status, issues, risks and schedule

The Release Test Plan will define the test types and test phases that are in scope for the project. Depending on the test types and phases identified, additional documentation or plans may be required (e.g., Performance Test Plan). The Release Test Plan will indicate when these

plans are required. Each plan will follow our standard agreed upon review process. This will help us verify that the plan is accurate for the release even if the information did not change from release to release.

During test execution, we will focus our efforts on the day-over-day plans, test case execution, monitoring progress against the plan, and managing any defined issues, risks and defects. We will pay particular attention to high-priority risks, high-priority issues and critical or major defects, as well as evaluate entrance and exit criteria for each phase. Any deviation from defined criteria will require your approval based on the risk assessment.

We will manage the schedule, issues, risks and defects daily for high-priority items and will manage the schedule weekly for lower priority items. Our standard cadence during critical test cycles is to host a daily and weekly call. During our daily calls, we can discuss lower-level topics such as triage and root cause analysis. During our weekly calls, we can discuss schedule impacts and status, escalating issues to Optum and stakeholder(s) as needed. We will manage critical defects, major defects and high-priority issues and risks hourly. In these cases, affected stakeholders are engaged as soon as possible. At the end of execution and before deployment, we will produce a Test Summary Report disclosing activities completed and criteria met and identifying criteria not met that were not approved deviations. We will then host a Go/No-Go meeting with the appropriate stakeholders. During this meeting, you can decide whether to accept the release and move it into production, considering any outstanding items, risks or issues.

Lastly, we will perform a detailed requirements analysis and develop an overall program plan to deliver the required features and capabilities. After completing these steps, we will define the test phases for each deliverable.

Test Phases

We will use different types of testing, with each test type and test phase having its own entry and exit criteria. The Release Test Plan will describe the test types and test phases as well as the entry and exit criteria (e.g. we will remediate all severity 1 and 2 defects and lower severity defects as time allows or as the agreed-upon exit criteria dictates). We describe the standard testing phases we can leverage for the project in the following sections.

Unit Testing

Unit testing is a component-based test that the project team will complete before code delivery. It will help us verify that the code we deliver is stable and provides expected results based on the requirements that are in scope at a component level. Unit testing will include application scans from an application security perspective, which will also include information on any known defects. We will manage testing and defects using our test management tool, and we will not take the build package into lower environments without approval.

System Integration Testing (SIT)

System integration testing (SIT) assesses the new functionality that is in scope for a release based on the functional requirements. SIT testing includes exercising the in-scope system functionality, system integration points, data conversion testing and system compatibility where applicable. SIT also includes testing time-based or time-sensitive use cases that require specific test data and test system configurations relative to date and time stamps. Depending on the use case and on other ongoing testing, these time-dependent use cases are often executed in a separate test environment.

Regression (Baseline) Testing

Regression testing assesses the existing system functionality based on the analysis of the new functionality impact to the system and data conversion testing. During regression testing, we will stress the use of automation as much as possible. Regression tests within a deliverable will become part of a product level regression test process that will carry over into our future testing efforts.

Performance/Load/Stress Testing

Optum enterprise performance testing helps to verify that we meet performance, availability, and stability objectives for systems and applications. We typically execute performance testing for new applications, application or infrastructure changes, troubleshooting, and hardware and software comparison and evaluation. Our automated tools simulate high volumes of users within a dedicated load farm. Our performance management tools are fully integrated to facilitate comprehensive reporting and analysis.

We work with customers to identify goals, script requirements and scenarios for testing. We develop test scripts based on documented workflows that are either critical to the business or are used most frequently by end users. Our performance test engineers will execute tests based on test scenarios designed with your subject matter experts. Additionally, we will provide reports after each test to facilitate in-depth analysis and comparison between tests.

Our performance testing supports various test types, including load, stress, stability and resiliency testing. Load testing will help you to determine how the application will perform under peak user volumes. Stress testing pushes the application above the expected user volume and helps identify a break point. Resiliency testing determines the application performance in failover conditions. Stability tests run for extended durations to identify underlying issues such as memory leaks. These issues may not be noticeable until the application has been under load for several hours.

Parallel Testing

We will perform parallel testing to test the functionality we are replacing. To accomplish this, we will run scenarios through the existing system and through the replacing system to confirm consistent results. We will leverage this technique where appropriate in the various core test phases. These test phases are typically system, integration and UAT.

Interface Testing

Interface testing (internal or external) is an extension of our SIT. However, instead of stubbing out the integration, interface testing will exercise the application through that integration point. We will define the scope of integration testing in the test plans. We will base this testing on the functional requirements that are in scope for the effort. Interface testing may include aspects of regression testing where needed.

Security Testing

We will perform security testing of system components to validate that application components are not vulnerable to malicious attack. We will perform security testing using a variety of tools and techniques as we describe in Section T9 Technical Requirements.

We integrate security into our maintenance services and SDLC, enabling us to identify and verify the regulatory requirements and controls required to meet compliance. We will create and

maintain a Security Test Plan for all of the applications we support, assuring that you and your stakeholders understand the phases of the security testing lifecycle.

Data Conversion Testing

Data conversion testing verifies that updates to the data are correct as data flows from applications. It also verifies that data that converts from one format to another is correct. We will perform data conversion testing during multiple test phases based on the functional changes to the system.

We will create context diagrams, business process flows, and data flows to document and determine file, field, data and information requirements. We will assess the environment needs and the data necessary for each environment to complete its designated level of validation. This level of planning is necessary for us to make sure we have evaluated all aspects of the environment, from the data, integration, and configuration. Additional data-focused areas will include the following:

- **Data mapping:** Validate that data entered into form fields on the front end of the application (user interface) save and map correctly to the corresponding database table and database fields. Validate that actions performed in the front end of the application invoke a corresponding CRUD (create, retrieve, update and delete) action on the back end.
- **Data integrity:** Validate that the updated and most recent values or status of data appear on forms and screens following a CRUD action.
- **Business rule conformity:** Validate that values produced by a process meet business rule requirements such as the calculation and the data flow. This deliverable aligns with the Deliverable Management strategy to gain stakeholder acceptance prior to execution.

Usability Testing

Usability is the central focus of our approach to Web interface design. We use the U.S. Department of Health and Human Services Research-Based Web Design and Usability Guide as our blueprint for usability. During the design phase, we will use the guide to validate the intuitiveness and ease of use of the interfaces. Following the design phase, we will use automated and hands-on tests to test our user interface on key features of usability. These tests will include the ease in finding key information, page flow, print layouts, response time, ability to complete tasks and desktop browser/mobile usability.

During testing, we will follow a Usability Testing Protocol to perform hands-on testing of the application. This protocol includes identifying personas and fictional representative users who share attributes with your typical users. We will use these personas for multiple test scenarios throughout the testing process. We will enumerate critical tasks, both for the user and stakeholder. From the task list, we will create a Usability Testing Protocol that contains the non-biased moderator script and testing criteria. We will regularly perform testing as a one to one experience between a tester and a moderator. We will record and analyze results and share with the development team.

This methodology will help us verify that the interface we deliver meets the needs of your users and stakeholders.

Accessibility Testing

Our accessibility testing will validate that the Optum IE solution is accessible to individuals with disabilities verifying that they can interact with the system as needed. Beginning in the design phase, we will perform Section 508 compliance reviews on the Optum IE solution user interfaces. Our graphic designers understand the needs of users with visual disabilities. They know how to create a wide variety of accommodations for these users such as exposing keyboard focus and screen elements as well as the use of text-based buttons and links for text-to-speech conversion aids, avoidance of flashing effects to accommodate users prone to seizures and providing narratives written for a grade-school level education. After the design phase, we will perform automated and manual testing of Web tools to further validate full accessibility compliance.

User Acceptance Testing

User Acceptance Testing (UAT) involves a business assessment of the system and its function. UAT may include data conversion testing. UAT is a scenario-based testing approach. Unlike SIT, we do not scope UAT based solely upon the requirements.

We will work with you to develop the UAT Plan. It will include the timeline and description of the overall processes we will leverage throughout UAT. It will also include a responsibility assignment matrix (RACI) with responsibilities clearly defined. We will use agreed upon scenarios, dependencies, and data needs that you have reviewed and approved and will build them into our scripts and procedures that you have approved.

To build out the scripts and procedures, we will create data sets in the environments that we identified for use in our testing. We will use different quality gates to indicate that the data we created is ready for use as part of the entrance into the UAT execution phase.

We will store UAT results in the test management application and leverage the standard strategies defined in the Quality Management Plan and Test Management Plan. Identified defects will store in the defect management system. We will track identified defects through the defect management process until remediation has been completed. In addition, we will communicate the status of activities and results following our standard agreed upon communication procedures.

Our defect management process will align to the test scenarios and requirements. We will base the scripts and procedures we create on those scenarios and will trace them to the requirements. This will keep with our traceability strategy as defined in our overall quality strategy. As part of UAT, we will create a Test Summary Report that will describe all activities for traceability, execution, defects, and any known risks or issues.

End-to-End Testing

End-to-end (E2E) testing is the testing of a business solution in an environment that mimics real-world use at the component, application, and system level. E2E testing will also consist of one or more test cases that complete an end-to-end business process or function. We may include this as part of regression testing of future releases.

Automated Testing Scripts

In general, we anticipate that up to 80 percent of our testing will be automated. When we identify a candidate for test automation, the project team will validate that the framework is an appropriate technical solution. The team will review the functionality to automate with the test

scripter and will identify the need for new framework functionality. The test scripter will work with the AR IE-BM Project team to map the necessary fields and will create the needed test data and build the test cases. Furthermore, the test automation repository developed by the project team will be inherited by our M&O team. Since they use the same test automation tooling and methods, the knowledge transfer is simplified by having a few of the M&O team members shadow or participate in the DDI testing activities.

Complying with Federal Testing Mandates

Optum will adhere to federal testing standards and provide the necessary supporting documentation as required for federal review. In addition, Optum will execute test scenarios based on CMS and State requests.

7.0 Approach to Managing Organizational Change, Training and Knowledge Transfer

The Vendor should ensure that the responses to this section are in alignment with the requirements set forth in Template T-10 – Implementation Requirements Traceability Matrix, Section 17.

In this section, we provide detail on our approach for Organizational Change Management (OCM), knowledge transfer and end user training. Throughout this section, we will elaborate on our approach, illustrating how it mirrors our corporate core values of integrity, compassion, relationships, innovation and performance, all working together to make the health care system work better for everyone. These values are particularly on display in these three areas as we have come to understand the value of relationships and trust, along with compassion and an innovative approach to learning, that are required to successfully navigate the waves of change, anxiety and anticipation that a project of this magnitude will have. In this section, you will discover our extensive OCM, knowledge transfer and training approaches, starting from the onset of the project and throughout the project as we prepare for, manage and reinforce the organizational changes that this project will bring. You will see how our approach goes beyond the traditional sterile, by-the-numbers approach by including a human touch that focuses on establishing relationships, understanding and compassion for those affected by the new solution.

7.1 Organizational Change Management

Instructions: Describe what the Vendor believes to be an effective Organizational Change Management approach including providing details for a stakeholder analysis, change readiness assessment, gap analysis, and recommendations for organizational and process changes.

This response addresses Requirement 17.1 through 17.6 contained in Tab 17 of the Implementation Requirements Matrix.

Our AR IE-BM OCM approach will leverage industry-leading best practices combined with our focus on the human element to deliver an integrated change management plan and approach that is seamless for you and your clients. This approach will enable the successful implementation of the new AR IE-BM Solution. Our Optum OCM Team comprises certified practitioners with practical change management experience who will develop and deploy change management techniques such as organizational structure and ideology, assessment of managerial styles and resource alignment, as well as communication and coordination. There are four distinct phases in our approach to OCM — Getting Started, Preparing for Change, Managing the Change, and Reinforcing the Change. These phases are integrated within the project management lifecycle, verifying project and people deliverables aligned and thoughtfully considered for an integrated implementation experience.

Getting Started: Our OCM offering starts with qualitative and quantifiable data related to the organization, people and technologies that our team collects at the beginning of the project. Our certified practitioners will assess the implementation timeline and solution offering as it relates to current organizational capabilities and strategic objectives. This phase enables a common language for change and a right-sized framework to enable maximum adoption of the solution. The purpose of this phase is to document the approach, explain why change management activities are undertaken, align the organization around the approach and activities, and integrate with the IE-BM program work streams.

Preparing for Change: A key component of our implementation experience is building a strong partnership with Arkansas stakeholders to align leadership goals, process management and process expectations for the project. In addition, our OCM team will execute organizational assessments and conduct interviews with key stakeholders and sponsors. The purpose of this phase is to build relationships and trust, as well as a customized and scaled approach with the necessary sponsorship to effectively mobilize the change and mitigate organizational risk across the transformation lifecycle. This collaborative partnership includes IT and business operations and may involve third parties, vendors and other stakeholders as identified by your team. Part of the assessment includes identifying the following attributes of the organization: value system and culture; capacity for change; leadership styles; history of past changes; and middle-management's pre-disposition to change. One of the first steps in effectively managing change introduced by IT is to identify and evaluate the attitudes of individual users and influential groups. In this manner, we strive to understand the individuals and groups, their needs and motivations, as well as their beliefs and values. For example, some end users may have concerns about their level of computer illiteracy or may believe they are more efficient using the old system. Other users may not see clearly how they will do their job in the new system. Finally, some users may be concerned with how the new system will affect their organizational and authority structures. By documenting these change characteristics, including the nature and scope of the change as well as the attributes of the groups and specific individuals who will be affected by the change, we will craft the appropriate strategies for promoting and influencing the acceptance of the oncoming changes.

Managing the Change: In this phase, our team will create and implement plans coordinated with the overall project plan. This approach provides an integrated experience that will move the organization and individuals through the change while meeting your business objectives.

35% ROI

When a poor OCM program was part of an initiative

143% ROI

When an excellent OCM program was part of an initiative

—McKinsey

The OCM Plan will help guide the implementation with a synergistic approach for activities including communications, coaching, training and resistance management. As shown in the next table, the OCM approach focuses on transitioning behaviors through creating awareness, desire, ability, knowledge and reinforcement to support and enable individual change by ultimately winning over the most affected and most influential users. The following table shows the OCM approach principles for transitioning behaviors by creating awareness, desire, ability, knowledge and reinforcement to support and enable individual change.

Table E: OCM Approach Principles

From	To	Objective
Message and audience	Story and community	Speak to the mind and the heart
Content and collection	Context and connection	Convincingly convey why this change matters, and why it important to the individual
Hierarchy and position	Social architecture and roles	Conscious design of an environment that encourages the desired changes
Control and compliance	Trust and co-creation	Develop aligned and transparent behaviors through inclusion and engagement mechanisms

It is our experience that the best way to accomplish this is through active participation from the State’s top management and key sponsors. While we will work with you to formulate the strategies and craft the messaging, DHS leadership will ultimately need to be the face to deliver that message. This includes promoting the benefits of the new system while not over-promising its capabilities, educating users on our approach for training and knowledge transfer, addressing concerns and questions about individual roles and responsibilities as well as potential organizational impacts. By building enthusiasm and anticipation for the new system, end users will be more motivated to get the most out of their training and knowledge transfer sessions and will be more likely to embrace the start-up challenges that the new system is sure to have.

Reinforcing the Change: This phase confirms the change is adopted and sustained. Our team will proactively collect feedback through surveys and auditing compliance with the change(s) to identify gaps and areas of resistance. In partnership with you, we will provide stakeholders with pre-identified recognition measures; corrective action measures; and consultative support for desired outcomes. In our experience, this is a key aspect of the overall success of the project, as too often there is not enough follow-up to validate the changes have been truly embraced and adopted. During this phase, it is important to identify any underlying concerns and/or resistance that may still exist before it mushrooms into a larger post-implementation backlash. For example, one common backlash deals with the ensuing letdown caused by overpromising the capabilities of the solution. While it is important to communicate the benefits and virtues of the new system, it is equally dangerous to overpromise those benefits. We will work with you to find the right level of communication and will take the pulse of the user community after the solution has been implemented.

7.2 Knowledge Transfer

Instructions: Describe what the Vendor believes to be an effective approach to Knowledge Transfer including a description of the approach to ensuring super users and technical personnel have an appropriate level of understanding of the System. Describe how DHS Staff will be provided the required technical training.

This response addresses Requirement 17.19 through 17.22 contained in Tab 17 of the Implementation Requirements Traceability Matrix.

Knowledge transfer is an ongoing process that starts during DDI and continues through the life of the project. The Optum team will work with your technical staff and super-users to analyze their current skills and knowledge to determine the specific needs for knowledge transfer at an individual DHS staff member level. We achieve this by developing a comprehensive knowledge transfer plan which will guide the implementation of our structured knowledge transfer methodology, described below. This approach will enable DHS users, including super users, to absorb knowledge and use lessons learned associated with your IE-BM business processes and community stakeholders.

Our knowledge transfer methodology, EquiKNOX, addresses all of the items listed in the FNS Handbook 90. Our proprietary process provides a set of customized knowledge transfer curriculum, activities and assessments to your staff or to a successor vendor so that they will have the level of knowledge required to accomplish their daily tasks using the new system. EquiKNOX is a complete package of knowledge transfer methodology that Optum has used on multiple engagements for both knowledge transfer of operations, as well as for system takeover by another vendor. It includes the following steps:

Step 1: Knowledge transfer planning

This step begins with a kick-off meeting among DHS, Optum and key stakeholders. During planning, we will establish the foundation for the entire knowledge transfer process. We will perform the following key activities during this phase in collaboration with DHS as needed:

Establish governance: This will include:

- Introductions of project teams and stakeholders
- Defining roles and responsibilities
- Establishing format and protocol for status meetings and reporting
- Establishing lines of communication and reporting relationships
- Reviewing the deliverable review process
- Discussing IRAAD strategies
- Finalizing milestones

Update the Knowledge Transfer Plan: We will update the plan to make sure it describes the knowledge transfer sessions, topics for each session, identification of the SMEs to involve, effort required, attendees for the sessions and mode of the knowledge transfer sessions according to

the EquiKNOX Criticality Score (ECS)¹ based on business criticality, functional and technical complexity.

Provide detailed documentation: This will include system operations support, processes, protocols, stakeholders, communication channels and current Incident, problem and change ticket extracts as applicable.

Define acceptance criteria: We will work with you to define mutually acceptable criteria.

Step 2: Conduct knowledge transfer sessions

This phase begins with Optum establishing the buddy system with an appropriately identified DHS staff member. This approach will lay the foundation for knowledge transfer, shadowing and reverse shadowing. We will also work with your staff to complete the following tasks:

Connectivity and software installation: We will help to install all software and tools, including infrastructure configuration details.

Access management: We will verify your staff has access to artifacts and digital asset repositories beginning with non-production environments.

Establish buddy system: We will assign an Optum SME to each of your identified staff members as needed.

Execute knowledge transfer sessions: This activity will have several iterations. It will begin with items that have a low ECS. We will then move to high ECS components within each application. This approach will help us validate that we provide continuity of services to your members and minimize the impact to services. Each iteration will end with the knowledge transfer recipients presenting a playback to stakeholders. They will demonstrate the skills they learned to validate that the knowledge transfer was successful.

We take a learn-by-doing approach to this phase of the transition. Your staff will shadow our team and participate in performing their prescribed tasks. We have found that this hands-on approach is the best way to help fill any gaps in knowledge. Your staff will also learn process workflows, how components interact, and where to find additional information if needed.

Optum will still have primary responsibility for the system during this phase. This phase will conclude with your staff and Optum jointly producing a final knowledge transfer completion report.

7.3 End-User Training

Instructions: Describe what the Vendor believes to be an effective approach to training all end-users who will use the System including end-users and executives. Include different classifications of users, the proposed method of training for each of these classifications of individuals, estimated duration of each component of the training program, and the method to be used to ensure that the training was successful. Include the tools and techniques the Vendor plans to use in training.

¹ The EquiKNOX Criticality Score (ECS) helps project teams determine where to concentrate their time and effort to get big wins. ECS provides data-driven prioritization and grouping of critical transition elements. ECS is derived by the following attributes: (1) Technical Complexity, (2) Multidisciplinary Resource Requirement, (3) Impact to Operations, (4) Maturity and Stability, and (5) Schedule

This response addresses Requirement 17.7 through 17.18 contained in Tab 17 of the Implementation Requirements Traceability Matrix.

Training Approach, Tools and Techniques

Our operations training approach is flexible and responsive to changing demands. We will collaborate with you on the overall curriculum, course content, and schedule well in advance of the delivery date in order to give ample notice to the recipients. This advance notice enables users to efficiently schedule their time and to plan, accordingly.

Our curriculum development methodology is outcome-focused and customer-centric. We will tailor development to your goals and objectives and design our curriculum to deliver accurate and timely results. We use a standard, modular design for all of our training courses, including high-level agendas for each training class. These will include a description of the staff and users to train.

Our Learning Management System (LMS) houses our online training content and will be used to manage registrations as well as track attendance and course completions for reporting.

For instructional design, we follow the industry-standard ADDIE methodology. ADDIE stands for the specific tasks that form the methodology: analyze design, develop, implement and evaluate. Figure 19 shows the ADDIE phases, steps and examples of the types of work products and documentation that we typically create as part of our training program.

Actual 2015 Optum Arkansas DSS Training Survey Results:

“The trainer and her helpers were awesome. I wouldn’t want anyone else to conduct this training.”

—Arkansas DSS Trainee

PHASE	STEPS	WORK PRODUCTS
Analyze	<ul style="list-style-type: none"> • Access Business Goals • Conduct Needs Analysis • Identify Knowledge Gap • Conduct Audience Analysis • Develop Learning Objectives 	<ul style="list-style-type: none"> • Training Needs Analysis • Training Plan
Design	<ul style="list-style-type: none"> • Identify Instructional Design Strategy • Select Delivery Method(s) • Determine Training Structure and Duration • Establish Evaluation Methodology • Develop Storyboards and Media 	<ul style="list-style-type: none"> • Design Strategy • Storyboards
Develop	<ul style="list-style-type: none"> • Develop Training Materials • Conduct Quality Review of Materials 	<ul style="list-style-type: none"> • Course Materials • Assessment Instruments
Implement	<ul style="list-style-type: none"> • Establish Training Schedule • Print and Prepare Training Materials • Prepare Trainers • Notify and Enroll Learners • Conduct Training 	<ul style="list-style-type: none"> • Course Schedule • Attendance Forms • Participant Assessments
Evaluate	<ul style="list-style-type: none"> • Collect Training Evaluation Data • Review Training Effectiveness 	<ul style="list-style-type: none"> • Training Evaluation Report

Figure 19. ADDIE Methodology.

We will apply ADDIE methodology phases, steps and work products to the AR IE-BM Project.

We will design, develop and deliver user training based on ADDIE concepts, including content specific to the features of the AR IE-BM. In order to provide meaningful documentation, our training staff will collaborate with the developers of our solution's user interface, reports and models, as well as those preparing system documentation and online help. We will work with DHS and your key stakeholders to identify gaps in knowledge or skills. Instructional designers will determine where a training need exists and recommend the appropriate solution to meet that need.

The Training and Knowledge Transfer Plan that results from the analyze phase of the ADDIE approach will outline a curriculum solution that provides the most concise and effective learning experience possible. The curriculum design and agendas will be based on the learning needs identified for the roles supporting DHS customers. We will also rely on lessons learned from our past development and implementation of a diverse catalog of training curricula. The resulting curriculum design for the AR IE-BM will have these fundamental objectives:

- Verify that training content is accurate and consistent with current DHS business processes
- Focus training content only on information that is critically relevant and necessary for learners to be successful in their roles
- Present key learning concepts so that these continuously build upon and reinforce previously covered topics and skills
- Include appropriate levels of interactivity in the training content, including hands-on practice and realistic case scenarios that simulate day-to-day job responsibilities
- Create training content that has a shelf life and is easy to update to support ever-changing business needs

The training materials we provide will be appropriate for each job role identified. Virtual and classroom delivery methods will be offered. These consist of instructor-led and self-guided learning in the form of Computer-Based Training (CBT) in conjunction with independent learning guides and use of a live training environment. Class participant materials may include student manuals, desk reference guides, activities and other supporting documentation. Each instructor-led training event will include a trainer guide with instructions for presenting the material, including talking points, and activity instructions. These materials help the trainer deliver a comprehensive training experience in the classroom or online during Web-based learning events. For the train the trainer process, Optum Training will deliver a materials hand off, then prepare the identified trainers by conducting teach backs, observations and guiding the trainers in their preparation for training.

DHS will review and approve all training locations and materials in advance to verify your staff has the knowledge, skills and resources they require to perform their assigned responsibilities as they meet the needs of the applicants they assist each day. This review and approval process will continue through the duration of the contract as we maintain the curriculum.

The Training and Knowledge Transfer Plan (Training Approach) will be incorporated into our proven 6-Prong Training Approach. In this Optum-developed approach to training, each prong represents a key point in the training lifecycle. Training activities important to fulfilling the needs of our customers, students, trainers and our own staff are mapped to their respective point in the lifecycle. This straight forward process makes it easy to keep eyes on current goals while planning for the next step. Figure 20 shows our 6-Prong Approach.

6 PRONG TRAINING APPROACH



Figure 20. 6-Prong Training Approach.

This approach helps us focus on current goals while planning for the next step.

Conducting Training Based on the Needs of Users

The framework for our recommended training solution for identified user roles is based on the following learning components:

Core learning content: Focuses on consistent messaging regarding concepts, processes, responsibilities, and tools and technology that are applicable across all roles. Because core learning content is not role-specific, all staff members may attend the same training sessions regardless of their role. Examples of core learning content include the following:

- System navigation and business processes
- On-the-job tools, references and resources

Anticipated duration: Minimum ½ day

Role-specific learning content: Covers role and program-specific concepts, processes and responsibilities. It is recommended that role-specific learning needs identified during the Analyze phase be split into separate training tracks. Examples of role-specific learning content may include the following:

- Work queue management
- Periodic reporting

Anticipated duration: Minimum ½ day

Optum will license our core materials to DHS. Any direct cost associated with customizations for DHS-specific requirements are included in our training cost estimate.

Training Evaluation

We will build a variety of practices, quizzes and assessment activities into the curriculum. These help us validate that we assess participants adequately against established job performance expectations. Our training evaluation activities will specifically align with the first two levels of the industry-standard Kirkpatrick model for performance evaluation:

- **Level 1—Reaction:** Reaction evaluation indicates how the learner felt about the overall training experience. We will perform this evaluation using a standard course evaluation administered at the end of training. Optum Operations Training will work with you to identify evaluation questions and topics and will share survey results with you and the AR IE-BM Project leadership.
- **Level 2—Learning:** Learning evaluation measures the learner’s increase in knowledge after the instructor presents the training content. The training curriculum will incorporate various Put It All Together Practice Labs throughout the training experience to allow learners to apply what they have learned using practice scenarios for hands-on practice with systems and reference tools. These will measure the learner’s knowledge and retention of key concepts and skills covered during the training experience.

8.0 Approach to System Pilot, Roll-out and Go-Live

The Vendor should ensure that the responses to this section are in alignment with the requirements set forth in Template T-10 – Implementation Requirements Traceability Matrix, Section 18.

We reviewed the RFP requirements and we fully support your plan to implement the AR IE-BM Solution in multiple releases. This release strategy aligns with our integrated delivery and project management methodology, the ODM, and will provide you early and continuous delivery of high quality, fully tested solution components according to your business needs. In this section, we will describe our strategy for piloting and rolling out the system. We will explain our strategic approach to assuring implementation readiness, which includes a comprehensive assessment of the organizational, operational and technical readiness of the AR IE-BM Solution. We will also elaborate on the more tactical elements of deployment readiness and the activities we undertake to make sure the cutover to the new AR IE-BM Solution is as seamless and smooth as possible.

Finally, we will walk the reader through a high level summary of our rollout approach and timeline. While a corresponding detailed Work Plan may be found in document T-14 Work Plan, we will summarize the 30-month timeline and four releases (R0, R1, R2 and R3) that make up the AR IE-BM Solution:

- R0: Base Technology Release
- R1: Application Intake User Interface
- R2: HHS Program Increments
 - PI-1: Medicaid and CHIP
 - PI-2: SNAP and TANF, TEA
 - PI-3: AR Works and WIC
- R3: MDM, Reporting, Notices

Finally, we conclude by expounding on the factors that determined our approach and lay out the considerations for contingency planning, including interim solution architecture configurations, rollback strategies and planning and potential data conversion challenges.

8.1 Pilot and Roll-out Planning

Instructions: Describe the Vendor’s methodology, tools, and techniques for piloting and rolling out the System. Describe what specific staging, readiness and deployment techniques the Vendor will use to determine the proper sequencing of deployment processes and functions required for successful implementation. Describe how the planned pilot approach will be in compliance with Title 7 for 277.18(g)(2)(ii).

This response addresses Requirement I8.1 through I8.7 contained in Tab I8 of the Implementation Requirements Traceability Matrix.

In this section, we will describe our strategy for planning the pilots and statewide rollout of the AR IE-BM system. We will elaborate on the methodology, tools and techniques embedded in our ODM, including our approach for implementation readiness, deployment planning and execution, and compliance with Title 7 for 277.18(g)(2)(ii).

Methodology

Our Implementation (pilot and rollout) Planning methodology includes all of the associated tasks and artifacts necessary for planning, execution and control, and closure. Although these activities and their artifacts are not specific to the creation and delivery of Application functions, they are critical to the proper guidance and management of the solution readiness and delivery process. Figure 21 shows our implementation management approach.

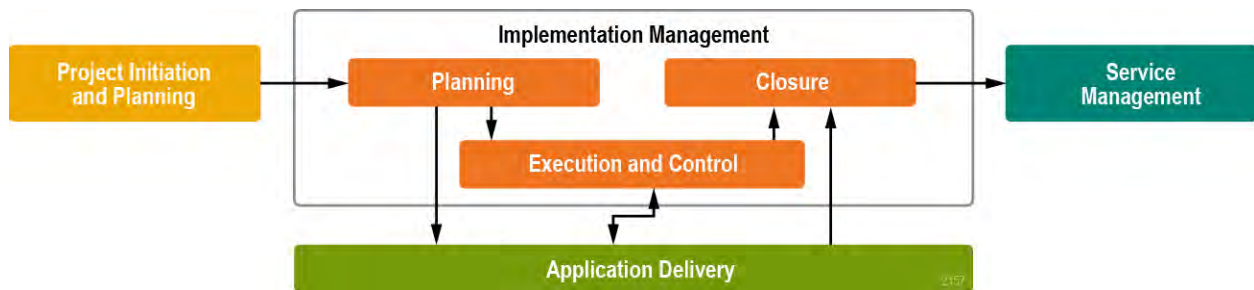


Figure 21. Implementation Management Approach.

Our team will follow the predefined process to make sure we successfully complete the steps necessary to implement the AR IE-BM Project.

Our implementation management approach contains the following components.

- **Implementation Planning:** The primary purpose of this phase is to develop the Implementation Readiness Assessment.
- **Implementation Execution and Control:** The purpose of this phase is to manage the activities described in the Implementation Readiness Assessment and control and monitor the progress and quality of the implementation process to follow. This phase also manages the operational readiness, deployment readiness and training activities.

- **Implementation Closure:** This phase completes the remaining tasks, assesses results and closes the phase. An implementation readiness report is produced to certify that the system is ready for production indicating successful completion of the work.

Implementation Readiness Assessment

We will develop a comprehensive assessment of implementation readiness to verify accurate completion of the AR IE-BM implementation. The assessment will describe the process and activities we will use to achieve an organized and thorough assessment of go-live readiness for staff, business processes and infrastructure. It will detail how we will assess the preparedness of the organization, facilities, systems, equipment and operational responsibilities. Through our project experiences, we have developed a list of assessment areas to focus on, including:

- **Requirements assessment:** We will use our RTM as the artifact to validate that all requirements documented during the requirements analysis and system design activities have been addressed and that the new AR IE-BM Solution satisfies those requirements.
- **Testing assessment:** We will provide written reports on status of System Testing and UAT, including test plan coverage, test results, and defect reporting and tracking.
- **Deliverable documentation assessment:** We will make sure consistent diligence, verification and appropriate updates of the deliverables and other documentation has occurred in compliance with the Deliverables Dictionary. We will deliver all documentation to assess implementation readiness and facilitate your approval of the necessary documentation.
- **Operations procedures:** We will verify that operations procedures are implemented. This verification will include monitoring, scheduled tasks, start/stop, backup, recovery and reporting.
- **Stakeholder training:** We will affirm that training has occurred for all stakeholders, such as DHS workers, without significant outstanding gaps of information remaining.
- **Knowledge transfer:** We will attest that knowledge transfer has occurred for M&O without significant outstanding gaps of information remaining.
- **Dependencies:** We will confirm that we have recorded dependencies on all critical components.
- **Escalation paths:** We will work with DHS to document functional and hierarchal escalation paths.

We will assess these key focus areas to give you confidence that the solution is ready to deploy. This includes all associated people, processes and technologies. After we receive your written approval, we will deploy the solution to production and start pilot operations. We describe the deployment planning activities in the following section.

Staging, Readiness and Deployment Techniques and Tools

Whereas the Implementation Readiness Assessment is a broader, more strategic view of the organization's readiness for implementation from a people, process and technology point of view, a tactical offshoot of the assessment focuses on the specific elements related to the deployment activities. We will develop a deployment plan to focus on pre-production (i.e., staging) for UAT and production for pilot and statewide deployments. The plan will include the following for each release:

- Release description, including architecture or design updates, new functionality introduced, defects fixed, modifications to interfaces with other systems, other changes to existing code, and any software and hardware configuration changes
- Release contents including a description of the release structure and contents and instructions for assembling and/or configuring the components of the release
- Release-specific hardware and software system components, including detailed hardware and software configuration information and dependencies
- Release-specific software and hardware deployment instructions at a level of detail that will enable administration staff to rebuild and configure the hardware environment without outside assistance (This includes any third-party hardware and software.)
- Database documentation conforming to industry standards
- Detailed step-by-step deployment instructions, including deployment scripts, that uses our existing DevOps tooling, as described in Section 3.3 Environment Coordination
- Contingency Plan including timelines with key milestones when different contingencies are no longer an option (e.g., rolling back)

In addition to the deployment activities, we will work with you on pilot planning and will collaborate with you to identify the scope, participants and timeline. We will manage the pilot program activities, will identify, address and track any issues, and will lead check-point meetings. As the pilot is nearing conclusion, we will report status against the agreed upon entrance and exit gates, including compliance with Title 7 for 277.18(g)(2)(ii), and will provide relevant documentation and results to help DHS make informed decisions to migrate into/out of the pilot.

Compliance with Title 7 for 277.18(g)(2)(ii)

After the pilot phase starts, we will track the usage of the system to validate that each of the requirements listed in the RTM and associated functional components are exercised during the pilot. The duration of each of our pilots will verify a sufficient period of time to thoroughly evaluate the system both in terms of functional completeness and performance rigor, but also to validate a state of routine operation is reached with the full caseload in the pilot area. The pilots will also allow us to validate additional processes such as our data conversion processes and the integration of the AR IE-BM Solution and the State Hub.

As part of the exit criteria of each pilot, we will conduct a compliance assessment. We will evaluate the overall solution for compliance with Title 7 for 277.18(g)(2)(ii) and will provide a report of this evaluation include our findings and any recommendations or remediation concerns. Upon joint agreement that the system is ready for a statewide rollout, we will work with you to provide the necessary documentation to FNS of the pilot evaluation, as FNS approval to implement the system more broadly is a condition for continued FFP.

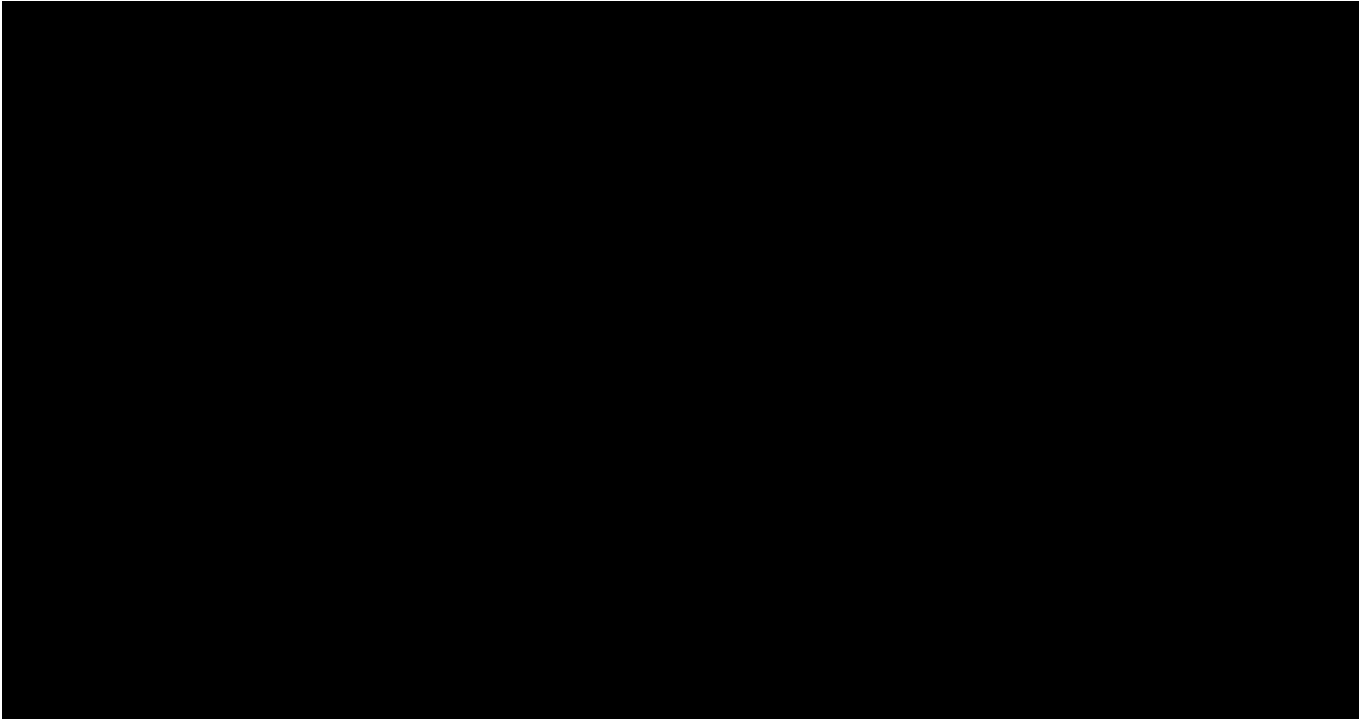
8.2 Roll-Out Approach and Timeline

Instructions: Describe what the Vendor believes to be the most effective roll-out and deployment strategy, including any recommendations regarding implementing/deploying functionality in separate releases and a phased roll-out and a high-level timeline. If proposing a multi-release strategy (i.e., some of the required functionality is not part of the System in the first release), include a description of the proposed phases and the approach to providing all required functionality in the interim (e.g. interfaces to the legacy system). Provide references to

the Vendor's proposed Work Plan and WBS in the required Microsoft Project® Work Plan submission. Describe the vendor's approach to ensuring a successful incremental deployment strategy, considering geographically remote locations that may require an extended period of time for roll-out preparation.

This response addresses Requirement I8.8 through I8.15 contained in Tab I8 of the Implementation Requirements Traceability Matrix.

Overview



Multiple Releases and Phased Roll-out

Using our Optum Delivery Model, we will implement the AR IE-BM Solution in four releases—Release 0 through Release 3 (R0 through R3)—as shown in Figure 23. Our multi-phased release approach is consistent with your person-centric vision, will minimize risk, and support your successful migration to the most modern technology platform in the market.

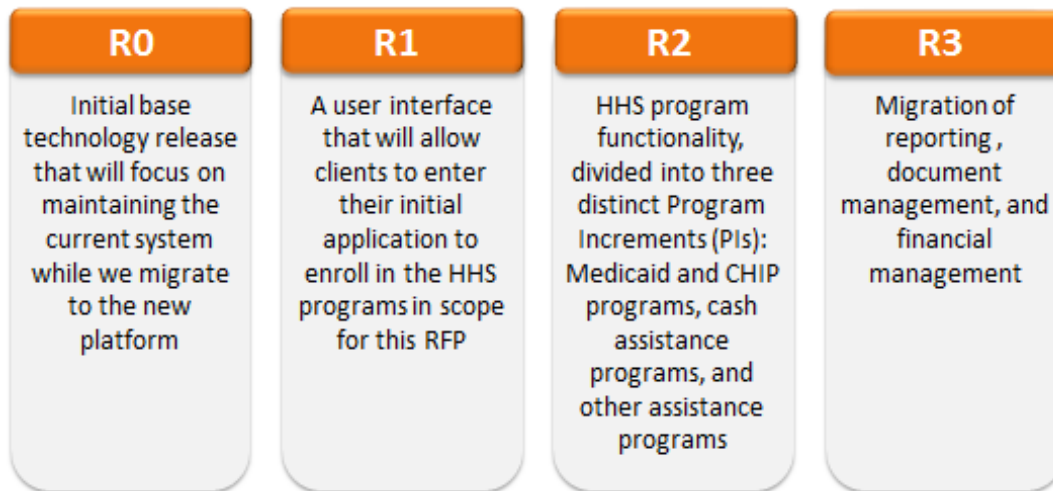


Figure 23. Optum Multi-release Approach.

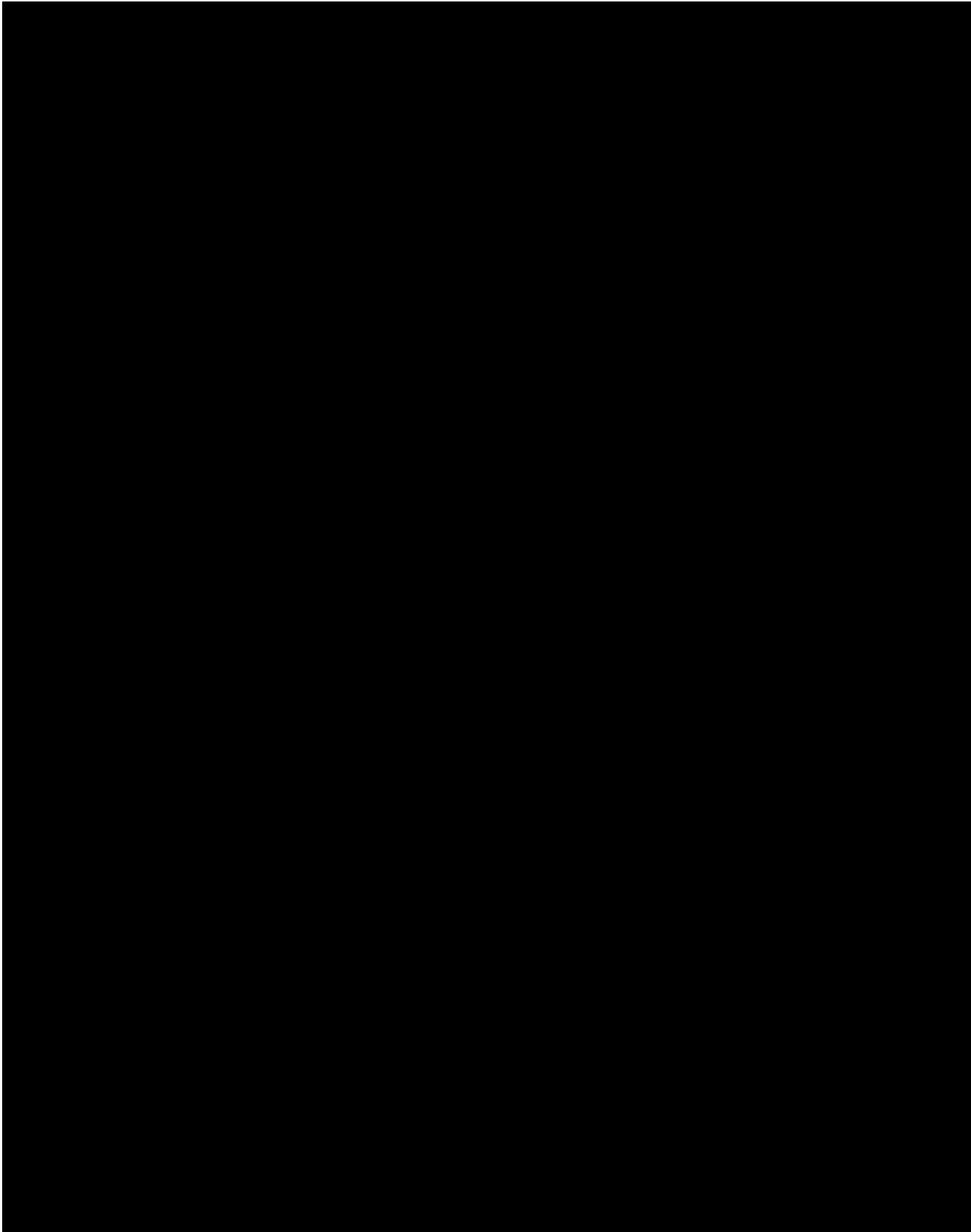
Our approach will provide early and continuous delivery of high quality, fully tested components for the AR IE-BM Solution.

In parallel with R0 and R1, we will develop R2 for the rollout of HHS program functionality in waves. This strategy is consistent with your vision of a person-centered practice model and addresses the desired implementation approach (and the concerns) that you listed in the RFP. This model recognizes the program interrelationships and dependencies between health care programs, cash assistance programs and other family assistance programs. Although we treat these as single release, we will pilot and roll out each Program Increment (PI) independently. This approach will help us to minimize delivery risk by dividing the work into smaller, more manageable efforts. It will also provide a phased approach that will allow your staff a longer period of time to adjust to the new system. Figure 23 provides a high-level view of our proposed release schedule.

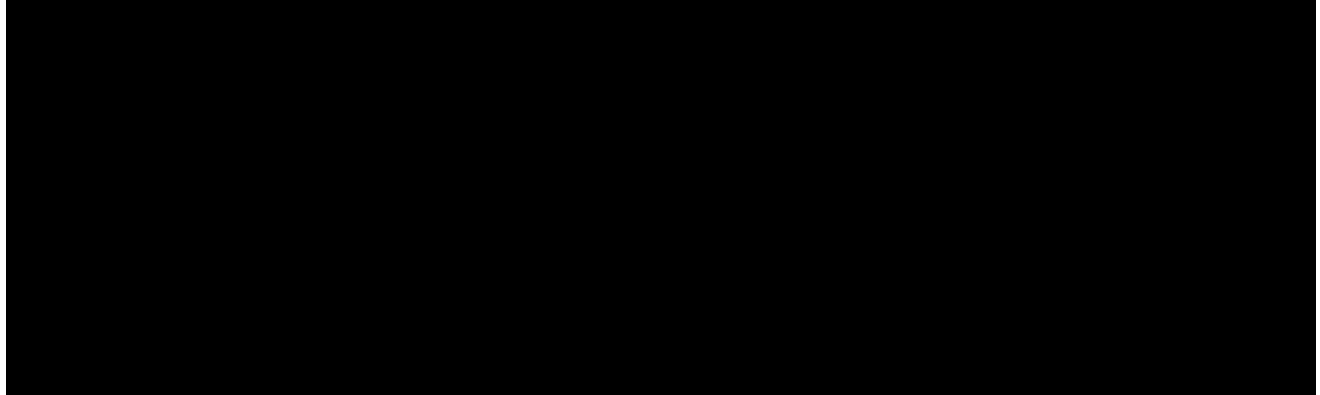
The following table summarizes the scope and timing of each release seen in the preceding figure.

Table E: Release Scope and Timing

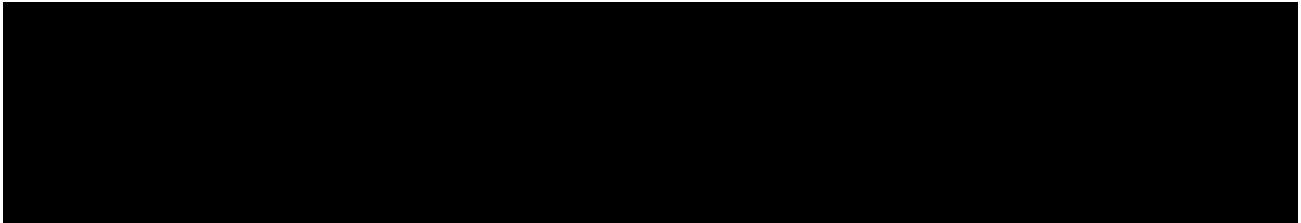
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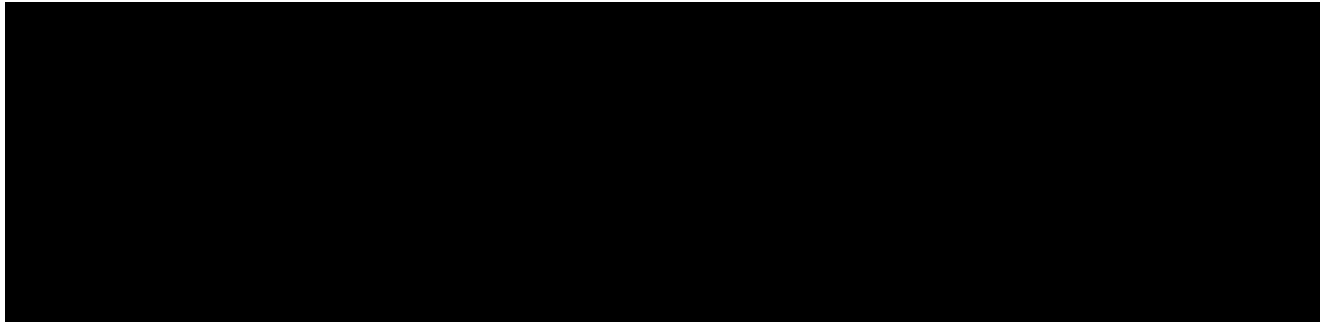
R1 – Data Collection User Interface

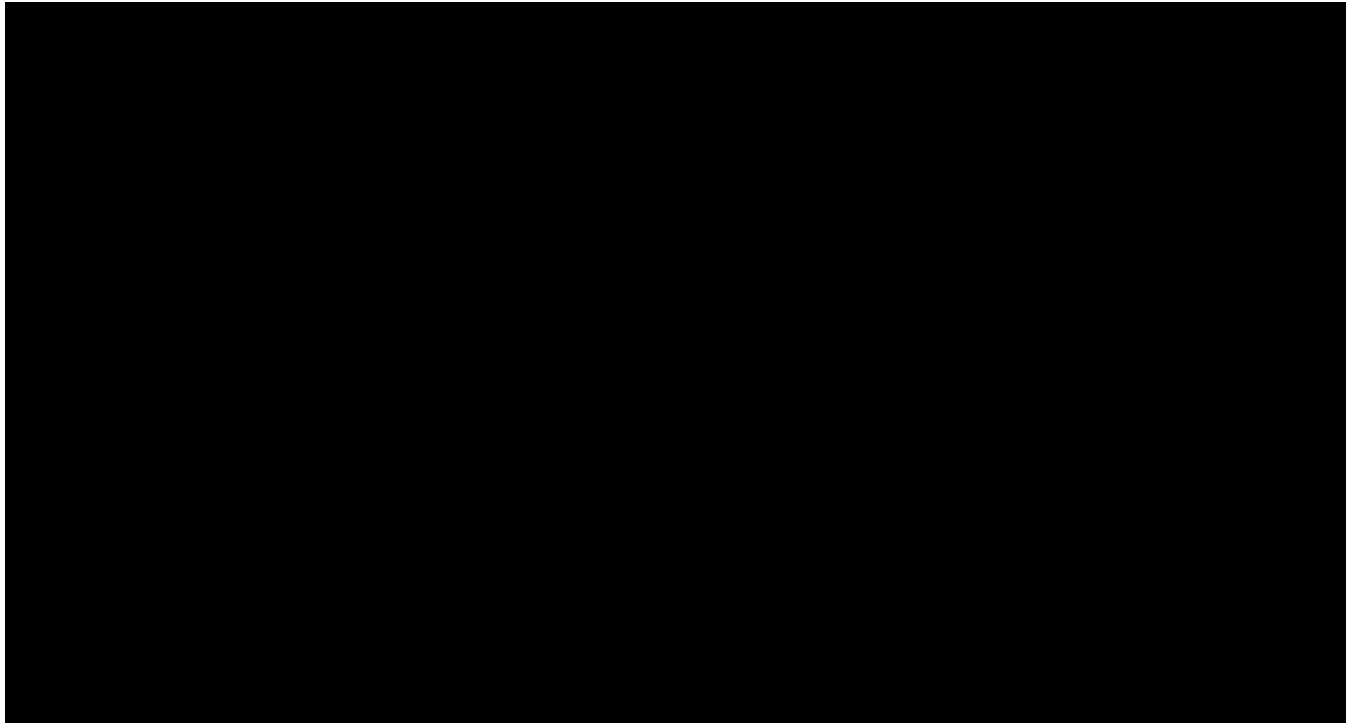


R2 – HHS Program Functionality

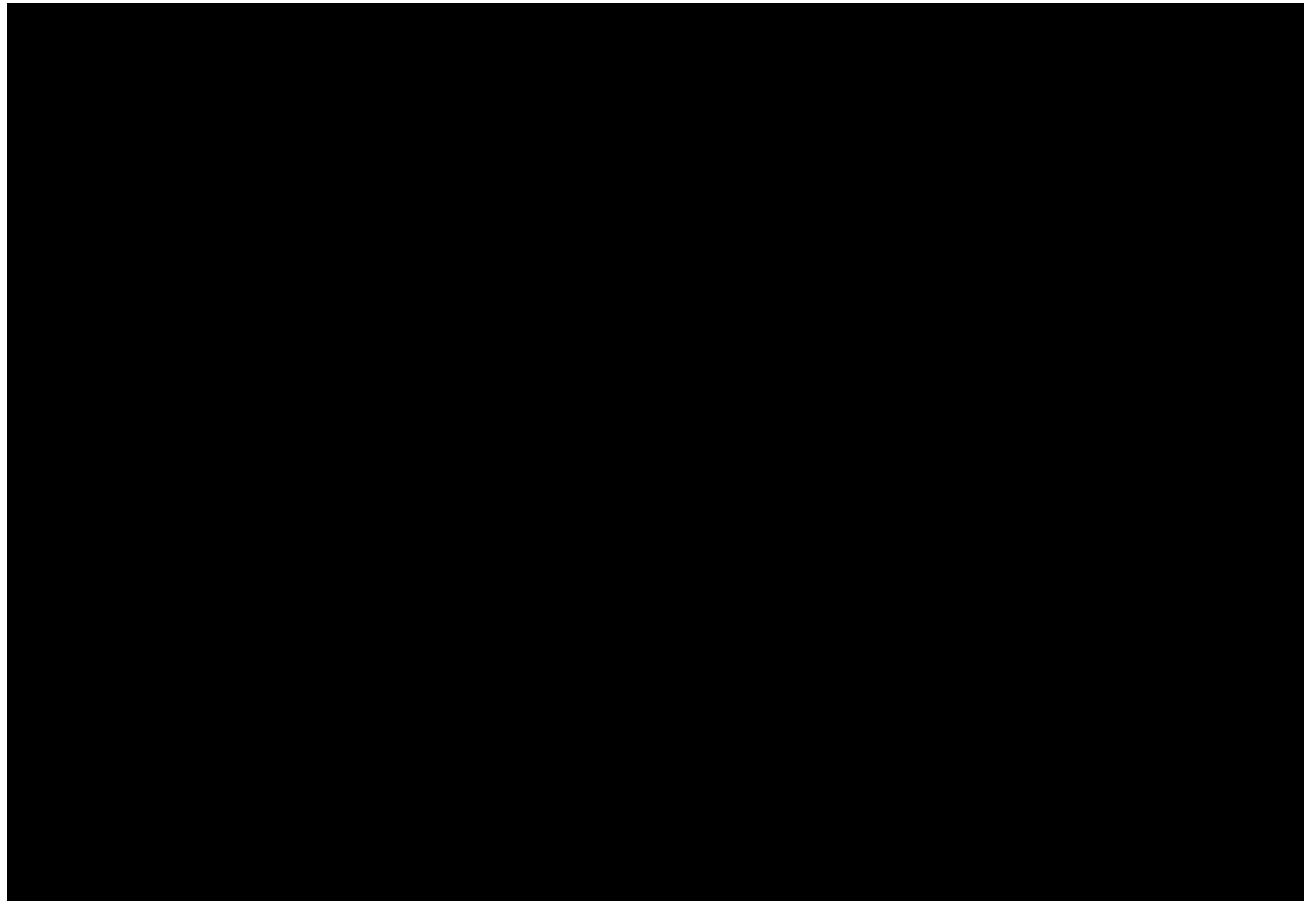


R3 – Reporting, Document, and Financial Management





Release Pilots



Interim Solution Architecture

As we noted earlier, our phased and Agile-based release strategy poses far less risk than the traditional “big bang” waterfall approach. This approach poses less risk to you in the AR IE-BM Solution implementation. We will work in partnership with DHS toward a solution that we will maintain, as we migrate and mitigate any risks. We also understand that there are both technical and operational challenges associated with seamlessly integrating the new integrated eligibility system with Cúram and your existing legacy systems. During each release, we will incrementally deploy the new system functionality while maintaining the existing legacy functionality. We will keep the data synchronized between the legacy applications and the new AR IE-BM Solution until we complete the final release. As a result, the downstream systems such as client notices, reports and MDM will have a unified view of the data irrespective of where the case is being processed. This will reduce or eliminate any need for dual operations by the end users. This will also spread out the training for the State workers on the new system, making the transition easier. After the functionality completely transitions to the AR IE-BM Solution, we will retire the existing Cúram system and support DHS with the retirement of its four legacy systems. The end result will provide you, your departments and citizens the benefits of an interconnected COTS system that is easy to access.

Data Conversion Strategy

Data conversion is an important aspect of this migration process. We will approach this using an incremental data conversion from your existing legacy systems to the new AR IE-BM Solution. As we transfer functionality to the new solution, we convert the underlying data. Once transferred, the new AR IE-BM Solution then becomes the owner of that data. At this point, future changes made to the new database are through the new solution functionality and we copy the data back to your legacy systems to keep them synchronized. This will help us verify the data integrity throughout our interim releases to the final rollout and decommissioning of the

legacy applications. The successful conversion of data allows better decisions based on better data analysis. This leads to more efficient and cost effective delivery of service to the citizens of Arkansas.

One significant benefit our data conversion strategy for DHS is it helps us minimize risk for the solution data components. Our iterative approach provides the best opportunity to mitigate conversion challenges for the AR IE-BM Solution. Optum has decades of broad experience helping our customers manage risk with data conversion and data management for their large-scale health services solutions. We understand what can go wrong in data conversions and how best to manage that risk. When planning each iteration, we will perform exhaustive source data research and target data requirements analysis. We will build a detailed conversion plan using our data profiling tools, incorporating your overall goals and requirements. Our experience performing data conversions gives us a head start in knowing what tools and techniques are best for dealing with the work at hand and associated potential problems. Our Data Conversion Plan will outline our detailed approach. It will identify and address each of the conversion challenges. The following table describes potential conversion issues and how we might address them.

Table F: Potential Conversion Issues, Mitigation Tools and Conversion Plans

Potential Conversion Issue	Mitigation	Conversion Plan
Unexpectedly high data volume	We thoroughly research and document information about all data sources, associated data volumes and conversion frequencies.	Our SMEs will conduct interviews with source system owners and data stewards. We will use the AR IE-BM Solution data profiling, data modeling and metadata tools to plan for, and handle all in-scope data varieties and volumes.
Complexities inherent in defining the relationship between source and target data structures	Our AR IE-BM Solution metadata tools capture all needed relationships between source and target data. Our repository of existing data models and data modeling techniques allow for the capture and versioning of virtually any healthcare and business data relationships.	Our data design experts will design target data structures to capture all required data to preserve the source business data. The relationships between source and target data will be documented in metadata to establish bi-directional traceability.
Differences in the data required for processing between legacy and new systems	We capture all operational metadata needed to preserve the bi-directional mapping of source and target data.	Our data design experts, in coordination with our SMEs, will design target data structures to capture all required data to preserve (and in many cases enhance), the source business data. The relationships between source and target data will be documented in metadata to establish bi-directional traceability.

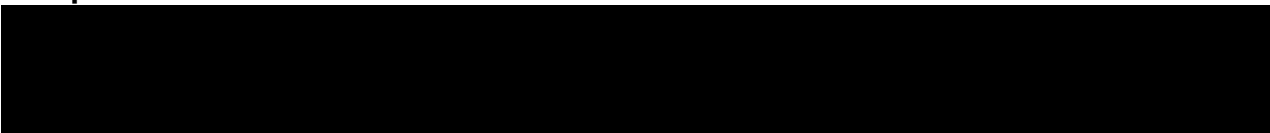
Potential Conversion Issue	Mitigation	Conversion Plan
History of changes to processing requirements and valid codes that may result in data inconsistencies and missing data conditions	We capture all business metadata needed to preserve the bi-directional mapping of source and target data.	Our data design experts, in coordination with our SMEs, will design target data structures to capture all required data to preserve (and in many cases enhance), the source business data. The history of changes particular to source and target data will be documented in metadata to establish bi-directional traceability.

Our Data Conversion Plan will not be limited to addressing potential data conversion challenges. Our overall approach will include identifying data conversion scope, describing the character of source and target data, and defining all appropriate object and metadata. We will include this analysis in a plan that incorporates Work Plans, quality and process controls, and appropriate technical and business metadata.

Rollback Strategy

We understand the complexity of large application migrations, which is why we are proposing a multi-release approach. Our approach will deliver smaller, more manageable functional releases, enabling us to mitigate the current risks while we migrate to the new solution. In addition, each release will be consciously designed such that we can roll back the new changes and return to the prior operational environment, if necessary. Consciously designing for rollback mitigation includes considering several factors during design. For example, our design will include keeping the new system database synchronized with your legacy applications and architecting loosely coupled integrations to make the rollback of integration components more seamless. This approach helps verify a truly modular architecture allowing for partial rollbacks rather than being forced to take a more drastic all or none approach rolling back a release. While rolling back a release is never expected, our philosophy is to design the solution to mitigate the negative and dramatic psychological and operational effect a rollback can cause if not done properly.

Proposed Timeline



A detailed Work Plan is provided in Section T14, Work Plan. Figure 25 illustrates how we incorporate the SDLC phases into the proposed DDI schedule.

Factors Determining our Approach

We understand your vision of an interconnected, person-centric HHS organization that is easily accessible to the people it serves. We base our Work Plan on an iterative approach that maps to your program needs. We will migrate your existing environment while maintaining your operations, working with you to identify and mitigate any risks. Our approach will deliver a solution that has been tested at an agreed-upon pilot site in accordance with established success milestones. We will introduce system functionality into the pilot environment. Once the system meets the milestone success criteria, we will implement statewide functionality incrementally based on the established release schedule. This approach will enable us to train workers more effectively on the AR IE-BM Solution and promote incident avoidance problems related to system unfamiliarity. It will support your successful migration from your current technology to the most modern platform on the market.

While our iterative approach will serve to promote a more rapid and lower risk delivery, our execution of multiple parallel work streams will allow us to identify interdependencies between the various HHS programs. As such, we will be able to implement these interdependencies as a cohesive unit. For example, the interdependencies between the Medicaid categories of assistance will be factored into PI1 while the interdependencies between TEA/TANF benefits and the SNAP budget will be factored into PI2. Our approach to substantially reduce risks of this implementation includes:

- Maintaining a technology framework that enables integrated application and review processing for TEA/TANF, SNAP, Medicaid, AR Works and WIC applicants
- Reducing impact to worker caseload by providing an integrated presentation of the application functionality throughout the pilot and interim phases of the project

- Enabling an easier rollback of new functionality, if needed, through our solution architecture; allowing a rollback of pilot functionality at any point in time, maintaining a solid strategy throughout the implementation phases

9.0 Approach to Steady State (System Warranty)

The Vendor should ensure that the responses to this section are in alignment with the requirements set forth in Template T-10 – Implementation Requirements Traceability Matrix, Section I9.

Instructions: Describe how the Vendor plans to identify, classify and manage any required warranty fixes and how this will integrate with the M&O processes.

This response addresses Requirement I9.1 through I9.4 contained in Tab I9 of the Implementation Requirements Traceability Matrix.

The fundamental mission of our warranty M&O service is to minimize application errors or application-related performance problems. The ongoing care for the health and performance of the production applications, systems, and its corresponding production environments is paramount to our past success with Massachusetts and West Virginia, and is the same model that we will provide to you.

We believe in creating repeatable processes and properly documenting, communicating and socializing these processes in order to control support costs, verify high levels of user satisfaction, enhance productivity and effectively use the warranty M&O resources. Framed by our planning, processes and documentation, our support team can use industry standards and tools to effectively monitor and secure the system. Our M&O activities conform ITIL standards. The elements of maintenance are based on the IEEE Standard for Software Maintenance (IEEE Standard 1219-1993). Figure 26 shows the M&O handoff during the warranty period.

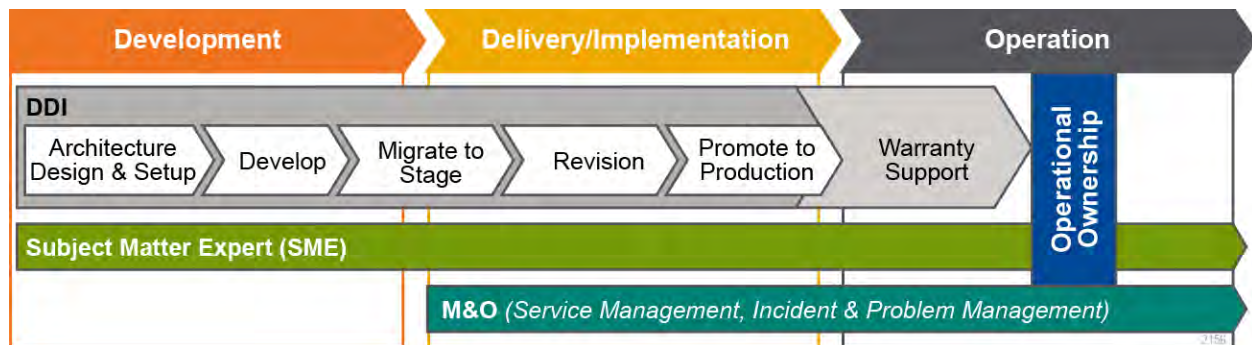


Figure 26. M&O Handoff during the Warranty Period.

Optum will minimize application errors or application-related performance problems during the warranty period.

As illustrated in the figure above, the M&O team partners with the DDI team early in the process to begin knowledge transfer and REF activities for a smooth and successful migration to production. The M&O team continues their involvement through the Delivery and Implementation phases and into operations when the release is migrated into the Production environment. Once the Warranty Support period ends, the M&O team assumes full operational ownership for its support.

Post Implementation Monitoring and Quality Control

We will begin monitoring the solution as soon as we implement it in production. The M&O team will provide comprehensive coverage and operational support before and after the implementation. Following our REF, our M&O team will begin operational activities during the early phases of development. This process will help us make sure we meet your monitoring and procedural requirements during the development phase.

After we deploy the solution to production, we will begin our Application Performance Management (APM) process. We use synthetic monitoring to monitor, chart and trend the performance of our Web applications. This monitoring can send an alert if a performance parameter exceeds a defined threshold. The monitoring will include user experience monitoring, data center real user monitoring, deep application transaction management, synthetic monitoring and business service monitoring.

We will perform proactive issue identification using industry standard tools. We will log deviations from quality as an incident and notify the appropriate group. In addition, we will prepare a first time use list for implemented functionalities and closely monitor for issues during the first run.

During the post-implementation, our line of business managers, the enhancement and DDI team, and DHS will attend the post-deployment meetings. They will review the leaked and post-production defects status. These meetings will serve as a forum for DHS and Optum to discuss any issues encountered.

Our M&O ticket tracking system will confirm that the enhancement/DDI team is working on the defects. The line of business manager is responsible for managing the assignment of tickets. If post-deployment work is needed, the maintenance and operations team will complete it as needed when required. The M&O team and the enhancement/DDI team will collaborate to coordinate timelines for defect resolution. These teams will decide on an appropriate release within the agreed upon post-deployment support period. They will report overall status to all stakeholders and DHS, as defined in the Project Communication Management Plan.

We capture changes performed to the production environment using a change request in the IT Service Management System per the State's Change policies. We employ a Change Advisory Board (CAB) and an Emergency Change Advisory Board (ECAB) for standard and emergency changes. Please see T13 for more details on our Change Management strategy.

Implementation Closure: Our implementation closure concludes the implementation management and delivery functions and archives all release artifacts. The purpose of Implementation Closure is to close down the implementation, complete implementation activities, evaluate the implementation, and conduct the final closure meeting with DHS. This process results in the creation and sign-off of the Implementation Closure Report. Upon completion of the Implementation Closure Report, the appropriate DHS representative and the AR IE-BM system manager will review and provide sign-off. The report will include the following information, where applicable:

- **Summary of implementation statistics:** Contains information on implementation coordinator, the implementation manager, start date, sponsor and application owner's end date
- **Summary of implementation scope:** Contains an overall summary of information such as the implementation's scope, business areas and functionalities

- **Summary of data conversions:** Validates that we reviewed data conversion for completeness, accuracy and validity
- **Results of each implementation activity:** Describes the results of each activity performed during implementation
- **Summary of implementation highlights:** Summarizes key implementation information that may include business areas, top functionalities, planning and implementation management, analysis and design, implementation, checkouts, operations readiness and training
- **Issues and improvement opportunities:** Contains a list of issues and improvement opportunities that occurred during implementation (We will review and evaluate improvement opportunities as part of our quality improvement process.)
- **Conclusion:** Contains an overall conclusion of the implementation activity and requires sign-off from the AR IE-BM system manager and DHS

10.0 Design, Development and Implementation (DDI) Service Levels

The Vendor should ensure that the responses to this section are in alignment with the requirements set forth in Template T-10 – Implementation Requirements Traceability Matrix, Section I10.

Instructions: Describe the Vendor’s approach to meeting the various SLRs, some of which include:

- Deliverable Schedule
- Deliverable Quality

This response addresses the requirements contained in Tab I10 of the Implementation Requirements Traceability Matrix.

Our approach to achieving the two Deliverable-based SLRs identified in Tab I10 of the Implementation Requirements Traceability Matrix begins with a concerted and dedicated commitment to schedule and quality, up front. A key tool in our arsenal is our Deliverable Tracker tool, which tracks the status of each deliverable, including deliverable owner, start and end dates, issues/risks, and approval status. More so, the Deliverable Tracker will track the earned value achieved for each deliverable based on the actual effort exerted and work completed compared to the planned effort and planned completion. In this manner, the Optum team will have a fact-based approach to determining status and will not be beholden to the subjectivity of the deliverable owner’s word. Ultimately, this will result in a more confident and accurate tracking of the deliverable schedule per the SLR. Any deliverable flagged as being behind schedule will be identified and discussed in a weekly Deliverable Tracker Review meeting and an appropriate remediation plan will be put in place.

For the Deliverable Quality SLR, a key component of our Deliverable Review Process is the upfront creation of a DED for each deliverable. The objective of the DED is to gain formal agreement with you, up front, as to the content and specificity of each deliverable so there will be no surprises when the draft deliverable is presented for review. Our internal deliverable QA

process will track each deliverable as it is being developed and perform an audit against the DED to validate the deliverable content meets expectations. Once again, any deliverable flagged as being insufficient or lacking in quality will be identified and discussed in the weekly Deliverable Tracker Review meeting and an appropriate remediation plan will be put in place.

Finally, regarding SLR I10-3, Benefit Payment Accuracy, our approach to validating that the benefits to be paid by the new system as compared to benefits that would have been paid out of the legacy system involves a two-fold approach. First, during both System Test and UAT, our test cases will essentially compare the outputs of both the new and legacy systems as the expected results identified in each use case will, in fact, be the results of the legacy system. As such, the test will only pass if the actual results match the expected results. Our second validation will occur during the pilot phases, where we will continue to monitor and compare the results generated by the new system by providing the source data to the legacy system to determine the benefit payment. Once again, the results between the new and legacy systems should match.

11.0 Approach to Supporting Federal Review

Instructions: Describe how the Vendor plans to support the Federal review process to ensure the System is compliant with all Federally mandated (CMD, FNS etc.) guidance and rules. The Vendor should define its approach to completing the federal review. The approach should address, at minimum, supporting DHS with on-site Federal review visits and addressing identified gaps/deficiencies in order to meet Federal requirements.

Optum will work in cooperation and coordination with the State to determine ownership and responsibility of applicable NIST SP 800-53, CMS MARS-E security controls and State security policies. CMS MARS-E has taken all the NIST SP 800-53 security controls and specifically defined how they want these controls to be implemented; including some security controls NIST SP 800-53 has deemed as optional. Therefore compliance with NIST SP 800-53 comes as a result of being MARS-E compliant.

While security control ownership and responsibility will be implemented by the State, Optum will support DHS with on-site Federal reviews and remediation of identified gaps and deficiencies. The agreed upon ownership and responsibility will be documented within the SSP. The SSP is one of the many documents that are required for the CMS MARS-E assessment to receive an Authority to Connect (ATC). An SSP may be needed in both a CMS and an IRS template format. We will support the State's efforts to develop these and other required documents, including Information System Risk Assessment (ISRA), Contingency Plan (CP), CP Test Plan, CP After Action Report, E-Authentication and a Plan of Action & Milestones (POA&M).

The POA&M report will be developed in cooperation with the State based upon CMS methodology Risk Management Handbook Volume III Standard 6.2, *Plan of Action and Milestones Process Guide*. This will provide the State and Optum a clear understanding of the AR IE-BM security posture and permit the tracking of the corrective actions. The information provided by following this methodology will include identification of the weakness, risk categorization, Corrective Action Plan, Corrective Action Plan owner, remediation timelines and mitigating controls. POA&Ms will not be considered remediated and closed until validation has been provided by the State and Optum.

Optum is well-versed and highly experienced with the NIST SP 800-53 assessment process and the associated documentation required. For two State exchanges, Optum has provided MARS-E and IRS 1075 compliance and received Authority to Connect from CMS and IRS on behalf of both states. We have also provided FISMA and NIST SP 800-53 compliance support for Department of Health and Human Services, Department of Veterans Affairs, and Defense Health Agency and received numerous Authority to Connect conclusions. Prior to the final state-wide rollout, we will work with DHS to develop the requested documentation and artifacts required to prove implementation of all security controls during the assessment.

Specific to FNS review, our testing and pilot processes and associated deliverables will align to federal testing approval guidelines (CMS, FNS) and will comply with Title 7 for 277.18(g)(2)(ii). As part of the Exit Criteria of each pilot, we will conduct a compliance assessment. Prior to the final state-wide rollout, we will evaluate the overall solution for compliance with Title 7 for 277.18(g)(2)(ii) and will provide a report of this evaluation include our findings and any recommendations or remediation concerns. Upon joint agreement that the system is ready for a statewide rollout, we will work with you to provide the necessary documentation to FNS of the pilot evaluation, as FNS approval to implement the system more broadly is a condition for continued FFP.

12.0 Tool Usage

DHS expects the Vendor to leverage tools during the DDI project whenever they will increase project performance.

Instructions: Describe the Vendor's approach to leveraging tools to increase the project team's performance. The response should include a discussion regarding how the tools will help the project team efficiency, improve the quality of the solution and help produce the materials required to efficiently provide M&O (e.g. documentation, automated test scripts). Please also discuss the benefits and costs/risks of taking this approach

At Optum, we embrace the use of modern tools and technologies to increase the project team's efficiency, quality and delivery performance. Whether these tools are focused on helping us more effectively manage the project or whether they are to help us deliver better quality code or more automation, the end objective is the same: To leverage cost-effective tools and technologies that can truly move the needle on our delivery performance.

The two driving forces that craft our overall tools strategy are our ODM project management methodology and our DevOps strategy for software development (Dev) and operations (Ops). These are summarized below.

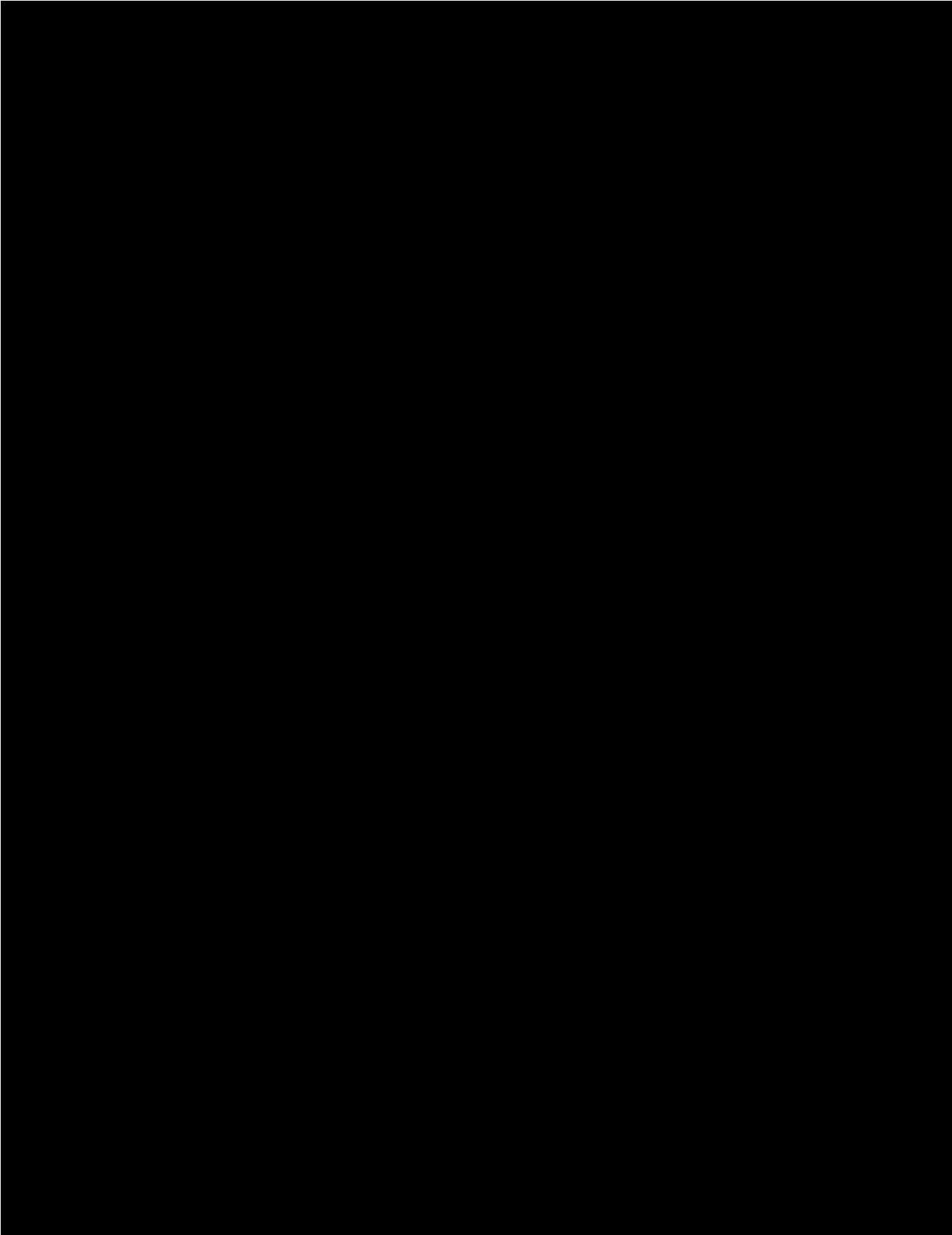
Project Management Tools

Optum uses a variety of standard tools to facilitate project management activities and maximize the effectiveness of the Optum project manager. Our experienced project management teams are proficient in using industry standard PM tools, such as Microsoft Office, Microsoft Project, and the HP ALM as well as Rally ALM tools, to track and manage facets of the project management process. During the project planning process, we will confirm that the versions of our software tools comply with DHS's approved standards. Versions include:

- **Microsoft Office:** This suite of tools is used to prepare reports, documentation, spreadsheets, presentations and other documents.
- **Microsoft Project:** This tool is used to develop and maintain the AR IE-BM Project Schedule; and to generate schedule reports for status reporting to DHS.
- **Microsoft SharePoint:** This tool is used to create and maintain a central repository of key project artifacts and information. Optum will use an internal SharePoint site to store working and final documents. DHS will provide a shared SharePoint site for storage of pertinent project artifacts and final deliverables that can be readily accessible by authorized DHS and Optum project personnel.
- **Microsoft Visio:** This tool is used to create technical, architectural or other infrastructure diagrams relevant to the project.
- **IRAAD:** The IRAAD tool is used as a central repository for all identified issues, risks, actions, assumptions and decisions, as well as their current status. Use of IRAAD allows DHS and Optum leadership to have a common understanding of project activities that may affect the project schedule.
 - Optum will create and maintain an Excel-based tracking log for this purpose, the Issue/Risk Tracking Log. The log will be stored on the DHS SharePoint site where it will be readily accessible by authorized DHS and Optum project personnel.
 - Alternatively, Optum will work with the State to create an online SharePoint IRAAD log (on the DHS SharePoint site) if that is the preferred tool of choice.
- **Rally ALM:** This is a Web-based application lifecycle management tool used primarily for requirements management, including the creation and maintenance of RTMs, user stories, backlogs, release plans and test scripts.
- **Deliverable Tracker** (automated Optum internal tracker and shared Excel tracker): These tools track the progress of all contract deliverables from inception to signoff. The shared Deliverable Tracker provides a visual summary of each deliverable, and is a comprehensive resource for project audits.
- **PPM Optics:** This is a project portfolio management tool that Optum uses internally. It enables project resources to track time against the AR IE-BM Project. Data is extracted from this system into financial workbooks that enable us to track and manage our project finances - budget, actual labor costs, projected labor costs and variance.

DevOps Tools - Software Development & Automation

Our DevOps approach to software code management and development that reduces risk and speeds solution delivery. With a strong emphasis on automation, it promotes collaboration and communication between the development and technical operations teams. This approach will give our teams more control over the solution so they can respond to your requirements quickly. We have completely automated our delivery pipeline, from build to deployment and upgrade phases. This reduces the chances of an error occurring from manual intervention, resulting in consistently and quickly delivering a higher quality application. Figure 27 illustrates the automated technology capabilities used in a recent implementation and how it integrates throughout the solution. The tools are routinely reviewed and replaced to keep up with the latest technology and improvements in efficiency.

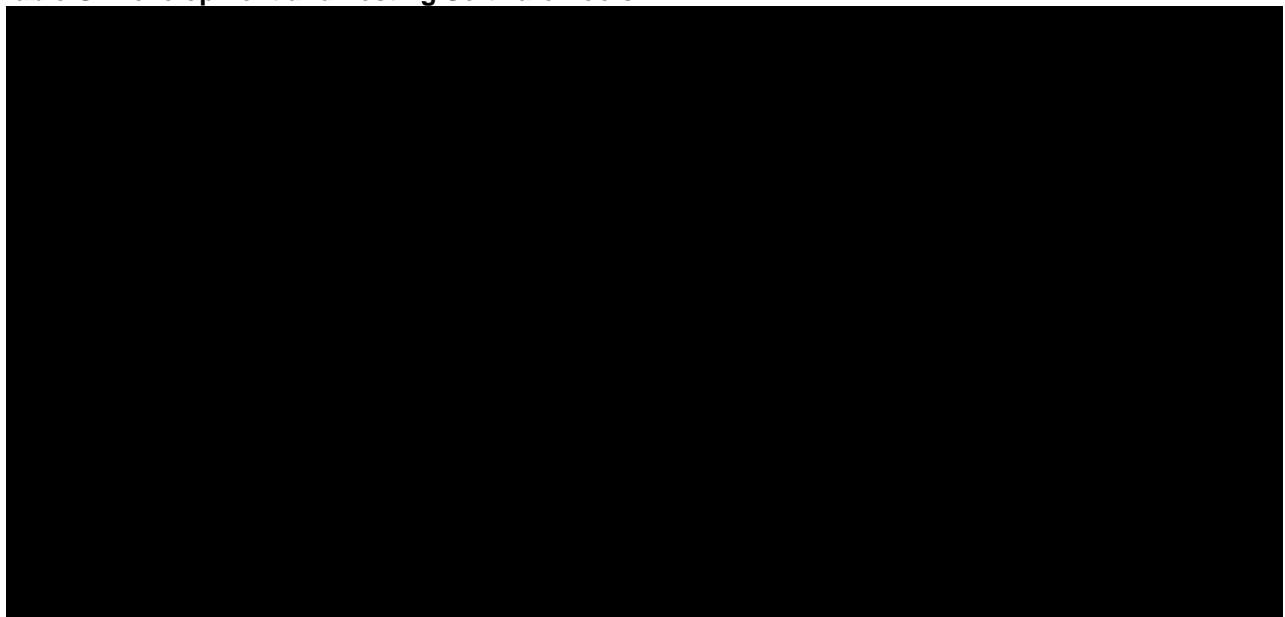


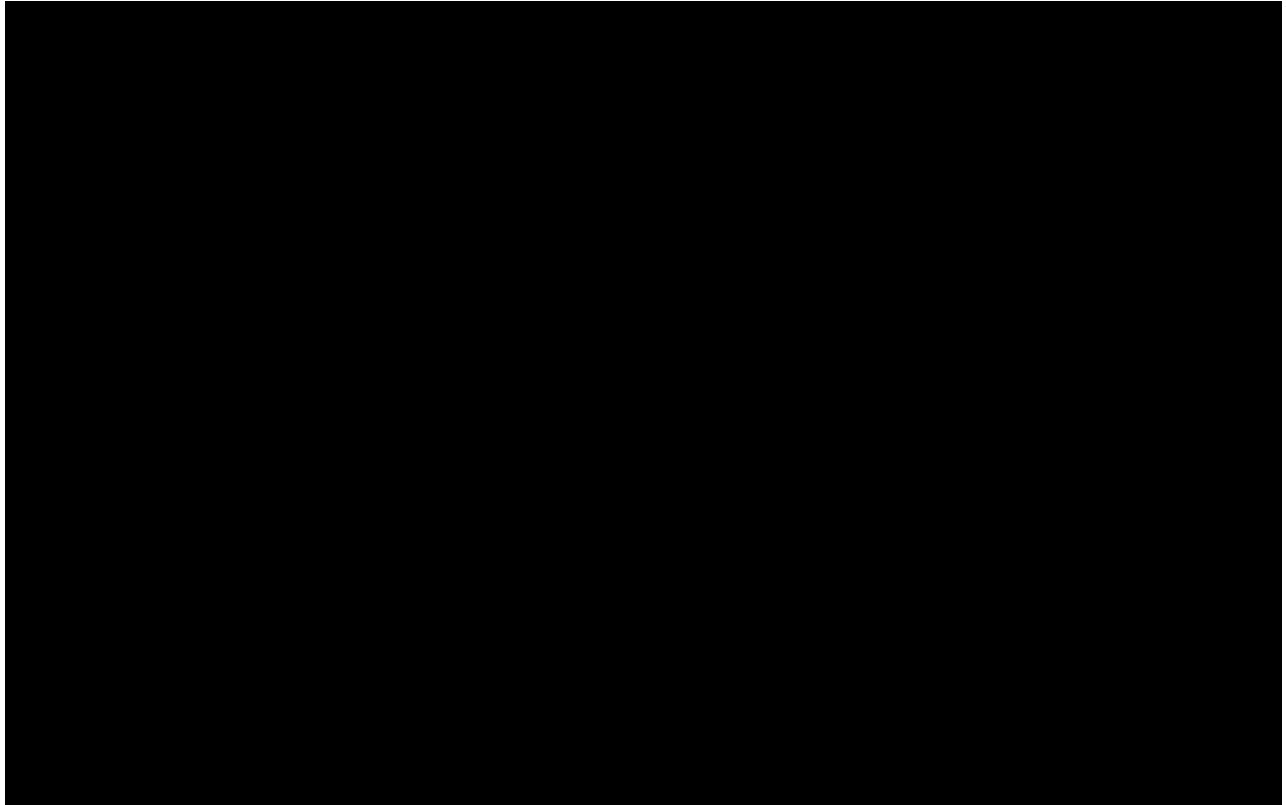
Once the build has been deployed, our Quality Assurance team leverages a full suite of testing and test automation tooling to effectively and efficiently execute our test strategy. These tools include:

- **CA Agile Central:** CA Agile Central is an enterprise-class platform that's purpose-built for scaling agile development practices. It provides a hub for teams to collaboratively plan, prioritize and track work on a synchronized cadence.
- **HP ALM:** ALM is used for test management tracking of requirement, test cases, test execution results and defects. The tool allows for the creation of customized reporting and traceability from requirements to defects.
- **Selenium WebDriver:** Selenium is a portable software testing framework for web applications. Selenium provides a record/playback tool for authoring tests without learning a test scripting language (Selenium IDE). It also provides a test domain-specific language (Selenese) to write tests in a number of popular programming languages, including Java, C#, Groovy, Perl, PHP, Python and Ruby. The tests can then be run against most modern web browsers. Selenium deploys on Windows, Linux and Macintosh platforms. It is open-source software, released under the Apache 2.0 license, and can be downloaded and used without charge.
- **Ready! API:** SoapUI is FOSS that is used for testing REST and SOAP endpoints. In addition to the free version, SmartBear offers the commercial SoapUI NG Pro and the Ready! API suite. Ready! API suite includes SoapUI NG Pro and 3 other tools for testing APIs. We have a suite of rule tests that run in the FOSS version of SoapUI.
- **JUnit:** JUnit is a unit testing framework for the Java programming language. JUnit has been important in the development of test-driven development, and is one of a family of unit testing frameworks, collectively known as xUnit that originated with SUnit.
- **MUnit:** MuleSoft provides the Anypoint Platform to help you create integrations and APIs, simplifying the task of connecting multiple data sources.

The following table summarizes development and testing software tools described above and shown in Figure 27:

Table G: Development and Testing Software Tools



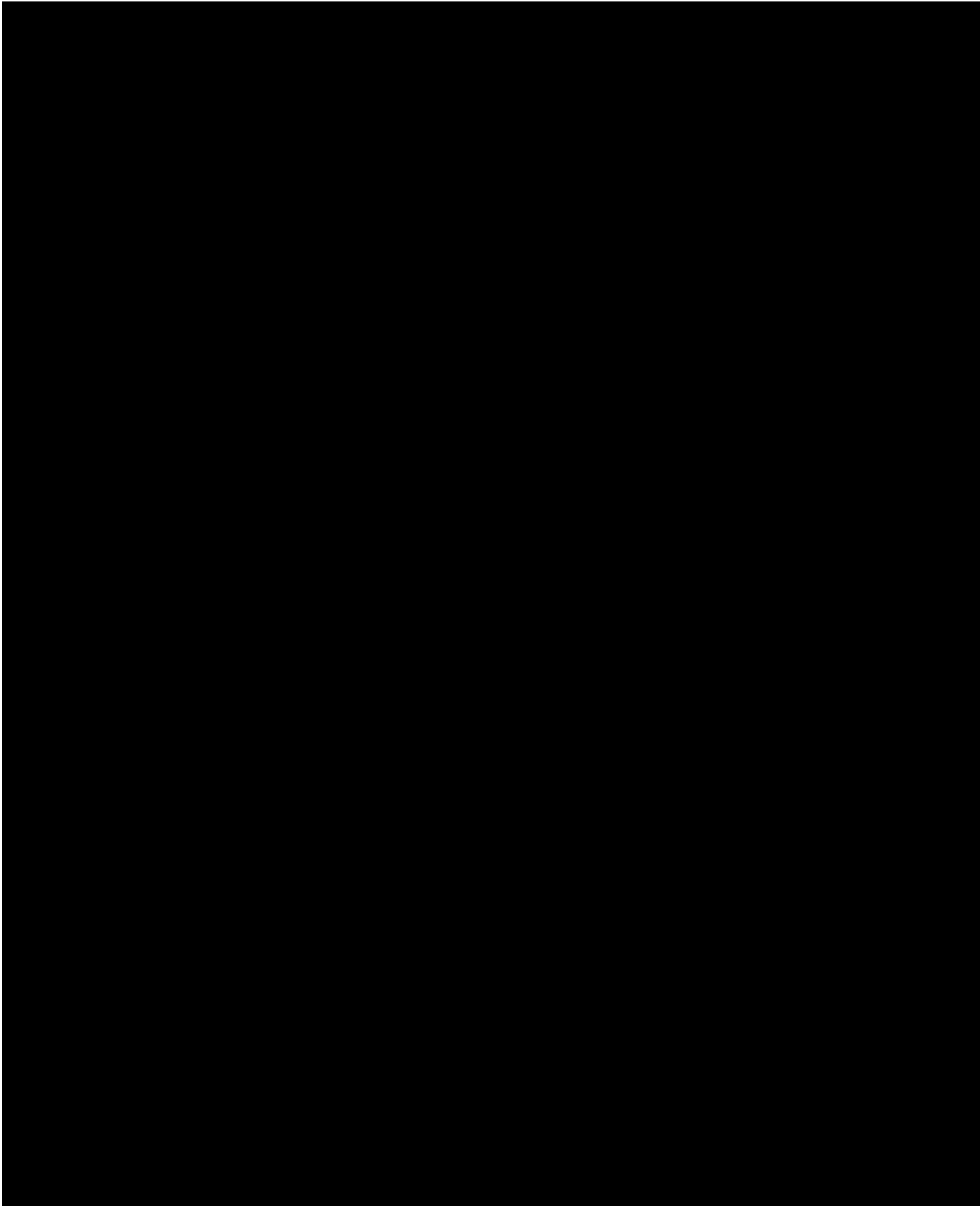


DevOps Tools - Operational Support and Monitoring

Optum leverages various tools to perform the M&O activities more efficiently in a standardized and repeatable way, to increase quality, performance and reliability within the system. We will leverage the DHS JIRA system for help desk and defect management tracking and resolution. Autosys will be used for batch scheduling and Sharepoint for M&O documentation management.

We will use our end-to-end Application Performance Management (APM) process to monitor, chart and trend the performance of our Web applications. This involves using synthetic monitoring tools to run scripted tests from various browsers, locations and user workstations to evaluate capacity, performance, availability and configuration of applications and infrastructure. These tools can send alerts if a performance parameter exceed a defined threshold. This monitoring also supplies information about configuration and operational state, and assists in system support.

At Optum, monitoring tools evaluate capacity, performance, availability and configuration of applications and infrastructure. Figure 28 shows the layers that we monitor.



These are the State’s preferred tools and will require no additional integration efforts with other DHS systems. This approach will reduce costs by leveraging existing tools and support expertise. The risks of this approach are around the capabilities of the tools as they are currently implemented. Part of this approach will be to perform a full analysis of the current versions and capabilities of the tools to make sure they provide the required level of functionality needed to support EEF and the AR IE-BM Solution. If it is determined additional capabilities are required, a plan would be developed to remediate the gaps.

13.0 Statement of Work

13.1 Implementation Deliverables

The Vendor should provide a Statement of Work that details the work to be performed consistent with the requested SOW and requirements detailed in the RFP for the System. The narrative for the Statement of Work should include a detailed description of each Project deliverable. The Statement of Work should also clearly define the scope of the Project and provide assumptions on which the Work Plan and Statement of Work were developed. The Vendor must NOT include any pricing or pricing assumptions in this section.

For each Deliverable, the Vendor should provide the following information:

- **Deliverable Description** – Provide an overview of the Deliverable
- **Vendor Responsibilities** – Provide a clear and concise narrative of Vendor responsibilities to perform the work for this Deliverable
- **DHS Responsibilities** – Provide a clear and concise narrative of what the Vendor expects from DHS to perform the work for this Deliverable
- **Deliverable Timeline** – Please include start and end dates
- **Deliverable Duration** – Total duration of the Deliverable in working days
- **WBS ID Number** – Provide the reference to the Project WBS ID number related to this Deliverable
- **Reference** – Indicate the section, page and paragraph where referenced

Instructions: Provide a Statement of Work including each of the Deliverables in the following Table, and any additional Vendor-proposed deliverables. Each Deliverable should include at least the template in the Deliverable Response Template Table. Replicate the template for each Deliverable. Change only the cells containing “<Insert>”. Do not change any of the completed cells. Any changes to the completed cells could lead to the disqualification of the Proposal.

Please refer to Attachment 5 for the DDI Statement of Work.

Table 1. List of Deliverables

Task	Deliverable Number	Deliverable/Work Product Name	Frequency	Constraints/ Dependencies
I.1- Project Management and Monitoring	I.1.1	Completed Project Establishment Checklist	Once	Within 1 Month of contract signing
	I.1.2	Integrated Project Management Plan	Once for Initial Release and Updated for all subsequent Releases	Within 1 Month of Task I.1.1
	I.1.3	Project Schedule	Once for Initial Release and Updated for all subsequent Releases	30 days prior to starting work on any release
	I.1.4	Project Reporting Artifacts (Weekly, Monthly Reports, Risk, Issue and Decision Making Logs)	Weekly and Monthly from Project Initiation to Project Close	Within 3 days of reporting period
	I.1.5	Release/ Project Closeout Check-List	Once for Every Release and Final Project Close-Out	1 Month prior to each Release/Project Closeout
I.2- Planning	I.2.1	Overall SDLC approach plan	Once (with updates only if required during subsequent releases)	Within 1 Month after Task I.1.1
	I.2.2	System Architecture	Once (with updates only if required during subsequent releases)	Within 1 Month after Task I.2.1
	I.2.3	System Security Plan	Once for Initial Release and Updated for all subsequent Releases	Within 1 Month after Task I.2.2
	I.2.4	Technology Environment Specifications and Infrastructure plan	Once for Initial Release and Updated for all subsequent Releases	Within 1 Month after Task I.2.2
	I.2.5	Organizational Change Management Plan	Once for Initial Release and Updated for all subsequent Releases	Within 3 Months after Task I.2.1

Task	Deliverable Number	Deliverable/Work Product Name	Frequency	Constraints/ Dependencies
	I.2.6	Data Conversion Plan	Once for Initial Release and Updated for all subsequent Releases	2 Months before start of Task I.5 (Data Conversion Tasks)
	I.2.7	Master Test Plan	Once for Initial Release and Updated for all subsequent Releases	2 Months before start of Task I.6 (Testing Tasks)
	I.2.8	Training and Knowledge Transfer Plan	Once for Initial Release and Updated for all subsequent Releases	2 Months before start of Task I.7 (Training Tasks)
	I.2.9	Roll-Out Plan (Pilot and Full Roll-Out)	Once for Initial Release and Updated for all subsequent Releases	2 Months before start of Task I.8 (Pilot and Deployment Tasks)
	I.2.10	Deployment Plan (Pilot and Full Deployment)	Once for Initial Release and Updated for all subsequent Releases	3 Months before start of Task I.8 (Pilot and Deployment Tasks)
	I.2.11	System Operations, Support and Transition Plan	Once for Initial Release and Updated for all subsequent Releases	3 Months before End of Task I.8 (Pilot and Deployment Tasks)
I.3- Technical Environment Specification	I.3.1	Technical Environment Specifications Plan	Once (updated on as-needed basis)	Within 30 days after Task I.2.1
I.4 - Design, Development and Implementation (DDI)	I.4.1	Requirements Validation and updates to RTM, BPA and Use Cases	Once for Initial Release and Updated for all subsequent Releases	Cannot Start before Task I.2.1
	I.4.2	Functional Design Document (FDD)	Once for Initial Release and Updated for all subsequent Releases	Cannot Start before Task I.4.1

Task	Deliverable Number	Deliverable/Work Product Name	Frequency	Constraints/ Dependencies
	I.4.3	Technical Design Document (TDD)	Once for Initial Release and Updated for all subsequent Releases	Cannot Start before Task I.4.2
	I.4.4	Data Integration and Interface Control Documents (ICD)	Once for the initial release and updated for subsequent releases	Cannot Start before Task I.4.3
	I.4.5	Updated and Completed Functional and Technical Requirements Traceability Matrix	Once for the initial release and updated for subsequent releases	Cannot Start before Task I.4.3
I.5 Data Conversion	I.5.1	Data Conversion Testing Report and Results	Once for Every Release	Cannot Start before Task I.2.6
I.6 – Testing	I.6.1	Completed SIT Readiness Checklist	Once for Every Release	Cannot Start before Task I.2.7
	I.6.2	SIT Testing Report and Results	Once for Every Release	Cannot Start before Task I.6.1
	I.6.3	Completed UAT Readiness Checklist	Once for Every Release	Cannot Start before Task I.6.2
	I.6.4	UAT Testing Report and Results	Once for Every Release	Cannot Start before Task I.6.3
I.7- OCM (Organizational Change Management), T (Training) and KT (Knowledge Transfer)	I.7.1	Training and Knowledge Transfer Materials	Once for Every Release	Cannot Start before Task I.2.8
	I.7.2	Training and Knowledge Transfer Completion report	Once for Every Release	Cannot Start before Task I.2.9
	I.7.3	Executive Briefing	Quarterly and as requested	Within 2 weeks of completion of OCM
I.8- Pilot, Roll-Out and Go-Live	I.8.1	Pilot Deployment report and signoff	Once for Every Release	Cannot Start before Task I.6.4 for Each Release

Task	Deliverable Number	Deliverable/Work Product Name	Frequency	Constraints/ Dependencies
	I.8.2	Formal System Acceptance and Final Go-Live report	Once for Every Release	Cannot Start before Task I.8.1 for Each Release
I.9- Warranty Support	I.9.1	Completion of all Warranty Activities Report	Once for Every Release	Cannot Start before Task I.8.2 for Each Release

Table 2. Deliverable Response Template

I.1.1	Completed Project Establishment Checklist
Deliverable Description	This deliverable is confirmation by Optum that all of the key Project establishment activities have occurred.
Vendor Responsibilities	<ul style="list-style-type: none"> ■ Optum will develop a draft Deliverable Expectation Document (DED) identifying the acceptance criteria by which this deliverable will be assessed and reviewed with the DHS team. ■ Optum will execute Project activities that include: <ul style="list-style-type: none"> <input type="checkbox"/> Project facilities identified, acquired and fully outfitted for staff <input type="checkbox"/> All Vendor DDI Key Staff provided State credentials and Welcome Package <input type="checkbox"/> Connectivity to all required legacy and Project systems for Vendor and State staff has been established <input type="checkbox"/> Vendor staff directory, containing all contact information and Project title, has been provided to the State project manager <input type="checkbox"/> The Project Kick-off has occurred. The Kick-off is a presentation to the entire project team and key stakeholders to familiarize them with the Project and includes: <ul style="list-style-type: none"> – Project Overview – Project Schedule (high level) – Objectives and Definitions – Process (including change management, change control, and issue/risk management) – Roles and Responsibilities – Keys to Success

I.1.1	Completed Project Establishment Checklist	
Expectations for DHS' Responsibilities	<ul style="list-style-type: none"> ■ DHS will work with Optum to finalize the DED and will provide their sign-off on the DED denoting their approval of the acceptance criteria by which this deliverable will be assessed. ■ DHS will follow the agreed upon deliverable cycle documented in the approved PMP. ■ DHS will review the deliverable submitted by Optum, assessing content against the acceptance criteria identified in the approved DED. As necessary, DHS will provide feedback that enables the deliverable to be finalized, and will provide their sign-off on the deliverable denoting their approval of the deliverable. <p>DHS will collaborate with Optum on activities noted in this deliverable, as necessary.</p>	
	Start	End
Timeline	Submitted for approval no more than one month after Contract signing	As agreed upon with DHS
Duration	Once	
WBS ID#(s)	2.2.2.2	
Reference (Section, Page Paragraph)	3.7.3.1 Group 1 Deliverables – Project Management and Monitoring, Page 86	

I.1.2	Integrated Project Management Plan	
Deliverable Description	<p>This deliverable will capture all of the project management processes, roles and responsibilities and templates which will be executed throughout the Project to effectively manage and control the Project. The approach shall be consistent with the PMI Project Management Methodologies stated in the PMBOK or equivalent and must align and integrate with the DHS' PMO's processes. This plan will encompass the entire Project lifecycle from Project initiation to handoff to M&O and will incorporate content for which DHS PMO is responsible.</p>	
Vendor Responsibilities	<ul style="list-style-type: none"> ■ Optum will develop a draft Deliverable Expectation Document (DED) identifying the acceptance criteria by which this deliverable will be assessed and review it with the DHS team. We may develop separate DEDs for each individual sub-plan. ■ Optum will develop the PMP and at minimum, the following plans, for DHS' review and approval. The PMP will, at a minimum, consist of the following sub-plans: <ul style="list-style-type: none"> <input type="checkbox"/> Scope Management Plan: Outlines the processes 	

I.1.2	<p>Integrated Project Management Plan</p>
	<p>required to validate the AR IE-BM Solution and the Project meet all of the requirements outlined in the RFP and how to track and manage deviations</p> <ul style="list-style-type: none"> ❑ Schedule Management Plan: Captures how the Project Schedule will be monitored for variances, what types of corrective actions will be taken to address schedule variances during the life of the Project and the process, roles and responsibilities involved in making changes to the Project Schedule ❑ Project Change Management Plan: How changes to the scope, schedule and budget are tracked, reviewed and approved ❑ Risk and Issues Management Plan: Development of a Risk and Issues Management Plan is required. Optum, with the support of State team members, must submit a baseline Risk Assessment to the DHS project manager within one month of Project initiation ❑ Performance Management Plan: Optum must create a performance management plan that will provide a comprehensive approach on how Optum intends to monitor, track and report on baseline metrics for each performance area identified in the Template T-10 – Implementation Requirements Traceability Matrix – 1.8 Implementation SLRs. ❑ Document Management Plan: Optum must develop and maintain a Project Information Library (PIL) that will be overseen by the Project Management Team in a single repository (on site and owned by the State) used to store, organize, track, control and disseminate all information and items produced by, and delivered to, the Project. The Document Management Plan must include a description of the PIL file structure with defined access and permissions. ❑ Data Management Plan: Defines the approach to managing data to validate, at a minimum, adequate data is provided for testing and confidential data is managed effectively ❑ Quality Management Plan: Defines the Project approach to assuring quality throughout the entire Project lifecycle ❑ Human Resource Management Plan: Captures the projected resources required and the processes for identifying, qualifying and onboarding new team members, and removing a team member ❑ Acceptance/Contract Management: Captures the

I.1.2	Integrated Project Management Plan	
	<p>processes, template, and roles and responsibilities for accepting deliverables (content provided by DHS)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Project Communication Management Plan: Details the varying levels and needs of the Project’s stakeholders for information regarding the project, status, accomplishments, impact on stakeholders and defines the communications vehicles <input type="checkbox"/> Procurement Management Plan: Details how Optum will manage its subcontractors and other suppliers <input type="checkbox"/> Closure Approach: Captures the activities Optum will perform to formally close a release and the entire Project 	
Expectations for DHS’ Responsibilities	<ul style="list-style-type: none"> ■ DHS will work with Optum to finalize the DED and will provide their sign-off on the DED denoting their approval of the acceptance criteria by which this deliverable will be assessed. ■ DHS will follow the agreed upon deliverable cycle documented in the approved PMP. ■ DHS will review the deliverable submitted by Optum, assessing content against the acceptance criteria identified in the approved DED. As necessary, DHS will provide feedback that enables the deliverable to be finalized, and will provide their sign-off on the deliverable denoting their approval of the deliverable. ■ DHS will collaborate with Optum on activities noted in this deliverable, as necessary. 	
	Start	End
Timeline	Submitted for approval no later than 30 calendar days after Project commences	As agreed upon with DHS
Duration	Once for initial release and updated as appropriate throughout the duration of the Project	
WBS ID#(s)	2.2.2.3; 3.1.1.2; 3.2.1.2; 3.3.1.1.2; 3.3.2.1.2; 3.3.3.1.2; 3.4.1.2	
Reference (Section, Page Paragraph)	3.7.3.1 Group 1 Deliverables – Project Management and Monitoring, Page 87	

I.1.3	Project Schedule	
Deliverable Description	<p>This deliverable will include a resource loaded Baseline Project Work Plan and Schedule for every release, including a Work Breakdown Structure, Gantt charts, and a project calendar in Microsoft Project. The Project Schedule will break down the project into discrete increments documenting the estimated effort and will include major milestones, dependencies, checkpoints, go/no-go</p>	

I.1.3	Project Schedule	
	decision points and other characteristics of a project schedule.	
Vendor Responsibilities	<ul style="list-style-type: none"> ■ Optum will develop a draft DED identifying the acceptance criteria by which this deliverable will be assessed and review it with the DHS team. ■ Optum will develop the initial integrated master project schedule per the acceptance criteria identified in the approved DED and submit it for DHS approval. ■ Optum will provide updates to the project schedule based on an agreed upon frequency. ■ Optum will revise the project schedule to reflect agreed upon changes to scope or schedule (phases, releases), as necessary. ■ Optum will regularly review and assess critical path variances, escalating risks and issues to DHS as appropriate. 	
Expectations for DHS' Responsibilities	<ul style="list-style-type: none"> ■ DHS will work with Optum to finalize the DED and will provide their sign-off on the DED denoting their approval of the acceptance criteria by which this deliverable will be assessed. ■ DHS will follow the agreed upon deliverable cycle documented in the approved PMP. ■ DHS will review the deliverable submitted by Optum, assessing content against the acceptance criteria identified in the approved DED. As necessary, DHS will provide feedback that enables the deliverable to be finalized, and will provide their sign-off on the deliverable denoting their approval of the deliverable. ■ DHS will collaborate with Optum on activities noted in this deliverable, as necessary. 	
	Start	End
Timeline	Submitted for approval 30 days prior to the work on a release commences	Upon project completion
Duration	Updated weekly for all releases	
WBS ID#(s)	2.1.4.2; 2.1.4.13; 2.2.2.4; 3.1.1.1; 3.2.1.1; 3.3.1.1.1; 3.3.2.1.1; 3.3.3.1.1; 3.4.1.1; 4.1.1.2.2; 4.1.1.2.13	
Reference (Section, Page Paragraph)	3.7.3.1 Group 1 Deliverables – Project Management and Monitoring, Page 88	

I.1.4	Project Status Reporting Artifacts (Weekly, Monthly Reports, Risk, Issue and Decision Making Logs)
Deliverable Description	<p>The Project Status Report must capture, at a minimum, the status of the Project, including:</p> <ul style="list-style-type: none"> ■ Graphical statuses of scope, schedule and budget (red, yellow or green) ■ Accomplishment of the last reporting period and objectives for the next reporting period ■ Client responsibilities for the next reporting period ■ Actual/projected Project Schedule dates versus baseline Project Schedule milestone dates ■ Projected completion dates compared to approved baseline key dates ■ Recovery plan for all work activities not tracking to the approved schedule ■ Escalated risks, issues (including schedule and budget), and action items ■ Key dependencies with other DHS Enterprise efforts and activities ■ Disposition of logged issues and risks ■ Organizational Change Management (OCM) status and activities ■ Important decisions made and/or upcoming decisions ■ Any team member changes ■ Pending scope change requests ■ One-page graphical summary of the Project Work Plan status of all major tasks and subtasks for each Phase in a Project Plan ■ These status reports must be an integrated view of the project (i.e. DHS project managers have input into the content)
Vendor Responsibilities	<ul style="list-style-type: none"> ■ Optum will develop a draft DED identifying the acceptance criteria by which this deliverable will be assessed and review it with the DHS team. ■ Optum will provide a Project Status Report in a format that reflects the information as described in the deliverable description and in the frequency required. <p>Optum will provide and maintain an Issue, Risk, Action, Decision log in an agreed upon format.</p>
Expectations for DHS'	<ul style="list-style-type: none"> ■ DHS will work with Optum to finalize the DED and will provide their sign-off on the DED denoting their approval of

I.1.4	Project Status Reporting Artifacts (Weekly, Monthly Reports, Risk, Issue and Decision Making Logs)	
Responsibilities	the acceptance criteria by which this deliverable will be assessed. <ul style="list-style-type: none"> ■ DHS will follow the agreed upon deliverable cycle documented in the approved PMP. ■ DHS will review the deliverable submitted by Optum, assessing content against the acceptance criteria identified in the approved DED. As necessary, DHS will provide feedback that enables the deliverable to be finalized, and will provide their sign-off on the deliverable denoting their approval of the deliverable. ■ DHS will collaborate with Optum on activities noted in this deliverable, as necessary. 	
	Start	End
Timeline	Submitted for approval no later than three days after the reporting period closes	As agreed upon with DHS
Duration	Weekly and monthly from project initiation to project close	
WBS ID#(s)	2.2.2.5	
Reference (Section, Page Paragraph)	3.7.3.1 Group 1 Deliverables – Project Management and Monitoring, Page 88	

I.1.5	Completed Release and Project Closeout Check-list	
Deliverable Description	The purpose of this deliverable is to validate all project activities and the migration to M&O are complete and that all functionality has been implemented and the appropriate legacy application(s) have been retired. This deliverable will be the completed check-list and include, at a minimum: <ul style="list-style-type: none"> ■ Proof that all deliverables are up-to-date and approved including: <ul style="list-style-type: none"> <input type="checkbox"/> Functional Specifications and Design Documentation <input type="checkbox"/> Stem Architecture <input type="checkbox"/> Technical Design Documentation <input type="checkbox"/> Data Management Plan <input type="checkbox"/> Test Cases and Test Scripts <input type="checkbox"/> Training Manuals, End-User Guides, and Materials <input type="checkbox"/> Final versions of the System software files ■ Control of all System and training documentation has been transferred to the M&O team 	

I.1.5	Completed Release and Project Closeout Check-list
	<ul style="list-style-type: none"> ■ Lessons learned are fully documented ■ Tactical activities are complete (e.g., returning project team members' badges and removing systems access) ■ Assuring hand-off of source code and State ownership of all source code and configurations <p>All regression test scripts have been completed and are ready to support future regression testing</p>
Vendor Responsibilities	<ul style="list-style-type: none"> ■ Optum will develop a draft DED identifying the acceptance criteria by which this deliverable will be assessed and review it with the DHS team. ■ Optum will execute Release/Project Closeout activities that include proof that all deliverables are up-to-date and approved, including: <ul style="list-style-type: none"> <input type="checkbox"/> Functional Specifications and Design Documentation <input type="checkbox"/> System Architecture <input type="checkbox"/> Technical Design Documentation <input type="checkbox"/> Data Management and Synchronization Plan <input type="checkbox"/> Test Cases and Test Scripts <input type="checkbox"/> Training Manuals, End-User Guides and Materials <input type="checkbox"/> Final versions of the system software files <input type="checkbox"/> Control of all system and training documentation has been transferred to the M&O team <input type="checkbox"/> Lessons learned are fully documented <input type="checkbox"/> Tactical activities are complete (e.g., returning project team members' badges and removing systems access) <input type="checkbox"/> Assuring hand-off of source code and State ownership of all source code and configurations <p>All regression test scripts have been completed and are ready to support future regression testing</p>
Expectations for DHS' Responsibilities	<ul style="list-style-type: none"> ■ DHS will work with Optum to finalize the DED and will provide their sign-off on the DED denoting their approval of the acceptance criteria by which this deliverable will be assessed. ■ DHS will follow the agreed upon deliverable cycle documented in the approved PMP. ■ DHS will review the deliverable submitted by Optum, assessing content against the acceptance criteria identified in the approved DED. As necessary, DHS will provide feedback that enables the deliverable to be finalized, and will

I.1.5	Completed Release and Project Closeout Check-list	
	provide their sign-off on the deliverable denoting their approval of the deliverable. <ul style="list-style-type: none"> ■ DHS will collaborate with Optum on activities noted in this deliverable, as necessary. 	
	Start	End
Timeline	The checklist must be approved 30 days prior to each Release/Go-Live and Final project Go-Live. The deliverable, confirming all items on the checklist have been approved/accepted, must be submitted for approval no more than 60 calendar days after the release goes live.	As agreed upon with DHS
Duration	Once for every release and final project close-out	
WBS ID#(s)	3.1.6.3.9; 3.2.11; 3.3.1.11; 3.3.2.11; 3.3.3.11; 3.4.5.1.9; 3.4.5.2.9; 3.4.5.3.9; 3.4.5.4.9	
Reference (Section, Page Paragraph)	3.7.3.1 Group 1 Deliverables – Project Management and Monitoring, Page 89	

I.2.1	Overall SDLC Approach Plan	
Deliverable Description	<p>The purpose of the overall SDLC approach plan deliverable is to demonstrate that Optum has a strong understanding of DHS, integrated eligibility and benefits management, and a well-defined vision for how the AR IE-BM Solution will be developed, in alignment with the requirements outlined in Template T-11 — Implementation Approach Response.</p> <p>The plan provides a comprehensive SDLC approach elaborating on how Optum intends to implement the various phases of the project lifecycle and how it aligns with CMS XLC framework. This includes an overview of the different SDLC phases and how this Project will approach the different phases.</p> <p>To develop this deliverable, Optum must:</p> <ul style="list-style-type: none"> ■ Gain a deep understanding of the business processes and the functionality that the AR IE-BM Solution will provide ■ Establish the guiding principles for the Project (e.g., minimize custom development) ■ Assess the end-user needs and DHS culture and finalize the methodology and tools that will be used to analyze and validate requirements (including interviews, workflow 	

I.2.1	Overall SDLC Approach Plan
	<p>analysis, Joint Application Development (JAD) sessions, mock-ups, Usability Studies)</p> <ul style="list-style-type: none"> ■ Establish a requirements traceability plan to verify all requirements are met including a process for tracking, updating and managing changes to the requirements traceability matrix throughout the lifecycle of the Project (including mapping requirements to design documents and test cases) ■ Establish the mechanisms for managing the configurations and custom code through development ■ Work with DHS to define how technical decisions will be made to verify the AR IE-BM Solution aligns with the DHS standards ■ Establish Optum’s internal processes to verify the design is an integrated coherent AR IE-BM Solution (e.g., internal design reviews) ■ Establish the approach to developing technical standards and confirming conformance to the standards ■ Establish the strategy to verify all requirements are met, while maximizing the use of COTS software to support the requirements and approval processes required to make changes (e.g., changes to business processes or migrating the AR IE-BM Solution from COTS to custom) ■ Work with DHS to define how DHS staff will work with Optum’s team for the duration of the Project ■ Define the scope of the Project Releases and how overlap between releases (from a technical and project perspective) will be managed ■ Establish which technical components will be deployed and source systems will be integrated with by release ■ Identify major technical challenges Optum must overcome to implement the AR IE-BM Solution ■ Define the tools to be used to manage the DDI process (e.g., requirements repository, document repository) ■ It will capture the approach Optum will follow to build the AR IE-BM Solution, including: <ul style="list-style-type: none"> <input type="checkbox"/> SDLC methodology <input type="checkbox"/> Requirements validation and requirements traceability <input type="checkbox"/> Release strategy <input type="checkbox"/> Solution design

I.2.1	Overall SDLC Approach Plan	
	<ul style="list-style-type: none"> <input type="checkbox"/> Solution build <input type="checkbox"/> Testing <input type="checkbox"/> Piloting the Solution <input type="checkbox"/> Solution roll-out <input type="checkbox"/> Approach to interfacing and coordinating with the Governance Bodies <input type="checkbox"/> Plan for identifying and managing shared services, which can be leveraged by other Divisions <input type="checkbox"/> Plan for verifying the AR IE-BM Solution aligns with the established standards 	
Vendor Responsibilities	<ul style="list-style-type: none"> ■ Optum will develop a draft DED identifying the acceptance criteria by which this deliverable will be assessed and review it with the DHS team. ■ Optum will develop an Overall SDLC Approach Plan that meets the criteria in the approved DED. 	
Expectations for DHS' Responsibilities	<ul style="list-style-type: none"> ■ DHS will work with Optum to finalize the DED and will provide their sign-off on the DED denoting their approval of the acceptance criteria by which this deliverable will be assessed. ■ DHS will follow the agreed upon deliverable cycle documented in the approved PMP. ■ DHS will review the deliverable submitted by Optum, assessing content against the acceptance criteria identified in the approved DED. As necessary, DHS will provide feedback that enables the deliverable to be finalized, and will provide their sign-off on the deliverable denoting their approval of the deliverable. ■ DHS will collaborate with Optum on activities noted in this deliverable, as necessary. 	
	Start	End
Timeline	Submitted for approval no later than 30 calendar days after the Project commences	As agreed upon with DHS
Duration	Once (with updates only if required during subsequent releases)	
WBS ID#(s)	2.2.2.6; 3.1.1.3; 3.2.1.3; 3.3.1.1.3; 3.3.2.1.3; 3.3.3.1.3; 3.4.1.3	
Reference (Section, Page Paragraph)	3.7.3.2 Group 2 Deliverables – Planning, Page 90	

I.2.2	System Architecture
<p>Deliverable Description</p>	<p>The purpose of this deliverable is to capture the System Architecture, which details the SOA model-driven framework being used that enables the development of service-oriented models to facilitate the interaction and communication of technologies. This document shall describe the set of technologies that support the Solution, detail the COTS software components, design patterns, technology infrastructure and the conceptual, logical and physical architectures for the AR IE-BM Solution. This System Architecture will define and document:</p> <ul style="list-style-type: none"> ■ A conceptual architecture that will produce a design to fulfill stakeholder’s functional expectations ■ A logical architecture that identifies the SOA layers, Vendor, Service customers, service broker(s), and object dependencies. To complete the logical design model, Optum shall define the interfaces for each service, and include data field definitions and their validation rules. ■ A physical architecture that defines the various services of the AR IE-BM Solution and how they shall be implemented. This will also include details around the integration layers, potentially using Web Services, and various other integration technologies. ■ A list of COTS software to be implemented and how they will be integrated to produce a seamless user experience ■ A detailed list of all the proposed production environment platforms, including Hardware, OS, Networking, and all COTS and third-party systems/tools/ utilities ■ How the architecture design features validate that the AR IE-BM Solution can scale as needed for future transaction volumes, storage requirements, and Solution usage expansion over the next 10 years ■ How the AR IE-BM Solution will verify performance based on expected data and user loading/traffic, during peak transaction volumes and key critical business activities ■ How the AR IE-BM Solution will meet current capacity requirements and verify the ability to scale ■ Availability and resilience controls such as redundancy, clustering, load balancing, failover capabilities and fault tolerance ■ Mapping of technical requirements to the solution and design ■ Identification of components/objects that will be shared services ■ Confirmation that the architecture conforms to established

I.2.2	System Architecture	
	standards <ul style="list-style-type: none"> ■ Data integration architecture to make sure duplicate records are not created 	
Vendor Responsibilities	Optum will complete this deliverable.	
Expectations for DHS' Responsibilities	<ul style="list-style-type: none"> ■ DHS will work with Optum to finalize the DED and will provide their sign-off on the DED denoting their approval of the acceptance criteria by which this deliverable will be assessed. ■ DHS will follow the agreed upon deliverable cycle documented in the approved PMP. ■ DHS will review the deliverable submitted by Optum, assessing content against the acceptance criteria identified in the approved DED. As necessary, DHS will provide feedback that enables the deliverable to be finalized, and will provide their sign-off on the deliverable denoting their approval of the deliverable. ■ DHS will collaborate with Optum on activities noted in this deliverable, as necessary. 	
	Start	End
Timeline	Submitted for approval no later than 30 calendar days after Deliverable I.2.1	As agreed upon with DHS
Duration	Once (with updates only if required during subsequent releases)	
WBS ID#(s)	2.2.2.7; 3.1.3.2.2; 3.2.3.2.2; 3.3.1.3.2.2; 3.3.2.3.2.2; 3.3.3.3.2.2; 3.4.3.1.2.2; 3.4.3.2.2.2; 3.4.3.3.2.2; 3.4.3.4.2.2	
Reference (Section, Page Paragraph)	3.7.3.2 Group 2 Deliverables – Planning, Page 92	

I.2.3	System Security Plan	
Deliverable Description	Solution security will include an overview of the risk scenarios and the approach to known risk threats and known vulnerabilities, It will provide the security architecture, processes and controls to meet state and federal standards (including firewalls, zoning, encryptions, intrusion prevention, hardening and remote access). This deliverable will include, at a minimum: The technical approach to address and satisfy the following: <ul style="list-style-type: none"> ■ Network security controls ■ Perimeter security ■ System security and data sensitivity classification ■ Intrusion management 	

I.2.3	System Security Plan
	<ul style="list-style-type: none"> ■ Monitoring and reporting ■ Host hardening ■ Remote access ■ Encryption ■ Integration with Statewide active directory services for authentication and CA IAM ■ Interface security ■ Security test procedures ■ Managing network security devices ■ Security patch management ■ Secure communications over the Internet ■ Detailed diagrams depicting all security-related devices and subsystems and their relationships with other systems for which they provide controls ■ Security controls ■ The details of Security, Privacy and Consent Management ■ Approach to maximizing sharing of data (provided from any external source) while complying to all appropriate rules, regulations and policies ■ Approach to administering access, particularly administration access ■ User roles and security permissions ■ Confirmation that the Security Plan aligns with established standards (e.g., MARS-E 2.0, IRS 1075, NIST 800-53, FISMA) ■ The System Security Plan must capture the roles and responsibilities to be performed by the Vendor (responsible for implementing application security) and by DIS (responsible for implementing infrastructure security)
Vendor Responsibilities	Optum will complete this deliverable.
Expectations for DHS' Responsibilities	<ul style="list-style-type: none"> ■ DHS will work with Optum to finalize the DED and will provide their sign-off on the DED denoting their approval of the acceptance criteria by which this deliverable will be assessed. ■ DHS will follow the agreed upon deliverable cycle documented in the approved PMP. ■ DHS will review the deliverable submitted by Optum, assessing content against the acceptance criteria identified in the approved DED. As necessary, DHS will provide

I.2.3	System Security Plan	
	feedback that enables the deliverable to be finalized, and will provide their sign-off on the deliverable denoting their approval of the deliverable. ■ DHS will collaborate with Optum on activities noted in this deliverable, as necessary.	
	Start	End
Timeline	Submitted for approval no later than 30 calendar days after Deliverable I.2.2	As agreed upon with DHS
Duration	Once for initial release and updated for all subsequent releases	
WBS ID#(s)	2.2.2.8; 3.1.3.2.3; 3.2.3.2.3; 3.3.1.3.2.3; 3.3.2.3.2.3; 3.3.3.3.2.3; 3.4.3.1.2.3; 3.4.3.2.2.3; 3.4.3.3.2.3; 3.4.3.4.2.3; 4.1.3.2.7; 4.1.3.5.1; 5.3.2.3	
Reference (Section, Page Paragraph)	3.7.3.2 Group 2 Deliverables – Planning, Page 93	

I.2.4	Technology Environment Specifications and Infrastructure Plan	
Deliverable Description	The purpose of this deliverable is to define the infrastructure Optum must provision to support the Project including, at a minimum, hardware, operating system, networking and all COTS software. This will include specifications for each of the environments the Project will require, which will likely be provided independently throughout the Project.	
Vendor Responsibilities	Optum will complete this deliverable.	
Expectations for DHS' Responsibilities	DHS must be involved to provide approvals of activities and deliverables.	
	Start	End
Timeline	Submitted for approval no later than 30 calendar days after Deliverable I.2.2	As agreed upon with DHS
Duration	Once for initial release and updated for all subsequent releases	
WBS ID#(s)	2.2.2.9; 3.1.3.2.4; 3.2.3.2.4; 3.3.1.3.2.4; 3.3.2.3.2.4; 3.3.3.3.2.4; 3.4.3.1.2.4; 3.4.3.2.2.4; 3.4.3.3.2.4; 3.4.3.4.2.4	
Reference (Section, Page Paragraph)	3.7.3.2 Group 2 Deliverables – Planning, Page 93	

I.2.5	Organizational Change Management (OCM) and Stakeholder Communication Plan	
Deliverable Description	This plan will outline all OCM activities that will be performed throughout the Project. This includes, at a minimum: <ul style="list-style-type: none"> ■ The OCM methodology that the Vendor will employ ■ A current state assessment, identifying strengths and challenges of key stakeholder groups ■ A definition of all communications outside of the Project team ■ Surveys and other mechanisms to capture the level of change acceptance with each stakeholder group ■ Milestones when the OCM approach effectiveness will be re-assessed and modified 	
Vendor Responsibilities	To produce this deliverable, we will perform an analysis of the stakeholders (Stakeholder Needs Assessment) to identify the organization’s OCM, training and knowledge transfer needs. The understanding gained from performing this assessment will provide the information required to produce this deliverable.	
Expectations for DHS’ Responsibilities	<ul style="list-style-type: none"> ■ DHS will work with Optum to finalize the DED and will provide their sign-off on the DED denoting their approval of the acceptance criteria by which this deliverable will be assessed. ■ DHS will follow the agreed upon deliverable cycle documented in the approved PMP. ■ DHS will review the deliverable submitted by Optum, assessing content against the acceptance criteria identified in the approved DED. As necessary, DHS will provide feedback that enables the deliverable to be finalized, and will provide their sign-off on the deliverable denoting their approval of the deliverable. <p>DHS will collaborate with Optum on activities noted in this deliverable, as necessary.</p>	
	Start	End
Timeline	Submitted for approval no later than 90 calendar days after Deliverable I.2.1	As agreed upon with DHS
Duration	Once for initial release and updated for all subsequent releases	
WBS ID#(s)	2.2.2.10; 3.1.3.2.5; 3.2.3.2.5; 3.3.1.3.2.5; 3.3.2.3.2.5; 3.3.3.3.2.5; 3.4.3.1.2.5; 3.4.3.2.2.5; 3.4.3.3.2.5; 3.4.3.4.2.5	
Reference (Section, Page Paragraph)	3.7.3.2 Group 2 Deliverables – Planning, Page 94	

I.2.6	Data Conversion Plan
Deliverable Description	<p>The purpose of this document is to define the approach and plan for converting data from legacy systems into the new AR IE-BM Solution. This includes, at a minimum:</p> <ul style="list-style-type: none"> ■ Identifying the data elements that need to be converted and the source systems ■ The amount of historical data that will need to be converted ■ The relationships between the data that needs to be converted ■ Identifying the approach to conversion (e.g., automated) ■ Defining the approach to validating the converted data against legacy data and addressing any data discrepancies ■ Interim deliverables ■ Roles and responsibilities ■ Tools used to perform the transformation ■ Tools/approach to track status/progress ■ If required because of the release strategy, the approach and details regarding integrating with legacy systems and data synchronization
Vendor Responsibilities	<p>Optum will be responsible for understanding the data requirements during detailed design and gaining an understanding of the data available in legacy systems that may need to be converted. We will understand how much historical data needs to be converted based on program policy and by case status.</p> <p>We will lead data conversion activities, including building a data conversion schedule, tracking each data element being converted, validating that all records/images converted equals number of records/images written to the new database, reporting progress against these stages and making sure we have adequate staff for the effort.</p> <p>We will collaborate with DHS to define a specification for the data to be extracted from the legacy systems (e.g., ANSWER, ACES, ACCESS AR, FACTS and, depending on the Optum proposal, possibly EEF). We will implement and develop any tools required to convert the data into a format to import to the AR IE-BM Solution, cleansing and de-duplicating the data as it integrates with the Solution. Additionally, all images currently stored in the legacy systems will migrate to the AR IE-BM Solution. We will perform a trial conversion prior to performing UAT, will collaborate with DHS to resolve any data issues identified, and will provide tools for DHS to validate the data.</p>

I.2.6	Data Conversion Plan	
Expectations for DHS' Responsibilities	<ul style="list-style-type: none"> ■ DHS will work with Optum to finalize the DED and will provide their sign-off on the DED denoting their approval of the acceptance criteria by which this deliverable will be assessed. ■ DHS will follow the agreed upon deliverable cycle documented in the approved PMP. ■ DHS will review the deliverable submitted by Optum, assessing content against the acceptance criteria identified in the approved DED. As necessary, DHS will provide feedback that enables the deliverable to be finalized, and will provide their sign-off on the deliverable denoting their approval of the deliverable. <p>DHS will collaborate with Optum on activities noted in this deliverable, as necessary.</p> <p>DHS must be involved to provide approvals of activities and deliverables.</p>	
	Start	End
Timeline	Submitted for approval no more than 60 calendar days prior to start of Task I.5 (Data Conversion Tasks)	As agreed upon with DHS
Duration	Once for initial release and updated for all subsequent releases	
WBS ID#(s)	2.2.2.11; 3.1.5.3.2; 3.2.4.3.2; 3.3.1.4.3.2; 3.3.2.4.3.2; 3.3.3.4.3.2; 3.4.4.3.1.2; 3.4.4.3.2.2; 3.4.4.3.3.2; 3.4.4.3.4.2	
Reference (Section, Page Paragraph)	3.7.3.2 Group 2 Deliverables – Planning, Page 95	

I.2.7	Master Test Plan	
Deliverable Description	<p>The purpose of this deliverable is to define the detailed testing plan for each release. This plan shall include, at a minimum:</p> <ul style="list-style-type: none"> ■ Types of testing to be performed ■ Test database generation ■ Test case development ■ Documentation of test results ■ Acceptance testing ■ The evaluation should include a summary of any outstanding issues/defects with the system and any other pertinent readiness issues ■ A contingency plan component which identifies alternative strategies that may be used if specific risk events occur, 	

I.2.7	Master Test Plan
	<p>such as a failure of test results to support a decision to proceed to the next phase of the project</p> <ul style="list-style-type: none"> ■ A list of test scripts to be run by testing cycle ■ The testing schedule and how the testing schedule will be managed ■ Specifics regarding the processes leveraged to track testing progress and defect resolution including items such as the definition of different test script status and, defect status ■ The organization of the test team and associated responsibilities (definition of roles and named resources who will perform each role) ■ Criteria for passing scripts (the decision criteria should be specific and measurable.) ■ Testing progress status reporting and interim testing milestones and associated reports ■ Definition of the Platform Readiness Test (this test must be passed prior to promotion to the pre-production environment) ■ Entrance and Exit criteria for each testing cycle (the decision criteria shall be specific and measurable.) ■ Testing approach to performance and stress testing ■ Approach to regression testing ■ A description of the SIT Readiness Checklist ■ A description of the UAT Readiness Checklist
Vendor Responsibilities	Optum will complete this deliverable.
Expectations for DHS' Responsibilities	<ul style="list-style-type: none"> ■ DHS will work with Optum to finalize the DED and will provide their sign-off on the DED denoting their approval of the acceptance criteria by which this deliverable will be assessed. ■ DHS will follow the agreed upon deliverable cycle documented in the approved PMP. ■ DHS will review the deliverable submitted by Optum, assessing content against the acceptance criteria identified in the approved DED. As necessary, DHS will provide feedback that enables the deliverable to be finalized, and will provide their sign-off on the deliverable denoting their approval of the deliverable. ■ DHS will collaborate with Optum on activities noted in this deliverable, as necessary. <p>DHS must be involved to provide approvals of activities and</p>

I.2.7	Master Test Plan	
	deliverables.	
	Start	End
Timeline	Submitted for approval no more than 60 calendar days prior to start of Task I.6 (Testing Tasks)	As agreed upon with DHS
Duration	Once for initial release and updated for all subsequent releases	
WBS ID#(s)	2.2.2.12; 3.1.5.3.3; 3.2.4.3.3; 3.3.1.4.3.3; 3.3.2.4.3.3; 3.3.3.4.3.3; 3.4.4.3.1.3; 3.4.4.3.2.3; 3.4.4.3.3.3; 3.4.4.3.4.3	
Reference (Section, Page Paragraph)	3.7.3.2 Group 2 Deliverables – Planning, Page 96	

I.2.8	Training and Knowledge Transfer Plan
Deliverable Description	<p>The OCM Plan and Training and Knowledge Transfer Plan will provide interim milestones to track progress (e.g., Knowledge Transfer Checkpoints). The purpose of the Training and Knowledge Transfer Plan is to identify the activities and define the curricula DHS needs to train the organization on the Solution. The Training and Knowledge Transfer Plan includes the following, at a minimum:</p> <ul style="list-style-type: none"> ■ Overview stating the purpose and scope of the Training and Knowledge Transfer Plan that meets the requirements of this RFP ■ A process to conduct a needs and skills analysis, identifying specific roles and staff titles to be trained ■ Planned evaluation of the training content and delivery ■ Training resources required, including facilities and staff ■ Course Administration, including communication to participants of available training and registration/completion by staff
Vendor Responsibilities	<p>Based on the findings captured in the Stakeholder Needs Assessment (see Deliverable I.2.5), Optum will produce an OCM Plan and a Training and Knowledge Transfer Plan. We will develop this collaboratively with DHS to make sure the materials are aligned with DHS' culture.</p> <p>Optum will lead and work collaboratively with State staff to build out the resources to prepare the organization for the new System. DHS has established baseline guiding principles for this effort, including:</p> <ul style="list-style-type: none"> ■ Use a task-based training approach founded on a thorough user-centered task analysis ■ Use a variety of integrated training methods to address diverse learning styles and provide experiential, performance-based training

I.2.8	Training and Knowledge Transfer Plan	
	<ul style="list-style-type: none"> ■ Integrate training methods and strategies throughout the Project lifecycle, to include pre-training support, classroom training, and post-training support ■ The primary medium for System training must be hands-on interaction with a working version of the System ■ Just-in-Time Approach to training — All field office users will receive hands-on training on the System immediately prior to the System being implemented ■ Training must be designed in a way that conveys the value and benefits of the System, alignment to the user’s model of practice, and its integration into their day-to-day work ■ All trainees must demonstrate the capability to use the System effectively at the completion of the training to perform his/her responsibilities ■ User friendly training materials must be provided to trainees that can be referenced at a later date without additional context required ■ A methodical approach to planning training activities is required. A detailed Training and Knowledge Transfer Plan must be developed. 	
Expectations for DHS’ Responsibilities	<ul style="list-style-type: none"> ■ DHS will work with Optum to finalize the DED and will provide their sign-off on the DED denoting their approval of the acceptance criteria by which this deliverable will be assessed. ■ DHS will follow the agreed upon deliverable cycle documented in the approved PMP. ■ DHS will review the deliverable submitted by Optum, assessing content against the acceptance criteria identified in the approved DED. As necessary, DHS will provide feedback that enables the deliverable to be finalized, and will provide their sign-off on the deliverable denoting their approval of the deliverable. ■ DHS will collaborate with Optum on activities noted in this deliverable, as necessary. <p>DHS must be involved to provide approvals of activities and deliverables.</p>	
	Start	End
Timeline	Submitted for approval no more than 60 calendar days prior to start of Task I.7 (Change Management, Training and Knowledge Transfer Tasks)	As agreed upon with DHS

I.2.8	Training and Knowledge Transfer Plan
Duration	Once for initial release and updated for all subsequent releases
WBS ID#(s)	2.2.2.13; 3.1.6.3.2; 3.2.5.3.2; 3.3.1.5.3.2; 3.3.2.5.3.2; 3.3.3.5.3.2; 3.4.5.1.3.2; 3.4.5.2.3.2; 3.4.5.3.3.2; 3.4.5.4.3.2
Reference (Section, Page Paragraph)	3.7.3.2 Group 2 Deliverables – Planning, Page 97

I.2.9	Roll-out Plan (Pilot and Full Roll-out)
Deliverable Description	<p>The purpose of this deliverable is to make sure Optum has a plan to smoothly migrate users onto the new AR IE-BM Solution and the plan complies with the Federal Title 7 for 277.18 (g)(2)(ii) (Prior to statewide rollout of the system there must be a test of the fully operational system in a live production environment. Pilots must operate until a state of routine operation is reached with the full caseload in the pilot area. The design of this pilot shall provide an opportunity to test all components of the system as well as the data conversion process and system performance. The duration of the pilot must be for a sufficient period of time to thoroughly evaluate the system (usually a minimum duration of three months). The State agency must provide documentation to FNS of the pilot evaluation. FNS approval to implement the system more broadly is a condition for continued FFP.</p> <p>This plan shall include, at a minimum:</p> <ul style="list-style-type: none"> ■ Plan for rolling out the Solution to the organization ■ Plan for the Solution pilot to establish objectives, metrics, success criteria and other key planning information ■ Schedule for deploying the AR IE-BM Solution, training of end-users, and activating of users ■ Go/no-go decision points ■ Contingency Plans
Vendor Responsibilities	Optum will complete this deliverable.
Expectations for DHS' Responsibilities	<ul style="list-style-type: none"> ■ DHS will work with Optum to finalize the DED and will provide their sign-off on the DED denoting their approval of the acceptance criteria by which this deliverable will be assessed. ■ DHS will follow the agreed upon deliverable cycle documented in the approved PMP. ■ DHS will review the deliverable submitted by Optum, assessing content against the acceptance criteria identified in the approved DED. As necessary, DHS will provide feedback that enables the deliverable to be finalized, and will provide their sign-off on the deliverable denoting their

I.2.9	Roll-out Plan (Pilot and Full Roll-out)	
	approval of the deliverable. <ul style="list-style-type: none"> ■ DHS will collaborate with Optum on activities noted in this deliverable, as necessary. ■ DHS must be involved to provide approvals of activities and deliverables. DHS must also provide documentation to FNS of the pilot evaluation. 	
	Start	End
Timeline	Submitted for approval no more than 60 calendar days prior to start of Task I.8 (Pilot and Roll-Out Tasks)	As agreed upon with DHS
Duration	Once for initial release and updated for all subsequent releases	
WBS ID#(s)	2.2.2.15; 3.1.6.3.8; 3.2.5.3.8; 3.3.1.5.3.8; 3.3.2.5.3.8; 3.3.3.5.3.8; 3.4.5.1.3.8; 3.4.5.2.3.8; 3.4.5.3.3.8; 3.4.5.4.3.8	
Reference (Section, Page Paragraph)	3.7.3.2 Group 2 Deliverables – Planning, Page 98	

I.2.10	Deployment Plan (Pilot and Full Deployment)	
Deliverable Description	The purpose of this deliverable is to verify Optum has a plan to smoothly migrate the Solution from testing to production. This plan shall include, at a minimum: <ul style="list-style-type: none"> ■ Detailed, step-by-step plan to deploy the Solution into the production environment including key checkpoints ■ Site planning requirements ■ Cut-over risks and contingency plans ■ Rollback/back-out and recovery plans ■ Tested (during migration to the pre-production environment) scripts for migrating the Solution to production 	
Vendor Responsibilities	Optum will complete this deliverable.	
Expectations for DHS' Responsibilities	<ul style="list-style-type: none"> ■ DHS will work with Optum to finalize the DED and will provide their sign-off on the DED denoting their approval of the acceptance criteria by which this deliverable will be assessed. ■ DHS will follow the agreed upon deliverable cycle documented in the approved PMP. ■ DHS will review the deliverable submitted by Optum, assessing content against the acceptance criteria identified in the approved DED. As necessary, DHS will provide feedback that enables the deliverable to be finalized, and will provide their sign-off on the deliverable denoting their 	

I.2.10	Deployment Plan (Pilot and Full Deployment)	
	approval of the deliverable. <ul style="list-style-type: none"> ■ DHS will collaborate with Optum on activities noted in this deliverable, as necessary. ■ DHS must be involved to provide approvals of activities and deliverables. 	
	Start	End
Timeline	Submitted for approval no more than 90 calendar days prior to start of Task I.8 (Pilot and Roll-Out Tasks)	As agreed upon with DHS
Duration	Once for initial release and updated for all subsequent releases	
WBS ID#(s)	2.2.2.16; 3.1.6.3.4; 3.2.5.3.6; 3.3.1.5.3.6; 3.3.2.5.3.6; 3.3.3.5.3.6; 3.4.5.1.3.6; 3.4.5.2.3.6; 3.4.5.3.3.6; 3.4.5.4.3.6	
Reference (Section, Page Paragraph)	3.7.3.2 Group 2 Deliverables – Planning, Page 99	

I.2.11	System Operations, Support and Transition Plan	
Deliverable Description	The purpose of this deliverable is to assure Optum has a plan to smoothly migrate the Solution to M&O (from the point of release which has been validated and approved by DHS to go into production). The plan will detail how we will leverage the M&O processes to manage the issues/defects and fixes and will report progress as part of the M&O reports.	
Vendor Responsibilities	Optum will complete this deliverable.	
Expectations for DHS' Responsibilities	<ul style="list-style-type: none"> ■ DHS will work with Optum to finalize the DED and will provide their sign-off on the DED denoting their approval of the acceptance criteria by which this deliverable will be assessed. ■ DHS will follow the agreed upon deliverable cycle documented in the approved PMP. ■ DHS will review the deliverable submitted by Optum, assessing content against the acceptance criteria identified in the approved DED. As necessary, DHS will provide feedback that enables the deliverable to be finalized, and will provide their sign-off on the deliverable denoting their approval of the deliverable. ■ DHS will collaborate with Optum on activities noted in this deliverable, as necessary. DHS must be involved to provide approvals of activities and deliverables.	

I.2.11	System Operations, Support and Transition Plan	
	Start	End
Timeline	Submitted for approval no more than 90 calendar days prior to start of Task I.8 (Pilot and Roll-Out Tasks)	As agreed upon with DHS
Duration	Once for initial release and updated for all subsequent releases	
WBS ID#(s)	2.2.2.17; 3.1.6.3.5; 3.2.5.3.7; 3.3.1.5.3.9; 3.3.2.5.3.9; 3.3.3.5.3.9; 3.4.5.1.3.7; 3.4.5.2.3.9; 3.4.5.3.3.9; 3.4.5.4.3.9	
Reference (Section, Page Paragraph)	3.7.3.2 Group 2 Deliverables – Planning, Page 99	

I.3.1	Technical Environment Specifications Plan	
Deliverable Description	The purpose of this deliverable is to specify the overall technical environment that will govern the development and implementation of the AR IE-BM system. The document will also establish initial security, training, capacity and system architecture specifications, as well as system acceptance criteria agreed upon by the project sponsor and key stakeholders.	
Vendor Responsibilities	Optum will complete this deliverable.	
Expectations for DHS' Responsibilities	<ul style="list-style-type: none"> ■ DHS will work with Optum to finalize the DED and will provide their sign-off on the DED denoting their approval of the acceptance criteria by which this deliverable will be assessed. ■ DHS will follow the agreed upon deliverable cycle documented in the approved PMP. ■ DHS will review the deliverable submitted by Optum, assessing content against the acceptance criteria identified in the approved DED. As necessary, DHS will provide feedback that enables the deliverable to be finalized, and will provide their sign-off on the deliverable denoting their approval of the deliverable. ■ DHS will collaborate with Optum on activities noted in this deliverable, as necessary. <p>DHS must be involved to provide approvals of activities and deliverables.</p>	
	Start	End
Timeline	Submitted for approval no more than 60 calendar days after I.2.2. System Architecture is completed	As agreed upon with DHS
Duration	Once for initial release and updated for all subsequent releases	

I.3.1	Technical Environment Specifications Plan
WBS ID#(s)	2.2.2.9; 3.1.3.2.4; 3.2.3.2.4; 3.3.1.3.2.4; 3.3.2.3.2.4; 3.3.3.3.2.4; 3.4.3.1.2.4; 3.4.3.2.2.4; 3.4.3.3.2.4; 3.4.3.4.2.4
Reference (Section, Page Paragraph)	3.7.3.3 Group 3 Deliverables – Technology Environment Specifications, Page 99

I.4.1	Requirements Validation and Updates to RTM, BPA and Use Cases	
Deliverable Description	The purpose of this deliverable is to confirm the design will capture the entire functional scope required. The Use Cases will be updated (to capture the agreed upon changes) and the requirements will be updated (based on agreed upon changes) to clarify the scope and will be mapped to releases, technical components or equivalent.	
Vendor Responsibilities	Optum will complete this deliverable	
Expectations for DHS' Responsibilities	<ul style="list-style-type: none"> ■ DHS will work with Optum to finalize the DED and will provide their sign-off on the DED denoting their approval of the acceptance criteria by which this deliverable will be assessed. ■ DHS will follow the agreed upon deliverable cycle documented in the approved PMP. ■ DHS will review the deliverable submitted by Optum, assessing content against the acceptance criteria identified in the approved DED. As necessary, DHS will provide feedback that enables the deliverable to be finalized, and will provide their sign-off on the deliverable denoting their approval of the deliverable. ■ DHS will collaborate with Optum on activities noted in this deliverable, as necessary. <p>DHS must be involved to provide approvals of activities and deliverables.</p>	
	Start	End
Timeline	Submitted for approval no less than 30 calendar days prior to detailed functional design is completed	As agreed upon with DHS
Duration	Once for initial release and updated for all subsequent releases	
WBS ID#(s)	3.1.2.2.2; 3.2.2.2.2; 3.3.1.2.2.2; 3.3.2.2.2.2; 3.3.3.2.2.2; 3.4.2.2.2	
Reference (Section, Page Paragraph)	3.7.3.4 Group 4 Deliverables – Design, Development and Implementation (DDI), Page 100	

I.4.2	Functional Design Document (FDD)
Deliverable Description	<p>The purpose of this deliverable is to provide a detailed design of the functionality in scope for the release prior to commencing development. This document shall include:</p> <ul style="list-style-type: none"> ■ System overview diagrams illustrating which Solution components provide what functionality, linking back to the functional capabilities ■ Design Use Cases (or equivalent) to map requirements to technical components ■ Functional specifications (or equivalent) for any custom development required ■ Recommendations on how to close specific gaps that require changes to DHS’ business processes ■ Business rules definition ■ Reporting capabilities and prebuilt reports ■ User profiles mapped to functionality ■ User Interface screens for the Solution, including results of usability studies ■ Time studies capturing the anticipated efficiency savings with the new user interface design ■ Identification of functions or user roles that initiate workflow, receives the workflow, and any processes that occur as a result of the workflow ■ Identify functionality which will be developed as a shared service ■ List of assumptions made during the design, as well as recommended next steps and required actions that DHS must confirm before the development
Vendor Responsibilities	Optum will complete this deliverable.
Expectations for DHS’ Responsibilities	<ul style="list-style-type: none"> ■ DHS will work with Optum to finalize the DED and will provide their sign-off on the DED denoting their approval of the acceptance criteria by which this deliverable will be assessed. ■ DHS will follow the agreed upon deliverable cycle documented in the approved PMP. ■ DHS will review the deliverable submitted by Optum, assessing content against the acceptance criteria identified in the approved DED. As necessary, DHS will provide feedback that enables the deliverable to be finalized, and will provide their sign-off on the deliverable denoting their approval of the deliverable. ■ DHS will collaborate with Optum on activities noted in this

I.4.2	Functional Design Document (FDD)	
	deliverable, as necessary. <ul style="list-style-type: none"> ■ DHS must be involved to provide approvals of activities and deliverables. 	
	Start	End
Timeline	Complete, consolidated document to be submitted for approval 30 calendar days prior to commencing Solution build activities	As agreed upon with DHS
Duration	Once for initial release and updated for all subsequent releases	
WBS ID#(s)	3.1.3.2.6; 3.2.3.2.6; 3.3.1.3.2.6; 3.3.2.3.2.6; 3.3.3.3.2.6; 3.4.3.1.2.6; 3.4.3.2.2.6; 3.4.3.3.2.6; 3.4.3.4.2.6	
Reference (Section, Page Paragraph)	3.7.3.4 Group 4 Deliverables – Design, Development and Implementation (DDI), Page 101	

I.4.3	Technical Design Document (TDD)
Deliverable Description	The purpose of this deliverable is to provide the detailed technical design that addresses how the functional design will be implemented. This includes the COTS software being leveraged, the configuration of these components, the data integration and interfaces, and the design of any custom development required. <p>The Technical Design Document must include, at a minimum, the following components:</p> <ul style="list-style-type: none"> ■ A mapping of the functional design to the solution components ■ The configuration of any COTS software ■ The detailed design of any required custom development ■ Processes to manage Solution installation and configuration ■ Confirmation the technical design aligns with the established standards
Vendor Responsibilities	Optum will complete this deliverable.
Expectations for DHS' Responsibilities	<ul style="list-style-type: none"> ■ DHS will work with Optum to finalize the DED and will provide their sign-off on the DED denoting their approval of the acceptance criteria by which this deliverable will be assessed. ■ DHS will follow the agreed upon deliverable cycle documented in the approved PMP. ■ DHS will review the deliverable submitted by Optum, assessing content against the acceptance criteria identified

I.4.3	Technical Design Document (TDD)	
	<p>in the approved DED. As necessary, DHS will provide feedback that enables the deliverable to be finalized, and will provide their sign-off on the deliverable denoting their approval of the deliverable.</p> <ul style="list-style-type: none"> ■ DHS will collaborate with Optum on activities noted in this deliverable, as necessary. <p>DHS must be involved to provide approvals of activities and deliverables.</p>	
	Start	End
Timeline	Complete, consolidated document to be submitted for approval 30 calendar days prior to commencing System integration testing (modules/sections of the design document may be submitted for approval beforehand)	As agreed upon with DHS
Duration	Once for initial release and updated for all subsequent releases	
WBS ID#(s)	3.1.3.2.8; 3.2.3.2.8; 3.3.1.3.2.8; 3.3.2.3.2.8; 3.3.3.3.2.8; 3.4.3.1.2.8; 3.4.3.2.2.8; 3.4.3.3.2.8; 3.4.3.4.2.8	
Reference (Section, Page Paragraph)	3.7.3.4 Group 4 Deliverables – Design, Development and Implementation (DDI), Page 101	

I.4.4	Data Integration and Interface Control Documents (ICD)	
Deliverable Description	<p>The purpose of this deliverable is to capture the integration approach and data design for the Solution, focused on the interfaces to external systems. The Data Integration and Interface Control Document (ICD) must include the following components:</p> <ul style="list-style-type: none"> ■ Interface definitions and design ■ Data Flow Diagrams ■ Integration interface protocol and interaction diagrams ■ Failure modes and recovery approach ■ Data Dictionary ■ Data Transformation and Loading ■ Processing controls ■ Processes to manage Solution installation and configuration and ongoing monitoring and incident management, including items such as: <ul style="list-style-type: none"> □ Agreements with the third-party application owner for 	

I.4.4	Data Integration and Interface Control Documents (ICD)	
	how to resolve problems <ul style="list-style-type: none"> <input type="checkbox"/> SLRs/contracts with partner <input type="checkbox"/> Documenting roles and responsibilities <input type="checkbox"/> Assumptions <input checked="" type="checkbox"/> Privacy requirements for different data elements <input checked="" type="checkbox"/> Security Controls The data dictionary and integration/interface approach must conform to data standards established by DHS.	
Vendor Responsibilities	Optum will complete this deliverable.	
Expectations for DHS' Responsibilities	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> DHS will work with Optum to finalize the DED and will provide their sign-off on the DED denoting their approval of the acceptance criteria by which this deliverable will be assessed. <input checked="" type="checkbox"/> DHS will follow the agreed upon deliverable cycle documented in the approved PMP. <input checked="" type="checkbox"/> DHS will review the deliverable submitted by Optum, assessing content against the acceptance criteria identified in the approved DED. As necessary, DHS will provide feedback that enables the deliverable to be finalized, and will provide their sign-off on the deliverable denoting their approval of the deliverable. <input checked="" type="checkbox"/> DHS will collaborate with Optum on activities noted in this deliverable, as necessary. DHS must be involved to provide approvals of activities and deliverables.	
	Start	End
Timeline	Submitted for approval 30 calendar days prior to commencing Solution build activities	As agreed upon with DHS
Duration	Once for initial release and updated for all subsequent releases	
WBS ID#(s)	3.1.3.2.7; 3.2.3.2.7; 3.3.1.3.2.7; 3.3.2.3.2.7; 3.3.3.3.2.7; 3.4.3.1.2.7; 3.4.3.2.2.7; 3.4.3.3.2.7; 3.4.3.4.2.7	
Reference (Section, Page Paragraph)	3.7.3.4 Group 4 Deliverables – Design, Development and Implementation (DDI), Page 1012	

I.4.5	Updated and Completed Functional and Technical Requirements Traceability Matrix	
Deliverable Description	The purpose of this deliverable is to assure all of the requirements will be tested as part of the system. This deliverable maps the functional and technical requirements to the Test Cases and Test Scripts.	
Vendor Responsibilities	Optum will complete this deliverable.	
Expectations for DHS' Responsibilities	<ul style="list-style-type: none"> ■ DHS will work with Optum to finalize the DED and will provide their sign-off on the DED denoting their approval of the acceptance criteria by which this deliverable will be assessed. ■ DHS will follow the agreed upon deliverable cycle documented in the approved PMP. ■ DHS will review the deliverable submitted by Optum, assessing content against the acceptance criteria identified in the approved DED. As necessary, DHS will provide feedback that enables the deliverable to be finalized, and will provide their sign-off on the deliverable denoting their approval of the deliverable. ■ DHS will collaborate with Optum on activities noted in this deliverable, as necessary. <p>DHS must be involved to provide approvals of activities and deliverables.</p>	
	Start	End
Timeline	Submitted for approval 30 calendar days prior to the start of UAT	As agreed upon with DHS
Duration	Once for initial release and updated for all subsequent releases	
WBS ID#(s)	3.1.5.3.6; 3.2.4.3.6; 3.3.1.4.3.6; 3.3.2.4.3.6; 3.3.3.4.3.6; 3.4.4.3.1.6; 3.4.4.3.2.6; 3.4.4.3.3.6; 3.4.4.3.4.6	
Reference (Section, Page Paragraph)	3.7.3.4 Group 4 Deliverables – Design, Development and Implementation (DDI), Page 102	

I.5.1	Data Conversion Testing Report and Results	
Deliverable Description	The purpose of this deliverable is to verify the converted data has been tested and is ready for production prior to performing UAT. This deliverable will include confirmation that all data that needs to be converted for the release to go-live has been reconciled to the legacy system and verified by DHS.	
Vendor Responsibilities	Optum will complete this deliverable.	

I.5.1	Data Conversion Testing Report and Results	
Expectations for DHS' Responsibilities	<ul style="list-style-type: none"> ■ DHS will work with Optum to finalize the DED and will provide their sign-off on the DED denoting their approval of the acceptance criteria by which this deliverable will be assessed. ■ DHS will follow the agreed upon deliverable cycle documented in the approved PMP. ■ DHS will review the deliverable submitted by Optum, assessing content against the acceptance criteria identified in the approved DED. As necessary, DHS will provide feedback that enables the deliverable to be finalized, and will provide their sign-off on the deliverable denoting their approval of the deliverable. ■ DHS will collaborate with Optum on activities noted in this deliverable, as necessary. <p>DHS must be involved to provide approvals of activities and deliverables.</p>	
	Start	End
Timeline	Submitted for approval 30 calendar days prior to the start of UAT	As agreed upon with DHS
Duration	Once for every release	
WBS ID#(s)	3.1.5.3.7; 3.2.4.3.7; 3.3.1.4.3.7; 3.3.2.4.3.7; 3.3.3.4.3.7; 3.4.4.3.1.7; 3.4.4.3.2.7; 3.4.4.3.3.7; 3.4.4.3.4.7	
Reference (Section, Page Paragraph)	3.7.3.5 Group 5 Deliverables – Data Conversion, Page 103	

I.6.1	Completed SIT Readiness Checklist	
Deliverable Description	<p>This deliverable is confirmation by Optum that all of the key System Test activities and artifacts are ready. The checklist will be established as part of the Master Test Plan and serve as documentation that, at a minimum:</p> <ul style="list-style-type: none"> ■ Test scripts and scenarios have been prepared ■ The test data set has been defined and created ■ Test scenarios have been mapped to functional and technical requirements ■ Test environment has been configured ■ Defect management tool and process has been established ■ Progress tracking has been established (scripts pass, fail, pending) 	

I.6.1	Completed SIT Readiness Checklist	
Vendor Responsibilities	Optum will complete this deliverable.	
Expectations for DHS' Responsibilities	<ul style="list-style-type: none"> ■ DHS will work with Optum to finalize the DED and will provide their sign-off on the DED denoting their approval of the acceptance criteria by which this deliverable will be assessed. ■ DHS will follow the agreed upon deliverable cycle documented in the approved PMP. ■ DHS will review the deliverable submitted by Optum, assessing content against the acceptance criteria identified in the approved DED. As necessary, DHS will provide feedback that enables the deliverable to be finalized, and will provide their sign-off on the deliverable denoting their approval of the deliverable. ■ DHS will collaborate with Optum on activities noted in this deliverable, as necessary. <p>DHS must be involved to provide approvals of activities and deliverables.</p>	
	Start	End
Timeline	Submitted for approval 30 calendar days prior to the start of SIT	As agreed upon with DHS
Duration	Once for every release	
WBS ID#(s)	3.1.5.3.4; 3.2.4.3.4; 3.3.1.4.3.4; 3.3.2.4.3.4; 3.3.3.4.3.4; 3.4.4.3.1.4; 3.4.4.3.2.4; 3.4.4.3.3.4; 3.4.4.3.4.4	
Reference (Section, Page Paragraph)	3.7.3.6 Group 6 Deliverables – Testing, Page 104	

I.6.2	SIT Testing Report and Results	
Deliverable Description	The purpose of this deliverable is to assure the entire System has been tested, and all rounds of testing are successful, prior to promoting the System to UAT.	
Vendor Responsibilities	<p>We will provide a formal Testing Report that will align to federal testing approval guidelines (CMS, FNS). The Testing Report will include, at a minimum:</p> <ul style="list-style-type: none"> ■ Completed Test Scenarios, Test Cases and Test Scripts ■ Testing Milestone Reports and other status reports ■ Test Phase Final Results Report and Corrective Action Plan ■ Platform readiness test outcome report ■ Requirements having passed SIT (e.g., all requirements are 	

I.6.2	SIT Testing Report and Results	
	mapped to test cases and all test cases have passed)	
Expectations for DHS' Responsibilities	<ul style="list-style-type: none"> ■ DHS will work with Optum to finalize the DED and will provide their sign-off on the DED denoting their approval of the acceptance criteria by which this deliverable will be assessed. ■ DHS will follow the agreed upon deliverable cycle documented in the approved PMP. ■ DHS will review the deliverable submitted by Optum, assessing content against the acceptance criteria identified in the approved DED. As necessary, DHS will provide feedback that enables the deliverable to be finalized, and will provide their sign-off on the deliverable denoting their approval of the deliverable. ■ DHS will collaborate with Optum on activities noted in this deliverable, as necessary. ■ DHS must be involved to provide approvals of activities and deliverables. 	
	Start	End
Timeline	Submitted for approval within 10 calendar days of completion of SIT	As agreed upon with DHS
Duration	Once for every release	
WBS ID#(s)	3.1.5.3.8; 3.2.4.3.8; 3.3.1.4.3.8; 3.3.2.4.3.8; 3.3.3.4.3.8; 3.4.4.3.1.8; 3.4.4.3.2.8; 3.4.4.3.3.8; 3.4.4.3.4.8	
Reference (Section, Page Paragraph)	3.7.3.6 Group 6 Deliverables – Testing, Page 104	

I.6.3	Completed UAT Readiness Checklist	
Deliverable Description	<p>The purpose of this deliverable is to assure the entire Solution has passed SIT and all activities and artifacts necessary to begin UAT are complete. The checklist will be established as part of the Master Test Plan and serve as documentation that:</p> <ul style="list-style-type: none"> ■ The test data set has been defined and created ■ Test scenarios have been mapped to functional and technical requirements ■ UAT State participants have been fully trained in the functionality for their role ■ Error tracking and reporting tools and methodology have been established and State users have been trained ■ A testing tool/test harness/automated test framework has been implemented that will support automated regression testing 	

I.6.3	Completed UAT Readiness Checklist	
Vendor Responsibilities	Optum will complete this deliverable.	
Expectations for DHS' Responsibilities	<ul style="list-style-type: none"> ■ DHS will work with Optum to finalize the DED and will provide their sign-off on the DED denoting their approval of the acceptance criteria by which this deliverable will be assessed. ■ DHS will follow the agreed upon deliverable cycle documented in the approved PMP. ■ DHS will review the deliverable submitted by Optum, assessing content against the acceptance criteria identified in the approved DED. As necessary, DHS will provide feedback that enables the deliverable to be finalized, and will provide their sign-off on the deliverable denoting their approval of the deliverable. ■ DHS will collaborate with Optum on activities noted in this deliverable, as necessary. ■ DHS must be involved to provide approvals of activities and deliverables. 	
	Start	End
Timeline	Submitted for approval 60 calendar days prior to the start of UAT	As agreed upon with DHS
Duration	Once for every release	
WBS ID#(s)	3.1.5.3.5; 3.2.4.3.5; 3.3.1.4.3.5; 3.3.2.4.3.5; 3.3.3.4.3.5; 3.4.4.3.1.5; 3.4.4.3.2.5; 3.4.4.3.3.5; 3.4.4.3.4.5	
Reference (Section, Page Paragraph)	3.7.3.6 Group 6 Deliverables – Testing, Page 104	

I.6.4	UAT Testing Report and Results	
Deliverable Description	The purpose of this deliverable is to assure the entire System has been tested, and all rounds of testing are successful, prior to promoting the System to Pilot and Rollout.	
Vendor Responsibilities	<p>Optum will provide a formal Testing Report that should align to federal testing approval guidelines (CMS, FNS). The deliverable approval will be contingent on federal approval (FNS and/or CMS). The Testing Report will include, at a minimum:</p> <ul style="list-style-type: none"> ■ Completed Test Scenarios, Test Cases and Test Scripts ■ Testing Milestone Reports and other status reports ■ Test Phase Final Results Report and Corrective Action Plan ■ Platform readiness test outcome report 	

I.6.4	UAT Testing Report and Results	
	<ul style="list-style-type: none"> ■ Regression testing has passed ■ Performance/stress testing has been completed and passed Each of these must be successful, and must be approved by DHS and/or CMS, FNS.	
Expectations for DHS' Responsibilities	<ul style="list-style-type: none"> ■ DHS will work with Optum to finalize the DED and will provide their sign-off on the DED denoting their approval of the acceptance criteria by which this deliverable will be assessed. ■ DHS will follow the agreed upon deliverable cycle documented in the approved PMP. ■ DHS will review the deliverable submitted by Optum, assessing content against the acceptance criteria identified in the approved DED. As necessary, DHS will provide feedback that enables the deliverable to be finalized, and will provide their sign-off on the deliverable denoting their approval of the deliverable. ■ DHS will collaborate with Optum on activities noted in this deliverable, as necessary. ■ DHS must be involved to provide approvals of activities and deliverables. 	
	Start	End
Timeline	Submitted for approval within 10 calendar days of completion of UAT	As agreed upon with DHS
Duration	Once per release	
WBS ID#(s)	3.1.5.3.10; 3.2.4.3.10; 3.3.1.4.3.10; 3.3.2.4.3.10; 3.3.3.4.3.10; 3.4.4.3.1.10; 3.4.4.3.2.10; 3.4.4.3.3.10; 3.4.4.3.4.10	
Reference (Section, Page Paragraph)	3.7.3.6 Group 6 Deliverables – Testing, Page 105	

I.7.1	Training and Knowledge Transfer Materials	
Deliverable Description	The purpose of this deliverable is to assure all training materials have been reviewed and approved by DHS prior to commencing UAT (as these materials will be tested during UAT). This deliverable will include DHS approvals on all training materials outlined in the Training Course Catalog. All requested updates from the previous release must be addressed and approved prior to deliverable submission.	
Vendor Responsibilities	Optum will complete this deliverable.	

I.7.1	Training and Knowledge Transfer Materials	
Expectations for DHS' Responsibilities	<ul style="list-style-type: none"> ■ DHS will work with Optum to finalize the DED and will provide their sign-off on the DED denoting their approval of the acceptance criteria by which this deliverable will be assessed. ■ DHS will follow the agreed upon deliverable cycle documented in the approved PMP. ■ DHS will review the deliverable submitted by Optum, assessing content against the acceptance criteria identified in the approved DED. As necessary, DHS will provide feedback that enables the deliverable to be finalized, and will provide their sign-off on the deliverable denoting their approval of the deliverable. ■ DHS will collaborate with Optum on activities noted in this deliverable, as necessary. ■ DHS must be involved to provide approvals of activities and deliverables. 	
	Start	End
Timeline	Submitted for approval no later than 10 days prior to Go-Live	As agreed upon with DHS
Duration	Once for every release	
WBS ID#(s)	3.1.6.3.3; 3.2.5.3.4; 3.3.1.5.3.3; 3.3.2.5.3.3; 3.3.3.5.3.3; 3.4.5.1.3.4; 3.4.5.2.3.3; 3.4.5.3.3.3; 3.4.5.4.3.3	
Reference (Section, Page Paragraph)	3.7.3.7 Group 7 Deliverables – Organizational Change Management (OCM), End User Training and Knowledge Transfer (KT) Tasks, Page 105	

I.7.2	Training and Knowledge Transfer Completion Report	
Deliverable Description	The purpose of this deliverable is to assure the Optum training efforts have resulted in adequate end-user learning. This will be measured through the surveys provided after the training sessions have been completed, will confirm attendance (based on the Training curriculum by DHS user type outlined in the Training Course Catalog Deliverable) and confirm the audience developed an understanding of the System required to perform their role.	
Vendor Responsibilities	Optum will complete this deliverable. If the survey results result in less than adequate knowledge of the training material by participants, Optum will also demonstrate that it has provided additional or remedial education to bring attendee knowledge to an acceptable level.	
Expectations for DHS' Responsibilities	<ul style="list-style-type: none"> ■ DHS will work with Optum to finalize the DED and will provide their sign-off on the DED denoting their approval of the acceptance criteria by which this deliverable will be 	

I.7.2	Training and Knowledge Transfer Completion Report	
	assessed. <ul style="list-style-type: none"> ■ DHS will follow the agreed upon deliverable cycle documented in the approved PMP. ■ DHS will review the deliverable submitted by Optum, assessing content against the acceptance criteria identified in the approved DED. As necessary, DHS will provide feedback that enables the deliverable to be finalized, and will provide their sign-off on the deliverable denoting their approval of the deliverable. ■ DHS will collaborate with Optum on activities noted in this deliverable, as necessary. ■ DHS must be involved to provide approvals of activities and deliverables. 	
	Start	End
Timeline	Submitted for approval no later than 10 days prior to Go-Live	As agreed upon with DHS
Duration	Once for every release	
WBS ID#(s)	3.1.6.3.11; 3.2.5.3.10; 3.3.1.5.3.10; 3.3.2.5.3.10; 3.3.3.5.3.10; 3.4.5.1.3.10; 3.4.5.2.3.10; 3.4.5.3.3.10; 3.4.5.4.3.10	
Reference (Section, Page Paragraph)	3.7.3.7 Group 7 Deliverables – Organizational Change Management (OCM), End User Training and Knowledge Transfer (KT) Tasks, Page 106	

I.7.3	OCM Executive Briefing	
Deliverable Description	The purpose of this deliverable is to provide DHS executives and DCO Directors a full report on all OCM activities that were performed, progress, risks/challenges facing the project from an OCM perspective and the upcoming activities to help assure efficient and effective State staff interaction with the AR IE-BM Solution. This includes, at a minimum: <ul style="list-style-type: none"> ■ Results from surveys and other mechanisms to capture the progress on the level of change acceptance with each stakeholder group ■ Reporting on OCM Milestones as identified in the OCM Plan 	
Vendor Responsibilities	Optum will complete this deliverable.	
Expectations for DHS' Responsibilities	<ul style="list-style-type: none"> ■ DHS will work with Optum to finalize the DED and will provide their sign-off on the DED denoting their approval of the acceptance criteria by which this deliverable will be assessed. ■ DHS will follow the agreed upon deliverable cycle documented in the approved PMP. 	

I.7.3	OCM Executive Briefing	
	<ul style="list-style-type: none"> ■ DHS will review the deliverable submitted by Optum, assessing content against the acceptance criteria identified in the approved DED. As necessary, DHS will provide feedback that enables the deliverable to be finalized, and will provide their sign-off on the deliverable denoting their approval of the deliverable. ■ DHS will collaborate with Optum on activities noted in this deliverable, as necessary. ■ DHS must be involved to provide approvals of activities and deliverables. 	
	Start	End
Timeline	Conducted within 10 business days of the end of a quarter or key OCM milestones	As agreed upon with DHS
Duration	Quarterly and as requested	
WBS ID#(s)	3.1.12; 3.2.15; 3.3.1.13; 3.3.2.14; 3.3.3.14; 3.4.5.1.13; 3.4.5.2.12; 3.4.5.3.12; 3.4.5.4.12	
Reference (Section, Page Paragraph)	3.7.3.7 Group 7 Deliverables – Organizational Change Management (OCM), End User Training and Knowledge Transfer (KT) Tasks, Page 106	

I.8.1	Pilot Deployment Report and Signoff	
Deliverable Description	<p>The purpose of this deliverable is to assure that the System Pilot successfully demonstrated the improved usability and end-user efficiency and stability to both internal and external end-users in the field prior to going live. The deliverable will be considered complete when DHS confirms the System will enable users to perform the end-to-end business processes without issues, improving efficiency/usability.</p> <p>The results must be included in the Documented Successful Completion of System Pilot in accordance with federal (FNS, CMS) requirements.</p>	
Vendor Responsibilities	Optum will perform the pilot after UAT and will include identifying and resolving any issues identified during the System pilot.	
Expectations for DHS' Responsibilities	<ul style="list-style-type: none"> ■ DHS will work with Optum to finalize the DED and will provide their sign-off on the DED denoting their approval of the acceptance criteria by which this deliverable will be assessed. ■ DHS will follow the agreed upon deliverable cycle documented in the approved PMP. ■ DHS will review the deliverable submitted by Optum, 	

I.8.1	Pilot Deployment Report and Signoff	
	assessing content against the acceptance criteria identified in the approved DED. As necessary, DHS will provide feedback that enables the deliverable to be finalized, and will provide their sign-off on the deliverable denoting their approval of the deliverable. <ul style="list-style-type: none"> ■ DHS will collaborate with Optum on activities noted in this deliverable, as necessary. ■ DHS must be involved to provide approvals of activities and deliverables. 	
	Start	End
Timeline	Submitted for approval no later than 10 days prior to Pilot Go-Live	As agreed upon with DHS
Duration	Once for every release	
WBS ID#(s)	3.1.6.3.12; 3.2.5.3.11; 3.3.1.5.3.11; 3.3.2.5.3.11; 3.3.3.5.3.11; 3.4.5.1.3.11; 3.4.5.2.3.11; 3.4.5.3.3.11; 3.4.5.4.3.11	
Reference (Section, Page Paragraph)	3.7.3.8 Group 8 Deliverables – Pilot, Roll-Out and Go-Live, Page 107	

I.8.2	Formal System Acceptance and Final Go-live Report	
Deliverable Description	The purpose of this deliverable is to assure the System is functioning effectively in production. After the System has migrated to production and rolled out to the entire organization, the System must stabilize to allow support to migrate from the cut-over support team to the M&O team. <p>The deliverable will be considered complete when DHS confirms the System will enable users to perform the end-to-end business processes without issues, improve efficiency/usability, and on the contingency that FNS and/or CMS has approved the results.</p>	
Vendor Responsibilities	Optum will complete this deliverable.	
Expectations for DHS' Responsibilities	<ul style="list-style-type: none"> ■ DHS will work with Optum to finalize the DED and will provide their sign-off on the DED denoting their approval of the acceptance criteria by which this deliverable will be assessed. ■ DHS will follow the agreed upon deliverable cycle documented in the approved PMP. ■ DHS will review the deliverable submitted by Optum, assessing content against the acceptance criteria identified in the approved DED. As necessary, DHS will provide feedback that enables the deliverable to be finalized, and will provide their sign-off on the deliverable denoting their 	

I.8.2	Formal System Acceptance and Final Go-live Report	
	approval of the deliverable. <ul style="list-style-type: none"> ■ DHS will collaborate with Optum on activities noted in this deliverable, as necessary. ■ DHS must be involved to provide approvals of activities and deliverables. 	
	Start	End
Timeline	Submitted for approval no earlier than 30 days after Release Go-live	As agreed upon with DHS
Duration	Once for every release	
WBS ID#(s)	3.1.13; 3.2.14; 3.3.1.15; 3.3.2.15; 3.3.3.15; 3.4.5.1.12; 3.4.5.2.13; 3.4.5.3.13; 3.4.5.4.13	
Reference (Section, Page Paragraph)	3.7.3.8 Group 8 Deliverables – Pilot, Roll-Out and Go-Live, Page 107	

I.9.1	Completion of All Warranty Activities Report	
Deliverable Description	The purpose of this deliverable will be to summarize all warranty fixes. This report, at a minimum, will include a summary of all defects fixed under warranty, the defect priority and the time between the defect being reported and a fix deployed into production.	
Vendor Responsibilities	Optum will complete this deliverable.	
Expectations for DHS' Responsibilities	<ul style="list-style-type: none"> ■ DHS will work with Optum to finalize the DED and will provide their sign-off on the DED denoting their approval of the acceptance criteria by which this deliverable will be assessed. ■ DHS will follow the agreed upon deliverable cycle documented in the approved PMP. ■ DHS will review the deliverable submitted by Optum, assessing content against the acceptance criteria identified in the approved DED. As necessary, DHS will provide feedback that enables the deliverable to be finalized, and will provide their sign-off on the deliverable denoting their approval of the deliverable. ■ DHS will collaborate with Optum on activities noted in this deliverable, as necessary. ■ DHS must be involved to provide approvals of activities and deliverables. 	

I.9.1	Completion of All Warranty Activities Report	
	Start	End
Timeline	Submitted for approval no earlier than 2 years after go-live for each validated and approved release into production	As agreed upon with DHS
Duration	Once for every release	
WBS ID#(s)	3.1.14; 3.2.16; 3.3.1.16; 3.3.2.16; 3.3.3.16; 3.4.5.1.14; 3.4.5.2.14; 3.4.5.3.14; 3.4.5.4.14	
Reference (Section, Page Paragraph)	3.7.3.9 Group 9 Deliverables – Steady State (Warranty Period), Page 107, Paragraph 3	

13.2 Deliverables Expectations Document

The awarded Vendor will be required to prepare all deliverables based on a DED that will be written by the Vendor and approved by DHS with guidance from at least the IV&V vendor prior to the Vendor starting any work on the Deliverable. Once approved by DHS, the DED will be a tool used to monitor the Vendor’s work on the deliverable and to discuss the Vendor’s successful delivery of the Deliverable as defined by the deliverable acceptance criteria.

No work may be performed on any deliverable until the associated DED has been approved in writing by DHS. As each Project Deliverable is submitted, the Vendor must include a copy of the DED as the cover sheet.

Submission of DEDs for these deliverables will be evaluated as part of the Vendor’s Proposal but submission with a Proposal, or issuance of a Contract does not constitute acceptance of the DED.

Instructions: Provide DEDs for the following deliverables (see the RFP document for additional details), using the template in the DED Template Table below. Replicate the template for each DED submitted. Change only the cells containing “<Insert>”. Do not change any of the completed cells. Any changes to the completed cells could lead to the disqualification of the Proposal.

Table 3. Deliverables For Which The Vendor Should Complete A DED Within The Proposal

Deliverable #	Name of Deliverable
I.1.2	Integrated Project Management Plan
I.1.4	Project Status Reporting Artifacts
I.1.5	Release/ Project Closeout Check-List
I.2.1	Overall SDLC approach Plan
I.2.2	System Architecture
I.2.6	Data Conversion Plan

Deliverable #	Name of Deliverable
I.2.7	Master Test Plan
I.2.8	Training and Knowledge Transfer plan
I.2.9	Roll-Out Plan (Pilot and Full Roll-Out)
I.4.2	Functional Design Document
I.4.3	Technical Design Document
I.4.4	Data Integration and Interface Design Document
I.6.3	Completed UAT Readiness Checklist
I.7.1	Training and Knowledge Transfer Materials
I.8.2	Formal System Acceptance and Final Go-Live report

Table 4. DED Template

3.7.3.4 Group 4 Deliverables – Design, Development and Implementation (DDI), Page 101	
Project Deliverable Number:	Title of Deliverable:
I.1.2	Integrated Project Management Plan
Proposal Reference:	Contract Reference:
3.7.3.1 Group 1 Deliverables – Project Management and Monitoring, Page 88	<Leave Blank>
Frequency:	Draft Submission Due:
Once for initial release and updated for all subsequent releases	<Leave Blank>
State’s Draft Review and Comment Period:	Final Submission Due:
<Leave Blank>	<Leave Blank>
Approval Required:	Distribution:
<Leave Blank>	<Leave Blank>
Vendor	
Prepared by:	Date Submitted (version 1):
<Leave Blank>	<Leave Blank>
Date Submitted (version 2):	Date Submitted (version 3):
<Leave Blank>	<Leave Blank>
Phone Number:	FAX:
<Leave Blank>	<Leave Blank>
Email:	
<Leave Blank>	

3.7.3.4 Group 4 Deliverables – Design, Development and Implementation (DDI), Page 101

Deliverable Acceptance Criteria – To be reviewed by QA Provider and DHS and Approved by the Project Director

The Integrated Project Management Plan defines a project management approach and governance structure that accomplishes the following six core objectives:

1. Staff projects with the proper mix of personnel who bring the right qualifications to perform all of the required tasks
2. Deliver the solution and required project deliverables on time and within budget
3. Implement project communications and oversight
4. Deliver quality solutions that reduce errors and improve effectiveness
5. Perform appropriate risk management and internal controls
6. Maintain continuous process improvement through collaboration, surveys, and thorough customer communications

In support of these core objectives, the Integrated Project Management Plan will include the following content:

- The project overview section will provide a:
 - Definition of the purpose of the PMP
 - Description of the intended audience
 - Definition of terms and acronyms
 - Description of M&O project goals and objectives
- The Project Scope Management Plan will include:
 - Description of the purpose of the Scope Management Plan and the scope planning approach
 - Scope Management Plan objectives
 - Description of how requirements will be collected
 - Description of how scope will be defined
 - Definition of how scope will be validated
 - Description of how scope will be controlled (including a description of the Change Management process, expedited CR process, how CRs are identified, and the CCB process for CR approval)
 - Description of Inputs, Tools & Techniques and Outputs where applicable components
 - Assumptions, Issues, Constraints will be documented if and where applicable
- The Project Schedule/Time Management Plan (for the MS Project Schedule) will include:
 - Description of schedule management and the scheduling process (baseline, actual)
 - Description of how activities in the schedule will be defined, sequenced, how

3.7.3.4 Group 4 Deliverables – Design, Development and Implementation (DDI), Page 101

- durations will be estimated, how responsible resources will be defined
- Description of how the MS Project schedule will be developed
 - Description of how the project schedule will be managed and controlled
 - High-level description of the project WBS
 - Description of Inputs, Tools & Techniques and Outputs where applicable components
 - Assumptions, Issues, Constraints will be documented if and where applicable
 - The Cost Management Plan will describe how project costs will be determined and managed (based on documentation in the previous PMP); it will include:
 - Description of the cost planning process
 - Definition of how costs are estimated (that may impact the budget)
 - Description of how the budget is determined
 - Description of how the budget will be controlled
 - Description of Inputs, Tools & Techniques and Outputs where applicable components
 - Assumptions, Issues, Constraints will be documented if and where applicable
 - The Quality Management Plan will include:
 - Description of the purpose and goals of quality management and the high-level approach
 - Description of how quality management will be performed (the process)
 - Provide description of the types of testing and validation performed and testing roles and responsibilities
 - Description of how the quality management process will be controlled
 - Documentation will include a description of Inputs, Tools & Techniques, and Outputs where applicable components
 - Assumptions, Issues, Constraints will be documented if and where applicable
 - Description of continuous improvement processes and use of industry best practices
 - The Project Human Resource Management Plan will describe how project HR management will be fulfilled; it will include:
 - Description of the purpose of the Human Resource Management Plan
 - Description of DHS and vendor responsibilities that drive the type of staffing required for the project
 - High-level description of key project team roles, responsibilities and timeframe durations
 - Project team organization chart (high-level)

3.7.3.4 Group 4 Deliverables – Design, Development and Implementation (DDI), Page 101

- Description of how the staffing plan will be managed
- Description of Inputs, Tools & Techniques and Outputs where applicable components
- Assumptions, Issues, Constraints will be documented if and where applicable
- The Project Communication Plan will provide an overall framework for communications and will include:
 - Description of the purpose of the communication plan
 - Description of how communications will be planned, methods that will be utilized and key meetings that will be scheduled to facilitate discussion and communication
 - Description of how project communications will be managed, including a description of the process of creating, collecting, distributing, storing, retrieving, and the ultimate disposition of project and artifacts, how artifacts will be measured for effectiveness, and a glossary of project communication terminology
 - Description of how communications will be controlled
 - Description of Inputs, Tools & Techniques and Outputs where applicable components
 - Assumptions, Issues, Constraints will be documented if and where applicable
- The Project Risk Management Plan will include:
 - Description of purpose of the risk management plan and general risk management objectives
 - Description of the risk management process, including risk methodology, roles and responsibilities, a definition of the types of risk identification, and how probability and impact will be assessed
 - Description of risk identification activities, including a description information gathering techniques, who can identify risks, where risks will be logged
 - Description of how risks will be assessed/analyzed, how they will be prioritized
 - Description of how risks will be responded to, escalated, and risk strategies
 - Description of how risks will be controlled
 - Description of Inputs, Tools & Techniques and Outputs where applicable components
 - Assumptions, Issues, Constraints will be documented if and where applicable

Department of Public Health Approval/Comments

Approved by:	Date:
<Leave Blank>	<Leave Blank>
Signature:	
<Leave Blank>	

3.7.3.4 Group 4 Deliverables – Design, Development and Implementation (DDI), Page 101

Comments:

<Leave Blank>

Project Deliverable Expectations Document	
Project Deliverable Number:	Title of Deliverable:
I.1.4	Project Status Reporting Artifacts
Proposal Reference:	Contract Reference:
3.7.3.1 Group 1 Deliverables – Project Management and Monitoring, Page 88	<Leave Blank>
Frequency:	Draft Submission Due:
Weekly and monthly from project initiation to project close	<Leave Blank>
State’s Draft Review and Comment Period:	Final Submission Due:
<Leave Blank>	<Leave Blank>
Approval Required:	Distribution:
<Leave Blank>	<Leave Blank>
Vendor	
Prepared by:	Date Submitted (version 1):
<Leave Blank>	<Leave Blank>
Date Submitted (version 2):	Date Submitted (version 3):
<Leave Bank>	<Leave Blank>
Phone Number:	FAX:
<Leave Blank>	<Leave Blank>
Email:	
<Leave Blank>	
Deliverable Acceptance Criteria – To be reviewed by QA Provider and DHS and Approved by the Project Director	
The weekly status report will provide the following information related to the status of the project: <ul style="list-style-type: none"> ■ Planned activities within the reporting period ■ Completed activities within the reporting period ■ Deliverables status ■ Identified risks & issues, including mitigation plan and resolution(s) ■ Ongoing project dependencies ■ Project change request activity ■ Other project decisions 	

Project Deliverable Expectations Document	
<ul style="list-style-type: none"> ■ Concerns and recommendations <p>Additionally, the monthly status report will also include a monthly summary as well as an overall project status assessment based on an evaluation of the following criteria:</p> <ul style="list-style-type: none"> ■ Stakeholder commitment ■ Business benefits realization ■ Risk mitigation ■ Work & schedule accuracy and predictability ■ Scope management ■ Team morale and performance 	
Department of Public Health Approval/Comments	
Approved by:	Date:
<Leave Blank>	<Leave Blank>
Signature:	
<Leave Blank>	
Comments:	
<Leave Blank>	

Project Deliverable Expectations Document	
Project Deliverable Number:	Title of Deliverable:
I.1.5	Release/ Project Closeout Check-List
Proposal Reference:	Contract Reference:
3.7.3.1 Group 1 Deliverables – Project Management and Monitoring, Page 89	<Leave Blank>
Frequency:	Draft Submission Due:
Once for every release and final project close-out	<Leave Blank>
State’s Draft Review and Comment Period:	Final Submission Due:
<Leave Blank>	<Leave Blank>
Approval Required:	Distribution:
<Leave Blank>	<Leave Blank>
Vendor	
Prepared by:	Date Submitted (version 1):
<Leave Blank>	<Leave Blank>
Date Submitted (version 2):	Date Submitted (version 3):
<Leave Bank>	<Leave Blank>

Project Deliverable Expectations Document	
Phone Number:	FAX:
<Leave Blank>	<Leave Blank>
Email:	
<Leave Blank>	
Deliverable Acceptance Criteria – To be reviewed by QA Provider and DHS and Approved by the Project Director	
<p>The Release / Project Closeout Checklist describes the approach, administrative procedures, and roles and responsibilities for releasing configuration items through the software development life cycle (SDLC) of the project, including:</p> <ul style="list-style-type: none"> ■ Provide a high-level overview of release management ■ Document assumptions ■ Define the goal of release management ■ Document the release management process including: <ul style="list-style-type: none"> <input type="checkbox"/> Objectives <input type="checkbox"/> Inputs <input type="checkbox"/> Notifications <input type="checkbox"/> Roles and responsibilities <input type="checkbox"/> Contacts <input type="checkbox"/> Process Steps <input type="checkbox"/> Release schedule for all environments ■ Document the communication process ■ Document the tools used and requirements (such as the subject line for emergency approvals) ■ Document the weekly release cycle ■ Document the inputs required for a release ■ Document approval process for production releases ■ Document the procedure for emergency/off-cycle releases ■ Document the procedure for emergency hosting changes ■ Document the scheduled maintenance windows ■ Document the procedures for all lower environment deployments ■ Include release inputs for all lower environments ■ Include all required approvals for releases to lower environments ■ Include the component spreadsheet required for staging deployments ■ Document the requirements for reporting-only changes to Stage and Production ■ Document the Release Entry Framework (REF) process for working with other 	

Project Deliverable Expectations Document	
vendors	
<ul style="list-style-type: none"> ■ Document processes for working in the multiple-vendor environment 	
Department of Public Health Approval/Comments	
Approved by:	Date:
<Leave Blank>	<Leave Blank>
Signature:	
<Leave Blank>	
Comments:	
<Leave Blank>	

Project Deliverable Expectations Document	
Project Deliverable Number:	Title of Deliverable:
I.2.1	Overall SDLC approach Plan
Proposal Reference:	Contract Reference:
3.7.3.2 Group 2 Deliverables – Planning, Page 90	<Leave Blank>
Frequency:	Draft Submission Due:
Once (with updates only if required during subsequent releases)	<Leave Blank>
State’s Draft Review and Comment Period:	Final Submission Due:
<Leave Blank>	<Leave Blank>
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Deliverable Acceptance Criteria – To be reviewed by QA Provider and DHS and Approved by the Project Director	
The Overall SDLC Approach Plan will address the overall approach to implementing the	

Project Deliverable Expectations Document

Optum Delivery Method (ODM) by describing the Agile techniques and how they will be applied to the various phases of the SDLC lifecycle. The Plan will contain the following details:

- An overview to the SDLC phases and process within ODM, including:
 - Project management & planning
 - Requirements definition and analysis
 - Design, Development, System Testing
 - UAT and Performance Testing
 - Deployment and pilot rollout
- An overview of the Agile delivery model and approach, as applied to the SDLC phases
- A description of the project roles, events and artifacts, specifically as related to Agile-based delivery approach:
 - Release planning and sprint definitions
 - Scrum teams
 - Program Increment (PI) planning approach
 - Backlog management
- Elaborate on the DevOps approach to be taken for each SDLC phase, including:
 - Continuous integration & delivery
 - Build automation
 - Test automation
- SDLC references
- Key terms and acronyms
- Approvals

Department of Public Health Approval/Comments

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Signature: <Leave Blank>	
Comments: <Leave Blank>	

Project Deliverable Expectations Document

Project Deliverable Number:	Title of Deliverable:
I.2.2	System Architecture

Project Deliverable Expectations Document	
Proposal Reference:	Contract Reference:
3.7.3.2 Group 2 Deliverables – Planning, Page 91	<Leave Blank>
Frequency:	Draft Submission Due:
Once (with updates only if required during subsequent releases)	<Leave Blank>
State’s Draft Review and Comment Period:	Final Submission Due:
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Date Submitted (version 2):	Date Submitted (version 3):
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Deliverable Acceptance Criteria – To be reviewed by QA Provider and DHS and Approved by the Project Director	
<p>The System Architecture Document provides an overview of the solution, platform, system, product, service, or process to be included in the set of deliverables as identified in the pertinent contract, amendment or task order. It helps to verify each supporting component design will be compatible with other components that are part of the total solution. The document will contain the following:</p> <ul style="list-style-type: none"> ■ Document the architecture required to support the delivery of system functionality, including: <ul style="list-style-type: none"> <input type="checkbox"/> Document the current architecture of the production and non-production environments <input type="checkbox"/> Include a topology of how managed applications interact <input type="checkbox"/> Document the process and controls used to keep environments in sync <input type="checkbox"/> Business Area Context Diagram that describes the platforms, systems, products, services and processes for the proposed, future-state system, as applicable. <input type="checkbox"/> A description of system features (requirements) for the proposed, future-state system, as applicable. <input type="checkbox"/> A Conceptual Data Model for the proposed, future-state system, as applicable. 	

Project Deliverable Expectations Document	
<input type="checkbox"/> Business Use Case Diagrams for the proposed, future-state system, as applicable. <input type="checkbox"/> A listing of Assumptions, Risks and Constraints, as applicable. <input checked="" type="checkbox"/> A written description and other diagrams documenting the Framework Technologies, including: <ul style="list-style-type: none"> <input type="checkbox"/> SOA Architectural Patterns <input type="checkbox"/> Model – View – Controller Pattern <input type="checkbox"/> Error Handling <input type="checkbox"/> Other Design Patterns 	
Department of Public Health Approval/Comments	
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Project Deliverable Expectations Document	
Project Deliverable Number:	Title of Deliverable:
1.2.6	Data Conversion Plan
Proposal Reference:	Contract Reference:
3.7.3.2 Group 2 Deliverables – Planning, Page 95	<Leave Blank>
Frequency:	Draft Submission Due:
Once for initial release and updated for all subsequent releases	<Leave Blank>
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Deliverable Acceptance Criteria – To be reviewed by QA Provider and DHS and Approved by the Project Director	
<p>The Data Conversion Plan describes the process for performing cleansing, migration and conversion of data from the legacy IE systems to the new AR IE-BM system, including the following content:</p> <ul style="list-style-type: none"> ■ Overview <ul style="list-style-type: none"> <input type="checkbox"/> Purpose of Data Conversion Plan <input type="checkbox"/> Data Conversion Objectives <input type="checkbox"/> Assumptions <input type="checkbox"/> Constraints <input type="checkbox"/> Risks ■ Data Conversion Strategy <ul style="list-style-type: none"> <input type="checkbox"/> Conversion Scope <input type="checkbox"/> Conversion Approach <input type="checkbox"/> Roles and Responsibilities <input type="checkbox"/> Conversion Schedule <input type="checkbox"/> Data Quality Assurance and Control ■ Data Conversion Preparation <ul style="list-style-type: none"> <input type="checkbox"/> Prerequisites <input type="checkbox"/> Backup Strategy <input type="checkbox"/> Restore Process ■ Data Conversion Specifications ■ References ■ Key terms ■ Approvals 	
Department of Public Health Approval/Comments	
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Project Deliverable Expectations Document	
Project Deliverable Number:	Title of Deliverable:
1.2.7	Master Test Plan
Proposal Reference:	Contract Reference:
3.7.3.2 Group 2 Deliverables – Planning, Page 96	<Leave Blank>
Frequency:	Draft Submission Due:
Once for initial release and updated for all subsequent releases	<Leave Blank>
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Deliverable Acceptance Criteria – To be reviewed by QA Provider and DHS and Approved by the Project Director	
<p>The Master Test Plan describes the approach, administrative procedures, and roles and responsibilities for test items through the software development life cycle (SDLC) of the project. The Plan will include the following content:</p> <ul style="list-style-type: none"> ■ Introduction <ul style="list-style-type: none"> <input type="checkbox"/> Provide a high level introduction of this document <input type="checkbox"/> Summarize the purpose and scope of the document <input type="checkbox"/> Identify the assumptions <input type="checkbox"/> Describe any limitations or constraints ■ Issue & Risk Management <ul style="list-style-type: none"> <input type="checkbox"/> High level overview of the Issue and Risk Management strategy <input type="checkbox"/> Identify how Quality issues are identified 	

Project Deliverable Expectations Document	
<ul style="list-style-type: none"> <input type="checkbox"/> Identify how Quality risks are identified ■ Requirements Management <ul style="list-style-type: none"> <input type="checkbox"/> High level overview of the Requirements Management strategy <input type="checkbox"/> At a high level detail out the design process being leverage <input type="checkbox"/> At a high level detail out the design traceability ■ Test Management <ul style="list-style-type: none"> <input type="checkbox"/> High level overview of aspects of test management <input type="checkbox"/> Test design is completed based on approved functional and non-functional Requirements <input type="checkbox"/> Specifics regarding approach to handling testing along with methodologies used <input type="checkbox"/> Describe traceability and how it impacts methodology <input type="checkbox"/> Build out the strategy by which Testing progression is governed <input type="checkbox"/> Outline any Platforms/Software/Products used in the effort <input type="checkbox"/> Process of how reporting is done <input type="checkbox"/> Template that will be used to document the test phases <input type="checkbox"/> Full length description of how Functional Testing applies <input type="checkbox"/> Provide detail to what Non-Functional Testing encompasses <input type="checkbox"/> Outline of the process required for test design and scenarios <input type="checkbox"/> Outline the process of review and approvals <input type="checkbox"/> Pass/fail criteria will be clearly outlined ■ Document general defect management strategy and reporting processes ■ Document details of the environmental components required and provisioned to test the system ■ Description of the documents that are to be produced in support of and/or as output of the testing effort ■ Identify the number, type, and skill level of the personnel that will be needed from each organization to participate in the testing activities ■ Explanation on how an acceptance criterion pertains ■ A list of acronyms and associated literal translations used within the document ■ Summarize the relationship of this document to other relevant documents ■ Signature approval of the final document from the delivering organization’s approving authority, and the business owner 	
Department of Public Health Approval/Comments	
Approved by:	Date:

Project Deliverable Expectations Document	
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Comments: <Leave Blank>	

Project Deliverable Expectations Document	
Project Deliverable Number:	Title of Deliverable:
1.2.8	Training and Knowledge Transfer plan
Proposal Reference:	Contract Reference:
3.7.3.2 Group 2 Deliverables – Planning, Page 97	<Leave Blank>
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Deliverable Acceptance Criteria – To be reviewed by QA Provider and DHS and Approved by the Project Director	
<p>The goal of the Training and Knowledge Transfer Plan is to educate DHS users on the AR IE-BM Solution and associated business processes and procedures. The training results compile the results of a survey given out to all course participants grouped by the instructor’s name and date. The Plan will include the following content:</p> <ul style="list-style-type: none"> ■ Learning Solution Summary ■ Business / System Requirements 	

Project Deliverable Expectations Document	
<ul style="list-style-type: none"> ■ Dependencies and Risks ■ List of Training Material & Artifacts <ul style="list-style-type: none"> <input type="checkbox"/> Processes <input type="checkbox"/> Workflows <input type="checkbox"/> Procedures <input type="checkbox"/> Test plans and test summaries <input type="checkbox"/> Release notes <input type="checkbox"/> Run books <input type="checkbox"/> Scripts <input type="checkbox"/> Knowledge articles <input type="checkbox"/> List of all standard changes <input type="checkbox"/> List of all SLAs <input type="checkbox"/> M&O Contact List <input type="checkbox"/> Project presentations and documents <input type="checkbox"/> Workaround documentation <input type="checkbox"/> Best Practice on Ticket Resolution ■ Training / Knowledge Transfer Timeline and Milestones ■ Project Team Rosters ■ Expected Training Outcomes 	
Department of Public Health Approval/Comments	
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Signature: <Leave Blank>	
Comments: <Leave Blank>	

Project Deliverable Expectations Document	
Project Deliverable Number:	Title of Deliverable:
1.2.9	Roll-Out Plan (Pilot and Full Roll-Out)
Proposal Reference:	Contract Reference:
3.7.3.2 Group 2 Deliverables – Planning, Page 98	<Leave Blank>

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Frequency:	Draft Submission Due:
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Deliverable Acceptance Criteria – To be reviewed by QA Provider and DHS and Approved by the Project Director	
<p>The Roll-Out Plan will provide a detailed listing of implementation related tasks and activities to be performed immediately prior to and after system/code deployment. The purpose of the Roll-Out Plan is to verify that the system/code deployment is scripted to the level of detail required to deliver a successful and timely implementation. To this end, the Roll-Out Plan will verify that all implementation related tasks and activities have been defined, scheduled, and resourced. In addition, approval milestones/check points have been identified within the plan to provide agreement on key deployment decisions (go/no-go decisions based on pre-defined acceptance criteria). The plan will contain the following details:</p> <ul style="list-style-type: none"> ■ Overview <ul style="list-style-type: none"> <input type="checkbox"/> Intended Audience <input type="checkbox"/> Purpose <input type="checkbox"/> Defined Terms and Acronyms ■ Assumptions, Constraints, and Risks ■ Rollout Plan <ul style="list-style-type: none"> <input type="checkbox"/> Identifies implementation tasks prior to, during, and after System/Code Deployment <input type="checkbox"/> Includes sequence of activities <input type="checkbox"/> Defines work stream responsible for each activity <input type="checkbox"/> Clearly defines start times, end times, and durations 	

Project Deliverable Expectations Document	
<input type="checkbox"/> Defines review and approval milestones/checkpoints to verify agreement on key deployment decisions (go/no-go decisions based on pre-defined acceptance criteria that include technical reviews and business readiness reviews) <input type="checkbox"/> Includes acceptance criteria for specific tasks, activities, and milestones, where appropriate <input type="checkbox"/> Includes UVT tasks and activities necessary to test/investigate and remediate abnormal behaviors reported post-deployment <input checked="" type="checkbox"/> Reference Documents <input checked="" type="checkbox"/> Sign-offs	
Department of Public Health Approval/Comments	
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Project Deliverable Expectations Document	
Project Deliverable Number:	Title of Deliverable:
I.4.2	Functional Design Document
Proposal Reference:	Contract Reference:
3.7.3.4 Group 4 Deliverables – Design, Development and Implementation (DDI), Page 101	<Leave Blank>
Frequency:	Draft Submission Due:
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Deliverable Acceptance Criteria – To be reviewed by QA Provider and DHS and Approved by the Project Director	
<p>The Functional Design Document shall contain a detailed specification of each functional requirement as necessary for the development team to develop, configure and deploy the components, and for the data conversion team to understand the business rules. The specifications provide sufficient context and narrative so that DHS can maintain the system in the future, including:</p> <ul style="list-style-type: none"> ■ Functional usage scenarios for custom functionality, as appropriate ■ Descriptions of applicable components that will be developed and/or modified to implement functional requirements, as appropriate. ■ Business rules design necessary to configure and test the specific functional requirements, as appropriate ■ Functional business process flows supported by the system(s) ■ Overview of all views and navigation between views, including screenshots, descriptions of pages and navigation instructions. ■ Object models or entity relationship diagrams for each subsection and includes any customization. ■ Data relationship diagrams ■ Provides for requirements traceability from the RTM through development , test cases and test results 	
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Project Deliverable Expectations Document	
Project Deliverable Number:	Title of Deliverable:
I.4.3	Technical Design Document
Proposal Reference:	Contract Reference:
3.7.3.4 Group 4 Deliverables – Design, Development and Implementation (DDI), Page	<Leave Blank>

Project Deliverable Expectations Document	
101	
Frequency:	Draft Submission Due:
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Deliverable Acceptance Criteria – To be reviewed by QA Provider and DHS and Approved by the Project Director	
<p>The Technical Design Document will contain all technical assumptions and guidance required for the development of system changes or enhancements, as described in the related Functional Design Document, including the following content:</p> <ul style="list-style-type: none"> ■ An introduction/overview of the solution being addressed within the scope of this IT deliverable (purpose of the technical design specification). ■ References and links to other impacted SDLC documents. ■ Detailed technical descriptions of each new or altered component of the solution described in the Functional Design Specification. ■ A listing of other programs/applications that have a dependency on this development effort, as appropriate. ■ A section denoting key considerations related to this development effort, as appropriate. ■ A section denoting related design patterns related to this development effort, as appropriate. ■ A technical description of processing logic related to this development effort, as appropriate. ■ A technical description of operational controls related to this development effort, as appropriate. ■ A technical description of error processing information related to this development 	

Project Deliverable Expectations Document	
effort, as appropriate (i.e., error processing logic, input/output tables, new screens, error codes, etc.).	
<ul style="list-style-type: none"> ■ Architectural mechanisms, as appropriate. ■ A description of application interfaces, as appropriate. ■ A description of security, as appropriate ■ A description of relevant components and their design details, as appropriate. ■ Document Revision History. 	
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Project Deliverable Expectations Document	
Project Deliverable Number:	Title of Deliverable:
I.4.4	Data Integration and Interface Design Document
Proposal Reference:	Contract Reference:
3.7.3.4 Group 4 Deliverables – Design, Development and Implementation (DDI), Page 102	<Leave Blank>
Frequency:	Draft Submission Due:
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Project Deliverable Expectations Document	
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Deliverable Acceptance Criteria – To be reviewed by QA Provider and DHS and Approved by the Project Director	
<p>The Data Integration and Interface Design Document is the comprehensive architectural overview of middleware infrastructure and interface patterns, using different architecture views to capture technical implementation detail of the integration services between applications (internal or external applications). It will include the following content:</p> <ul style="list-style-type: none"> ■ An overview that identifies the intended audience, purpose and defined terms and acronyms. ■ Identifies the scope of Integration design solution. ■ Interface flows ■ Unit test scripts ■ Implementation details ■ Assumptions, constraints and risks. ■ A written description, screenshots and other diagrams documenting the technical design and configuration for Services Oriented Architecture (SOA) ■ A written description, screenshots and other diagrams documenting the technical design and data mappings used to develop and implement the interface ■ The deliverable identifies referenced documents (if applicable), and sign-off blocks. 	
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Project Deliverable Expectations Document	
Project Deliverable Number:	Title of Deliverable:
I.6.3	Completed UAT Readiness Checklist
Proposal Reference:	Contract Reference:
3.7.3.6 Group 6 Deliverables – Testing, Page 104	<Leave Blank>
Frequency:	Draft Submission Due:
Once for every release	<Leave Blank>

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Deliverable Acceptance Criteria – To be reviewed by QA Provider and DHS and Approved by the Project Director	
<p>The Completed UAT Readiness Checklist will validate that the appropriate steps have been taken to execute a user acceptance test, to wrap up the process and verify proper documentation has been completed. It will include the following content:</p> <ul style="list-style-type: none"> ■ All RTMs have been validated ■ Test Team structures and all required resources have been identified and secured ■ Test Strategy has been completed and reviewed with the team ■ All new test environments requested by the testing teams have been delivered and verified ■ All required test URLs have been created and communicated ■ All applications coding has been completed and migrated to target environments ■ All test cases/scripts have been written and reviewed by IT and Business ■ All test cases/scripts have been loaded into ALM/Rally ■ All Test Data required has been loaded to target environments ■ An escalation/defect tracking process is in place ■ Product SMEs are identified in case any support is required ■ UAT Resources Identified and Notified of Test Schedule ■ UAT Test Environment is identified ■ UAT Test Plan Complete ■ UAT Test Scripts Uploaded to ALM/Rally ■ UAT - Defect tracking process in place 	

Project Deliverable Expectations Document	
<ul style="list-style-type: none"> ■ UAT Day over Day Plan Completed ■ System Testing Executed is (% TBD by the team) ■ System Testing Pass Rate is (% TBD by the team) ■ No Critical / Major Defects open from System Testing 	
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Project Deliverable Expectations Document	
Project Deliverable Number:	Title of Deliverable:
I.7.1	Training and Knowledge Transfer Materials
Proposal Reference:	Contract Reference:
3.7.3.7 Group 7 Deliverables – Organizational Change Management (OCM), End User Training and Knowledge Transfer (KT) Tasks, Page 105	<Leave Blank>
Frequency:	Draft Submission Due:
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Deliverable Acceptance Criteria – To be reviewed by QA Provider and DHS and	

Project Deliverable Expectations Document

Approved by the Project Director

The Training and Knowledge Transfer Materials deliverable will include the technical documentation included in the Optum IE COTS solution as well as any additional material generated during the project. The target audience for this technical documentation will be the technical support staff (AR Data Center staff, M&O vendor staff, DHS technical super users, etc.) and will include the following content:

- Process diagrams related to M&O services
- Production runbooks
- Known issues and workarounds
- Current SLAs and metrics
- Operations runbooks
- Production support roster
- Escalation processes
- Batch stream schedules and timings
- Change management documents

Additionally, the formal training material to be targeted for the DHS user community will include the following content:

- Integrated Eligibility Solution Core
 - Module 1: System Overview
 - Module 2: Log in, Navigation, Work Queue, Tasks, Notifications
 - Module 3: Application Intake
 - Module 4: Maintaining Applications
 - Module 5: Document Management
 - Module 6: Agency Notifications
 - Module 7: Appeals
 - Module 8: Payments
 - Module 9: Reports
 - Module 10: Audits
- TEA/TANF, SNAP, SNAP Employment & Training
 - Module 11: Benefit Management
- AR Works, WIC
 - Module 12: Client Scheduling
 - Module 13: Periodic Reporting
 - Module 14: Data Exchange Functionality
- Summarization

Project Deliverable Expectations Document	
<input type="checkbox"/> Module 15: Putting It All Together <input type="checkbox"/> Final Assessment	
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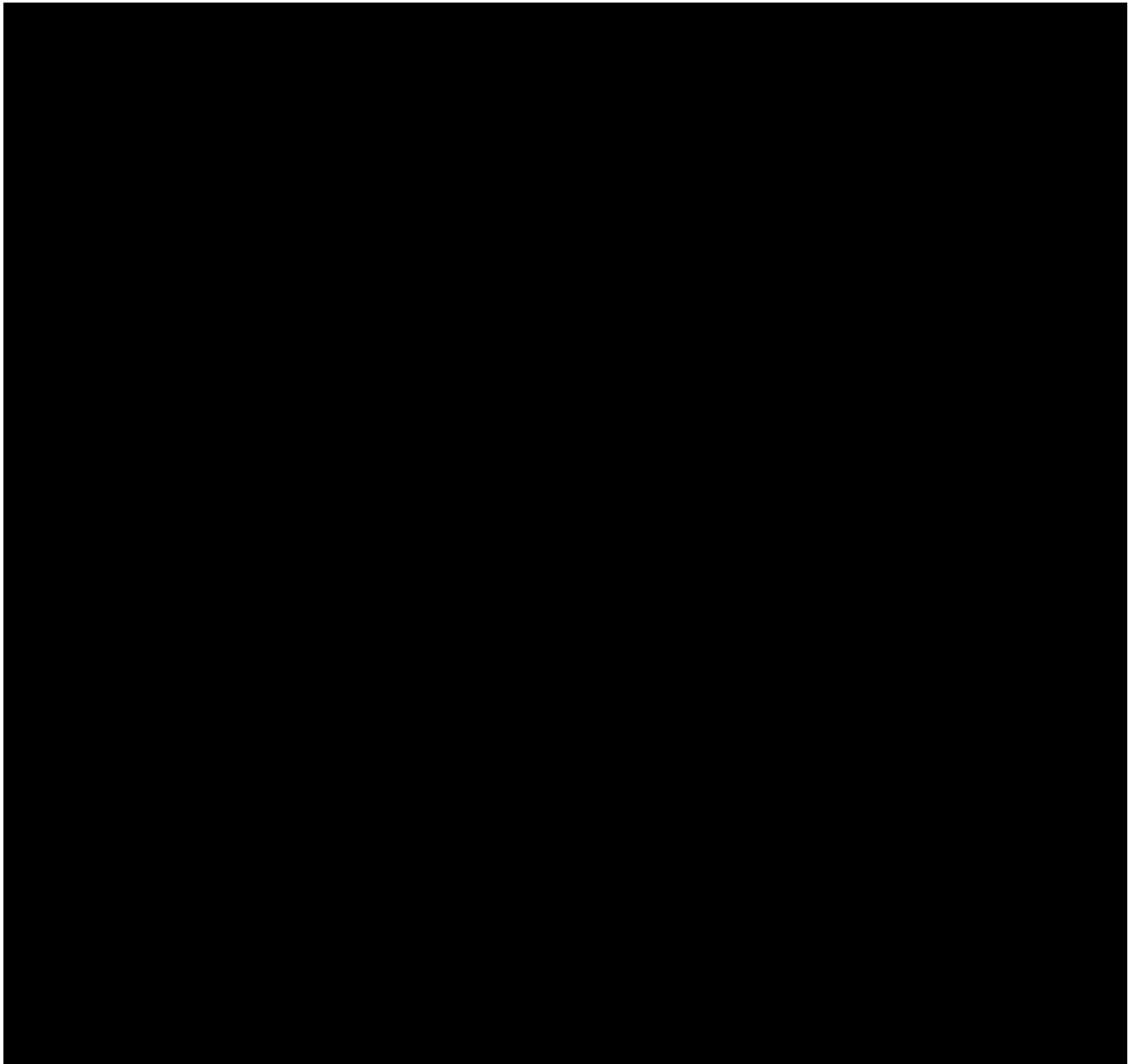
Project Deliverable Expectations Document	
Project Deliverable Number:	Title of Deliverable:
1.8.2	Formal System Acceptance and Final Go-Live Report
Proposal Reference:	Contract Reference:
3.7.3.8 Group 8 Deliverables – Pilot, Roll-Out and Go-Live, Page 107	<Leave Blank>
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Deliverable Acceptance Criteria – To be reviewed by QA Provider and DHS and Approved by the Project Director	
The purpose of the Formal System Acceptance and Final Go-Live Report is to assess whether or not the overall AR IE-BM Solution was effectively implemented. This document is designed to also help the project team share knowledge gained from experience so the entire	

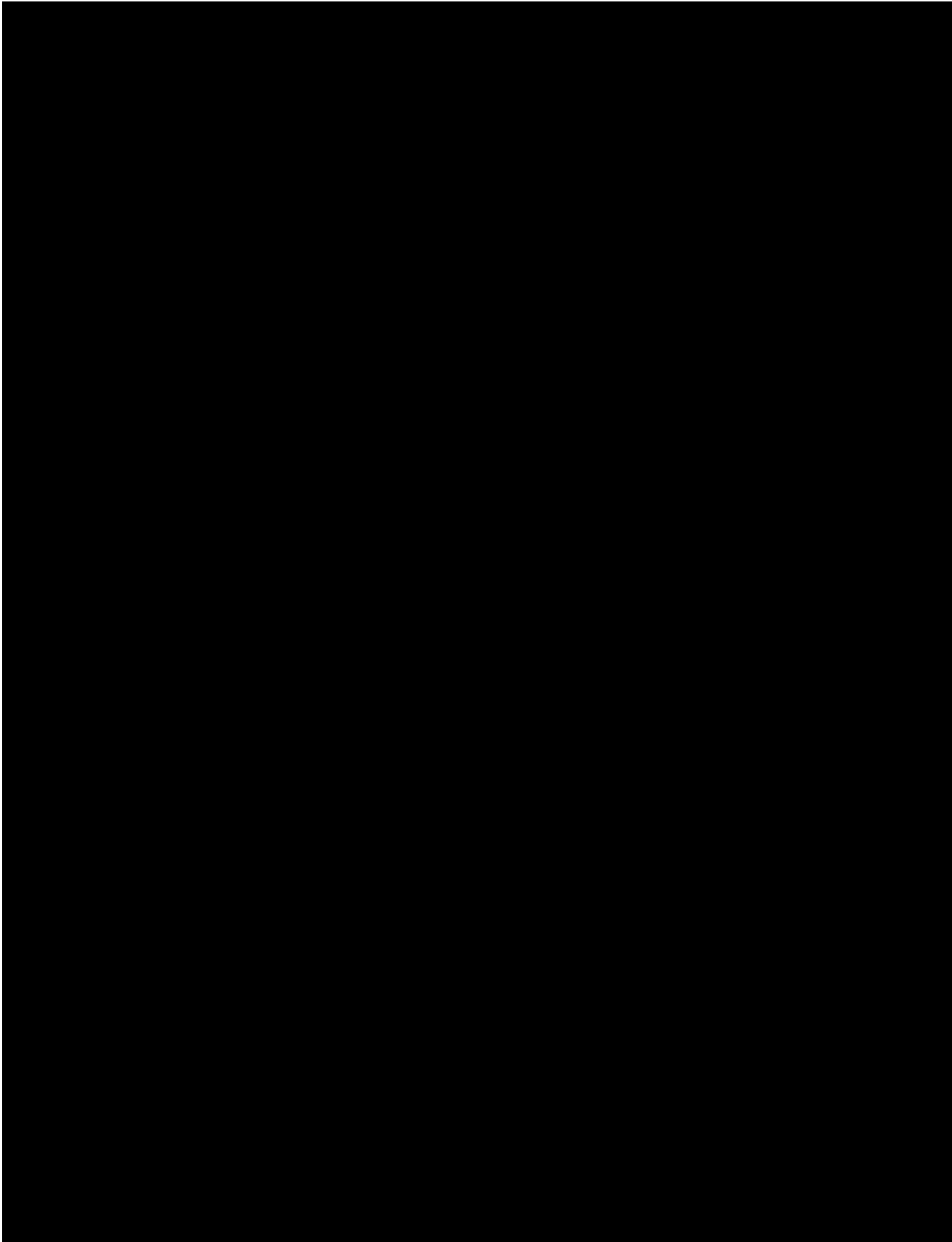
Project Deliverable Expectations Document	
<p>organization may benefit. By reviewing the final solution implementation, the report will document the final outcomes, identify gaps, and validate whether the solution achieved its intended objectives.</p> <ul style="list-style-type: none"> ■ Table of Contents ■ Revision History ■ Purpose ■ Solution Overview ■ Defined Terms and Acronyms ■ Objectives ■ Functionality Trace & Gap Analysis Report ■ Joint Release Close-Out Discussion: Success and Opportunities <ul style="list-style-type: none"> <input type="checkbox"/> List of Project’s Biggest Successes <input type="checkbox"/> List of Project’s Opportunities ■ Reference Documents ■ Sign-offs 	
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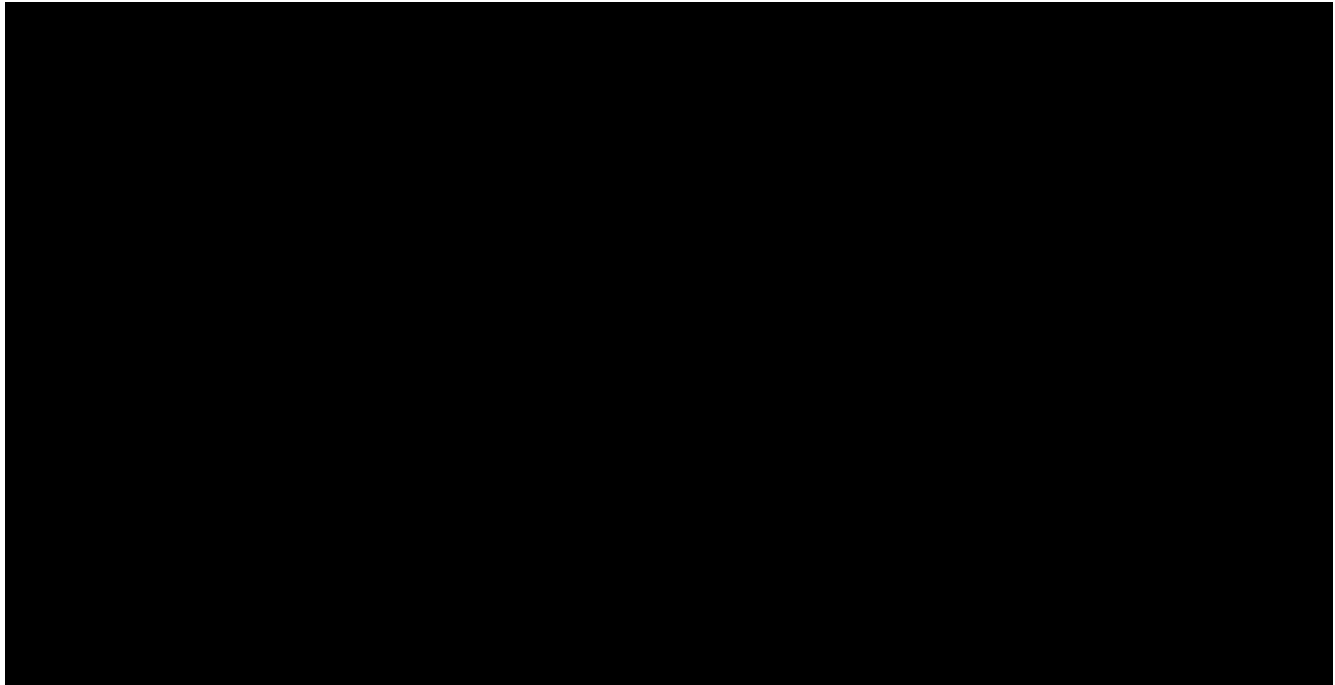
14.0 Value Added Services and Benefits

The Vendor may describe any services or deliverables that are not required by the RFP, and thus at no additional cost to DHS, but that the Vendor proposes to provide that will add value to the Project and further differentiate the Vendor from other bidders. The Vendor is not required to propose value-added benefits, but inclusion of such services may impact the Vendor's overall evaluation.

Instructions: Please describe any value added services or deliverables the Vendor is including as part of its Proposal that is at no additional cost to DHS.



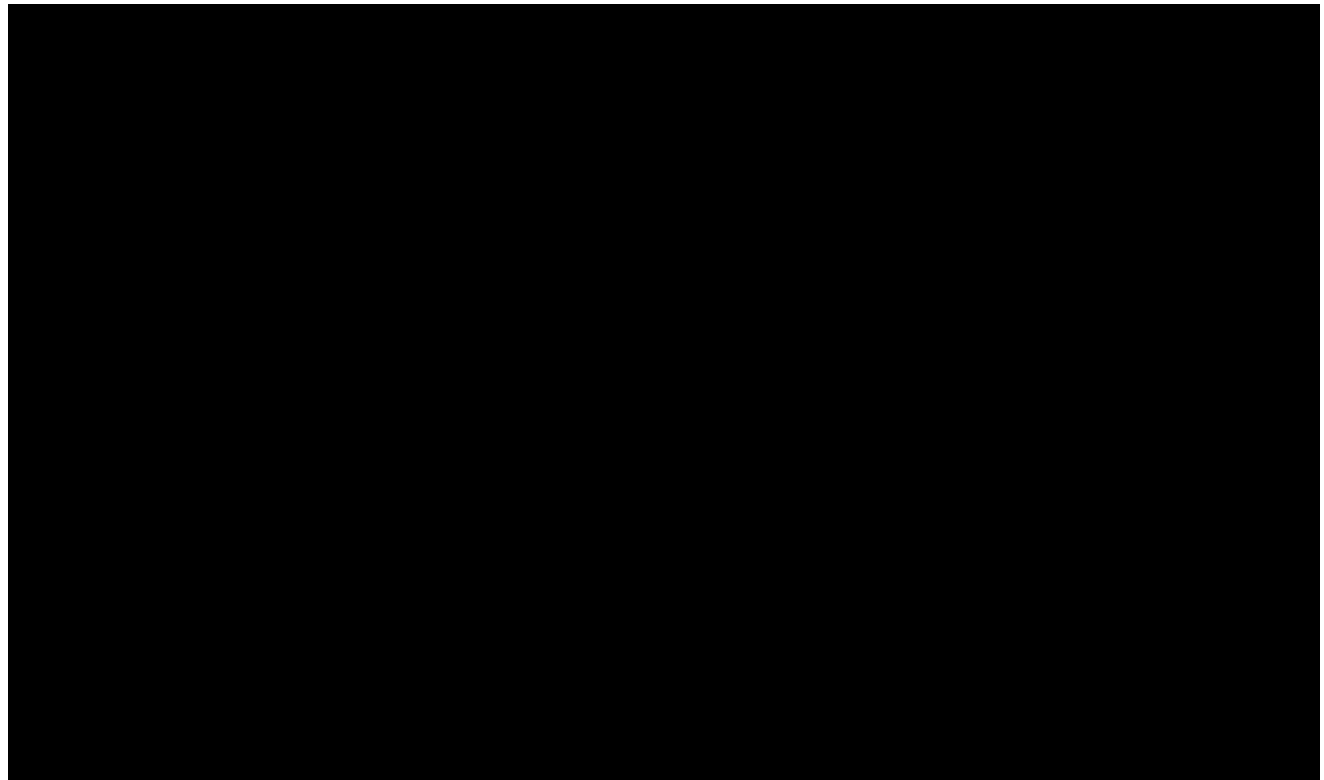


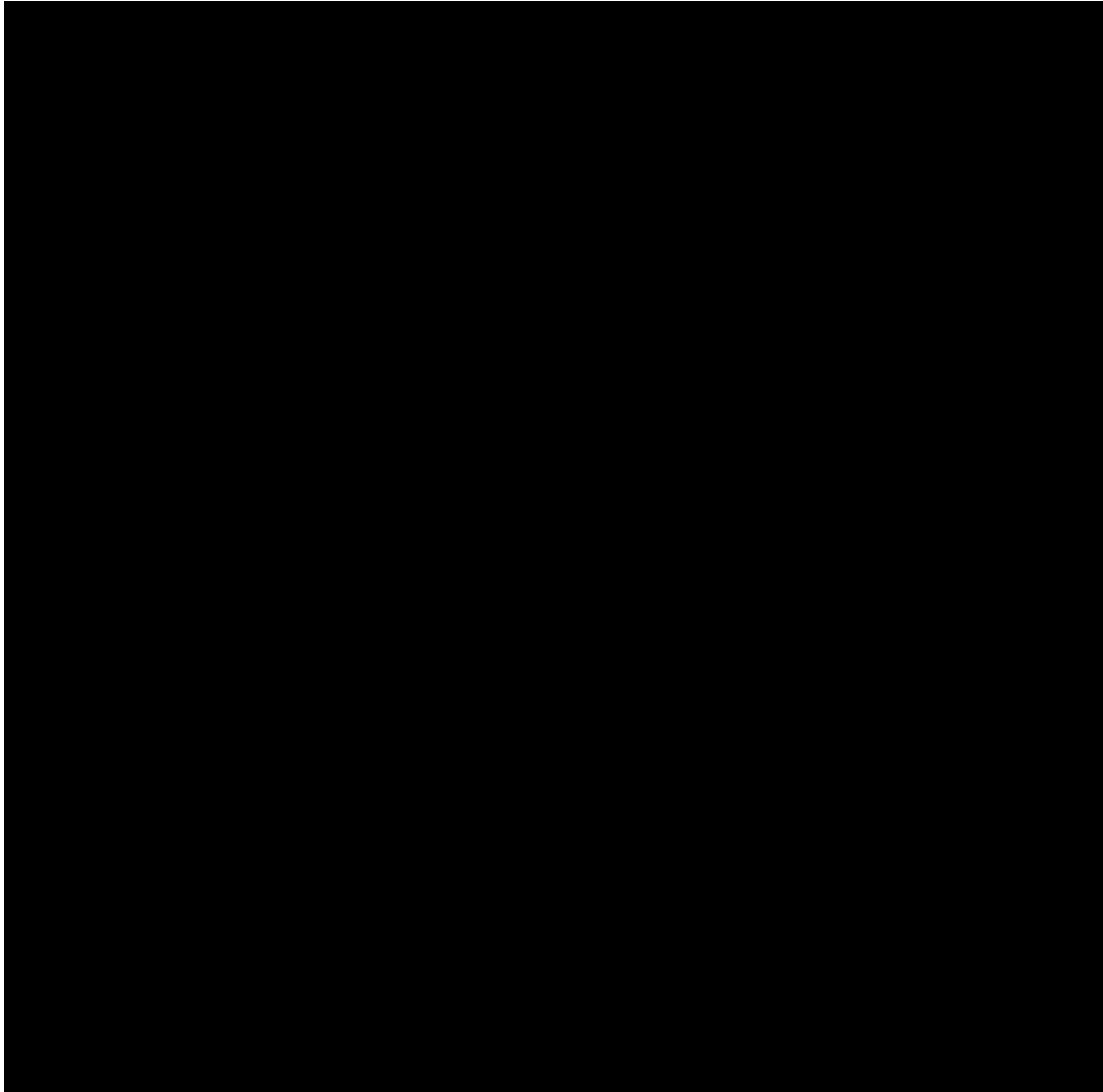


14.1 Lessons Learned

DHS learns from the experiences of others. The Vendor should describe what it sees as the success factors and primary challenges in the implementation of similar systems.

Instructions: Please describe any “lessons learned” from the Vendor’s relevant experience and how those lessons learned will impact the Vendor’s approach to this Project.





14.2 Issues, Challenges and Potential Risks

DHS is interested in any information that may help to identify issues, clarify the requirements, reduce risk of the procurement, and identify issues and challenges of designing and implementing the proposed System.

Instructions: Describe the primary concerns, risks, issues and recommendations for DHS as it proceeds with this Project.

While an undertaking of this magnitude includes many risks, issues and challenges, all of these may be overcome if the proper level of participation, prioritization, empowerment and collaboration are observed by all parties involved. In our 20-year history of delivering highly complex, highly visible project such as this, we have identified key areas for your consideration.

Engaged Executive Leadership

Engaged and decisive executive-level sponsorship by State leadership is critical to the success of a project of this size and complexity. Strong executive sponsorship is key to the full commitment and prioritization of the State's resources is brought to bear during the project. Without such a commitment, teams are likely to be pulled into competing priorities and may lose focus on the end goal. Similarly, a vacuum in leadership can lead to confusion over the decision-making and approval processes that are key to an on-time, on-budget delivery.

Empowered Model Office Team

The State must identify and empower a team of Subject Matter Experts (SME) to work closely with our team throughout the project, especially during the Requirements Analysis and Design and Testing phases. This Model Office team must have extensive subject-matter expertise about existing State processes and must be empowered to make quick decisions related to the requirements and solution. Specifically, the team must be able to resolve disagreements among the various State organizations and stakeholders on requirements definitions, business processes and system design (including decisions related to user interface design, business rules and workflow processes and technical architecture).

Commitment to Minimize Customizations

To take full advantage of the COTS solution that Optum provides, including a lower total cost of ownership, the State must commit to a design strategy that minimizes customizations as much as practicable. Taking advantage of out-of-the-box functionality as much as possible will reduce the overall maintenance costs and reduce the cost and complexity of future upgrades. The up-front challenges of committing to this strategy include the need to build consensus among the various stakeholder organizations, specifically during Requirements Analysis and Design, to drive out an agreed upon set of requirements, business processes and designs. This will require both strong executive leadership and an empowered Model Office team, as mentioned previously.

Co-locating Teams during Requirements Analysis and UAT

Co-locating the State and Optum project teams during Requirements Analysis and Design and during UAT will help accelerate the resolution of open issues and questions related to requirements definitions, design decisions and defect resolutions. While the concept of colocation is not as critical during the development phase, we highly recommend daily communications in the form of scrum calls and checkpoints.

15.0 Implementation Requirements Approach Assumptions

Instructions: Document all assumptions related to this Response Template in the following Table. Add rows as necessary. Do not change any of the completed cells. Any changes to the completed cells could lead to the disqualification of the Proposal.

Table 5. Implementation Requirements Assumptions

ITEM #	REFERENCE (Section, Page, Paragraph)	DESCRIPTION	RATIONALE
1.	3.7.3.1 page 86, paragraph 1	Program Documentation Storage	Since Arkansas will host 100 percent of the infrastructure, we have assumed that the State will provide a location for us to store our program documentation.
2.	3.7.3.1 Deliverable Tables, page 86	“Expectations for DHS’ Responsibilities”	We assume a deliverable review and approval cycle that totals 15 days after deliverable submission. This schedule includes: <ul style="list-style-type: none"> ■ Five days for the State to review and provide feedback (including a walkthrough meeting if necessary) ■ Five days for Optum to make revisions ■ Four days for the final review meeting and approval One day for official electronic signoff
3.	Table 13. State and Vendor M&O Staffing Responsibilities, Page 75	We assumed that new hire training and up-training (system changes) will be handled by Arkansas DHS trainers.	As outlined in Table 13 in the RFP, once the DDI project is complete, it is DHS' responsibility to deliver training to state employees.

TemplateT-12 - Maintenance and Operations (M&O) Support Requirements Traceability Matrix

Introduction

This document captures the Maintenance, Operations and Support Requirements for the State of Arkansas's IE-BM Engagement. This document should be read in conjunction with the Solution Overview section of the RFP, which documents the recommended Solution approach. Together, these requirements and the Solution Approach section must be used to create cost and schedule estimates for the design, development, implementation and ongoing support of the IE-BM System.

The Maintenance and Operations (M&O) Requirements document contains the following sections:

- 1) Instructions
- 2) Service Request Priority
- 3) Maintenance, Operations and Support Requirements

Within the M&O Requirements, the requirements are categorized by area as detailed below. Each category has its own tab in this workbook.

ID	Section Title
O	Application Maintenance and Operations Requirements
O1	EEF Platform (MAGI Medicaid only) M&O Transition
O2	Application M&O Service Requirements
O3	Design, Development and Implementation (DDI) to M&O Transition
O4	Modifications/Enhancements Requirements
O5	M&O Turn-Over or Transition Services Requirements
O6	Provide Hosted Private Cloud Service Requirements (DHS Optional)
O7	Service Level Requirements

Instructions

This document captures the M&O Requirements for the State of Arkansas's IE-BM System. It captures the tasks the Vendor will be responsible for performing.

The response codes below should be used by the Vendor to indicate whether it agrees to perform the requirements or whether it recommends changes to the tasks being performed.

This Template must be submitted as a Microsoft Excel file as part of the Vendor's Proposal and should be thoroughly completed.

Field	Definition / Instructions
Req. #	Requirement Identification Number: This should be used to refer to requirements in correspondence. DO NOT EDIT THIS FIELD.
Requirement	Requirement: The detailed description of requirement. DO NOT EDIT THIS FIELD.
Requirement Met	Vendor response to whether the M&O Requirement will be met by the Vendor. For tabs O1 - O5, indicate whether the requirement, as currently written, will be met by the Vendor's Proposal: Yes or Clarification. For each Service Level Requirement, indicate agreement with each and all of the SLRs. The Vendor is expected to show in its Proposal how it will ensure compliance with the SLRs: Yes or No .
Suggested Clarifying Comments (for O1 to O6)	If the Response Code is set to "Clarification" the Vendor must provide clarifying comments To provide more detail regarding the approach for meeting a Maintenance and Operations Requirement, use the M&O Requirements Approach Template (Template T-13 - M&O Approach) and provide a reference to the appropriate RFP Req. #(s) in this template.
Proposed Liquidated Damages Amount	For each Service Level Requirement, provide a recommended Liquidated Damages amount per measure of SLR Measurement of Non-Compliance.

Service Request Priority

This grid below establishes the criteria which establish the criticality of Service Requests. This should be referenced while responding to the Service Request SLA (O7-4) on the Service Level Requirements Tab (O7 SLRs)

Urgency	Impact			
	State-Wide	Location	Multiple Users	Single User
A full outage of multiple services or all services and/or noncompliance with regulations	Critical	Critical	High	High
An issue completely affecting a service, no workaround available	Critical	High	High	Medium
An issue affecting a service; workaround is available	High	Medium	Medium	Medium
An issue that has no impact to the availability of the affected service; redundancy is available	Medium	Low	Low	Low

EEF M&O Transition (MAGI Medicaid Only)

Req. #	Requirement Description	Requirement Met	Suggested Clarifying Comments
O1.1	Develop each of the EEF M&O transition Deliverables outlined in the SOW. These will be reviewed and formally approved by DHS staff, to be identified by DHS, through the process outlined in the Project Management Plan. The Vendor shall complete these deliverables in compliance with the Project Schedule and complete the deliverables approval process (e.g. invoice) in a timely manner as agreed to in the final Contract.	Yes	
O1.2	Evaluate the current EEF platform (MAGI Medicaid only) Maintenance and Operations processes, procedures and evaluate the impact of adding the EEF maintenance and support to the IE-BM maintenance and support structure and environment.	Yes	
O1.3	Collaborate with the current EEF M&O vendor to define the process changes required to integrate the EEF solution maintenance into the IE-BM support structure.	Yes	
O1.4	Develop a M&O Transition Plan which captures all activities required to seamlessly transition the EEF M&O, including: a. Documentation of the Vendor's proposed target state including: i. Proposed Vendor staff ii. Roles and responsibilities of all partners related to the Solution support and operations iii. Proposed list of activities and processes to support the activities iv. Acquisition, transition and need for tools b. Training plans to ensure staff gain the knowledge required to transition M&O activities c. Plan for coordinating roles and responsibilities between the Vendor and the EEF Vendor d. Approvals for plans by DHS and commitment to supply resources e. Staffing of target organizations and ongoing support through the duration of the Contract f. Inventory and plan for all Solution hardware and software, documentation, supplies, facilities and other resources within the Contract g. Measureable progress milestones/check-points so DHS can quantify the transition risk h. Readiness Checklist which captures all activities that must be completed prior to completing the migration	Yes	
O1.5	Collaborate with the EEF M&O Vendor to develop, document and implement changes to the transitioning of M&O activities in a multi-vendor environment including, at a minimum, processes and roles and responsibilities among DHS, the IE-BM Vendor and the EEF Vendor	Yes	
O1.6	Update/develop EEF System M&O documentation after Migration from EEF M&O Vendor to IE-BM Vendor (e.g. contact information, updated procedures and responsibilities for the Vendor)	Yes	
O1.7	Develop and document plan for maintaining all relevant Solution M&O process documentation.	Yes	

O1. EEF M&O Transition

Req. #	Requirement Description	Requirement Met	Suggested Clarifying Comments
O1.8	Develop and document approach to the Solution M&O reporting including status reporting, SLR Performance reporting and reporting mechanisms.	Yes	
O1.9	Perform training and other related activities required to ready the M&O team to support the Solution including, but not limited to: a. System technologies, configurations, customizations b. EEF Platform operational processes c. EEF Platform Tools d. Existing documentation and documentation standards	Yes	
O1.10	Develop weekly transition status reports highlighting progress against plan and milestones; the report shall address risk, issues and tracks progress against the transition Check List.	Yes	
O1.11	Develop an Application M&O Plan which captures all activities required to conduct all M&O activities the processes and tools to be managed and staffed by the Vendor. Plans for the following services must be included in this deliverable: a. System administration and operations b. Help desk and incident/problem management c. Root Cause Analysis d. System monitoring e. User account management f. Security administration g. Database administration h. Break-fix i. Change and release management j. Training (initial and ongoing) of M&O and State staff k. Configuration Management l. Standards and processes to describe the Vendor's approach to any concurrent development code streams needed m. Performance Management n. Capacity Planning and Management o. Technology Refresh and Replenishment Services p. Disaster Recovery Services q. Data Retention and Archiving	Yes	
Metrics/Key Performance Indicators (KPIs)			
O1.12	The Vendor will provide a standard set of metrics to measure vendor performance in all applicable areas in this section. These metrics must align with the full set of SLRs proposed in Tab O7, including additional SLRs proposed by the Vendor.	Yes	

TemplateT-12 - Maintenance and Operations (M&O) Support Requirements Traceability Matrix

Application M&O Requirements

Req. #	Requirement Description	Requirement Met	Suggested Clarifying Comments
General			
O2.1	Develop each of the Application M&O Deliverables outlined in the SOW. These will be reviewed and formally approved by DHS staff, to be identified by DHS, through the process outlined in the Project Management Plan. The Vendor shall complete these deliverables in compliance with the Project Schedule and complete the deliverables approval process (e.g. invoice) in a timely manner as agreed to in the final Contract.	Yes	
O2.2	Integrate Vendor's operational activities into the DHS Enterprise standard processes and continuously improve the processes	Yes	
O2.3	Develop service requests on changes to the infrastructure or middleware on which the Solution runs	Yes	
O2.4	Perform all M&O activities for all middleware/COTS packages included in the EEF solution and those implemented as part of the IE-BM solution and maintain all software environments (e.g. development, testing, training, production, disaster recovery).	Yes	
System Operations and Administrations			
O2.5	Develop procedures for performing Solution specific administration that meet requirements and adhere to defined policies	Yes	
O2.6	Prepare pre-production release software for production and pre-production testing	Yes	
O2.7	Continually monitor data quality and identify opportunities for improvement	Yes	
System Performance/Monitoring			
O2.8	Propose monitoring policies, procedures and standards for the Solution including, but not limited to: a. Monitoring of buffers, database buffers, table space fragmentation, database space, unusual growth and propose a solution in case of alert b. Monitoring of System logs, update error, database corruption, jobs, and propose a solution in case of alert c. Monitoring of alert notification interface (e.g., Simple Mail Transfer Protocol (SMTP), sendmail), and propose a solution in case of an alert d. Monitoring of transaction and trace logs, network event logs and traces, garbage collector, memory and CPU utilization, indexes, etc., and propose a solution in case of an alert e. Monitoring of middleware (e.g., workflows, in- and out-bound queues) and report to DHS according to agreed procedure f. Monitoring of E2E transaction response time to allow measurements against SLAs g. Monitoring of interfaces and batch and job scheduling	Yes	
O2.9	Perform IE-BM System related database administration tasks	Yes	
O2.10	Implement agreed to monitoring policies, procedures and standards	Yes	
O2.11	Monitor all IE-BM System components as agreed to in above mentioned monitoring policies, procedures and standards. Identify and report problems.	Yes	

TemplateT-12 - Maintenance and Operations (M&O) Support Requirements Traceability Matrix

Application M&O Requirements

Req. #	Requirement Description	Requirement Met	Suggested Clarifying Comments
Capacity Management			
O2.12	Collaborate with DHS to understand any business trends which could impact System's capacity requirements, analyze historical trends and provide capacity forecast	Yes	
O2.13	Participate in the DHS Enterprise capacity planning activities	Yes	
Change/Release Management			
O2.14	Identify and submit any Solution changes in compliance with the DHS Enterprise Change/Release Management process	Yes	
O2.15	Provide required scripts and documentation regarding each Solution change or release	Yes	
O2.16	All releases must be performed between 11PM and 7AM except critical releases. DHS must approve all releases.	Yes	
Configuration Management			
O2.17	Maintain the Solution's software configuration in the DHS Enterprise configuration management tool	Yes	
O2.18	Capture any of the Solution's software configuration changes included in any change request	Yes	
O2.19	Ensure the Solution's configuration is captured in the configuration management tools and is up-to-date; any errors should be reported to DHS immediately	Yes	
Disaster Recovery			
O2.20	Participate in and complete all Solution related disaster recovery activities outlined in the Disaster Recovery Plan	Yes	
O2.21	Participate in disaster recovery planning including developing/updating the disaster recovery plan, identifying required changes in the disaster recovery plan (e.g. a change in contact information)	Yes	
O2.22	Participate in and provide support for the disaster recovery testing including, but not limited to: a. Plan and schedule disaster recovery testing b. Recovery of the application c. Recover data and storage according to RTO requirements d. Assist with/resolve remediation of recovery issues e. Help establish WAN connectivity from data center to the State/DHS WAN	Yes	
O2.23	Identify appropriate resources to support DHS' disaster recovery planning, testing and execution	Yes	
O2.24	Perform tasks outlined in the Disaster Recovery Plan within the agreed upon timeline in the event DHS initiates the disaster recovery plan	Yes	
O2.25	Be contactable and maintain a call tree to ensure DIS can contact the Vendor and the resources required to assist with the recovery can be made available within	Yes	
HelpDesk and Incident Management (Level 2/3)			
O2.26	Maintain Level 2 / 3 Solution support escalation procedures	Yes	
O2.27	Provide Level 2 / 3 Solution expertise and involvement for incident resolution including on-call availability 24X7 to provide Level 2 support for critical incidents/problems in alignment with the SLAs	Yes	

TemplateT-12 - Maintenance and Operations (M&O) Support Requirements Traceability Matrix

Application M&O Requirements

Req. #	Requirement Description	Requirement Met	Suggested Clarifying Comments
O2.28	Periodically review the status of open incidents and related problems and the progress being made in addressing problems related to the Solution	Yes	
O2.29	Conduct/participate in incident and problem management review sessions and provide status and problem impact categorization	Yes	
O2.30	The Vendor will establish a support agreement with the solution owner (If the selected Vendor is not the owner of the solution) to provide product support, including but not limited to, product support, defect fixes, release and upgrade information, future functionality, and enhancement requests. This does not include the contract for software licensing.	Yes	
Problem Management Services and Root Cause Analysis			
O2.31	Provide expertise and be an active participant in the process to resolve critical incidents as required (e.g. participate in "all hands on deck" meetings until incident is resolved)	Yes	
O2.32	Develop procedures for performing Root Cause Analysis (RCA) that meet requirements and adhere to defined policies	Yes	
O2.33	Conduct proactive trend analysis to identify recurring problems	Yes	
O2.34	Track and report recurring incidents or failures and provide associated consequences of repeating incidents if there is a business impact to DHS	Yes	
O2.35	Recommend solutions to address recurring problems or failures	Yes	
O2.36	Identify and document root cause of DHS defined High/Critical Priority Incidents and recommend appropriate resolution action	Yes	
O2.37	Provide status report detailing the root cause of and procedure for correcting recurring problems until closure as determined by DHS	Yes	
User Account Management			
O2.38	Develop, document, manage and maintain the Solution's user account maintenance procedures including, but not limited to: a. Configuration of new users, roles and responsibilities, credentials, etc. b. Users Refresh / Change / Updates c. Users Deletion	Yes	
O2.39	Provide assistance to DHS, as required, in administering IE-BM System user accounts	Yes	
Security Administration			
O2.40	Provide Solution security plan and infrastructure based on security requirements, standards, procedures, policies, with national, DHS and local requirements and risks	Yes	
O2.41	Implement physical and logical security plans consistent with DHS' security policies and industry standards	Yes	
O2.42	Establish access profiles and policies for adding, changing, enabling/disabling and deleting Log-On access of DHS employees, agents and subcontractors	Yes	

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Application M&O Requirements

Req. #	Requirement Description	Requirement Met	Suggested Clarifying Comments
O2.43	Review all security patches relevant to the environment and classify the need and speed in which the security patches should be installed as defined by security policies	Yes	
O2.44	Support DHS in producing security related activities such as report development, controls documentation, HIPAA compliance activities, IRS 1075 compliance activities, performing security audits, etc.	Yes	
O2.45	Develop and maintain all documentation required for security audits and internal control and control testing	Yes	
O2.46	Place and support systems with particularly sensitive data in controlled access areas. Only end-users with authorized access permission will be allowed to enter these areas (e.g., read access in the Solution's logs, write access in some folders, etc.).	Yes	
O2.47	Provide a documented set of controls that is used to ensure the separation of data and security information among customer applications	Yes	
O2.48	Provide reviews for the security of applications and any supporting code, such as Ajax, ActiveX controls and Java applets that are used	Yes	
O2.49	Provide adequate protection of data that is covered by regulatory or other compliance requirements — for example, those of the U.S. HIPAA, IRS 1075, ACA and HITECH Acts	Yes	
O2.50	Provide documented procedures to ensure background checks are performed on personnel with administrative or other privileged access to servers, applications or customer data	Yes	
O2.51	Provide documented procedures for super user privilege management and database activity monitoring controls or the equivalent to detect inappropriate behavior by personnel with administrative access	Yes	
O2.52	Provide a documented process for evaluating security alerts from OS and application vendors, shielding systems from attack until patched, and installing security patches and service packs	Yes	
O2.53	Provide documented procedures for security monitoring and log management functions, and use write-once technology or other secure approaches for storing audit trails and security logs	Yes	
O2.54	Provide documented procedures and establish procedures for vulnerability management, intrusion prevention, incident response, and incident escalation and investigation	Yes	
Break Fix			
O2.55	Design, build and test application fixes	Yes	
O2.56	Perform regression testing on the Solution, as required, when other components of the IE-BM Solution are updated/modified	Yes	
Account Management and Quality Assurance			
O2.57	Propose Account Management structure, planning and procedures	Yes	
O2.58	Maintain and implement Account Management structure, planning and procedures accordingly.	Yes	
O2.59	Develop a service ordering process that clearly defines how to order change or delete services	Yes	
O2.60	Provide status reporting (e.g., statistics, trends, audits) including risks and issues	Yes	

Template T-12 - Maintenance and Operations (M&O) Support Requirements Traceability Matrix

Application M&O Requirements

Req. #	Requirement Description	Requirement Met	Suggested Clarifying Comments
Application Quality Management			
O2.61	Participate in operations and service management quality assurance and control program process and address any findings	Yes	
O2.62	Provide hours worked by employee broken down by task as defined by DHS	Yes	
O2.63	Provide application service level reporting based on agreed upon SLR Targets	Yes	
Metrics/Key Performance Indicators (KPIs)			
O2.64	The Vendor will provide a standard set of metrics to measure vendor performance in all applicable areas in this section. These metrics must align with the full set of SLRs proposed in Tab O7, including additional SLRs proposed by the Vendor.	Yes	
Tool Usage			
O2.65	The Vendor will leverage DHS' implementation of JIRA for Help Desk ticketing and defect management	Yes	
O2.66	The Vendor will leverage a document management solution as a repository for all system related documentation. DHS prefers the Vendor leverage their installation of SharePoint though the vendor can leverage other technologies, with appropriate justification. If the Vendor recommends an alternate document management solution it will be installed on Arkansas' environment and owned by DHS	Yes	
O2.67	The Vendor will propose other tools to be leveraged during the M&O phase of the engagement. DHS prefers the Vendor leverages technologies already being leveraged by DHS (see RFP Section 3.3.6 and 3.6.7) though can propose alternate technologies with appropriate justification. If the Vendor recommends an alternate document management solution it will be installed on Arkansas' environment and owned by DHS	Yes	

DDI to M&O Transition

Req. #	Requirement Description	Requirement Met	Suggested Clarifying Comments
O3.1	Develop each of the DDI to M&O transition Deliverables outlined in the SOW. These will be reviewed and formally approved by DHS staff, to be identified by DHS, through the process outlined in the Project Management Plan. The Vendor shall complete these deliverables in compliance with the Project Schedule and complete the deliverables approval process (e.g. invoice) in a timely manner as agreed to in the final Contract.	Yes	
O3.2	Evaluate the M&O processes, procedures and evaluate the impact of adding new components/releases to the IE-BM maintenance and support structure and environment	Yes	
O3.3	Collaborate with the DDI team to define the process changes required to integrate the new components/releases into the IE-BM M&O structure.	Yes	
O3.4	Develop a M&O Transition Plan which captures all activities required to seamlessly transition from DDI, including: a. Documentation of the Vendor's proposed target state including: i. Proposed Vendor staff ii. Roles and responsibilities of all partners related to the Solution support and operations iii. Proposed list of activities and processes to support the activities iv. Acquisition, transition and need for tools b. Training plans to ensure staff gain the knowledge required to transition M&O activities c. Plan for coordinating roles and responsibilities between the Vendor and the EEF Vendor d. Approvals for plans by DHS and commitment to supply resources e. Staffing of target organizations and ongoing support through the duration of the Contract f. Inventory and plan for all Solution hardware and software, documentation, supplies, facilities and other resources within the Contract g. Measureable progress milestones/check-points so DHS can quantify the transition risk h. Readiness Checklist which captures all activities that must be completed prior to completing the migration	Yes	
O3.6	Update/develop EEF System M&O documentation after transition from DDI team (e.g. contact information, updated procedures and responsibilities for the Vendor)	Yes	
O3.7	Develop and document plan for maintaining all relevant Solution M&O process documentation	Yes	
O3.8	Develop and document approach to the Solution M&O reporting including status reporting, SLR Performance reporting and reporting mechanisms	Yes	

O3. DDI to M&O Transition

Req. #	Requirement Description	Requirement Met	Suggested Clarifying Comments
O3.9	Perform training and other related activities required to ready the M&O team to support the Solution including, but not limited to: a. System technologies, configurations, customizations b. Operational processes c. Tools d. Existing documentation and documentation standards	Yes	
O3.10	Develop weekly transition status reports highlighting progress against plan and milestones; the report shall address risk, issues and tracks progress against the transition Check List	Yes	
Metrics/Key Performance Indicators (KPIs)			
O3.11	The Vendor will provide a standard set of metrics to measure vendor performance in all applicable areas in this section. These metrics must align with the full set of SLRs proposed in Tab O7, including additional SLRs proposed by the Vendor.	Yes	

O4. Modifications-Enhancements

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Modifications/Enhancements Requirements			
Req. #	Requirement Description	Requirement Met	Suggested Clarifying Comments
General			
O4.1	Develop each of the Modifications and Enhancements Deliverables outlined in the SOW. These will be reviewed and formally approved by DHS staff, to be identified by DHS, through the process outlined in the Project Management Plan. The Vendor shall complete these deliverables in compliance with the Project Schedule and complete the deliverables approval process (e.g. invoice) in a timely manner as agreed to in the final Contract.	Yes	
Minor Enhancements and Ad-Hoc Requests			
O4.2	Maintain backlog of requests	Yes	
O4.3	Create Conceptual and Functional Design	Yes	
O4.4	Create Technical Design	Yes	
O4.5	Estimate effort and perform application impact assessment	Yes	
O4.6	Develop application configuration change/modification plans	Yes	
O4.7	Conduct walk-through review of configuration change/modification	Yes	
O4.8	Program, compile and document configuration changes/modifications	Yes	
O4.9	Perform unit testing on all changes	Yes	
O4.10	Perform integration testing for all changes	Yes	
O4.11	Perform regression testing for all changes	Yes	
O4.12	Coordinate user acceptance testing for all changes	Yes	
O4.13	Update user documentation and training materials	Yes	
O4.14	Maintain technical architecture documentation	Yes	
O4.15	Conduct annual planning for technology refresh in compliance with software vendor licensing and specifications and upgrades	Yes	
O4.16	Align with the Medicaid Enterprise Certification Toolkit (MECT)/Medicaid Enterprise Certification Lifecycle (MECL) to help ensure the System meets all federal requirements and satisfy the objectives described in the State's Advance Planning Document (APD).	Yes	
O4.17	Support DHS in preparing for any federal reviews and certifications (e.g. Medicaid and FNS) by, at a minimum, developing a preparing required documentation throughout the project, attending interviews and providing additional documentation	Yes	
Documentation			
O4.18	Maintain existing user/training documentation	Yes	
O4.19	Create new user/training documentation for enhancements	Yes	
O4.20	Maintain overall accountability for management of technical/System documentation	Yes	
O4.21	Maintain existing technical/System documentation as required to reflect System changes and/or to enhance or improve quality of documentation	Yes	

TemplateT-12 - Maintenance and Operations (M&O) Support Requirements Traceability Matrix

Modifications/Enhancements Requirements			
Req. #	Requirement Description	Requirement Met	Suggested Clarifying Comments
O4.22	Document incident/request resolution/workaround in the DHS Help Desk tool as it applies	Yes	
Metrics/Key Performance Indicators (KPIs)			
O4.23	The Vendor will provide a standard set of metrics to measure vendor performance in all applicable areas in this section. These metrics must align with the full set of SLRs proposed in Tab O7, including additional SLRs proposed by the Vendor.	Yes	

M&O Turn-Over Services Requirements

Req. #	Requirement Description	Requirement Met	Suggested Clarifying Comments
<i>This section includes general statements about the requirement and roles and responsibilities in case of termination of Contract or migration of the Application M&O Contract to an alternate vendor at the time the Contract expires.</i>			
O5.1	Develop each of the M&O Turn-over Deliverables outlined in the SOW. These will be reviewed and formally approved by DHS staff, to be identified by DHS, through the process outlined in the Project Management Plan. The Vendor shall complete these deliverables in compliance with the Project Schedule and complete the deliverables approval process (e.g. invoice) in a timely manner as agreed to in the final Contract.	Yes	
O5.2	Create a detailed Turn-Over Plan that covers all activities and the efforts of all involved parties. This part of the plan should express this in time and budget requirements, action ownership and program governance.	Yes	
O5.3	Complete inventory of all assets covered by the Contract and required to provide the services	Yes	
O5.4	Ensure that the M&O Turn-Over Plan includes handing over the key assets in an agreed-to format. These assets include, but are not limited to: <ul style="list-style-type: none"> a. Customer and other records (including subcontractor agreements that are required to provision the services) b. Configuration information c. Databases d. Documentation e. Asset registers f. Programs g. Knowledge databases h. Fault databases i. Asset maintenance history and status j. Manuals k. Process and procedure documentation l. Any other similar items that the Vendor used or produced during the course of, or for the purpose of, provisioning the services or relating to the configuration control of the services m. Source code n. Development tools and procedures o. Architecture and design documents 	Yes	
O5.5	Hold briefings on the status and comprehensive nature of all items handed over	Yes	
O5.6	Complete knowledge transfer of the services to DHS or alternate service provider(s)	Yes	

O5. M&O Turn-Over

Req. #	Requirement Description	Requirement Met	Suggested Clarifying Comments
O5.7	Define the means by which no interruption of the provision of the services, or reduction in service levels, will occur during the handover period, and during transfer to DHS or the new service provider	Yes	
O5.8	Identify and complete the transfer to DHS (for the remainder of the term of the relevant license) of all software and other licenses used in the provisioning and delivering of the Solution	Yes	
O5.9	Arrange for the provisioning of a physical data room into which information shall be placed, for the organization and the new service provider to inspect and make copies for removal	Yes	
O5.10	Perform all tasks included in the Turn-Over Plan	Yes	
O5.11	Participate in and/or manage regularly scheduled and ad hoc meetings, as well as other communications, to address issues that may affect how involved parties perform their responsibilities in relation to the Turn-Over Plan	Yes	
O5.12	Arrange for the transfer of personnel, including communications, briefing and negotiation, applicable to such personnel who are required for the continuation of the involved services, and within the boundaries of applicable law	Yes	
O5.13	Develop the final handover and acceptance criteria	Yes	
O5.14	Introduce the new service provider to all relevant information and training to allow the service provider to leverage the IE-BM Platform, tools and services and operate within the multi-vendor environment, as required	Yes	
O5.15	If tools that are not DHS' standards are leveraged by the Vendor during implementation or M&O activities, the Vendor must migrate all materials to DHS' standard tools	Yes	
Metrics/Key Performance Indicators (KPIs)			
O5.16	The Vendor will provide a standard set of metrics to measure vendor performance in all applicable areas in this section. These metrics must align with the full set of SLRs proposed in Tab O7, including additional SLRs proposed by the Vendor.	Yes	

Provide Hosted Private Cloud Services (DHS Optional)

Req. #	Requirement Description	Requirement Met	Suggested Clarifying Comments
<p><i>DHS is considering having the IE-BM Vendor provide hosting services. At the highest level, the Vendor will provide infrastructure to the applications team and provide the support associated with that infrastructure. This includes, but is not limited to, data center backbone network, servers, disk storage, tape storage, monitoring tools, security tools, and systems software that support the business application. As providing 'Private Cloud hosting' is optional, vendors do not need to complete this tab. The contents of this tab will not be considered in the proposal evaluation".</i></p>			
Network, Hosting and Data Center Services			
O6.1	Provide a primary Tier III (or higher) data center for hosting of the production instance of the application	Y	
O6.2	Provide a secondary Tier III (or higher) alternate data center for disaster recovery purposes	Y	
O6.3	Provide onsite contact (at the production data center) personnel who have authorized access to rooms and racks for equipment for scheduled installation time, in accordance with security procedures	Y	
O6.4	Provide and install all necessary power distribution boxes, conduits, grounding, surge, equipment racks, and lightning protection and associated hardware	Y	
O6.5	Provide necessary building alterations to meet wiring and any other site requirements	Y	
O6.6	Provide mechanism to ensure that the environmental conditions for chosen equipment meet the manufacturer's requirements	Y	
O6.7	Provide mechanism to ensure that data center physical security meets DHS' security requirements	Y	
O6.8	Participate in any DHS Data Center audits	Y	
O6.9	Provide the infrastructure, including servers, data center network, security, storage, etc. for all environments for the IE-BM solution including, but not limited to: a. Development environments b. Testing environments c. UAT/pre-production environment d. Production environment e. Disaster Recovery environment f. Training environment	Y	
O6.10	Maintain documentation of the IE-BM infrastructure environments	Y	

06. Hosted Private Cloud

Req. #	Requirement Description	Requirement Met	Suggested Clarifying Comments
06.11	Provide Infrastructure as a Service capabilities including: a. Providing and supporting virtualized server environments b. Provisioning of servers and operating systems c. Provisioning of storage d. Provisioning of server, network and storage with no single point of failure e. Access to ISP and DHS/State WAN network demarcation points f. Capability to replicate data to the alternate data center to meet recovery point objectives g. The capability to recover the application and data at the remote data center to meet recovery time and recovery point objectives h. The capability to migrate an application from the disaster recovery data center back to the primary data center i. Providing Maintenance (e.g. patching) on all infrastructure j. Upgrading hardware/software	Y	
06.12	Collaborate with the applications teams to assess the impact of any enhancements they are implementing on the infrastructure	Y	
06.13	Provision new environments and capacity as required to ensure performance requirements are met as volume increases and additional functionality is implemented	Y	
06.14	Provide data center LAN/Core network infrastructure and management	Y	
06.15	Provide high availability redundant network circuits connecting the hosting facility (data center) to DHS' network to meet network response time and high availability SLAs	Modification	The RFP does not currently have Network Response time SLAs.
06.16	Adhere to the Hosting Services SLRs	Modification	The RFP does not currently have Hosting Services SLRs.
06.17	Maintain (e.g. patching) infrastructure within guidelines established by software provider and/or DHS	Y	
06.18	Provide technical expertise to all Application vendors related to the infrastructure implementation	Y	
06.19	Ongoing maintenance of virtual environments	Y	
Storage Management Services			
06.20	Provide data backup and restoration services in accordance with DHS-established policies	Y	
06.21	Recommend techniques and procedures to ensure disk storage resources are utilized in an efficient and cost-effective manner	Y	
06.22	Maintain and improve storage resource efficiency and space requirements	Y	
06.23	Regularly test recovery procedures and practices to demonstrate recoverability and verify that actual practices are in concert with procedures and report results, as well as meet business requirements	Y	
06.24	Provide data storage and data management services (e.g., RAID array, SAN, NAS, tape, optical)	Y	
06.25	Secure backup media in independently certified, U.L. Class II media storage vaults that meet the design and construction requirements of NFPA (National Fire Protection Association) 232, Standard for the Protection of Records	Y	
06.26	Perform periodic incremental and full backups	Y	
06.27	Provide input processing, for activities such as loading third-party media (e.g., tape) and receiving transmission of batch files	Y	
06.28	Maintain a tape library, tape management system, and transport tapes to production area as needed	Y	

06. Hosted Private Cloud

Req. #	Requirement Description	Requirement Met	Suggested Clarifying Comments
06.29	Maintain data set placement and manage data catalogs	Y	
06.30	Manage file transfers and other data movement activities	Y	
06.31	Manage input media availability to meet processing service levels	Y	
06.32	Manage the media inventory to ensure that adequate media resources are available	Y	
06.33	Acquire and manage consumables, such as tape, disks, etc., in support of DHS' backup requirements for the Data Center	Y	
06.34	Plan, execute and report on the replacement of media in the scratch tape pool before 80% of its expected life, as defined by the media manufacturer, on a going-forward basis	Y	
06.35	Monitor and control storage performance to ensure system performance SLAs are continually met	Y	
06.36	Monitor and demonstrate compliance with DHS' retention and storage policies and/or requirements	Y	
06.37	Effectively track, manage, communicate and resolve all tape exceptions	Y	
06.38	Ensure all replaced media such as tapes and disk storage are degaussed or otherwise cleared of data per NIST 800-88 requirements. Ensure that any media no longer required is destroyed or shredded in a similar fashion.	Y	
06.39	Provide secure off-site storage for designated media and transport media to off-site location as required	Y	
06.40	Periodically test and verify validity of tapes	Y	
06.41	Perform periodic audits to ensure proper cataloging of media	Y	
06.42	Report disk space and tape utilization	Y	
06.43	Manage tape storage service provider (if applicable)	Y	
06.44	Perform recoument of production databases on a regular basis and verify that roll-in is done after verifying reports	Y	
06.45	Perform restores of test systems in accordance with the mutually agreed-upon procedures manual	Y	
Operating System, Application and Database Backup and Recovery			
06.46	Develop and implement data Backup/Restore procedures in accordance with DHS' requirements. Note: Backup must include system parameters, user IDs, passwords, etc.	Y	
06.47	Create and maintain backup scripts to support Backup/Restore procedures	Y	
06.48	Maintain backup infrastructure (tape library, drives, etc.)	Y	
06.49	Test central/remote application backup/restore procedures periodically	Y	
06.50	Perform complete/incremental backup	Y	
06.51	Monitor backup processes	Y	
06.52	Verify backup media integrity	Y	
06.53	Encrypt all backups regardless of storage media	Y	
06.54	Store copies of the backups in a fire and water proof vault and/or secure off-site facility	Y	
06.55	Restore single/multiple objects from the application backup media	Y	
06.56	Restore complete/incremental application backup as required	Y	
06.57	Roll forward from the archive logs after a restore (i.e., point in time recovery)	Y	
06.58	Validate integrity and consistency of restored information	Y	
Remote Access Infrastructure Management			
06.59	Provide technical support, administration and security administration for Remote Access hardware and software	Y	
06.60	Perform system or component configuration changes and maintenance (e.g. patching) necessary to support Remote Access services	Y	

06. Hosted Private Cloud

Req. #	Requirement Description	Requirement Met	Suggested Clarifying Comments
06.61	Monitor and report on Remote Access intrusion attempts	Y	
06.62	Maintain Remote Access activity logs to include, at a minimum: a. Session status with timestamps and IP address b. End-to-end data processing/transmission c. Client ID d. Changes to account status	Y	
Capacity Management			
06.63	Define, develop and implement tools that allow for the effective Capacity Management including monitoring, reporting, trending of all IT infrastructure components	Y	
06.64	Participate in DHS Enterprise Platform capacity planning activities	Y	
06.65	Manage infrastructure capacity plan based on requirements (users, new applications, etc.)	Y	
06.66	Utilize application capacity forecasts to recommend infrastructure modifications and issue appropriate change requests	Y	
06.67	Assess infrastructure capacity impacts when adding, removing or modifying applications	Y	
06.68	Perform monitoring activities of infrastructure resources (e.g. OS, server, database, network, storage) usage to enable proactive identification of capacity and performance issues. Recommend changes to system to improve service performance.	Y	
06.69	Analyze infrastructure performance and identify opportunities to optimize use of existing IT resources and minimize DHS' costs to receive the services at agreed-to Service Levels	Y	
06.70	Ensure adequate infrastructure capacity exists within the IT environment to meet SLRs taking into account daily, weekly and seasonal variations in capacity demands	Y	
06.71	Provide utilization and capacity reporting	Y	
System Monitoring			
06.72	Manage and maintain monitoring procedures and standards (in alignment with the DHS Enterprise Platform monitoring processes, standards and polices) for the DHS Enterprise Platform infrastructure including, but not limited to: a. Monitoring of buffers, database buffers, table space fragmentation, database space, for unusual growth and propose a solution in case of alert b. Monitoring of system logs, update error, database corruption, jobs execution failures etc. and propose solution in case of an alert c. Monitoring of alert notification interface (e.g., Simple Mail Transfer Protocol (SMTP), sendmail), and propose a solution in case of an alert d. Monitoring of transaction and trace logs, network event logs and traces, garbage collector, memory and CPU utilization, indexes, etc., and propose a solution in case of an alert e. Monitoring of middleware (e.g., workflows, in- and out-bound queues) and report to DHS according to agreed procedure f. Monitoring and reporting of end-to-end transaction response time to allow measurements against SLAs g. Monitoring of interfaces h. Monitoring of batch jobs and job scheduling	Y	
06.73	Propose enhancements to monitoring policies, processes and standards for the DHS Enterprise Platform	Y	
06.74	Implement agreed to monitoring policies, procedures and standards for all hosted infrastructure	Y	

06. Hosted Private Cloud

Req. #	Requirement Description	Requirement Met	Suggested Clarifying Comments
O6.75	Monitor infrastructure for availability as well as transaction and response time performance	Y	
O6.76	Provide regular monitoring reports of infrastructure performance, utilization and efficiency (e.g., proactive system monitoring)	Y	
Performance Management			
O6.77	Assess the performance impact on the infrastructure of any changes being implemented	Y	
O6.78	Develop and document performance management procedures for new infrastructure that meet DHS' requirements and adhere to defined policies	Y	
O6.79	Manage service component resources (e.g., devices and traffic) to meet defined availability and performance SLRs	Y	
O6.80	Proactively evaluate, identify and recommend configurations or changes to hardware configuration (e.g., hardware usage, index creation or reorganization) which will enhance performance	Y	
O6.81	Implement improvement plans and coordinate with third parties as required	Y	
Change/Release Management			
O6.82	Provide required documentation regarding each infrastructure change	Y	
O6.83	Implement/deploy all changes for the IE-BM Platform by executing the instructions provided by the vendor who submitted the change including the resetting of the training database	Y	
O6.84	Adhere to detailed DHS change and release plans/process	Y	
O6.85	Identify and submit any infrastructure changes in compliance with the DHS Enterprise Program Change/Release Management process	Y	
O6.86	Perform release of all changes (from all vendors leveraging the DHS Enterprise Platform) into the production environment and ensure every change has a back-out plan	Y	
Configuration Management			
O6.87	Maintain infrastructure configuration in coordination with DHS the configuration management tool	Y	
O6.88	Identify any infrastructure configuration changes included in any change request and ensure the configuration management tool is updated as part of the release	Y	
O6.89	Ensure infrastructure configuration captured in the configuration management tools is up to date; any errors should be reported to DHS immediately	Y	
Level 2/3 Support			
O6.90	Provide Level 2/3 support and technology expertise for escalated tickets related to the infrastructure as required to resolve ticket	Y	
O6.91	Log infrastructure related updates into the ticket tracking system (currently ServiceNow) in a timely manner in alignment with the DHS' processes, polices and procedures	Y	
O6.92	Participate in incident and problem management review sessions and provide status and problem impact categorization	Y	
O6.93	Maintain Level 2/3 infrastructure support escalation procedures	Y	
O6.94	Provide troubleshooting support – ad-hoc support for implementation challenges, including side-by-side support when/as needed	Y	
O6.95	Provide input into knowledge base to improve self-service and help desk's capabilities to address user questions	Y	
O6.96	Follow DHS' procedures for performing root cause analysis that meet requirements and adhere to defined policies	Y	
O6.97	Conduct proactive trend analysis to identify recurring infrastructure problems	Y	

06. Hosted Private Cloud

Req. #	Requirement Description	Requirement Met	Suggested Clarifying Comments
O6.98	Track and report recurring infrastructure incidents or failures and provide associated consequences of repeating incidents if there is a business impact to DHS	Y	
O6.99	Recommend solutions to address recurring infrastructure problems or failures	Y	
Infrastructure Security			
O6.100	Ensure infrastructure provides data protection that meets regulatory and other compliance requirements — for example, those of the U.S. HIPAA, IRS 1075, ACA and HITECH Acts	Y	
O6.101	Evaluate impact of any modifications on the IE-BM infrastructure's security and ensure alignment with DHS' security policies and applicable regulations	Y	
O6.102	Maintain and enhance the IE-BM solution's security including an effective layered information security architecture to provide layered defense to meet DHS' security requirements. This includes, but is not limited to: a. DMZ b. Firewalls (both perimeter and internal zone firewalls) c. Data Center network zoning and VLAN design d. VPN support e. Encryption of critical data both at rest and in transit f. Security monitoring of all devices and network components g. Intrusion detection / intrusion prevention h. Monitoring of security alerts and installation of security patches	Y	
O6.103	Proactively monitor all infrastructure including network, storage, virtual environments, servers, databases, firewalls to ensure compliance with the DHS Enterprise Platform's monitoring process	Y	
O6.104	Provide ongoing compliance and support for critical security controls to ensure proper safeguarding of the technical environments: a. IAM suite b. Secure Certificates/AES 256 encryption c. Encrypted workstations and disabled media d. Oracle database encryptions e. CISCO AS Firewall/Firewall rules f. Encrypted storage and backups g. User profile and Privileges Administrations h. Test data creation tools i. Data masking j. E2E Application monitoring k. Data loss prevention l. Collaboration with OIT/DHS to leverage IT security tools, processes and polices	Y	
O6.105	Implement physical and logical security within new functionality defined in the security plan consistent with DHS' security policies and industry standards	Y	
O6.106	Review all infrastructure security patches relevant to the environment and classify the need and speed in which the security patches should be installed as defined by security policies	Y	
O6.107	Install infrastructure security patches in alignment with change management policies, processes and procedures	Y	

06. Hosted Private Cloud

Req. #	Requirement Description	Requirement Met	Suggested Clarifying Comments
06.108	Provide documented procedures for security monitoring and log management functions, and use write-once technology or other secure approaches for storing audit trails and security logs	Y	
06.109	Demonstrate that staff has vendor certification for the specific firewall equipment it will manage	Y	
06.110	Provide documented requirements (design and audit procedures) for network security to ensure that other customers will not compromise its shared-service infrastructure	Y	
06.111	Place and support systems with particularly sensitive data in controlled access areas. Only end-users with authorized access permission will be allowed to enter these areas (e.g., read access in Application System logs, write access in some Application folders, etc.).	Y	
Disaster Recovery			
06.112	Maintain a detailed Disaster Recovery plan to meet Disaster Recovery requirements. Plan shall include plans for data, back-ups, storage management, and contingency operations that provides for recovering the DHS Enterprise Platform within established recovery requirement timeframes after a disaster that has affected the users of the DHS Enterprise Platform	Y	
06.113	Develop, document and manage the processes and procedures for Disaster Recovery operations	Y	
06.114	Establish processes to ensure Disaster Recovery and emergency management plans are kept up-to-date and reflect changes in the DHS Enterprise Platform due to the implementation of changes or requirements	Y	
06.115	Identify appropriate resources, including an appropriately-qualified Emergency Coordinator, that support DHS' Emergency Preparedness requirements	Y	
06.116	Lead and complete all disaster recovery activities outlined in the Disaster Recovery Plan	Y	
06.117	Manage and maintain disaster recovery environment including all required equipment (servers, storage, virtualization software and network)	Y	
06.118	Manage replication to the disaster recovery site and ensure ongoing replication continues to occur	Y	
06.119	Lead disaster recovery planning including developing/updating the disaster recovery plan and identifying required changes in the disaster recovery plan (e.g. a change in contact information)	Y	
06.120	Lead the Disaster Recovery testing including, but not limited to: a. Plan and schedule Disaster Recovery testing b. Recovery of DHS Infrastructure in the secondary data center c. Recover data and storage according to RTO requirements d. Assist with/resolve remediation of recovery issues e. Establish WAN connectivity from data center to the State/DHS WAN	Y	
06.121	Provide support to the applications team with implementing and configuring disaster recovery using the established infrastructure standards (SAN replication, VMware replication, etc.)	Y	
06.122	Coordinate involvement of DHS/State personnel for Disaster Recovery testing	Y	
06.123	Identify appropriate resources to support DHS' disaster recovery planning, testing and execution	Y	
06.124	Track and report Disaster Recovery test results to DHS	Y	
06.125	Develop action plans to address any issues arising from Disaster Recovery testing results	Y	
06.126	Ensure vendors implement the approved action plan and provide ongoing status until completion of the remediation	Y	
06.127	Lead (and perform) the execution of tasks outlined in the Disaster Recovery Plan in the event DHS initiates a disaster	Y	

06. Hosted Private Cloud

Req. #	Requirement Description	Requirement Met	Suggested Clarifying Comments
O6.128	Provide support to the third party Application M&O vendors with implementing and configuring disaster recovery using the established infrastructure standards (SAN replication, VMware replication, etc.)	Y	
Batch – Job Control and Scheduling			
O6.129	Develop, document and manage the processes and procedures for Interfaces and Batch Operations Architecture	Y	
O6.130	Define job scheduling requirements, application software interdependencies, and rerun requirements for all production jobs	Y	
O6.131	Utilize and manage scheduling tools for automating job execution (e.g., job workflow processes interdependencies, rerun requirements, file exchange functions, and print management)	Y	
O6.132	Maintain master job schedule and execute all batch jobs for the DHS Enterprise Program (e.g. any jobs provided by any vendor working on/with the DHS Enterprise Platform)	Y	
O6.133	Perform job monitoring and manage resolution of any failed jobs	Y	

Maintenance, Operations and Support Services Level Requirements (SLRs)

O7-1 – Transition Execution		Requirement Met	Proposed Penalties
SLR Description/Objective	To avoid costly extensions of existing contracts and/or operational risk, the transition activities must stay on schedule to transition the EEF Applications M&O services prior to the incumbent vendor's contract expiring. This SLR will be measured against milestones defined in the Transition Plan.	Yes	
Target	100% of all milestones are completed/approved on schedule		
Measurement	Date milestones are completed – planned date milestone is completed (captured in the Transition Plan)		
SLA Reporting Period	Per Milestone		

O7. SLRs

O7-2 - Availability		Requirement Met	Proposed Liquidated Damages Amount
SLR Description/Objective	The Application must be available to all users of the System	Yes	
Target	99.75%		
Measurement	(# of minutes of uptime during the reporting period) / (Total planned uptime during the reporting period)		
SLA Reporting Period	Monthly		
SLR Measurement of Non-Compliance	Uptime percentage below the target		
<p>Planned uptime is 24X7 excluding DHS approved maintenance windows (these windows are excluded from both the "# of minutes of update during the reporting period" and "total planned uptime during the reporting period"). Scheduled downtime must be approved by DHS beforehand and performed between 11pm and 7am. Availability is defined as all components of the system are running and the users can perform all task supported by the system. This excludes network downtime and interfaces to external systems.</p> <p>For the current environment (EEF) this SLA will be administered starting at the end of the 1st year of the contract (see Section 3.6.2)</p>			

O7. SLRs

O7-3 - Performance - Average Response Time		Requirement Met	Proposed Liquidated Damages Amount
SLR Description/Objective	System performance must meet end-user expectations to deliver increased customer satisfaction and efficiency gains	Yes	
Target	Average response time should be 2 seconds (response time from entering command to receiving result)		
Measurement	(Sum of all transaction response time) / (Number of transactions)		
SLA Reporting Period	Monthly		
SLR Measurement of Non-Compliance	Time difference between measured average response time and 2 seconds		
Performance measurement is the end-to-end response time from the user perspective, excluding any delays introduced by the network outside the data center For the current environment (EEF) this SLA will be administered starting at the end of the 1st year of the contract (see Section 3.6.2)			

O7. SLRs

O7-4 - Performance - Maximum Response Time		Requirement Met	Proposed Liquidated Damages Amount
SLR Description/Objective	System performance must meet end-user expectations to deliver increased customer satisfaction and efficiency gains	Yes	
Target	99.5% of transactions complete (response time from entering command to receiving result) in less than 3 seconds		
Measurement	(Transactions completed within required time) / (Total Transactions)		
SLA Reporting Period	Monthly		
SLR Measurement of Non-Compliance	Percentage of transactions below target		
<p>Performance measurement is the end-to-end response time from the user perspective, excluding any delays introduced by the network outside the data center For the current environment (EEF) this SLA will be administered starting at the end of the 1st year of the contract (see Section 3.6.2)</p>			

O7. SLRs

O7-5 - Critical Incident Restoring of Service (break/fix)		Requirement Met	Proposed Liquidated Damages Amount
SLR Description/Objective	Critical incidents must be addressed quickly to minimize the business impact of the incident (critical incident is defined as any high severity application issue for which no work around is available and users cannot perform their task)	Yes	
Target	95% of high severity incidents fixed within 24 hours		
Measurement	(Number of high severity incidents fixed within 24 hours) / (Total number of high severity incidents)		
SLA Reporting Period	Monthly		
SLR Measurement of Non-Compliance	Per incident not fixed within 48 hours		

07. SLRs

07-6 - Security Incidents Response Time		Requirement Met	Proposed Liquidated Damages Amount
SLR Description/Objective	DHS needs to be aware of any security incidents as quickly as possible	Yes	
Target	All of notifications completed in less than 1 hour (all notifications shall occur as soon as possible)		
Measurement	Number of incidents not reported within 1 hour		
SLA Reporting Period	Monthly		
SLR Measurement of Non-Compliance	Per incident not reported within 1 hour		

07. SLRs

07-7 – Response to Patches and Fixes		Requirement Met	Proposed Penalties
SLR Description/Objective	When COTS/software vendors release patches/fixes, the Vendor needs to apply these patches/fixes to the environment	Yes	
Target	Prepare the patches to the production environment (aligned with DHS' release process) within 30 days of the vendor's release		
Measurement	(Date patch/fix is released to production) - (Date the vendor releases the patch/fix (unless prior approval))		
SLA Reporting Period	Per release		
SLR Measurement of Non-Compliance	Days greater than target		

O7. SLRs

O7-8 – Response to Patches and Fixes - Critical Security Patches		Requirement Met	Proposed Penalties
SLR Description/Objective	When COTS/software vendor release critical patches/fixes, the Vendor needs to quickly apply critical patches/fixes to the environment	Yes	
Target	Prepare the critical patches to the production environment (aligned with DHS' release process) within 5 days of the vendor's release		
Measurement	(Date critical patch/fix is released to production) - (Date the vendor releases the critical patch/fix (unless prior approval))		
SLA Reporting Period	Per release		
SLR Measurement of Non-Compliance	Days greater than target		

O7. SLRs

O7-9 - DHS Enhancement Request Response Time		Requirement Met	Proposed Liquidated Damages Amount
SLR Description/Objective	After DHS decides to enhance the IE-BM System, the Vendor must respond in a timely manner	Yes	
Target	Proposals/responses (including requirements, cost estimate, and schedule) must be received within 15 working days		
Measurement	(Time DHS requests enhancements) - (Time proposal is provided to DHS), unless pre-approved by DHS due to the scope		
SLA Reporting Period	Per request		
SLR Measurement of Non-Compliance	Days greater than target		

07. SLRs

07-10 - Delivery of Enhancements		Requirement Met	Proposed Liquidated Damages Amount
SLR Description/Objective	To avoid scheduling issues and potential end-user issues, all enhancements must be completed in alignment with the proposed schedule	Yes	
Target	Enhancements deployed into production on schedule		
Measurement	(Date approved) - (Planned production deployment date (captured in the proposal))		
SLA Reporting Period	Per enhancement DDI effort		
SLR Measurement of Non-Compliance	Per day the enhancement is deployed to production after the planned date		

O7. SLRs

O7-11 – Documentation Updates		Requirement Met	Proposed Penalties
SLR Description/Objective	When changes are introduced to the system (e.g. new software is deployed) or processes (e.g. personnel changes involved in Disaster Recovery) the documentation (e.g. configuration management process, architecture) must be updated	Yes	
Target	2 weeks		
Measurement	(Time the change is introduced) - (Time documentation is updated and updates approved)		
SLA Reporting Period	Per incident		
SLR Measurement of Non-Compliance	By day greater than target		

O7. SLRs

O7-12 - Customer Satisfaction Survey - Usability		Requirement Met	Proposed Liquidated Damages Amount
SLR Description/Objective	Customer (internal and external) satisfaction surveys provide insight into the usability of the Solution	Yes	
Target	90% of all responses must have a satisfaction score of seven (7) out of ten (10) (or equivalent) or higher (10 being the highest score)		
Measurement	(# of respondents rating their satisfaction higher than or equal to 7) / (# of respondents received)		
SLA Reporting Period	Per survey		
SLR Measurement of Non-Compliance	% of surveys below 90% rating their satisfaction lower than seven (7) out of ten (10)		

07. SLRs

07-13 - Customer Satisfaction Survey - Internal Vendor/Partners		Requirement Met	Proposed Liquidated Damages Amount
SLR Description/Objective	Customer (other DHS vendors, DHS management etc.) satisfaction provide insight into whether the Vendor is partnering effectively with other vendors to provide services to DHS and its Clients	Yes	
Target	90% of all responses must have a satisfaction score of seven (7) out of ten (10) (or equivalent) or higher (10 being the highest score)		
Measurement	(# of respondents rating their satisfaction higher than or equal to 7) / (# of respondents received)		
SLA Reporting Period	Per survey		
SLR Measurement of Non-Compliance	% of surveys below 90% rating their satisfaction lower than seven (7) out of ten (10)		

07. SLRs

07-14 - Disaster Recovery: Recovery Time Objective (RTO) (DHS Optional)		Requirement Met	Proposed Liquidated Damages Amount
SLR Description/Objective	DHS needs to recover the production environment in the event of a disaster without lengthy downtime	Yes	[REDACTED]
Target	The system is fully functional at the back-up location within 72 Hours		
Measurement	(Time at which the production system is fully operational) - (Time the disaster recovery plan was invoked)		
SLA Reporting Period	Each disaster		
SLR Measurement of Non-Compliance	hours above the RTO before the system is fully operational		

07. SLRs

07-15 - Disaster Recovery: Recovery Point Objective (RPO) (DHS Optional)		Requirement Met	Proposed Liquidated Damages Amount
SLR Description/Objective	DHS needs to minimize the loss of data in the event of a disaster	Yes	
Target	No more than 24 hours worth of data collected before the disaster is invoked can be lost (not available once the production environment is restored at the back-up location)		
Measurement	(Time stamp of the most current data in the production system at the back-up site) - (time the disaster was invoked)		
SLA Reporting Period	Each disaster		
SLR Measurement of Non-Compliance	hours of data lost above 24 hours		

O7. SLRs

O7-16 - Additional Vendor Proposed SLRs	Requirement Met	Proposed Liquidated Damages Amount	
<p>Additional Vendor Proposed SLRs</p>	<p>To help the State in managing a more robust performance based contract, vendors are highly encouraged to propose additional SLRs for each of the areas as below. Vendors can add additional rows below, in this Section O.6-10, to propose any additional SLRs.</p> <ul style="list-style-type: none"> O1. EEF Platform (MAGI Medicaid only) M&O Transition O2. Application M&O Requirements O3. DDI to M&O Transition O4. Modifications/Enhancements Requirements O5. M&O Turn-Over Requirements <p>These additional SLRs will be evaluated by the State as part of value added services provided by the Vendor, during the proposal evaluation and selection process.</p>	<p>Yes</p>	<p>[Redacted]</p>

07. SLRs

07-17 - Critical Incident Response and Initial Notification		Requirement Met	Proposed Liquidated Damages Amount
SLR Description/Objective	DHS needs to be aware of any critical incidents as quickly as possible	Yes	[REDACTED]
Target	All of initial incident notifications completed within 1 hour of incident identification (all notifications shall occur as soon as possible)		
Measurement	Number of critical incidents not reported within 1 hour		
SLA Reporting Period	Monthly		
SLR Measurement of Non-Compliance	Per critical incident not reported within 1 hour		

O7. SLRs

O7-18 - New Enhancement M&O Training		Requirement Met	Proposed Liquidated Damages Amount
SLR Description/Objective	Timely M&O training of system enhancements is critical to provide quality support	Yes	
Target	Training should be provided to M&O team before implementation but no later than 10 business days after enhancement is implemented		
Measurement	(Date the training is provided) - (Date enhancement is released to production)		
SLA Reporting Period	Per release		
SLR Measurement of Non-Compliance	Days greater than target		

O7-19 - IE-BM Turnover Plan		Requirement Met	Proposed Liquidated Damages Amount
SLR Description/Objective	Optum needs to create turnover plan to allow for a smooth turnover of the IE-BM system	Yes	
Target	Optum needs to create turnover plan within 60 days after notification from state		
Measurement	(Time plan created and approved) - (Time state notification)		
SLA Reporting Period	During Turnover phase		
SLR Measurement of Non-Compliance	Days greater than target		

07. SLRs

07-20 - IE-BM Turnover Execution		Requirement Met	Proposed Liquidated Damages Amount
SLR Description/Objective	Optum needs to execute turnover activities as per the defined milestones in the turnover plan, to allow for a smooth turnover of the IE-BM system	Yes	
Target	100% of approved milestones comepleted on time		
Measurement	(Actual Milestone completion date) - (Planned milestone completion date)		
SLA Reporting Period	During Turnover phase		
SLR Measurement of Non-Compliance	Days greater than target		

Template T-13
Maintenance and Operations
Requirements Approach
Response Template
RFP #: SP-17-0012

[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
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[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
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[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]

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Maintenance and Operations Requirements Approach

The Vendor should provide a narrative overview of how the System will meet the Integrated Eligibility and Benefits Management (IE-BM) Project Maintenance and Operations (M&O) requirements. The following questions pertaining to Maintenance, Support and Operations should be answered by the Vendor.

While responding, the Vendor should reference the IE-BM SOW, the Generalized System Design (GSD) document and other technical and infrastructure documentation provided as part of the Procurement Library, to gain an overall understanding of the current application and infrastructure environment and future DHS vision.

Please use these response sections to provide specific details of the proposed approach to meeting DHS requirements in each area. Responses should, when necessary, reference requirements using the appropriate RFP Requirement Numbers from Template T-12 – Maintenance and Operations Requirements Traceability Matrix.

Responses for the M&O Requirements Approach should be highly focused on the specific requirements and should not simply provide generic or marketing descriptions of technology or product capabilities. Also, include one (1) or more diagrams where necessary that detail the proposed design and the relationships between key technical components.

1.0 Approach to EEF and Legacy M&O Transition

The Vendor should ensure that the responses to this section are in alignment with the requirements set forth in Template T-12 – Maintenance and Operations Requirements Traceability Matrix, Section O1.

Optum meets all of the requirements set forth in Template T-12 with a “yes” response and without clarification.

Introduction

The Optum Maintenance and Operations (M&O) organization has more than 20 years of experience delivering high-quality results to state entities through proven methodologies and processes. These success stories include the successful transition and takeover of IT systems for our state customers. Examples include Vermont, Massachusetts and West Virginia, where we have performed a combination of M&O responsibilities. Our scope of work has ranged from taking over M&O support for an existing state Integrated Eligibility (IE) system to a full implementation working seamlessly with the Design, Development and Implementation (DDI) team to perform M&O support during phased releases.

Our mission for M&O support is to maintain a stable, high-performing technology solution, preventing incidents and outages. If an incident or outage occurs, we focus on minimizing customer impact. Our application M&O activities conform to the Information Technology Infrastructure Library (ITIL) standards. The Institute of Electrical and Electronics Engineers (IEEE) standard for software maintenance, IEEE Standard 1219-1993, forms the basis for elements of maintenance. We will conduct our operations activities in accordance with the applicable federal and State laws, rules and regulations, as well as your policies, procedures and guidance.



Our mature processes and expertise provide a smooth transition, a stable and reliable steady state, and coordinated transition-out services.

DHS anticipates that the IE-BM Vendor (this RFP) will take over the current EEF M&O support from the incumbent Vendor. Additionally DHS envisions that the DHS vendor will be responsible for managing any changes and enhancements to the Legacy Systems that will be retired and replaced by the IE-BM solution.

Instructions: Describe the Vendor’s approach to transitioning the current EEF M&O responsibilities. The response should discuss the planned activities/tasks, roles required, staffing requirements (DHS, incumbent vendor and the Vendor by labor category and estimated hours) and approach to communicating/interacting with the incumbent vendor and DHS stakeholders required to ensure the transition occurs smoothly. For each task describe the type of resource required/skills, resourcing level/effort and include a justification for the staffing level. This is required to assist the State in understanding the vendor’s approach and level of effort for the transition. The response should also include a discussion of the inherent challenges and how the Vendor has overcome the challenge in the past.

At a minimum, this should include a discussion of the following areas:

- Transition planning
- Knowledge transfer approach
- Approach to coordinating roles and responsibilities between all stakeholders. E.g. IE-BM Vendor, Incumbent EEF Vendor and the State)
- Approach to transition progress milestones/check-points
- Quantifying the transition risk
- Approach towards readiness activities including checklists for completing transition

Optum has Health and Human Services (HHS) systems M&O contracts in more than a dozen states. Our approach to managing transition is a key reason for our successful M&O engagements and strong client relationships. We have developed a transition approach based on successful commercial and government transitions, diverse project implementations, and best practices as defined in the Project Management Book of Knowledge (PMBOK).

We implement our established transition processes and operational infrastructure. Our proven processes enable continued, uninterrupted service. During transition, our team and processes will provide:

- A seamless transition from the incumbent vendor
- Continual service levels
- A cost-efficient transition
- A technology infrastructure that will be maintained throughout the contract
- A communication process that enables openness and transparency
- Risk reduction

Our M&O team supports the diverse set of technologies driving Optum’s capabilities in the HHS domain including eligibility, claim, provider, clinical, analytics, customer service center, Web,

mobile, and beyond. This experience and subject matter expertise across a variety of technologies enables our team to successfully takeover systems developed by other contractors.

We have specific experience with Cúram engagements, including the Maryland Health Benefit Exchange (MHBE). During that engagement, Optum took over the existing business rules engine, Cúram, and the enterprise service bus, EXACT, as well as the presentation portal, Connecture. We also developed and established a connection with the Federal Data Services Hub and other local State data sources for eligibility verification. We successfully completed the integration of these existing components and established M&O procedures for ongoing management of the system.

Transition planning and execution must go beyond basic technical knowledge transfer. It must be inclusive of domain knowledge including Vital Business Functions (VBFs), process expertise, governance, and relationships. State customers appreciate our emphasis on collaborative transition planning with all stakeholders including development of detailed project plans that verify transparency and accountability. We facilitate an open and structured governance process supported by

Our state customers have commented that our approach, tools, and reporting provide a level of transparency that they have never experience with other M&O contractors.

[REDACTED] which provides state leaders with real-time dashboard reporting and alerts on system performance. We have received feedback from customers that our approach, tools, and reporting provide a level of transparency and discipline that they had never experienced with their previous M&O contractor.

Figure 1 shows the current technical architecture of the EEF system for which we will be providing M&O services.

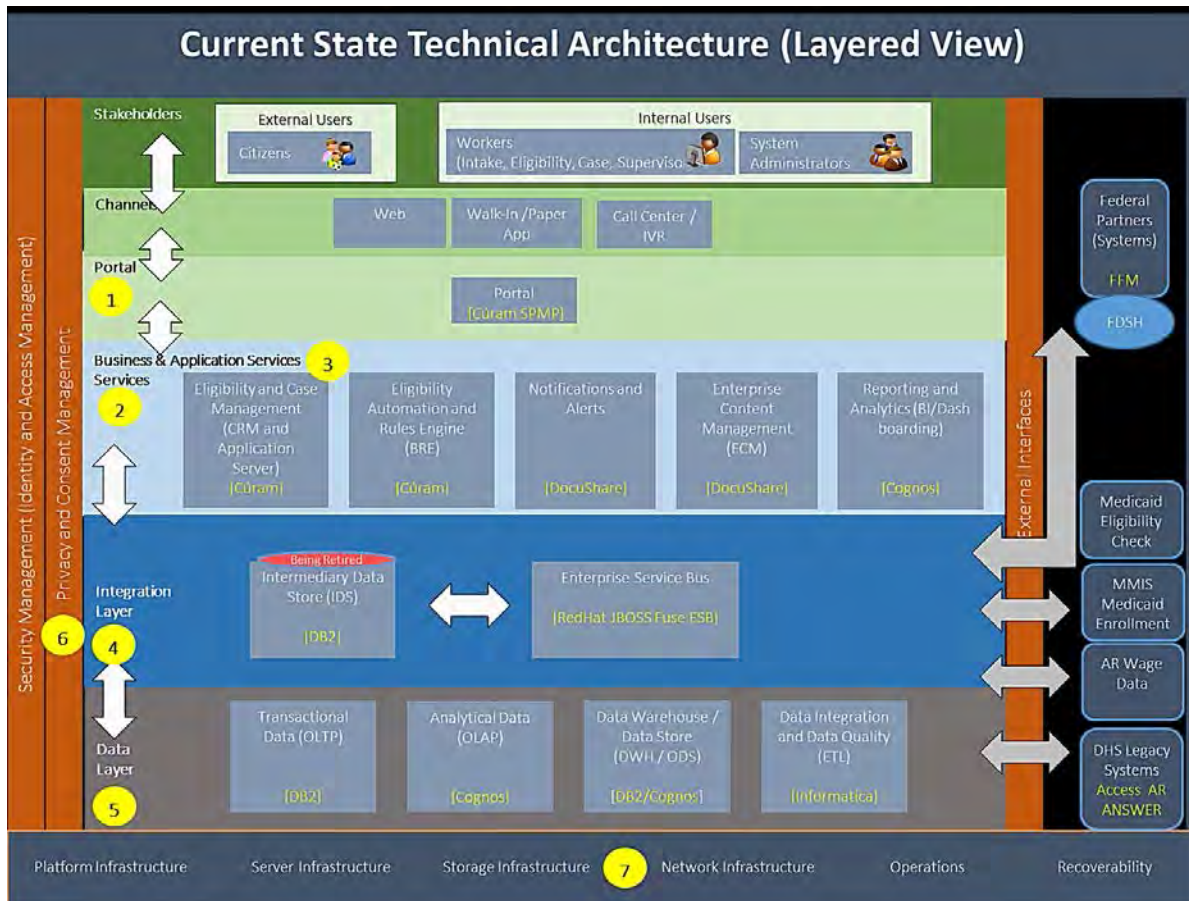


Figure 1. EEF Current State Technical Architecture overview
 Optum will provide M&O services for the current EEF technical architecture.

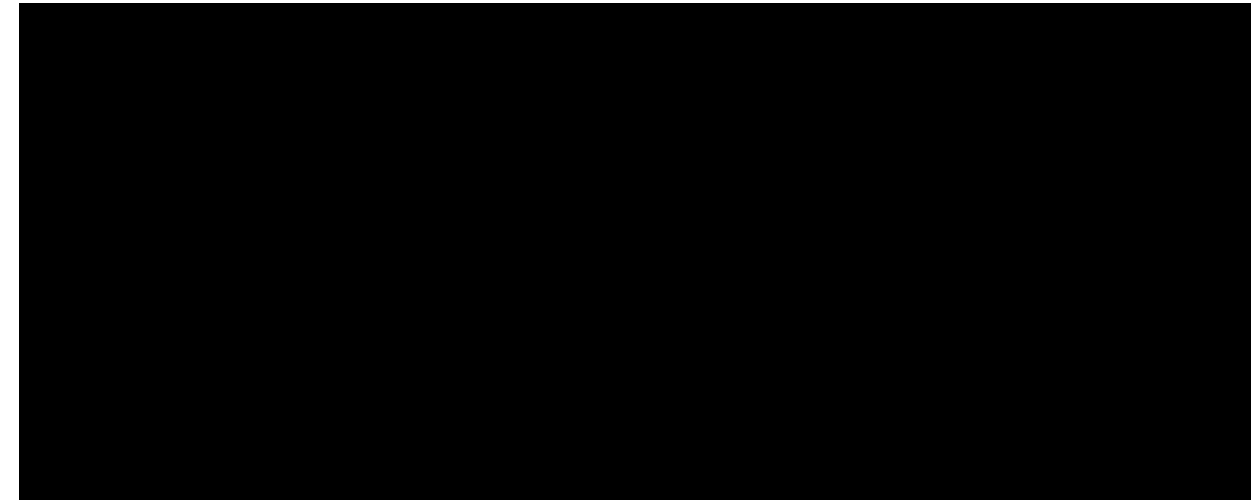
As previously discussed in Section T11, Implementation, we will leverage a transition methodology proven successful during the smooth takeover of IT systems for the States of Vermont, West Virginia, and the Commonwealth of Massachusetts. Our Transition Plan will provide an overview of the transition methodology for turning over the EEF support to Optum. As we roll out the Optum IE solution in a phased approach, we will leverage our [REDACTED] to retire the legacy systems whose functionality is replaced. With a team of technology and health care Subject Matter Experts (SMEs), we have more than ten years of archiving experience with 300+ projects completed. Our team will accomplish this work in a methodical, coordinated and phased approach. For more details on the EEF retirement steps, please refer to our Work Plan in Section T14, Detailed Project Schedule.

We will follow our proven process to transition the EEF application M&O services. We will adjust the sequence and duration of transition activities during the transition planning phase, as necessary, to meet your needs. [REDACTED]

[REDACTED] We will work with you to establish a mutually agreeable transition timeline.

Initiation

The Initiation Phase begins our contractual relationship with you. The activities in this phase will establish the groundwork for Optum and you to initiate a successful Transition phase so that we can move into the M&O phase. Optum will perform the following activities during this phase:



During the Initiation Phase, Optum will also conduct a project kickoff meeting with the State, Incumbent Vendor, and other designated stakeholders. The kickoff meeting will provide an opportunity for introductions of key staff from all groups. It will establish the tone and culture of the project. Most importantly, the kickoff meeting will allow the joint State/Optum team to establish a common understanding of the goals and objectives of the project. Prior to project kickoff, we will develop a meeting materials packet that includes:

- Kickoff meeting agenda
- Project orientation material including an overview of the proposed solution
- Project organization structure and key contacts
- Select project planning documents or excerpts
- Project timeline by phase with key milestones and reviews identified
- High-level roles and responsibilities
- Project artifacts and tools

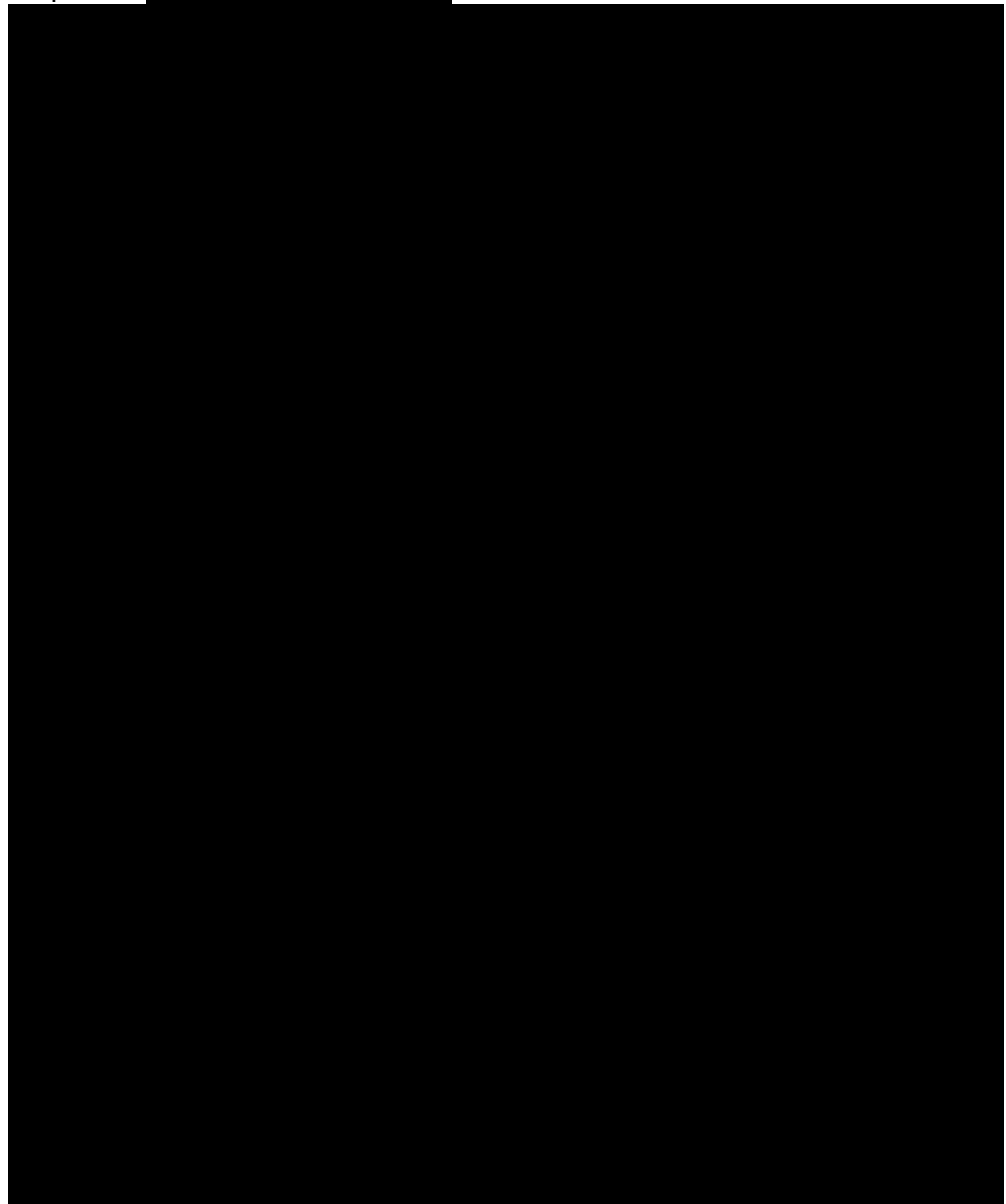
During project kickoff, we will review the State's mission and vision, and show the Optum approach to accomplishing the design, development, and implementation of the solution aligns to that vision. The State and other kickoff participants will get an overview of the solution, timeline, and key milestones along the way. Kickoff also typically includes a demonstration of key elements of the solution so that stakeholders can envision what is to come when operations go live. This helps build buy-in and support for the project. We will also review Optum and the State roles and responsibilities during kickoff so that participants understand their role in the project and the activities in which they will be asked to participate. Finally, we will outline our approach to communication throughout the project. Our philosophy is that collaboration and teamwork are what will ultimately drive the project over the finish line, and we have processes and tools to help us communicate effectively as a committed joint team.

Transition Planning

We understand the systems we are trusted to maintain and operate belong to you, and each system has unique requirements. Transferring the maintenance and operations, enhancement and modernization of the EEF system from the incumbent vendor requires a thoughtful Transition Plan. We understand that transitioning from one system to another system can have

its challenges, and we thoroughly comprehended this as we built our transition approach based on our previous experience transitioning Cúram based solutions.

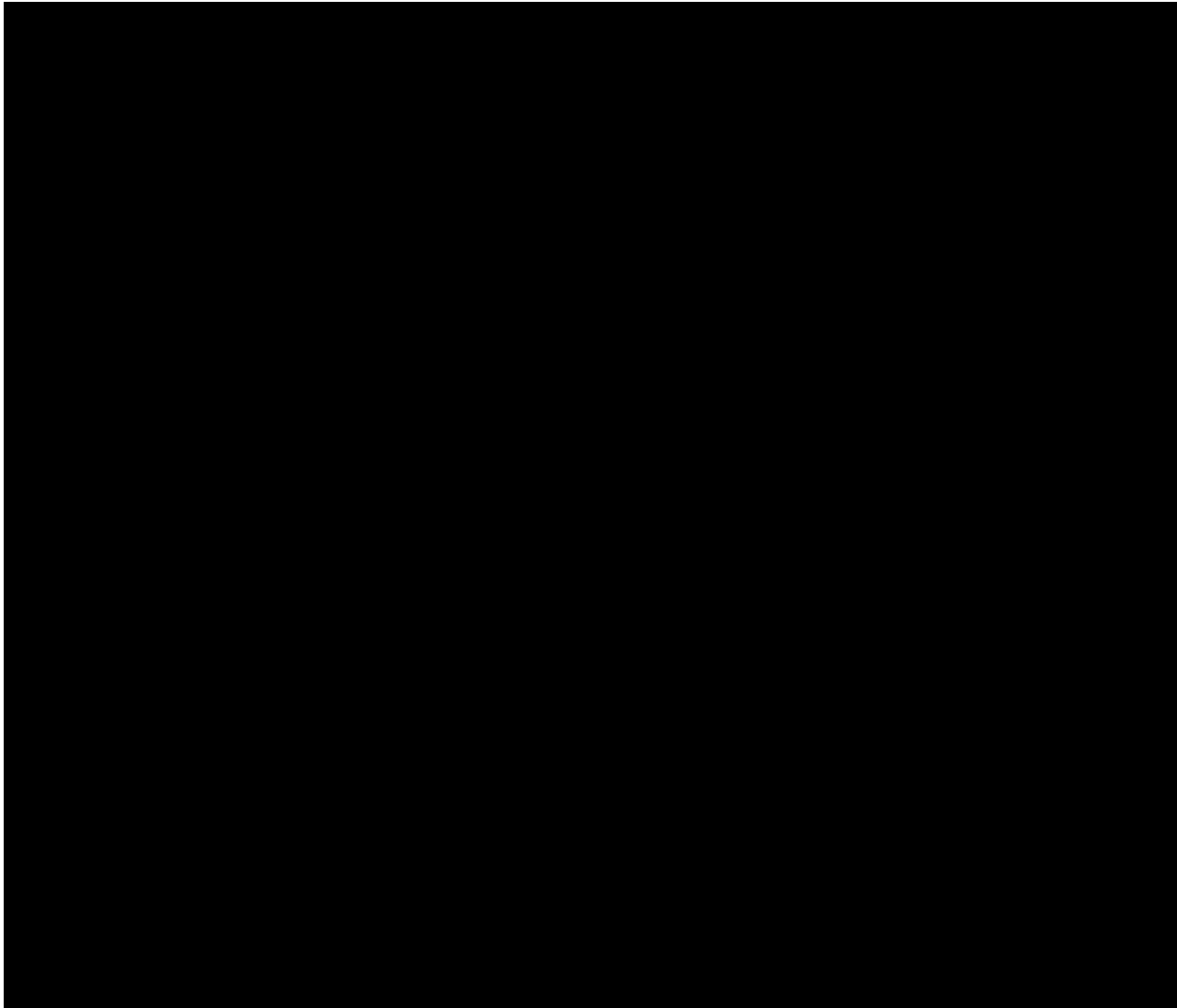
During this phase Optum will create a transition plan with the list of activities that will be executed during the course of the entire transition period in order to transition the required components.





[REDACTED] In order to complete the transition, all parties should understand the comprehensive list of the elements to be performed by Optum that are to be transitioned. [REDACTED]

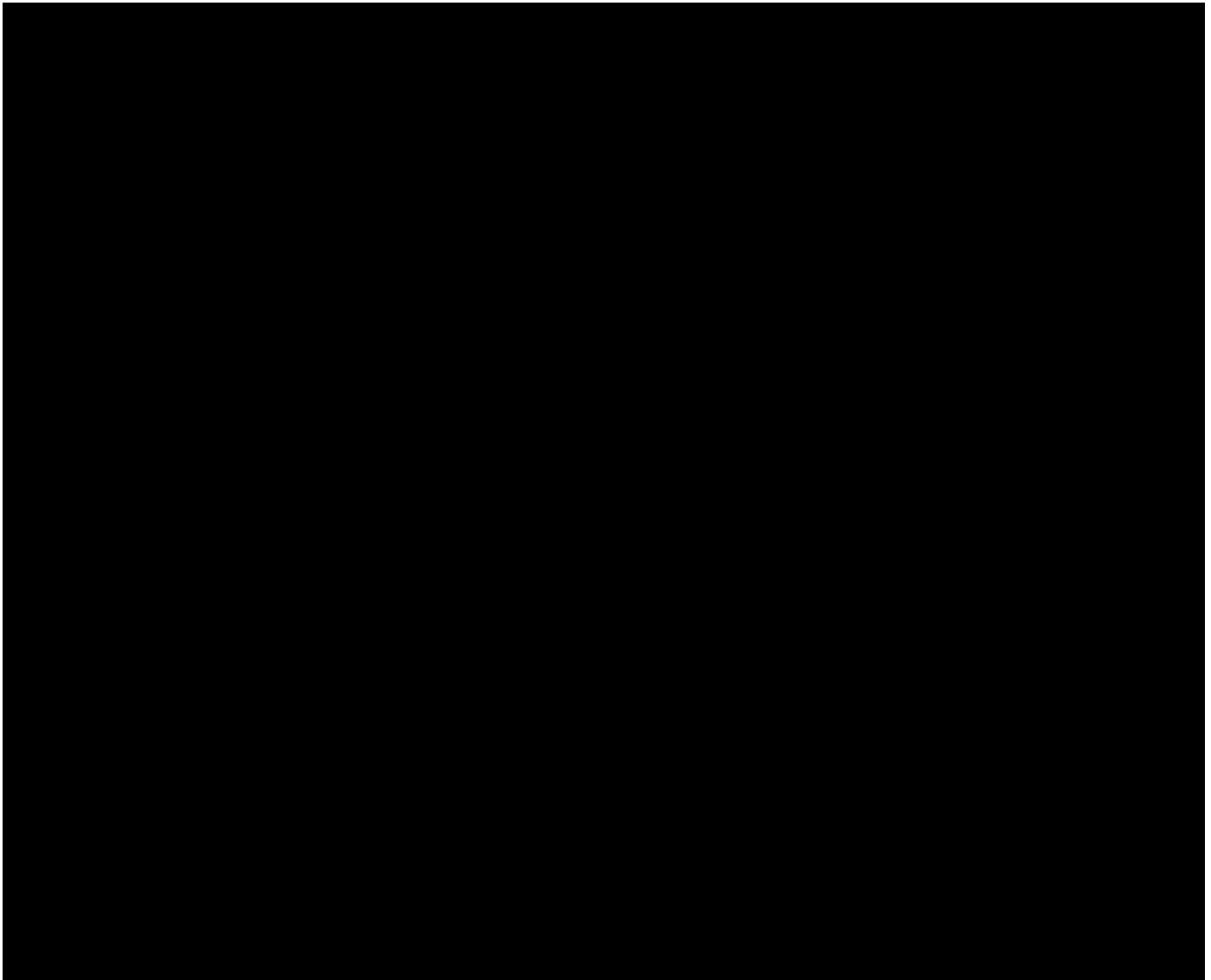
[REDACTED] All parties must also understand the relative criticality of each transition element. This helps to determine where to concentrate time and effort.



Knowledge Transfer

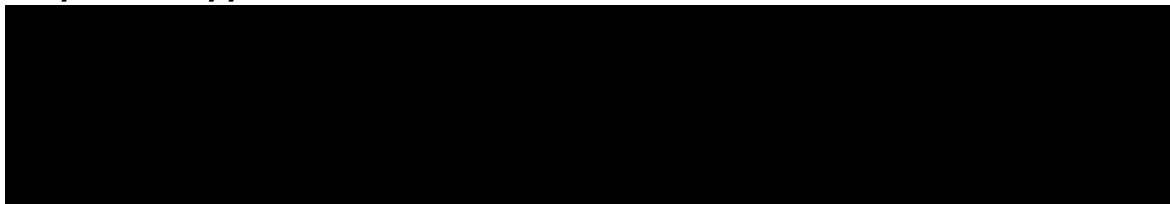
As part of our successful transition methodologies we have used for similar systems, we will attend knowledge transfer (KT) sessions with the incumbent vendor in order to gain full understanding of the EEF system. An important component of these sessions is the exchange of questions and answers in order for our team to gain operational understanding of the system.

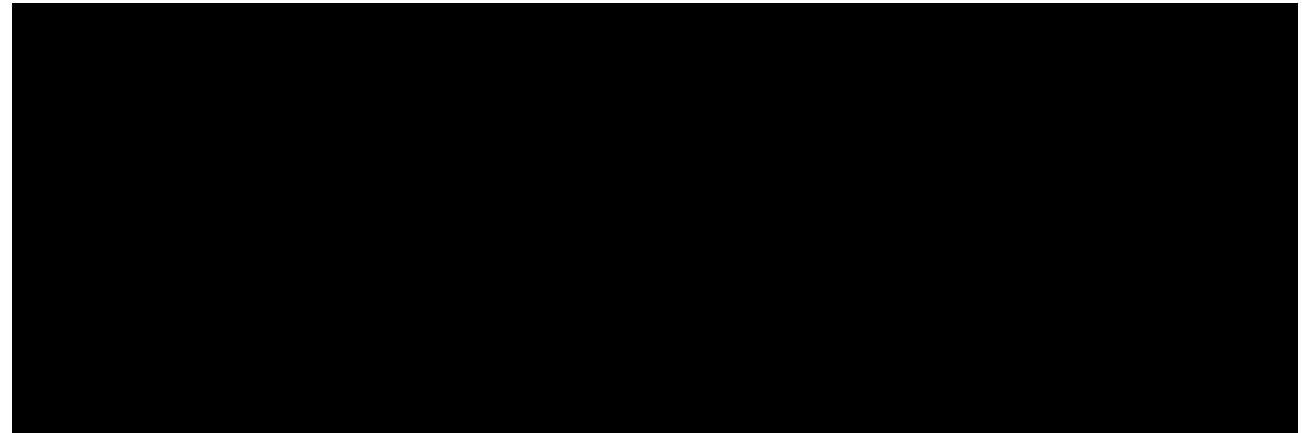
When concerns arise from these sessions, we will work with you to meet with the incumbent contractor in order to identify and resolve key technical issues. We will attend each question and answer session during transition and will submit a status report to the State after each session.



There are different approaches that we may take for knowledge transfer depending upon the incumbent vendor's availability and complexity of the system. The approach necessarily leverages top-down, meet-in-middle, and bottom-up approaches to gain comprehensive knowledge to confirm that the EEF system is fully and continuously operational without further assistance from incumbent vendor.

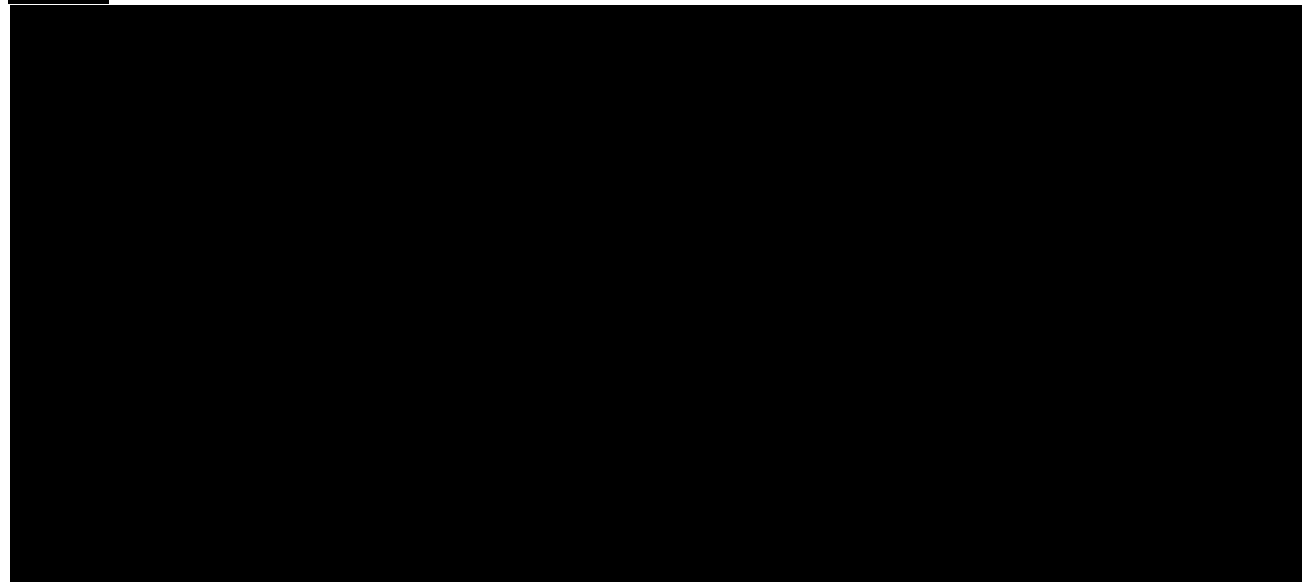
Top Down Approach





Bottom Up Approach

This approach is led by staff representing the functional/discipline areas and will identify details from a ground-up perspective. The goal is to gain an understanding of day-to-day operational activities and using the tools and processes to perform those activities. [REDACTED]



Meet-in-the-Middle Approach

This approach includes a process where team presents their findings to the entire team on a frequent basis. This helps to share knowledge across the entire team, and to solicit and calibrate feedback. The documented results of this process are used as input to the top-down and bottom-up approaches.

Optum will document the missing or outdated application documentation during the knowledge transfer. This may include run books, known-error databases, entity relationship diagrams, batch jobs, workarounds, and contact lists. We will also gain access to, and become familiar with, the service management tool you currently use. We will require training on the ticket management process and will finalize the inventory consolidation. Using reverse KT sessions, where we will conduct the KT sessions to the incumbent vendor, our team will demonstrate the knowledge gained to successfully perform the M&O services.

Shadow

During the shadow process, we will build on the knowledge we gained during the KT sessions by putting them to practical use. We will work side-by-side with the incumbent vendor to perform the tasks we learned during KT. The incumbent vendor will assign work to Optum while the incumbent still has the primary responsibility for maintaining the EEF system. Our team will shadow to learn how the incumbent vendor completes the work, including operational activities and defect resolution. We will follow the defined intake process for incident, problem, service request and change management. We will also update and refine system documentation as required. Shadowing may begin during KT.

Reverse Shadow

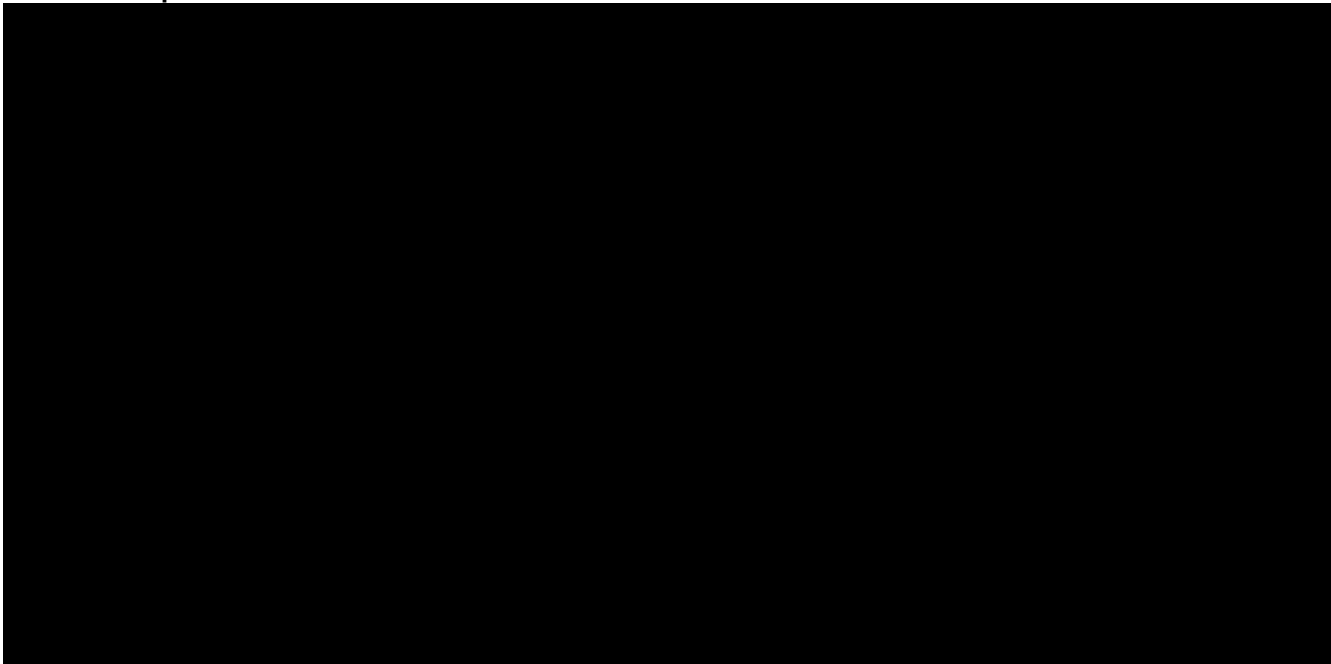
After shadowing is complete and the appropriate production access is granted, we will take primary responsibility for the EEF system as we continue to perform maintenance and operations. We will monitor the SLAs to adjust the system to perform at the level defined. The incumbent vendor will provide coaching and guidance as needed. We will request coaching from the incumbent vendor as needed. The incumbent's key resources will be available to address queries and handle unknown critical issues so that business operations are not negatively impacted. At the end of this phase, Optum's transition activities are considered complete.

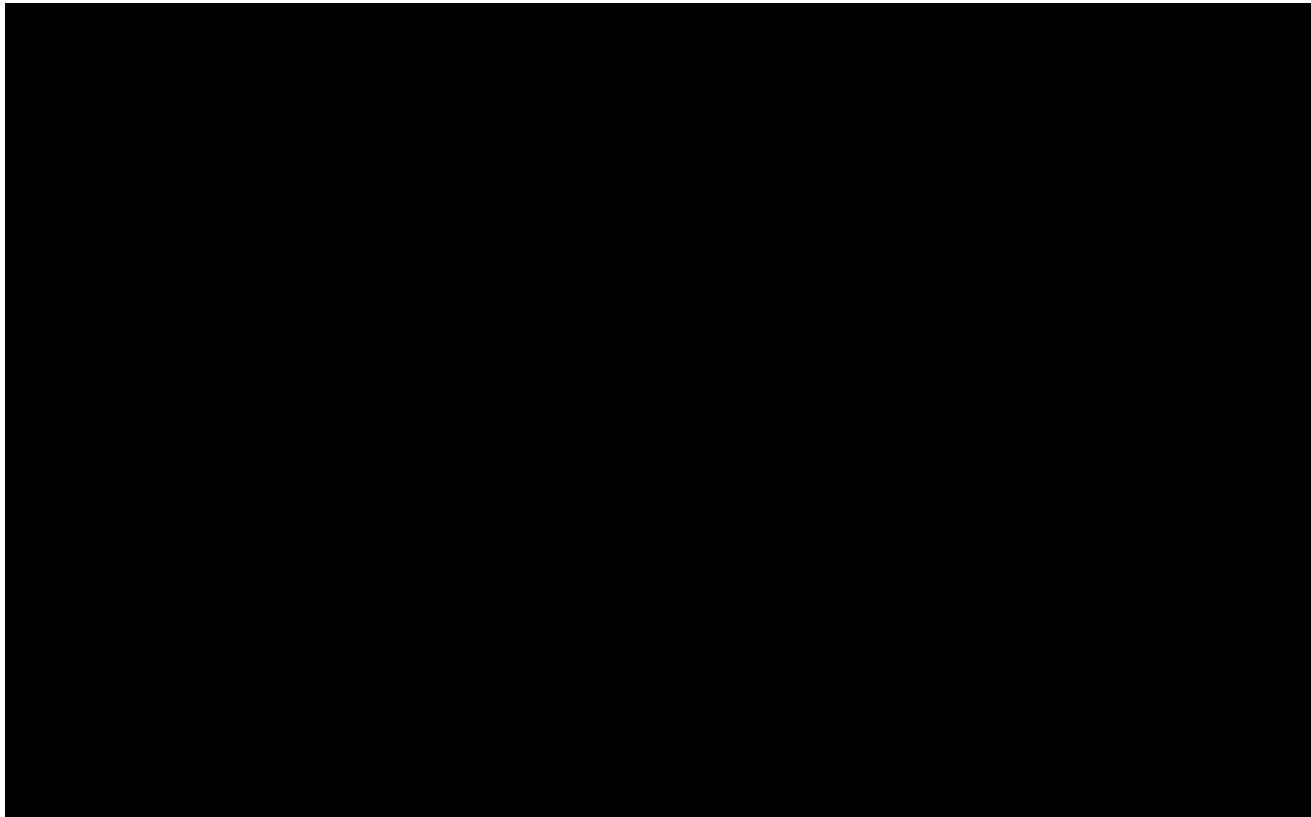
Steady State

During steady-state operations, Optum assumes full ownership of system operations and support. We engage in proactive monitoring and system optimization to support continuous improvement.

The table below describes the roles that will be needed to successfully complete the transition tasks. (This group is referred to as "Transition Team" in the organizational charts.)

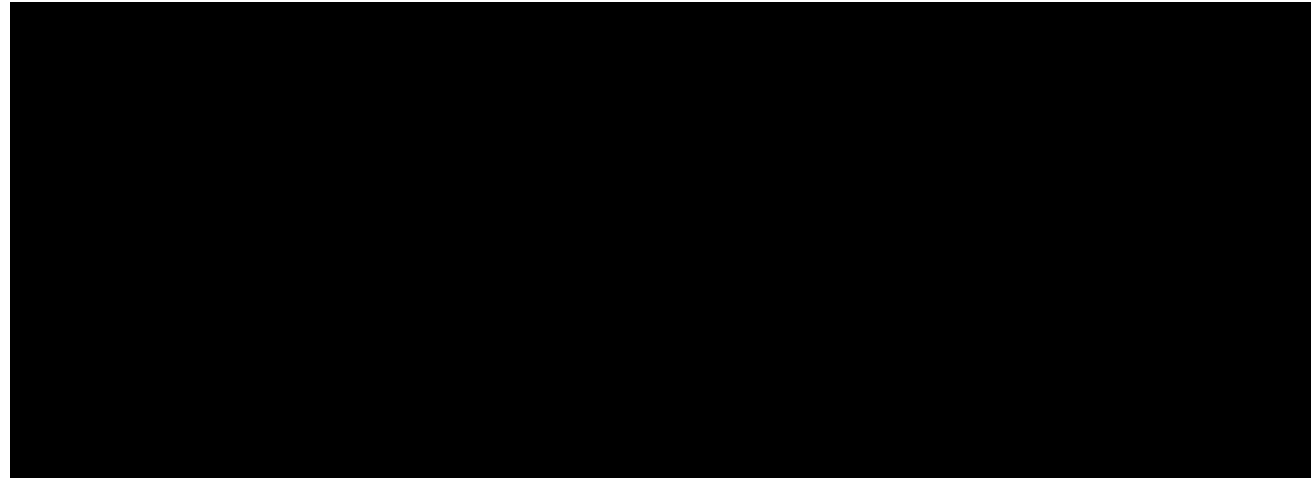
Table A: Optum Transition Team





The level of effort required for each of the transition team members is included in the following table.

Table B: Transition Team Work Effort



Role and Responsibility Coordination

By using the shadowing approach, we partner with the incumbent EEF vendor to immerse our team into the EEF system. This will assist our team in gaining the knowledge required to deliver the M&O services.

We will work closely with the incumbent vendor and you to understand and document the roles and responsibilities. In each phase, there is well-documented accountability for each role and a clearly defined process for transitioning the role to Optum support.

Transition Progress Milestone and Check Points

During each phase of the transition, we will hold weekly transition meetings to review the current status of that phase. The agenda of the status meeting will include a review of tasks performed, planned tasks, risks, issues and to track status against the transition plan.

Checkpoint meetings will be held at the conclusion of each phase to review accomplishments and obtain approval to proceed to the next phase. The status and checkpoint meetings will include Optum, the incumbent vendor, and you.

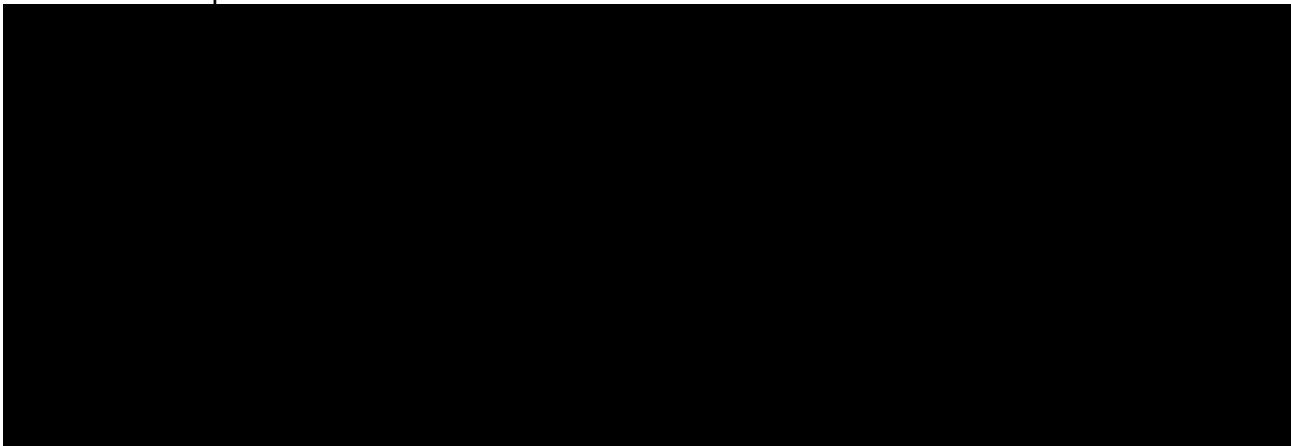
These meetings will provide consistent format and communication to enable a smooth transition and allow for risks and issues to quickly be identified and reported to the appropriate parties for swift action and resolution.

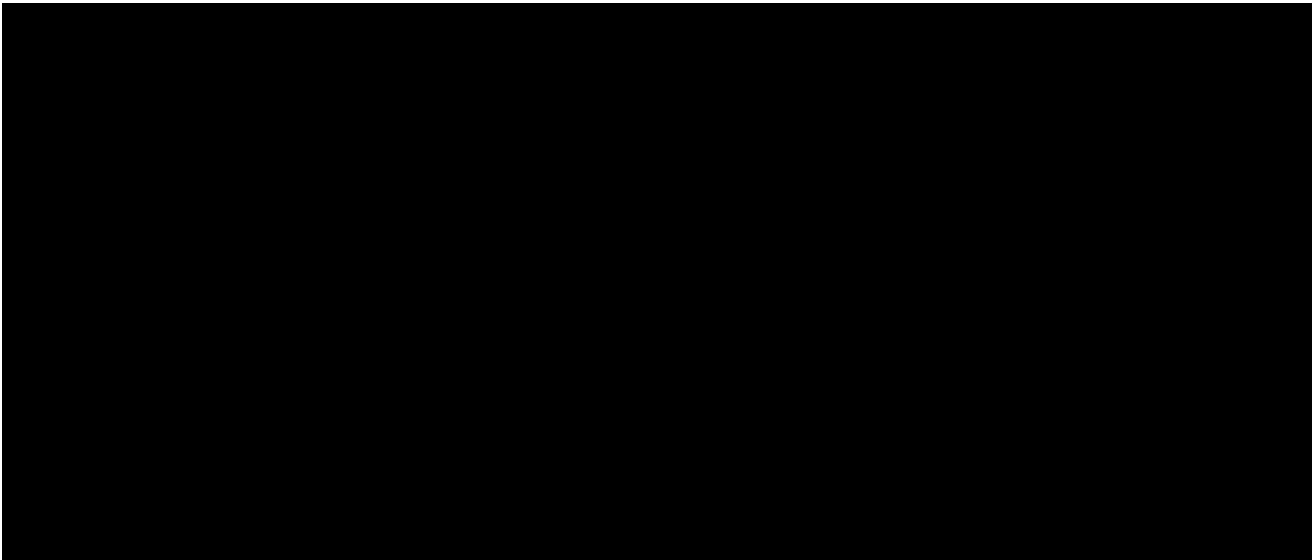
Transition Risk

Based on our experience with the transition of other state systems from incumbents and similar projects, we identified risks that led to the development of our best practices. Some of these risks include:

- Lack of focus, commitment and participation from incumbent in transition activities
- Lack of existing SME's time due to their commitment to current support work
- Lack of proper planning in terms of resources and time from the state and the incumbent vendor
- Inadequate tracking of deliverables, budget and project schedule
- Insufficient communication among all transition stakeholders
- Lack of proper system documentation or training
- Slow decision-making or indecisiveness

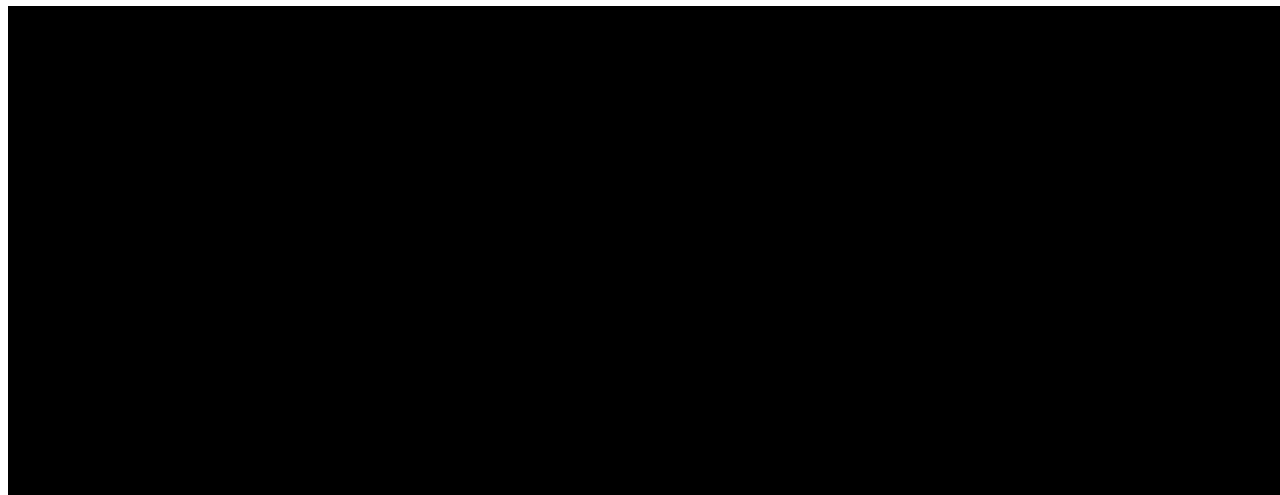
Following are some key areas that Optum and our partner Connvertex have experienced while taking on M&O support of a Cúram implementation. We will consider these areas of risk as we take over the maintenance and support of your existing solution as we transition to the new modular and open AR IE-BM solution.





A realized risk becomes an issue. The goals of risk management are to identify, analyze, communicate, mitigate, and minimize exposure to events that pose a potential impediment to project success. Our experience has taught us that advanced planning reduces the likelihood of a risk becoming a reality. We will prepare a comprehensive Risk Management Plan for DHS during initiation.

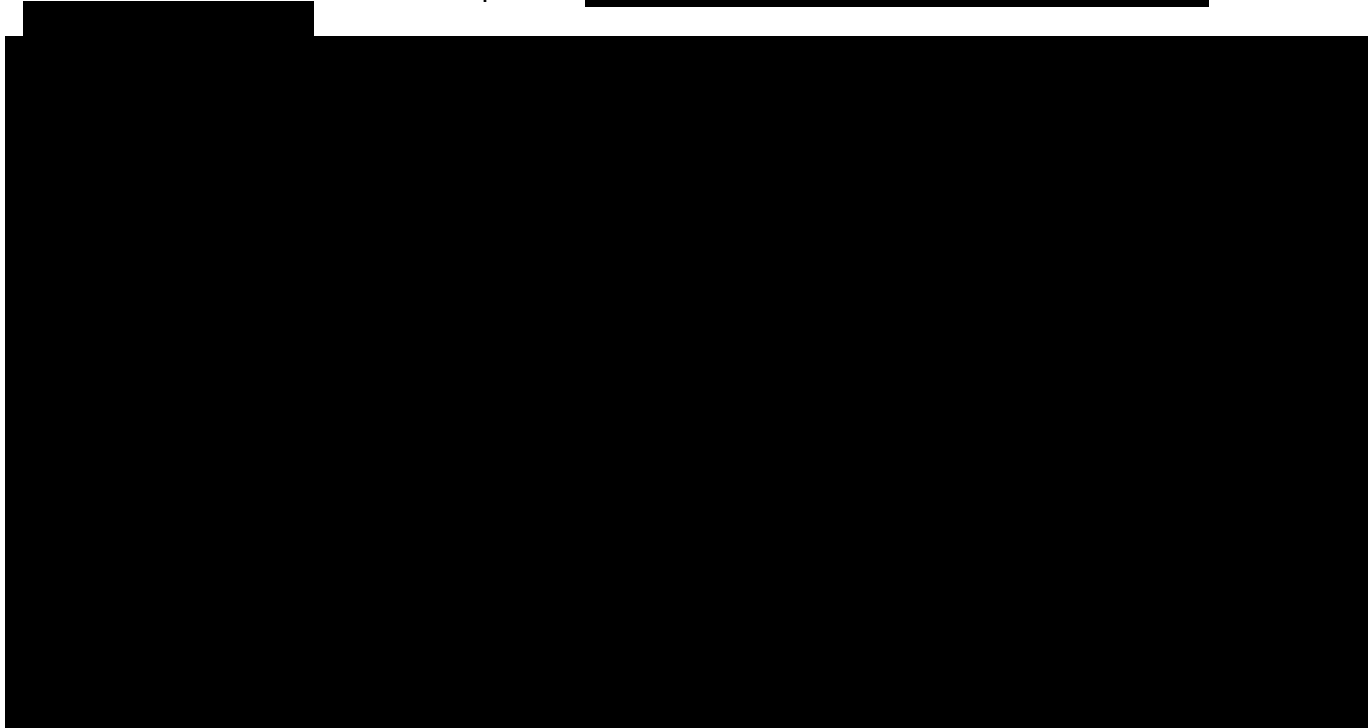
The Risk Management Plan will detail our approach to guarding against adverse impacts to the project and addressing negative events when they do arise. We will evaluate the aspects of your previous implementation to thoroughly understand the pain points you experienced and described in the RFP. We will work with you to avoid those same issues during this implementation. Our goal is to identify, monitor and progressively reduce exposure to events that threaten the accomplishment of project objectives. Key components of the Risk Management Plan include:



Our project manager will oversee creation and execution of the Risk Management Plan during initiation and planning of the transition. Each project member will participate in the risk management process and be responsible for elevating potential risks to the project management level.

We will use our risk assessment tool, [redacted] to help

our teams drive more predictable outcomes by identifying key risk areas across a product or project development initiative. When we have identified a set of risks, each risk will be assessed in terms of its likelihood and consequence. [REDACTED]



The Risk Management Plan will include our joint strategy for issue management, including tracking, impact analysis, mitigation plans and escalation procedures. A mitigation or removal plan with clear responsibilities will be formulated for each identified issue. When we identify risks that require contingency planning, we will present options to you based on our experience from other state programs or federal projects.

Critical Success Factors

After we understand your critical success criteria and evaluate your implementation of your EEF system, we will follow project management best practices for managing critical success factors, risks and issues, [REDACTED] with a separate tab for issues, risks, actions, assumptions and decisions.

In some instances, the resolution of an issue or risk may occur with a simple note recorded in [REDACTED]. Issues that affect maintenance and operations, enhancements, costs or SLAs require more formal, objective decisions with thorough documentation. When we develop a resolution, the owner of the issue will schedule a meeting with the stakeholders responsible for the area affected by the issue. If they approve and complete the recommended solution, the team lead or manager will close the issue and document the resolution in [REDACTED]. If you need to sign off on the resolution, Optum will schedule a meeting to review the item and obtain sign-off or alternatively discuss the success factor at the regularly scheduled status meetings.

The following table outlines the indicators we will use to convey project health status to your team and internally. The [REDACTED] offer you a quick view into project status and bring notice to tasks that require immediate attention.

Table C: Project Health Indicators

Health Indicator	Definition
[Redacted Content]	

Readiness Activities for Completing Transition

As mentioned in the preceding sections, the Transition Plan and the tasks outlined in the plan as well as lessons learned from your past transition and our established partnership drive our approach. Optum will use the plan and the activities within it to produce activities checklists and status checkpoints throughout the transition. This will confirm a smooth jointly coordinated transition and quick identification of any issues or risks that develop, for a quick resolution, without jeopardizing the overall transition.

Optum will perform the full array of M&O and enhancement activities during steady state operations. We will establish and deploy best practices for M&O, including system-operating controls. Additionally, our team will optimize the EEF application through a continuous improvement cycle and provide monitoring and dashboards for performance metrics reporting.

Transition Deliverables

During transition, Optum will collect and baseline the inventory of the current documentation artifacts of the EEF system. These artifacts would include:

- System Design Document
- Database Design Document
- Data Management Plan
- Interface Control Document
- Process diagrams related to M&O services
- Application inventory (code, configuration, reports)
- Production run books
- Known issues and workarounds

- System Security Plan
- Interface Design Specification
- Disaster Recovery and Business Continuity Plan
- Other artifacts or documentation that are required to provide ongoing application M&O

Optum will evaluate these documents during the transition period to determine the work effort required to bring these documents up to date. We will work to revise these documents during the transition period. For those instances where the document does not exist or requires substantial revisions, we will notify DHS and provide a plan to close the gap.

Optum will also deliver the M&O Transition related documents, which will include:

- Finalized M&O transition scope
- Completed transition plan and acceptance criteria (Deliverable O1.1)
- EEF M&O Transition Status Report (Deliverable O1.2)
- Role assignments/responsibilities (RACI)
- Application Maintenance and Operations Plan (Deliverable O1.3)
- EEF M&O Readiness Checklist and Report (Deliverable O1.4)

2.0 Approach to Application Maintenance and Operations

The Vendor should ensure that the responses to this section are in alignment with the requirements set forth in Template T-12 – Maintenance and Operations Requirements Traceability Matrix, Section O2.

During the M&O cycle, the Vendor will be required to support the IE-BM System components it implements, as well as other transitioned application components under the Vendor's scope that were transitioned, including EEF and any Legacy components, while coordinating the delivery with the State and/or another Infrastructure Vendor of the State's choosing.

Instructions: Describe how the Vendor will lead and perform these tasks and coordinate with the State and/or infrastructure vendor to ensure the IE-BM application as well as other application components the Vendor's scope, meet SLRs, especially End-to-End performance. This should include a discussion of each of the following areas, and the approaches to overcome any challenges:

- Approach to handling application maintenance operations, administration and support
- Approach to system monitoring
- Incident and problem management
 - Help desk and incident management (Tier 2/3)
 - Problem management services
 - Root Cause Analysis (RCA) as it relates to the IE-BM platform
- Scheduling and management of releases to help ensure minimal impact to users
- User account management
- Security administration
- Break-fix

This response addresses requirements O2.1 - O2.67 contained in Template T-12 – Maintenance and Operations Requirements Traceability Matrix, Section O2. All of the requirements in this section have been met with ‘Yes’ response and without clarification.

Optum will support, maintain, document and continuously improve the AR IE-BM Solution. We have broad experience providing application M&O services for other state customers. We have partnered with Cúram industry experts to support the existing platform until we decommission it. The outcome of our successful transition will provide you with the person-centric COTS system you desire.

Our application M&O services support model has evolved over 10 years, and we continuously enhance it with best practices and lessons learned during other projects. By working with you to understand your existing environment, working with you to establish our transition plan, using industry best experts and optimizing our proactive and preventive processes, we can stabilize your platform and help you increase your service levels while decreasing your total cost of ownership. Figure 3 summarizes the scope of the support services we currently provide nationwide.

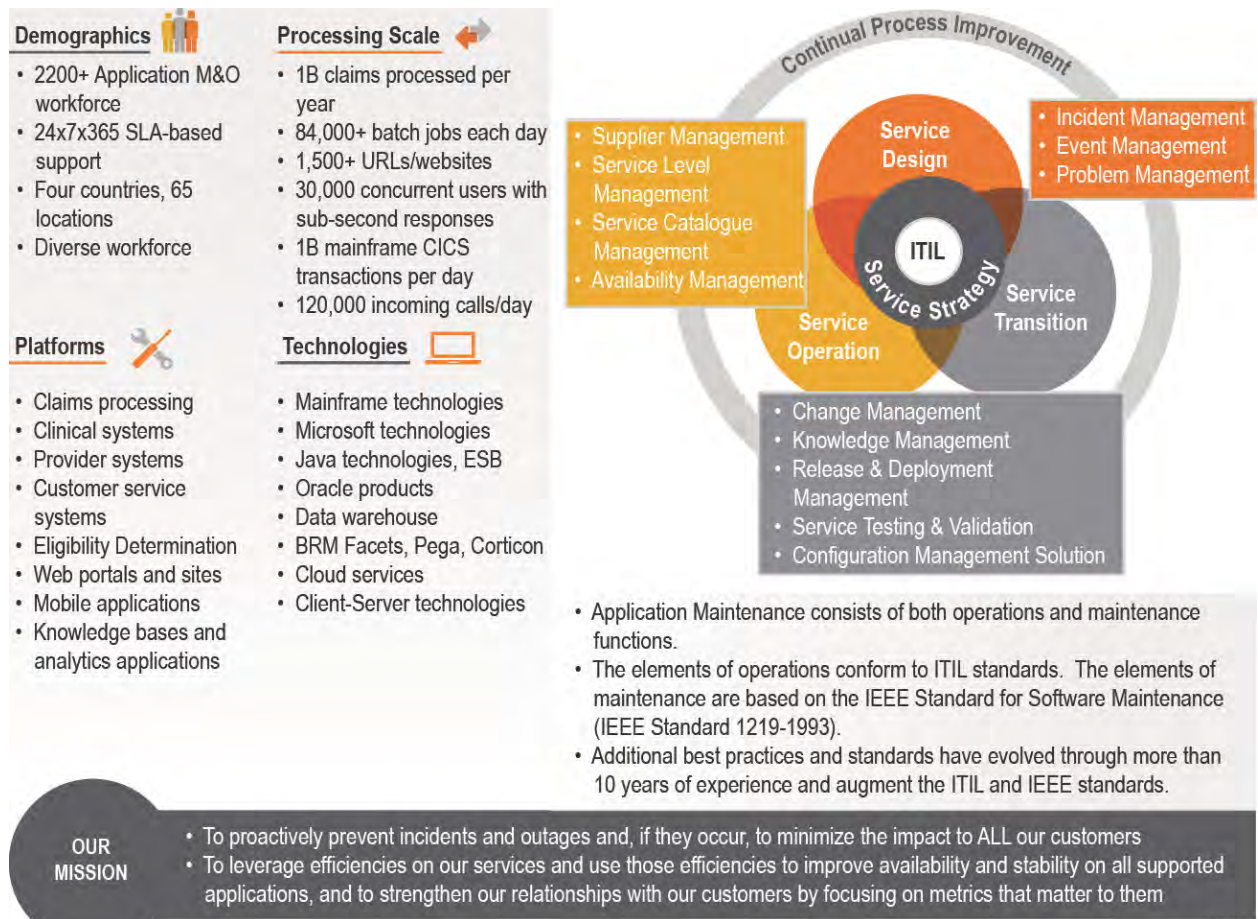


Figure 3. Optum M&O Services.

Optum offers the resources, scalability and scope of services required to effectively support the project.

We have a large and diverse workforce we can engage quickly and effectively for the effective transition of EEF M&O support from your incumbent vendor. Our team’s extensive experience on your existing Cúram platform as well as other platforms and technologies will help us deliver

a smooth and well-coordinated assumption of M&O support for the new AR IE-BM Solution in a phased approach.

M&O Support Approach

Our mission is to proactively prevent incidents and outages. Working with you to understand your existing Cúram environment and the current operation is integral to our approach. If an incident or outage occurs, we focus on minimizing the impact to clients, citizens and users. We will also leverage our experience and capabilities to improve availability, performance and stability of all IT applications supporting your business processes. Optum provides ongoing care for federal and state government applications in corresponding production environments. We will bring the same to you. Framed by our planning, processes and documentation, our support team will use industry standards and tools to effectively monitor and secure your systems. As discussed in Section T11, Implementation, we leverage a DevOps strategy and tools for our M&O approach. This approach enables us to remove barriers to software delivery and infrastructure changes through improved tooling, process automation, and self-service capabilities.

Our application M&O activities conform to ITIL standards. Our elements of maintenance are based on the IEEE standard for software maintenance, the IEEE Standard 1219-1993. These standards form the backbone of our service delivery and continuous improvement model as described in Figure 4. Our product provides an off-the-shelf solution, and you will realize the benefits of a system that is modular, easier to use and provides increased flexibility to support your business needs toward offering a person-centric program to support your citizens.

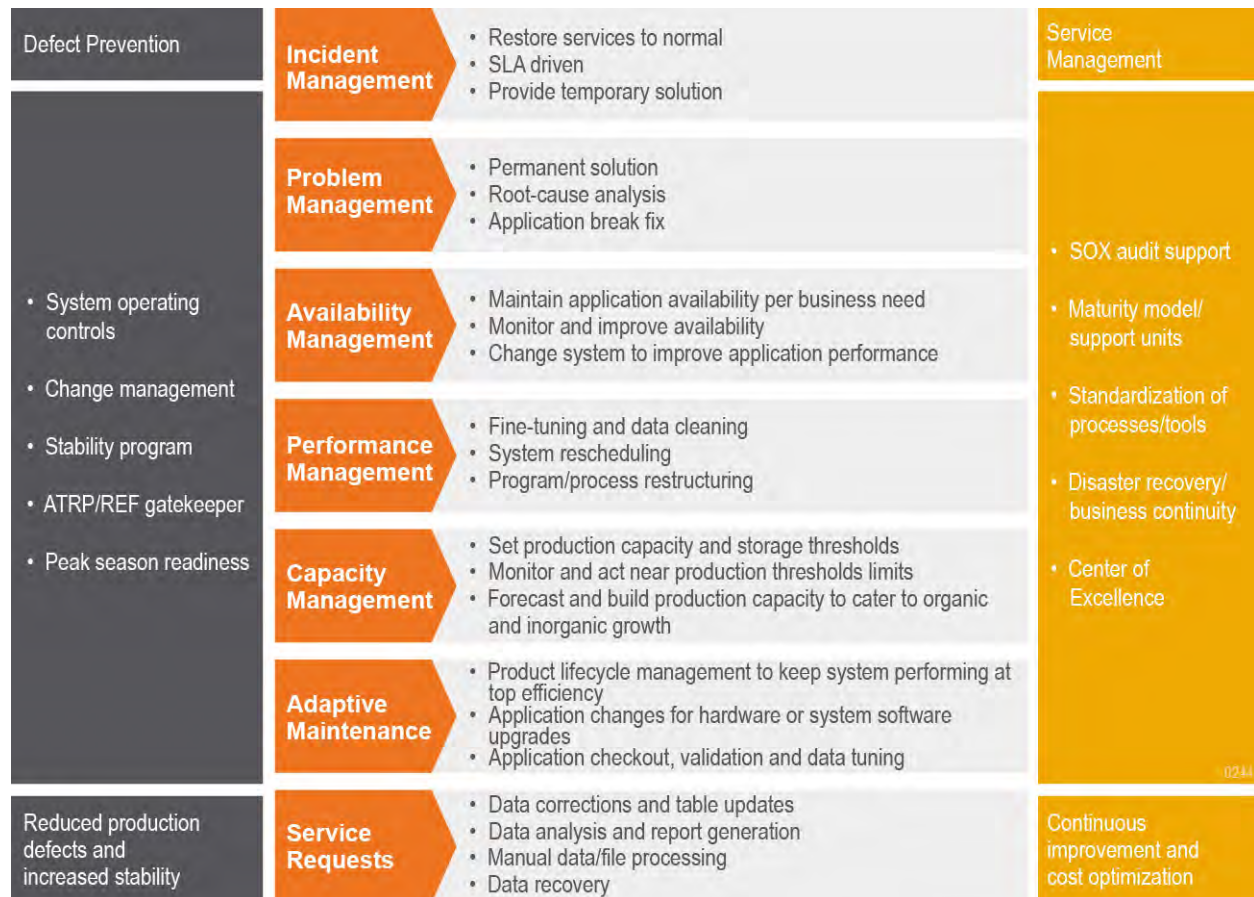


Figure 4. Optum Service Delivery Model.

Our comprehensive service delivery model facilitates effective operations and management as well as continuous process improvement over time.

Our defect prevention measures help reduce the number of defects introduced into the production environment, which results in higher overall stability. Because our offering is based on an off-the-shelf modular design, we eliminate complexity that you may be experiencing in your current system. This enables you to realize the value and benefits we offer as you deliver services to your departments and users. Our service management activities target cost optimization and continual service improvement. They include such things as audit support, maturity models, disaster recovery and standardizing processes and tools.

This section provides more details pertaining to these areas as well as the other key activities we perform as part of our M&O support and administration.

Routine Maintenance of Environments

We will provide the necessary support, maintenance and documentation required for the Optum AR IE-BM environments. This will include the code review, unit testing, acceptance testing, training and production environment. Optum performs periodic maintenance on application components to reduce the probability of production problems and incidents. Figure 5 provides a snapshot of the activities our routine maintenance services will support.

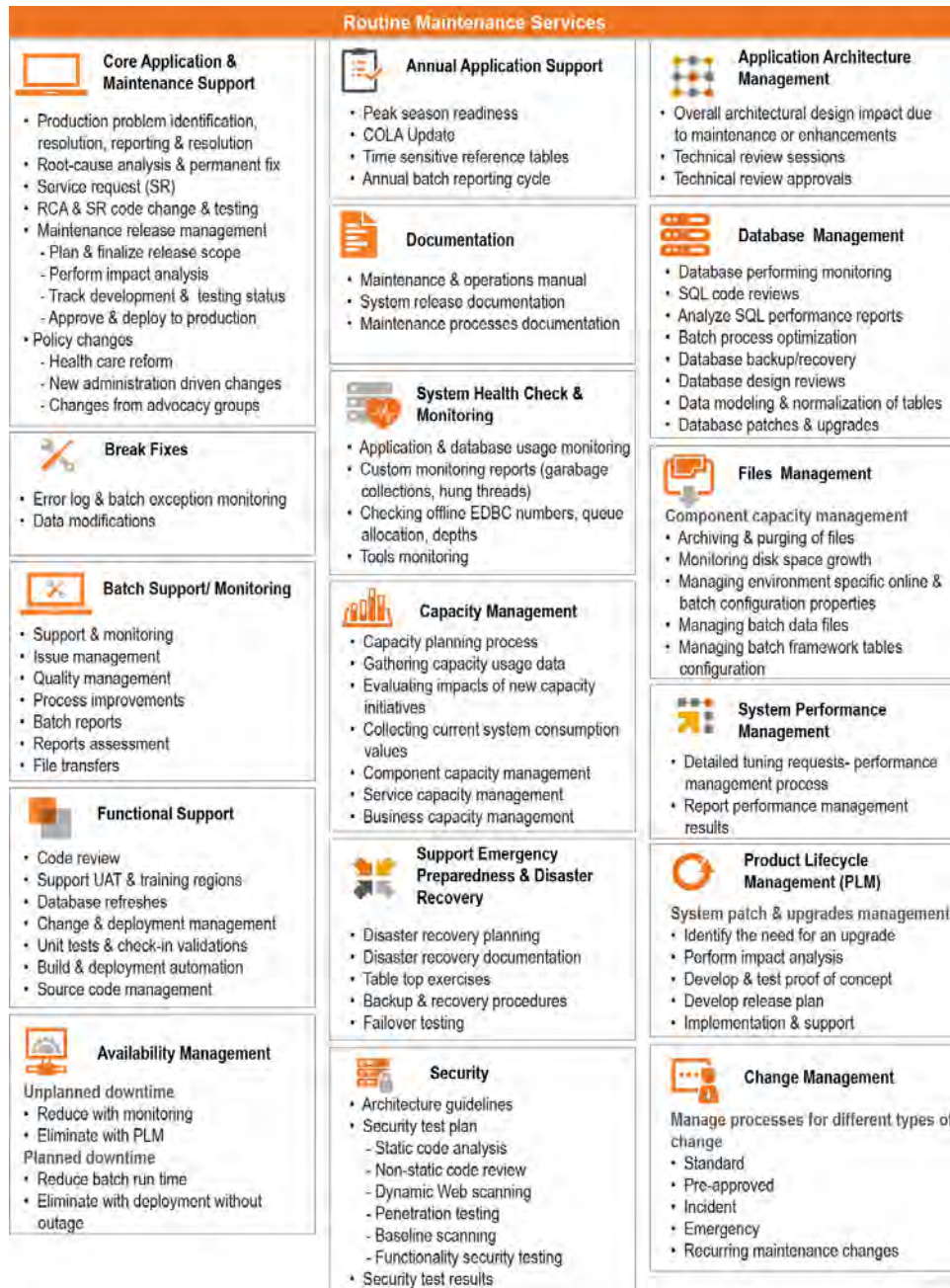


Figure 5. Optum Routine Maintenance Services.

Our comprehensive approach to maintenance makes sure that the appropriate controls are in place to maintain a stable, efficient production environment, but also focuses on a disciplined approach to implementing changes to each environment.

As we partner with you to transform your existing platform to a person-centric model that delivers desired outcomes, we will work with you to design and adopt your desired HHS structure. We will listen to your wants, focus our attention on your business needs and drive together to your desired business outcome. Our routine maintenance will enable you to modify policies that are currently limiting your ability to implement them. Our comprehensive approach includes:

- Capacity management
- Break fixes
- Batch support and monitoring
- Functional support
- Availability management
- Annual application support
- Documentation
- System health check and monitoring
- Core application and maintenance support
- Change management
- Security
- Application architecture management
- Database management
- Files management
- System performance management
- Product lifecycle management
- Change management
- Supporting emergency preparedness and disaster recovery

We describe the elements of our routine and emergency maintenance services in the following paragraphs.

Core Application and Maintenance Support

As we work with you to establish your desired enterprise platform and architecture to meet your business needs, we will listen to your objectives in support of your core application and maintenance support vision. Our core application and maintenance support focuses on foundational principles for the production application. These include:

- **Incident management:** We focus primarily on restoring normal service levels as quickly as possible and minimizing adverse impact on the business. The incident management processes rely on incident prioritization, determined by business impact and urgency, to verify close alignment with your needs. Optum's Incident Management strategy is described in detail in the next section.
- **Problem management:** We identify the root cause of incidents and begin corrective actions to fully remediate the underlying cause of incidents. Problem management helps minimize future service interruptions and prevent their impact. Optum's Problem Management strategy is described in detail in the next section.
- **Service requests:** We fulfill service requests as per your specified requirements and the status of the requests is reported accurately. Our end-to-end workflow helps streamline service request management across business processes to verify process efficiency and system availability.

Functional Support

We leverage our industry experience to help you evolve your environment to strengthen client participation in your programs. We will provide maintenance services and implement continuous integration environment support. The routine maintenance of the environments will help perform the following activities seamlessly:

- **Code reviews:** We will perform necessary maintenance activities to support the creation and maintenance of separate branches within the continuous integration environment to help support collaborative code development and peer code reviews. Best practices we follow include:

- Creating goals for code review and capture metrics to help us judge whether the peer review is effective for achieving the goals
- Using checklists to improve results for both authors and reviewers

We frequently check for the items listed in the following table.

Table D: Code Review Checklist Items

Checklist Section	Code Review Considerations
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We use code comparison tools that compare newly developed code with the existing production code. Code comparison helps us to verify code changes specific to the change requests are implemented in production without deleting existing production code.

Availability Management

Enabling you to take advantage of automation and minimizing staff time spent on administrative tasks, we offer a comprehensive availability management solution to help you consistently maintain high availability and resilience. We use a combination of automated system monitors and daily system health checks to verify the system is functioning optimally and to identify faults that require immediate triage and remediation. The core focus of our services and solution is to understand and analyze the cause when an outage occurs, and the time taken to resolve it. Our incident and problem management services provide the required input to help us deliver relevant and appropriate corrective actions. Please refer to Section 6 in this T13 response for more details on our availability management strategy.

Annual Application Support

We will help you as you continue to advance your current system using the best tools, the best products and the best technologies available today to address the isolated systems in an aging IT. As part of the annual application maintenance cycle, we perform peak season readiness activities. We identify infrastructure services and application services to handle the high volume of transactions during the peak season. We forecast for projected increases in transactional load based on last year's volume and with your inputs. These forecasts aid our team in determining recommended changes to infrastructure services and application services.

We provide support to confirm you are ready for peak season activities.

During peak season, we monitor and provide daily reporting of transaction load along with the performance of the infrastructure services and application services. We do this to validate expected operation of the AR IE-BM Solution.

We also conduct annual maintenance, cost-of-living adjustment (COLA) updates, time-sensitive reference cycle table updates and annual batch reporting.

Documentation

We will create and maintain a set of standard technical application documents for the system. Our M&O policies are the starting point for the critical and standard documents framework.

Critical documents include an overview document, interfaces and operating controls, known error and workarounds, maintenance tasks and frequency, and business process flow for business functions. Standard documents include non-production and production environment details, database architecture, system access, component context and interaction diagram, user screens and batch jobs details.

We will develop and document a plan for maintaining all relevant M&O documentation. This will include updating the documentation after each release as part of the transition from the DDI team.

Architecture Guidelines

Within the Optum IE solution, we integrate security into our Software Development Lifecycle (SDLC) and maintenance services. This enables identification and verification of regulatory

requirements and the controls required to meet compliance. Optum will meet security requirements through the following:

- Identification of applicable security and compliance requirements, system components, functional requirements and internal administrative controls during requirements gathering
- Identification of existing patterns, use cases and gaps analyses during design
- Identification of recommended solution, including acquiring solutions required to address gaps during development
- Threat and vulnerability management through source code review, and infrastructure and application penetration testing
- Continuous vulnerability scans, flaw remediation and compliance verification during production

Application Architecture Review

The technical lead reviews the overall architecture design impact from a maintenance, enhancement or modernization project. The lead will conduct technical review sessions with the project team and recommend changes as necessary. Our team will then present the final changes to you for review and approval.

Database Management

Our Database Administrators (DBAs) are responsible for routine maintenance of The Database Management Systems (DBMS) within the application stack. This includes DBMSs used for enterprise repositories, application transaction databases, metadata repositories and departmental or tool-based databases. During the SDLC, DBAs will assist with database design and database modeling. As part of a production release, the DBAs will help with SQL code review and analyze the SQL performance reports from the non-production environments. They will also help with database backup and recovery operations. Finally, they will manage the database server patch and upgrade process for all environments.

File Management

We will manage the different file components and perform routine maintenance. Based on a mutually agreed-upon schedule, we will archive and purge files. We monitor disk space growth, manage environment-specific online and batch configuration properties and manage batch data files and table configurations.

Product Lifecycle Management

We align with your vision of expanding the system support to identify the reusable and shareable components of your system so they can serve as a better foundation of the DHS platform. Each quarter, we will conduct a detailed review of the AR IE-BM Solution. We will review the published end-of-vendor service and support dates. Our team will also evaluate new, emerging product versions to effectively identify and adjust the life-cycle status of supported software products. The team will work closely with you to schedule an upgrade if needed.

Optum also review new system patches of the software products as part of the routine maintenance process. We will first apply the patches to the non-production environment. After testing and sign-off, we will apply them to the production environment.

System Monitoring

System monitoring is an early warning detection system and a vital component to verifying the availability of the AR IE-BM Solution. It will provide the following:

- Notification to Optum M&O directly when issues arise
- The ability to start restoration efforts more quickly by not having to wait for users to report issues
- Alert to issues before users are affected, allowing for proactive service restoration
- The increase of the service's availability and decrease of the Mean Time to Restore (MTTR)

Optum will monitor, measure, and optimize system and application performance to verify consistent and superior response time, enhanced stability and required scalability. Our recommended monitoring tools will capture the availability status of each monitored environment. Monitored environments identify, record, report, and analyze equipment or system alarms and conditions that may lead to abnormal operations. We will assess the capabilities of your existing monitoring tools and develop a plan to enhance the current monitoring of the EEF system if gaps are identified. Optum will recommend additional monitoring tools if the existing toolset cannot fill the identified gaps. We will provide M&O activities relating to EEF and the AR IE-BM Solution, while DHS will be responsible for M&O activities related to infrastructure and hosting services, as requested in Requirement O2.4.

We recommend monitors at multiple levels in the environment to accelerate incident identification and problem or incident resolution as seen in Figure 6.



We will employ various tools to perform the following:

- Infrastructure and application instrumentation/monitoring (e.g., alerting/notification)
- Event monitoring (e.g., process completion, file transfer)

- Application performance monitoring and reporting
- Transaction monitoring

Optum selected the portfolio of monitoring tools based on the tools' functionality, performance in all applications and for the ability to scale at an enterprise level. We also provide tools at the most recent version and patch levels recommended by our vendor partners to verify top performance and security compliance. As previously mentioned, for the AR IE-BM Solution, we will leverage your current investment in monitoring tools and recommend additional tools if needed based on our analysis.

We have extensive experience using advanced instrumentation software integrated with our IT service management system. With this software, we monitor network traffic, infrastructure and application availability and automatically report any events detected.

We install monitoring agents on all servers, including both virtual and physical servers. These agents will measure and report on port status, error logs and server-level performance for items, such as memory, CPU and disk utilization.

Incident and Problem Management

During your journey to move to a modular, COTS-based, easy-to-access environment designed to support the people it serves, we will align our incident and problem management processes with the existing DIS processes. Our team will also look to provide ways to improve overall improvements by leveraging our experience and expertise within service management.

Help Desk and Incident Management

As we partner with you to advance your program to your desired result, we will use the ITIL standards as we tie our incident management practices to yours. ITIL defines the primary goal of the incident management process as follows: "To restore normal service operation as quickly as possible and minimize the adverse impact on business operations, thus maintaining the best possible levels of service quality and availability."

We understand that you will provide Level 1 user support, with only application-related incidents escalated to the Optum M&O team. With this direction, our solution includes receiving application escalations from your Level 1 Support team. To meet the State's help desk and incident management requirements described in RTM O2.26 through O2.30, Optum will manage the Level 2 and Level 3 escalated application incidents through your incident management process. Your Level 1 Service Desk will assign EEF and AR IE-BM Solution application related incidents to our M&O queue within JIRA. In addition to escalations from your help desk, we will leverage our DevOps tools to quickly identify potential EEF or IE-BM issues, and resolve them more efficiently with the automation and reduced risk our DevOps approach enables.

Optum will meet the SLA for critical incident restoring of service (break/fix) functions described in RTM O6-4. We will address critical incidents quickly and minimize the business impact of the incident in a managed work session for high priority incidents. If the incident is a critical or high

severity incident, the Arkansas Level 1 support will engage our M&O team 24 hours a day, seven days a week, to join a work session call. We will measure the resolution as the time when the incident escalates from your team to when the incident is marked restored. We will include incident resolution times in the monthly SLA report.

We rely on incident prioritization based on business impact and urgency. This focus helps us make sure we align with your needs. For high priority incidents, we will assign an incident manager. The assigned M&O resource will use our [REDACTED] communication tool to send frequent updates to stakeholders according to the approved Communication Plan. The M&O lead will make sure we restore the incident within the accepted SLAs.

We will communicate, restore and resolve lower priority incidents according to our agreed-upon operations issue management SLA.

Problem Management

To meet your problem management services and Root Cause Analysis (RCA) requirements described in RTM O2.31 through O2.37, Optum will use your problem management process in alignment with ITIL process standards.

Per ITIL, the objective of problem management is to minimize the impact of problems on the organization. Problem management plays an important role in detecting and providing solutions to problems (workarounds and known errors) and prevents their reoccurrence. A problem is the unknown cause of one or more incidents, often identified from multiple similar incidents.

Our accelerated problem management process focuses on resolving the problems causing the greatest impact to you.

In support of your problem management process, we will work with you to:

- Create a problem record to investigate the root cause of the incident with the goal of preventing future similar incidents following service restoration
- Close incidents related to a problem record, which is stored in a central repository; problem records may have multiple incidents related to them if many users have reported the same concerns
- Assign the support team using workgroups best suited to drive the problem's root cause investigation and own the problem
- Prioritize problem records based on the number of related incidents to be fixed
- Create a problem record when a more long-term solution needs to be investigated

Our problem management plan helps minimize service interruptions and prevent the incident and future impact from occurring again. We will set up a recurring change prioritization meeting with you to rank the priority of the deployment of fixes.



Root-Cause Analysis

As part of the problem management process, Optum identifies the root cause of incidents. We will employ a root-cause analysis (RCA). The goal of the RCA process is to understand what went wrong and to accurately report the impact of the incident and/or failed change. This helps us to understand the results so we can avoid a similar incident in the future.

The key distinction between our RCA process and problem management is that the RCA process primarily focuses on identification and reporting. RCA is an input to the overall scope of problem management, which has as its ultimate goal the elimination of these systemic issues finally. This will improve the overall availability and reliability of the Optum IE solution.

Release Scheduling and Management

these are described in greater detail in the following section. We will work with you to understand your existing support processes as they relate to release scheduling and management and improve what is in place in your environment today.

Our release management process for software controls supports the associated tasks and artifacts necessary for release planning, release execution and control, and release closure. Figure 7 shows a diagram of our release management process.

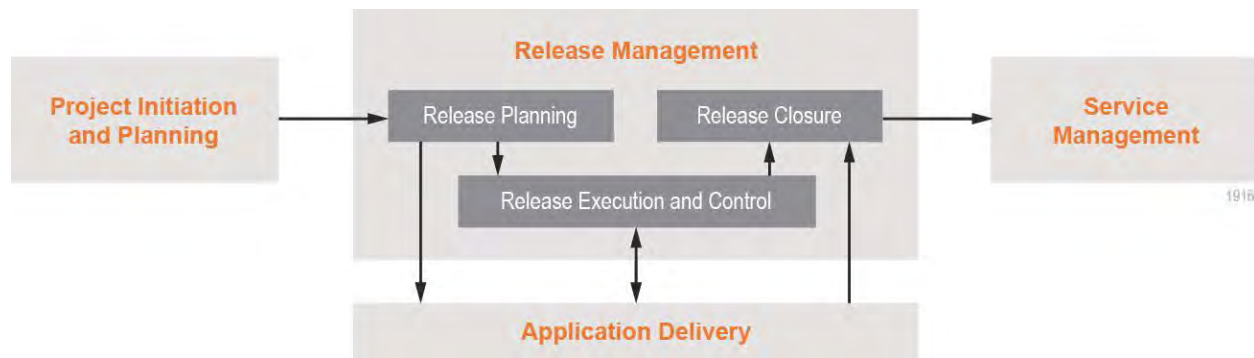


Figure 7. Release Management Process Flow Diagram.

The Optum release management process provides tight integration and controls for each phase of the process.

During release planning, we begin the release management function, which continues through detailed design. The Release Plan is our primary artifact of release planning. Within the Release Plan, we will define the scope and structure, management, execution and control plans of each release. We will tailor the process to the specifics of the release, and obtain sign-off from the appropriate stakeholders.

User Account Management

Optum M&O has a comprehensive User Account Management Plan. We will develop an overall plan specific to the AR IE-BM Solution documenting the user account maintenance procedures, including:

- Configuration of new users, roles and responsibilities, credentials and so forth
- User refresh, changes and updates
- User deletion

Optum will partner with you and provide assistance when needed to administer the AR IE-BM Solution.

Security Administration

Communication is integral in evolving into a successful maintenance and operational model. Our joint teams will work together to help you grow into the desired environment you seek. Optum will follow appropriate security administration protocols and policies. During project planning, we will work with you to define, document and submit the security specifications for the AR IE-BM Solution. The HIPAA, CMS, other applicable federal and State regulations and contractual requirements govern these specifications for the AR IE-BM Solution.

We will perform security testing of system components to validate that application components are not vulnerable to malicious attack. Optum personnel, using a variety of tools and techniques, will perform this testing. Additionally, our developed architectural guidelines and security test plan will help implement the necessary security for your AR IE-BM Solution. Because the system will be hosted in the Arkansas State Data Center, the State will be responsible for physical security plans consistent with DHS's security policies and industry standards for hosting services (Requirement O2.41).

We will provide the process for evaluating security alerts from application vendors related to EEF and the Optum IE solution. We will help you shield the systems from attack until patching can occur. DHS will be responsible for the operating system as you are providing hosting services (Requirement O2.52).

System Security

Throughout the project, we will partner with you to follow appropriate protocols and policies. We will work with you to define, document and submit the security specifications by analyzing federal and state security policies and industry standards.

Optum creates and maintains a Security Test Plan for the Optum IE solution. The intended use of the Security Test Plan is to verify that stakeholders understand the phases of the security testing lifecycle.

The Security Test Plan will cover the following for the system:

- Purpose of each security testing phase as it pertains to the system
- Time frames in which each security testing phase will occur
- Roles and responsibilities for performing the security testing
- Testing practices, processes and procedures used during the security testing lifecycle
- Definition of security testing phases

- Static code analysis
- Non-static code review
- Dynamic Web scanning
- Penetration testing
- Baseline scanning
- Functional security testing

Break Fixes

A modular COTS-based system will improve efficiencies and reduce issues that occur in a complex environment. In the event a break fix is necessary, Optum will provide complete maintenance support for the break fixes. We track a break fix as a service request ticket and follow a waterfall SDLC or agile approach, depending on the nature of the break fix. We will make the code changes to fix the broken component, test, obtain your approval, and then implement it in the production environment.

Instructions: Describe how the Vendor will provide support the State in ensuring that infrastructure requirements are adequate to meet the SLRs. Include a discussion of each of the following areas, regarding how the Vendor intends to support the State and/or Infrastructure Vendor, in overcoming some of the challenges in meeting end-to-end performance SLRs as the work is distributed across multiple entities:

- Support Network, hosting and data center services, so the State and/or Infrastructure Vendor can manage the application more seamlessly
- Support Storage management
- Support Backup and recovery
- Support Remote access
- Support Batch-job control and scheduling
- Support Change and release management
- Support Configuration management
- Support Capacity management
- Support Performance management
- Support Disaster recovery

The partnership between the M&O organization and hosting services is of critical importance. We have successfully partnered with hosting service organizations in the past and have the proven processes and capabilities to partner with you to implement your AR IE-BM solution. In this section, we explain how we will accomplish this goal. Each heading below corresponds to a requirement and we have provided details on how we will meet your requirement.

Network, Hosting and Data Center Services

We will provide the necessary information and metrics (e.g., server quantity and sizing, network bandwidth requirements) to the State to appropriately size and configure the network, hosting,

and data center services. We will work with you to resolve issues that may arise within the AR IE-BM Solution and EEF that require cross-team collaboration.

Storage Management

A storage management strategy is integral to achieving an efficient program as it relates to a data center operation. Optum will collaborate with you to understand business trends that could influence the AR IE-BM Solution capacity requirements. We will analyze historical trends and provide capacity forecasts to verify the appropriate amount of storage is available. This will enable us to confirm storage capacity issues do not affect the applicable SLRs.

Backup and Recovery

The backup and recovery approach is crucial to protecting your environment as well as providing the accessibility to your systems that your citizens expect. We will work with you to define and design, then support your backup and recovery plan. Our data protection and recovery strategy helps detect and prevent potential issues through data management functions. If any data becomes corrupted, the DBMS backup/archive/recovery (BAR) capabilities provide critical functions to quickly restore clean data and return to normal operations. These capabilities include:

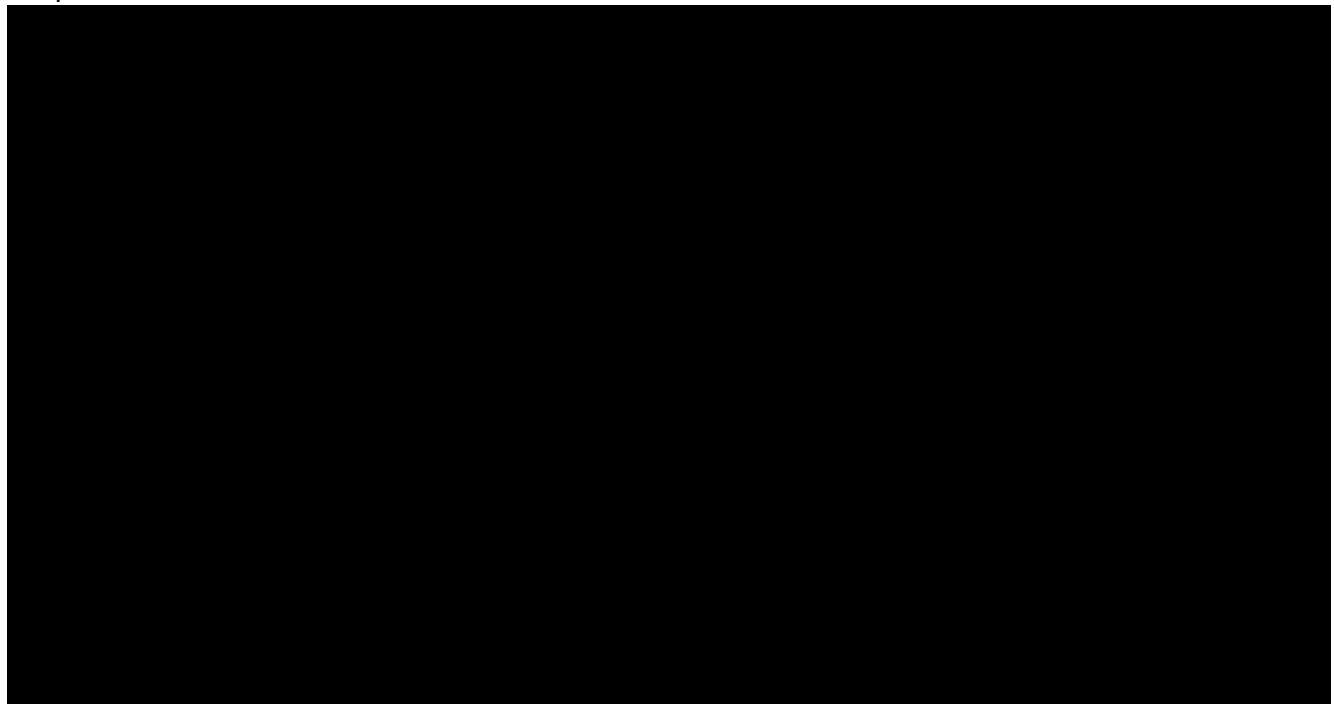


Figure 8 illustrates the layers for which Optum and DHS will be responsible for backing up, respectively.

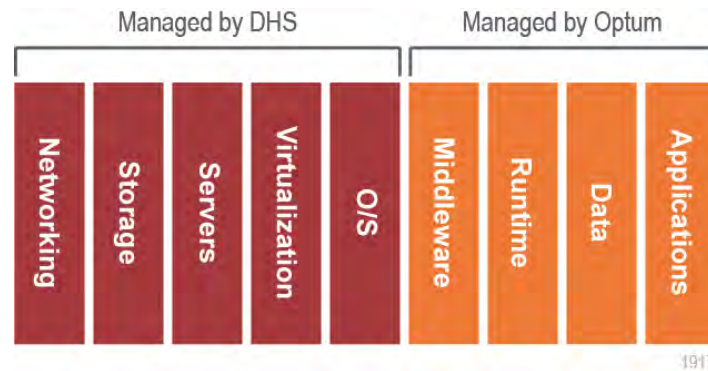


Figure 8. Backup Accountability

Optum and DHS will have backup responsibilities for the AR IE-BM Solution.

Remote Access

Optum will work with you to support remote access requirements for the AR IE-BM Solution. We will define our access requirements and work with you to obtain access and test functionality.

Batch Support and Scheduling

- **Batch jobs:** Optum will maintain and run all batch jobs in the production environment. Our process also enables us to define custom batch processing schedules for each non-production environment.
- **File transfers:** Optum will support file transfers (both inbound and outbound) between DHS and external vendors for the AR IE-BM Solution and EEF.
- **Change and deployment management:** Optum will implement a rigorous deployment approach, including automated notifications, for changes made to the environments.

Change and Release Management

Growing your structure, system and program in support of your business objectives will require a change in your environment. We will work with you to understand and develop a change and release system that is monitored, managed and controlled. We discussed Release Management in the previous section (Section 2), [REDACTED]

A detailed Change Management Plan protects the integrity and performance of systems while providing a process to analyze and execute approved changes. Optum employs a formal change control process that has been developed over decades of experience.

We will comply with the DIS change process and adhere to RTM O2.14 - O2.16 requirements. Optum will capture all changes performed to a live or production environment in a change ticket in your IT Service Management System. We often work these changes through an established Change Advisory Board (CAB) process. Figure 9 shows typical change types that we have used in previous engagements.

Standard

- Approval by CAB
- Approved based on risk impact and schedule

Emergency

- Cannot wait the necessary time required for CAB approval
- Approved by emergency CAB

Incident

- Resolves an open high-severity incident
- Only change that can be documented after the fact



Pre-approved

- No potential impact to unrelated configuration items (CIs)
- Low risk, documented and repeatable processes, testing and back out

Special Status Request

- Used as request mechanism for reviewing and approving
 - Pre-approved change templates
 - Recurring maintenance activity
 - Certified changes

Recurring Maintenance Change

- Previously approved by the CAB as recurring maintenance
- No potential to impact unrelated CIs

Figure 9. Types of Changes.

As defined in our Change Control Plan, changes are categorized into one of six types.

Standard Changes

Standard changes require approval by change approvers or a CAB before implement them. The impact, risk, the Forward Schedule of Change (FSC) and other factors will determine the necessary approval. The objective of the FSC is to inform stakeholders of the upcoming changes, which will be implemented in the next period and beyond.

Pre-Approved Changes

Pre-approved changes are changes that are repeatable and that require approval only from the change owner. The pre-approved change list maintains a record of all pre-approved changes. These changes have no potential impact to unrelated configuration items, they are low risk, and they have documented and repeatable processes for implementation, testing and back out.

Incident Changes

Incident changes are necessary to resolve an open high-severity incident. Incident changes are the only changes that can be documented after they occur.

Emergency Changes

Emergency changes are those that cannot wait the necessary time required for approval by the change approvers or a scheduled CAB. As discussed previously, these changes will require the approval of an Emergency CAB.

Optum follows five key phases for the emergency maintenance process as shown in Figure 10.

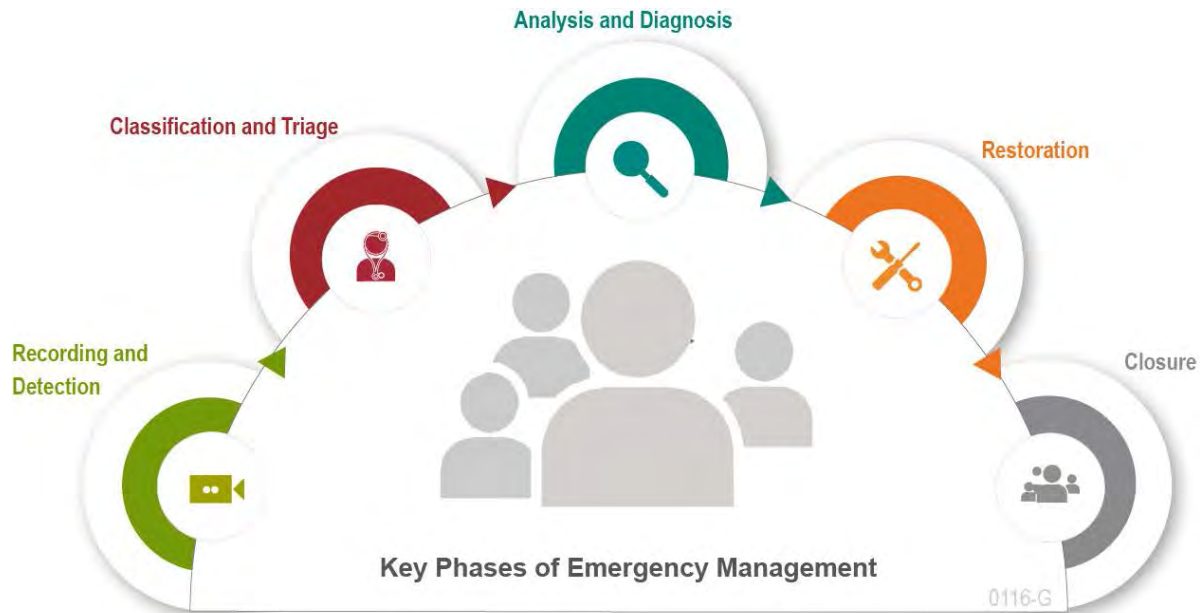


Figure 10. Key Phases of the Emergency Maintenance Process.

Optum will manage and complete the event per business imperatives for emergency maintenance events.

Special Status Request Changes


We use special status request changes as a request mechanism for selected change management purposes. The purposes include reviewing and approving pre-approved change templates, recurring maintenance activity and certified changes.

Recurring Maintenance Changes

Recurring maintenance changes are the execution of an activity previously approved by the CAB as recurring maintenance. They are routine scheduled changes with no potential to affect unrelated Configuration Items (CIs). They must have documented and repeatable processes for implementation, validation and back out.

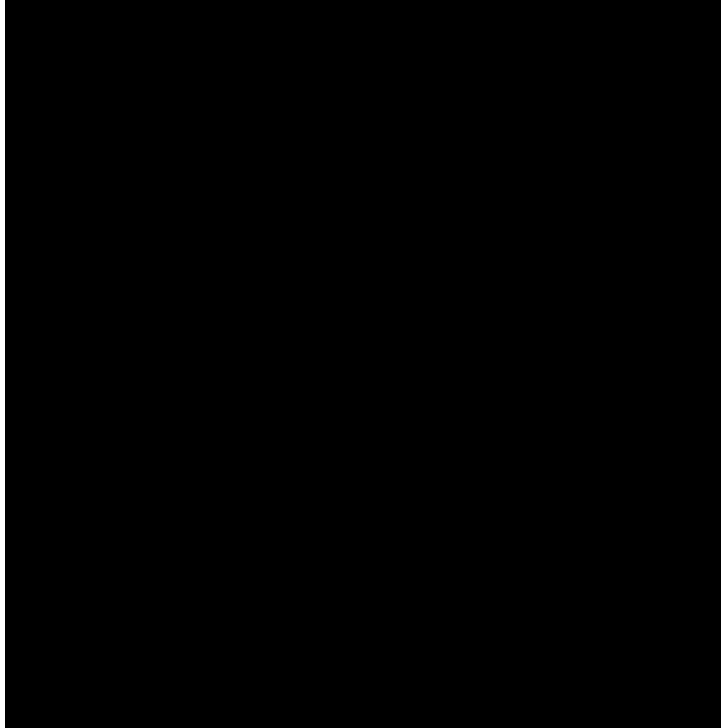
Configuration Management

Establishing the efficient, easy-to-access system will require a change to your current environment. We will work with you during Start-Up and Transition to review the current change management procedures and determine the necessary updates, processes and procedures that need to be made to the current plan. We will develop a System Configuration Plan that will clearly delineate DHS and Optum responsibilities and conform to RTM 02.17-02.19.



Changes to system software, application software and system hardware will be subject to the approved change management processes. The Change Management Plan, part of the Project Management Plan (PMP), will define the change promotion process, which addresses the movement of changes through the various system environments.

To comply with system modification requirements, our joint approach will include:

- 
- Tracking and reporting operational and technical FTE (full-time employee) time allocation for each change
 - Providing a detailed cost breakdown for any change or enhancement request
 - Starting and conducting walkthroughs with you of system changes that are ready to move into the production environment
 - Presenting a thorough explanation of test cases and results, including a discussion of how the system change affects the programs
 - Providing test results of approved changes before production
 - Establishing and maintaining the processes and procedures for managing changes, including your review, prioritization and approval of work
 - Conducting detailed requirements analysis for system changes, including recommendations for alternate approaches to meet your needs
 - Coordinating your review and approval of all documentation for system changes within the predefined time frame
 - Maintaining the documentation used to develop, enhance and modify our solution

We will coordinate changes with appropriate stakeholder groups to communicate the system changes in a timely manner before deployment.

Capacity Management

As we work with you to uncover the challenges you are experiencing with your current implementation, we will jointly define a capacity management strategy that will mitigate those concerns by developing an efficient environment. The primary focus of capacity management is to validate that capacity is optimized to meet both current and future demands. By gathering and analyzing relevant data, we gain visibility into upcoming requirements, and then plan and optimize current utilization as well as forecasted capacity. This process enables us to better align cost and capacity with demand. In addition, we analyze performance test data and identify

areas or functions with additional capacity requirements. We will collaborate with you to understand business trends, which could affect AR IE-BM Solution capacity requirements, analyze applicable historical trends and provide a capacity forecast. We will participate in the DHS Enterprise capacity planning activities as required in requirements RTM O2.12 and O2.13.

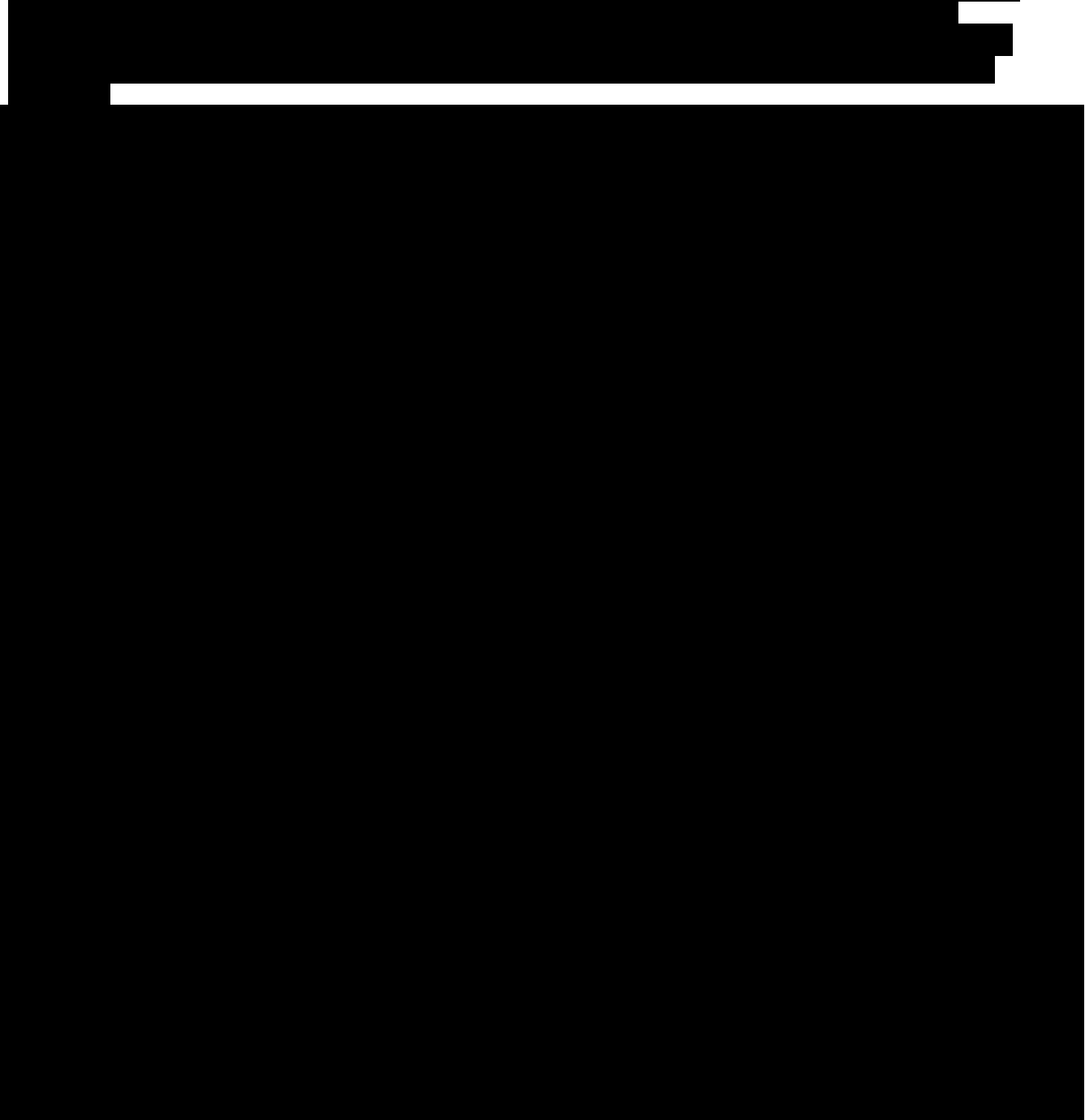
Optum will create and maintain a Capacity Plan based [REDACTED]

Figure 12 shows an example of our [REDACTED]

Performance Management

In your RFP, you identify some key areas you are looking for in a fully functional system and how you expect it to perform. You desire a system that provides easy access, promotes customer satisfaction, reduces risks, is efficient and uses the best technology and best tools the

industry has to offer, while providing you a better ROI than you are realizing today. Our approach is to provide a modular COTS-based system that can grow as your business grows and is flexible for easy modifications as necessary to support your business. We understand your business needs, and our model will help you achieve that goal.



Disaster Recovery

We recognize that planning for disaster recovery is essential to mitigating risk for you. We will provide functional responsibility for maintained modules, including supporting disaster recovery

documentation and periodic testing for that recovery. We fully address our disaster recovery strategy in Section T9, Technical Requirements, Section 2.8.5. Here are a few summary points.

Disaster Recovery Documentation

We will maintain recovery documentation, including a Disaster Recovery (DR) Plan that contains DR scope, backup and recovery plan, critical contact lists, test scenarios and testing team management.

Disaster Recovery Strategy

Our best practice approach to DR is based on two fundamentals: prevention and protection. We balance the combination of disaster prevention and protection that will result in reducing both the probability and impact of a disaster.

Prevention

Prevention is the proactive remediation of known technology exposures and is fundamental to effective DR programs. We invest in creating a combination of people, processes and technology that provides the stable, scalable environment for applications to perform at operational excellence.

Protection

DR programs are also based on anticipating and planning for the common types of disasters and designing solutions to address them. Disaster Protection (DP) addresses backup and recovery from the most probable disaster scenarios as well as a worst-case scenario.

The program uses a variety of backup and recovery strategies that align to the critical components of the application. Based on criticality, we recover and validate application components/sub-components following the Recovery Time Objective (RTO).

The RFP captures the expectations regarding the Vendor's role and responsibilities for M&O activities for the IE-BM application as well as other transitioned applications under Vendor's scope. The Vendor must provide a team which has the skills required to perform the M&O tasks and to effectively manage the relationship.

Instructions: Describe the Vendor's approach to managing the account to ensure quality services are provided and the SLRs are met. At a minimum, this should include a discussion of:

- The Vendor's approach to client management including any processes, tools and documentation
- The Vendor's staffing approach to M&O staffing including the capabilities to identify staff with required skills for full time and part time roles, long and short term roles required to address client needs
- The proposed DHS and Vendor M&O teams roles and responsibilities and Key Personnel
- The proposed M&O team structure
- Roles and responsibilities of each team member and how these align with the tasks captured in the RFP and Response Template
- Expectations regarding on-site presence

- Vendor's processes for identifying, proposing and transitioning to replacement personnel. This should include a discussion regarding the approach to addressing performance issues.
- Staffing approach to ensure the Solution transitions smoothly from the implementation Project to being managed by the M&O team
- Any previous experience with similar clients, the challenges faced and how these were overcome

We commit both organizationally as well as individually to our core values of integrity, compassion, relationships, innovation and performance. We have assembled a team of experienced professionals with comprehensive knowledge of IE, HHS programs, reporting, and health care.

Our key staff members have a clear understanding of your vision for the AR IE-BM Solution, and we are excited and want to help you realize that vision. They will be responsive to your changing needs over time. These leaders will guide our team in the performance of required M&O tasks and will manage our relationship with you and your stakeholders.

Client Management Approach

Our organized, open and transparent approach to client management will allow our teams to quickly grasp, mitigate and respond to potential issues. In the rapidly evolving HHS environment, systems and organizations must align closely to provide quick and reliable support. A main component to our client management strategy centers round communication. We will verify that the Communications Management Plan will align with your requirements and address those requirements during the DDI and M&O along with those during enhancement and modernization. We have flexibility and can suggest a number of approaches that have been successful with other customers.

For example, as we discussed in Section T11, Implementation, the Commonwealth of Massachusetts required an approach that supported their broad set of stakeholders and decision-makers. In this case, Optum employed a model that included committees to engage different levels of leadership to prioritize strategic and tactical communications. This helped verify the stakeholders received timely, clear and appropriate information. Optum provided weekly status reports, daily status meetings, release-specific status meetings and facilitated weekly executive steering committee meetings.

For the AR IE-BM Solution project, we propose a governance model that allows us to coordinate and adjust to changes in an organized manner. It will also allow us to respond in an effective and transparent way. Figure 14 shows our proposed Integrated Project Management and Governance Model, which will enable effective collaboration with you, the AR IE-BM project team and your designated stakeholders.

Our three-tier communications model includes a Joint Steering Committee, a Joint Management Committee, and a Joint Operations Committee. These committees will function as follows:

- **Joint Steering Committee:** Will include representatives from both Optum and DHS executive leadership and will provide strategic guidance and decisions
- **Joint Management Committee:** Will include senior M&O leaders and the AR IE-BM project management teams from DHS and Optum, and will review the overall health of the engagement
- **Joint Operations Committee:** Will include operating and project management teams from DHS, Optum and other stakeholders and will provide management of day-to-day operations

Our base communication model facilitates joint opportunities for periodic review of the production status of all areas of work; setting of priorities and goals; transparency, control and visibility into operations; and reviewing plans for issue resolution. We will work with you to modify this model to meet your needs for the AR IE-BM project. This model will also provide clear and coordinated oversight at all levels in the event our services are terminated. We will work as partners to manage the relationship and expectations in the following ways:

- Enabling strategic alignment to your business goals
- Allocating resources to meet business requirements
- Reviewing our approach to new tasks and establishing clear roles and responsibilities for decision-making, issue resolution and service delivery

- Meeting schedules and contractual obligations through SLAs
- Continuously evaluating performance, user satisfaction and effectiveness
- Providing regular and frequent communication across your stakeholders

We will work with you to define a plan that provides regular and frequent communication with you and with flexibility to make changes as we seek to continuously improve and adjust to changing needs and requirements. Weekly meetings will provide a status update and plan of the week's activities. We will collaborate with you in regularly scheduled, formal status meetings that will provide a status of activities, scheduled between Optum managers and their DHS partners. Monthly meetings will occur between the Optum AR IE-BM account leaders and appropriate DHS leadership to discuss overall project activities and the status of tasks in progress. Our project organization will enable transparent governance and flexible partnership. Our engagement director will facilitate ongoing communications between DHS contacts and the Optum team.

Staffing Approach

Optum will provide the resources needed to accomplish your goals within the required time frames. We have a strong track record of taking over and stabilizing HHS IT systems and delivering stable maintenance services during ongoing operations. We understand the staffing structure and resources required for a project of this size and complexity.

We will staff the AR IE-BM M&O project with a team of professionals who have design, development, implementation, operational and enhancement experience on similar projects. They have extensive experience with state health care data and systems. They will come up to speed quickly on the AR IE-BM Solution and help you enhance its performance and operational readiness.

Recruitment Strategy

To bring the best and brightest talent to Optum, we depend on our professional human resources organization, our IT leadership and talented employees. Our human resources organization researches compensation plans, benefits and other human resources programs to provide the right mix of competitive salaries, benefits and rewards that attract and retain motivated people.

We hire people who share Optum core values of integrity, compassion, relationships, innovation and performance. Our performance management includes a program that rewards employees for business and performance achievement. It develops staff skills and behaviors that are essential for our customers' success.

An important part of our employee compensation aligns with our customer Net Promoter Score (NPS).¹ Our NPS ties directly to our customers' performance and satisfaction. [REDACTED] This high score reflects our outstanding customer loyalty among our state customers. Our rating places us much higher than the best-in-class score of 73. It is also higher than those are of Amazon, Apple, State Farm, and other companies

¹ Net Promoter Score is a customer loyalty metric developed by (and a registered trademark of) [Fred Reichheld, Bain & Company](#), and [Satmetrix](#). It was introduced by Reichheld in his 2003 [Harvard Business Review](#) article "One Number You Need to Grow."^[2] NPS can be as low as -100 (everybody is a detractor) or as high as +100 (everybody is a promoter). An NPS that is positive (i.e., higher than zero) is felt to be good, and an NPS of +50 is excellent.

known for their customer satisfaction. Our high NPS score reflects our continued commitment to delivering high quality solutions and meaningful customer service.

For more information on our recruitment strategy, please see Section T4, Vendor Engagement, Section 3.

Qualification Verification and Background Checks

Throughout the AR IE-BM M&O work, the Optum operations manager will review the credentials of proposed personnel against contract requirements to verify that their credentials align with contract commitments and your needs. If we identify a resource need, our operations manager will gather the candidate's information for an internal, independent review that compares the candidate's education and experience to the contract requirements for the position. Candidates whose education and experience meet or exceed the contract requirements will receive further consideration.

We will conduct a management interview to determine if an individual's skills match a specific job appropriately. Applicants who successfully complete the interview will participate in a rigorous technical interview. A group of peers conducts the technical interview to assess knowledge, skills and abilities. The group seeks to confirm technical or functional skills and evaluate how the applicant responds to challenging situations. We consider both technical and behavioral responses when we assess the candidate's ability to fit into our project team.

For more information on our hiring strategy, please refer to our response in T4, Vendor Engagement, Section 3.

Retention Strategy

We understand how important staff retention is to the AR IE-BM M&O success. Keeping employees with critical knowledge working on the project will maintain continuity and provide stability for the AR IE-BM throughout the life of the project. Central to our staff retention policy is our proven employee engagement model, which includes:

- **Meaningful work:** We assign skilled resources to positions where they can use their talents in meaningful ways to support our customers.
- **Linked rewards:** We offer competitive salaries and incentive and bonus programs linked to employee performance.
- **Effective teams and leaders:** We provide ongoing training and assessment of our leadership personnel to help them promote our culture of service to our employees and customers.
- **Company vision:** Our leadership shares our company vision with employees regularly through emails, employee town hall meetings and employee intranet-based meetings.
- **Personal potential:** We support our employees to increase their skills and knowledge through on-the-job-training on their project teams and through our training programs.

Other methods through which Optum promotes employee retention include:

- Training
- Benefits
- Employee-focused management practices
- Career growth and progression

■ Employee recognition

Optum remains committed to recognizing employees whose exceptional behavior and achievement positively affect the company’s business success.

For more information on our retention strategy, please refer to our response in T4, Vendor Engagement, Section 5.

Employee Training

Our commitment to excellence in staffing extends to our attention to detail in training and development. We have found that employees who develop their knowledge and skills are more likely to become significant contributors to projects like the AR IE-BM M&O project.

Optum provides many types of employee training that will benefit you. This includes mandatory annual training on topics, such as privacy and security. We understand the importance of safeguarding your information assets and the confidentiality of your private information. Our employee training will help us provide knowledgeable and effective support for the AR IE-BM Solution.

Our employee training will keep our staff skilled and knowledgeable for the AR IE-BM project.

For more information on our training strategy, please see our response in T4, Vendor Engagement, Section 4.

Proposed DHS and Optum M&O Team Roles and Responsibilities and Key Personnel

The following table summarizes the roles and associated work responsibilities for each of the positions Optum proposes for the AR IE-BM Solution. Each proposed job role will have a clearly defined set of responsibilities.

Table E: Key Roles and Responsibilities for Optum

Optum Role	Optum Responsibilities
<p>Engagement Director / Executive</p>	<ul style="list-style-type: none"> ■ Serves as the primary contact for DHS leadership and State Executive Sponsors ■ Addresses issues the operations manager cannot resolve ■ Confirms the resource commitment to complete contract requirements ■ Maintains responsibility for subcontractor relationships
<p>Operations Manager</p>	<ul style="list-style-type: none"> ■ Maintains M&O-related communications with DHS ■ Assists the State in their requests and maintains this relationship ■ Manages the day-to-day work of the Optum team ■ Coordinates and managed AR IE-BM Solution changes and enhancements ■ Meets with DHS team to provide routine status reports ■ Manages subcontractor relationships

Optum Role	Optum Responsibilities
Technical Lead	<ul style="list-style-type: none"> ■ Supports complex application issues and incidents by sharing knowledge ■ Provides the technical review for AR IE-BM Solution change requests ■ Provides the technical expertise for the AR IE-BM enhancement discussions
Security Expert	<ul style="list-style-type: none"> ■ Designs the AR IE-BM Solution security changes ■ Maintains security documentation ■ Verifies the AR IE-BM Solution meets the required security requirements

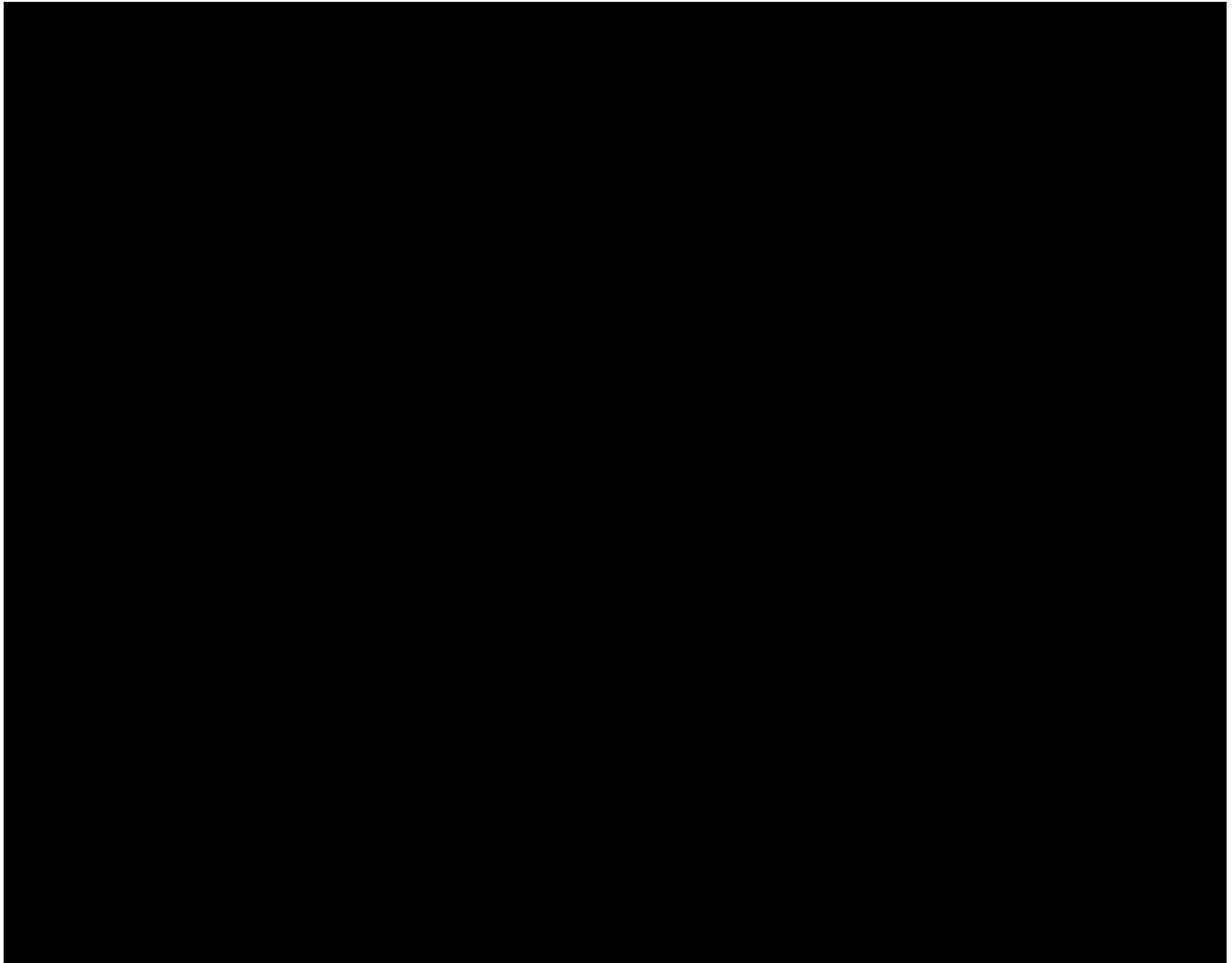
As seen in the next table, The DHS team plays an important role in overseeing the AR IE-BM M&O work.

Table F: Proposed Key Roles and Responsibilities for DHS

DHS Role	DHS Responsibilities

Proposed M&O Team Structure

In Figure 15, we present our proposed organizational structure for ongoing operations to support the AR IE-BM M&O work.



The organization chart illustrates our proposed job roles and functional responsibilities to support the project, including:

- Key personnel roles
- Supervisor roles
- Staff member roles

DHS will play a critical role in the transition, operations and maintenance of the AR IE-BM. We appreciate the time limitations your staff may have at times for direct support of this project.

Optum has a global footprint and more than 132,000 employees. We have tremendous bench strength in all disciplines within the continental United States.

Our operations manager, [REDACTED], will manage our account staff, work with you directly regarding M&O work and will be active in the daily management of the account. Working with our engagement director, he will optimize service and quality levels, and manage relationships for the account. We will follow accepted

You need a business partner who can adjust staffing levels throughout the course of the contract to meet the fluctuating demands for solution enhancements and changing legislative requirements.

operational standards to provide a sufficient number of qualified staff to complete the scope of work and adjust staffing levels as work volume fluctuates. [REDACTED] will verify the appropriate resources are available to support the account. This will make sure we have resources available at the right time to avoid project delays.

Team Member Roles and Responsibilities Alignment to Project Tasks

Please see the Work Plan in Section T14, Detailed Project Schedule, for breakdown for each role and their corresponding project task responsibilities.

On-Site Presence Expectations

We understand the importance of shoulder-to-shoulder collaboration and will be on site 75 percent of the time we are needed to interact with AR staff. Our AR IE-BM project staff will be available to participate in project meetings as scheduled by you during the prescribed business hours. While onsite, we will be available during your normal State business hours, Monday through Friday 8 a.m. to 5 p.m.

Staff Replacement Processes

Optum takes a proactive approach to reduce turnover across the organization. This approach provides for a challenging and rewarding work environment for our team members. When we need to replace staff on a project, our human resources strategy helps us expedite the process. The Optum Human Capital organization and our AR IE-BM M&O project team will help us quickly identify qualified internal candidates to fill a vacancy within your defined time frames.

As part of our standard operating procedures, we require our key personnel and other staff to participate in job rotation and cross training. This helps us maintain continuity in the event of planned and unplanned absences or staff diversions. We augment this cross training with support from our corporate training staff to keep all applicable information and training documentation current.

Optum recognizes the following job roles as identified key personnel for the AR IE-BM M&O project:

- Engagement Director
- Operations Manager
- Technical Lead
- Security Expert

We understand, agree, and we will comply with your requirements for key personnel.

Staffing Support Implementation to M&O Transition

The Optum M&O team will use the outlined staffing approach to fulfill the roles and responsibilities to verify a smooth and successful solution transition. [REDACTED]

[REDACTED]

Prior Experience

As mentioned in our T11 response, we lead the ongoing application M&O activities for Vermont Health Connect. In addition to application maintenance and enhancement services, we provide these functions for the State of Vermont:

- Incident management
- Program management
- Change management
- Release management
- Disaster recovery
- Event management
- Escalations
- Master data management and access integration services
- Siebel services
- Capacity management
- Availability management
- Knowledge management
- Service asset and configuration management
- Identity and access management services
- Enterprise content management services

Optum also leads the ongoing application M&O activities for the Massachusetts Health Connector. Our services in support of the Commonwealth of Massachusetts include:

- Incident management
- Program management
- Change management
- Release management
- Event management
- Application maintenance and enhancement services
- Capacity management
- Availability management
- Knowledge management
- Master data management
- Access integration services

Please refer to Section 8.2 in this T13 response for challenges we encountered and the steps taken to overcome them.

3.0 Approach to DDI to M&O Transition

The Vendor should ensure that the responses to this section are in alignment with the requirements set forth in Template T-12 – Maintenance and Operations Requirements Traceability Matrix, Section O3.

DHS envisions that there are key transition activities that need to happen between the DDI team and M&O team. The DHS vendor will be responsible for managing the transition tasks between the DDI (Design, Development and Implementation teams) and M&O team.

Instructions: Describe the Vendor's approach to transitioning tasks for each release between the DDI team and M&O team, including planning activities, roles required, approach to communicating/interacting between the teams, the inherent challenges and how the Vendor has overcome these challenges in the past.

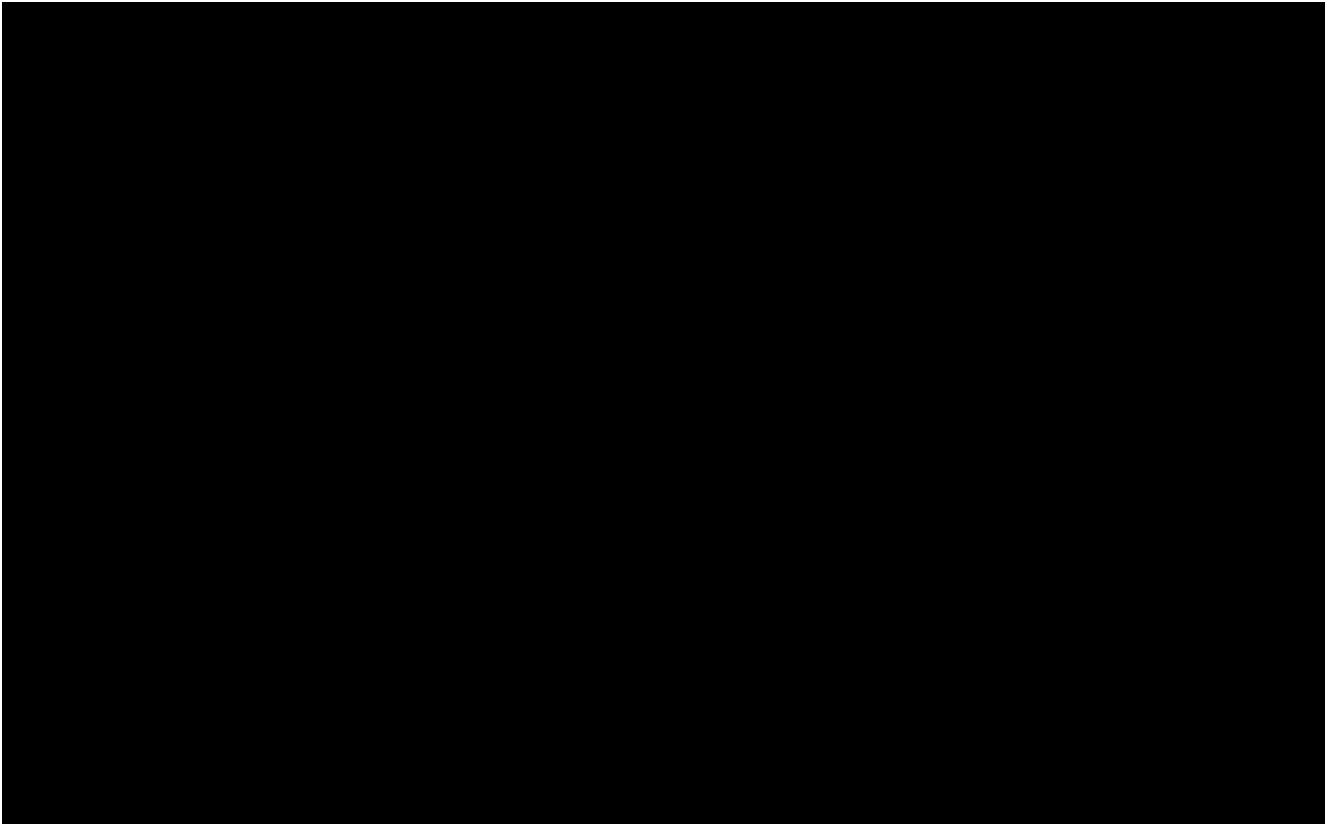
At a minimum, this should include a discussion of the following areas:

- Transition planning
- Knowledge transfer approach
- Approach to coordinating roles and responsibilities between both the teams
- Approach to transition progress milestones/check-points
- Quantifying the transition risk
- Approach towards readiness activities including checklists for completing transition

The Optum M&O team supports new versions of the software releases for all changes moved to production [REDACTED] explained earlier in this response. Operations will begin after we complete DDI and DHS accepts the release deliverables. We begin our M&O activities early in the SDLC according to our [REDACTED]

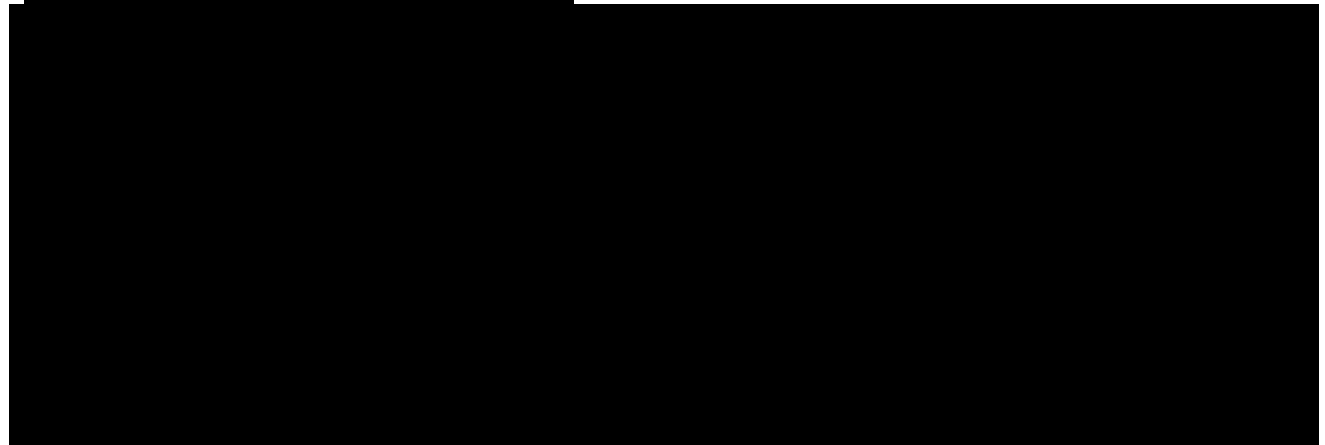
[REDACTED] We work closely with the DDI and release teams support the rollout of the IE-BM solution shown below. [REDACTED]



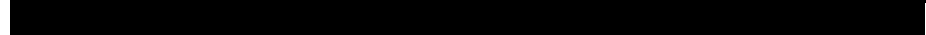


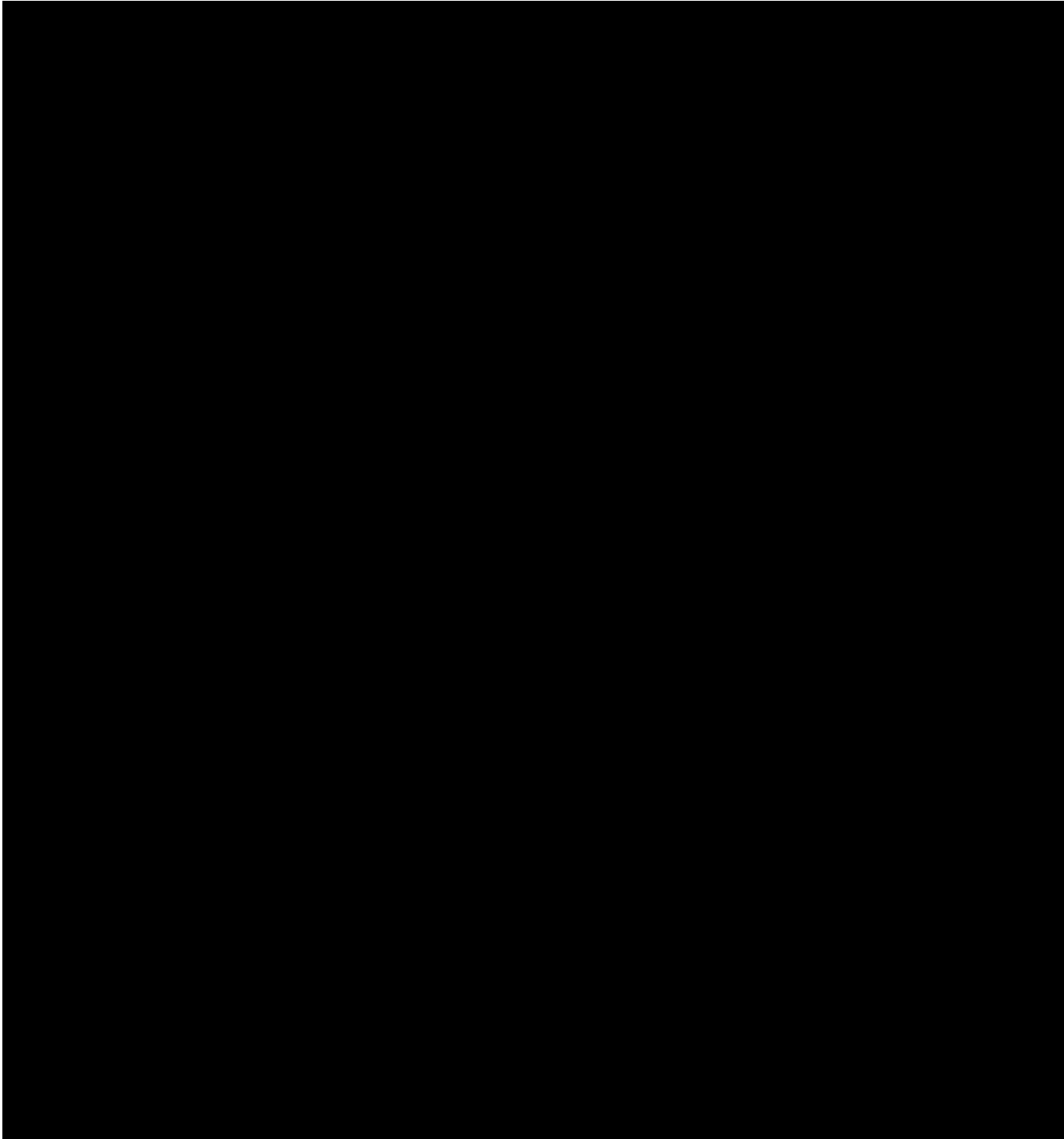
As described in T9, our solution is built on a SOA architecture (as opposed to a point-to-point architecture) enabled by the Optum Integration Layer (OIL), communicating using the [REDACTED]. As a result, you will have the option, and ability to use our services or to extend the solution to leverage State or third-party assets, as depicted in Figure 16. This provides the highest level of solution flexibility that you desire while minimizing custom development of traditional systems that other IE vendors deliver.

Our Operations team begins monitoring the AR IE-BM Solution as soon as we implement it in production. We will provide complete operational support before and after implementation.



This feedback process verifies that the enhancement team does not repeat known issues. For each phase of the development lifecycle, [REDACTED]





Transition Planning

During planning, the Enhancement/DDI team and the M&O team plan, schedule and assign leadership and participation resources for the [REDACTED]. The planning activities will include:

- Sharing the Release Plan with the M&O team from the release coordinator
- Assigning a programmer and a system analyst from the Enhancement team for each release

- Assigning support resources from the M&O team for each release
- Convening a capacity forecast meeting on a periodic basis, by the project manager, with the enhancement lead
- Planning meetings; developing a KT team by the project manager, M&O team members and Enhancement team members

In support of [REDACTED], our staffing plan includes rolling on resources early enough to verify proper and quality transition and support of the new releases occurs.

Knowledge Transfer Approach

As mentioned in our T11 response, during design, our M&O team will engage the process while delivering ongoing input and feedback. The track manager will determine what impact the new code will have on the release. This will include impacts to users, volume, processing time and business criticality. Static and dynamic code analysis and security scans will occur before deployment.

The enhancement team and the M&O team will define KT requirements and deliverables, review batch and end-to-end control reports for each interface and file feed (both inbound and outbound), and review error-handling processes. We will establish the leaked defect and post-production defect processes. As applicable, we will identify and update the first intended use date and any vital business functions. The team will review test results and confirm working processes. The M&O team will use knowledge from prior experience to verify that the correct processes are in place to support a quality product delivery and seamless KT. The formal KT occurs during deployment.

Coordination of DDI and M&O Teams Roles and Responsibilities

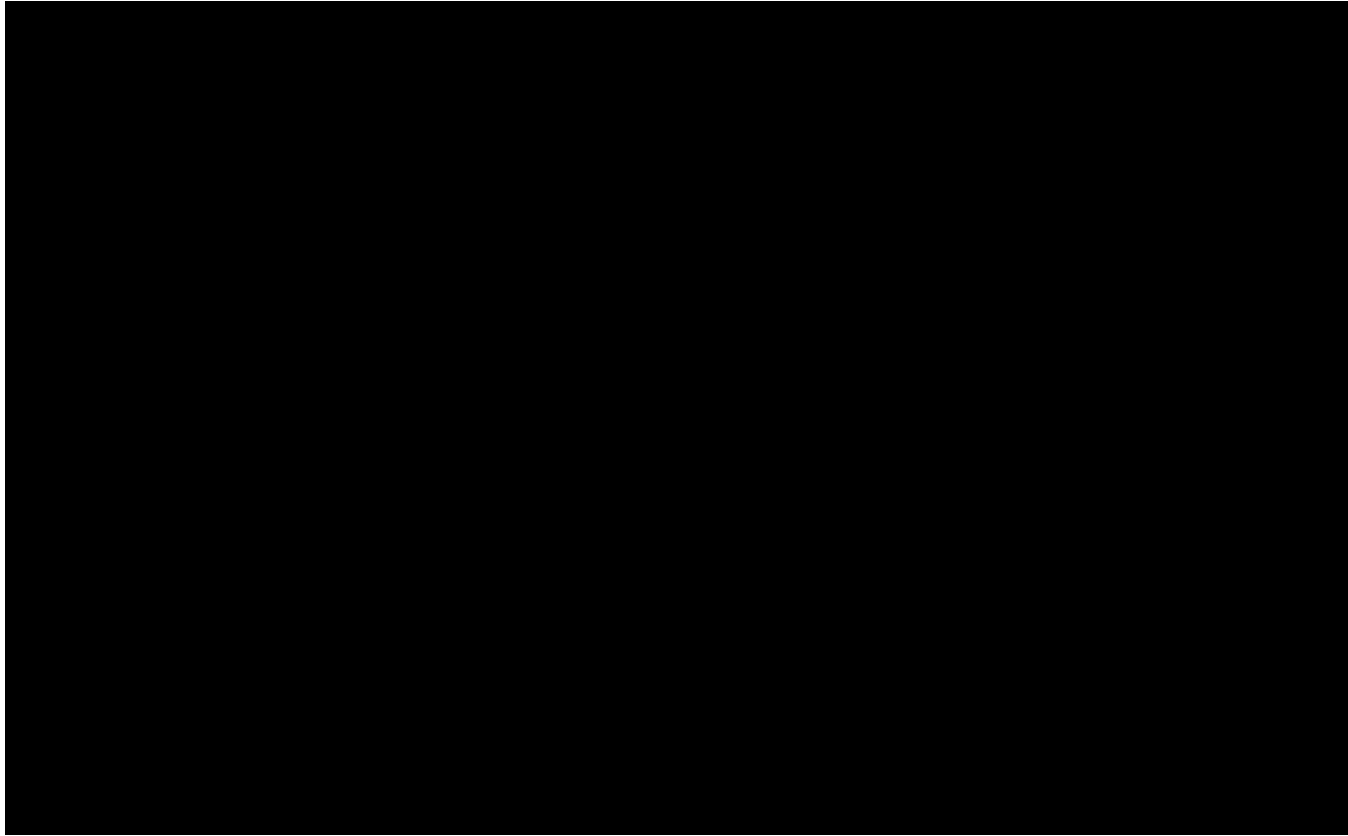
The coordination of DDI and M&O roles will begin during Transition Planning. This coordination continues during testing when the Enhancement team and the M&O team will collaborate on a review of the following test results: functionality, errors, abnormal ends (abends), performance, stress and volume.

Our [REDACTED] test planning and status meetings for the M&O team. The M&O team will attend the meetings to gain information and share gained knowledge and experience.

Transition Progress Milestone/Checkpoint Approach

During deployment, we will perform a formal KT, validate requirements, receive approval and review the [REDACTED]

[REDACTED]

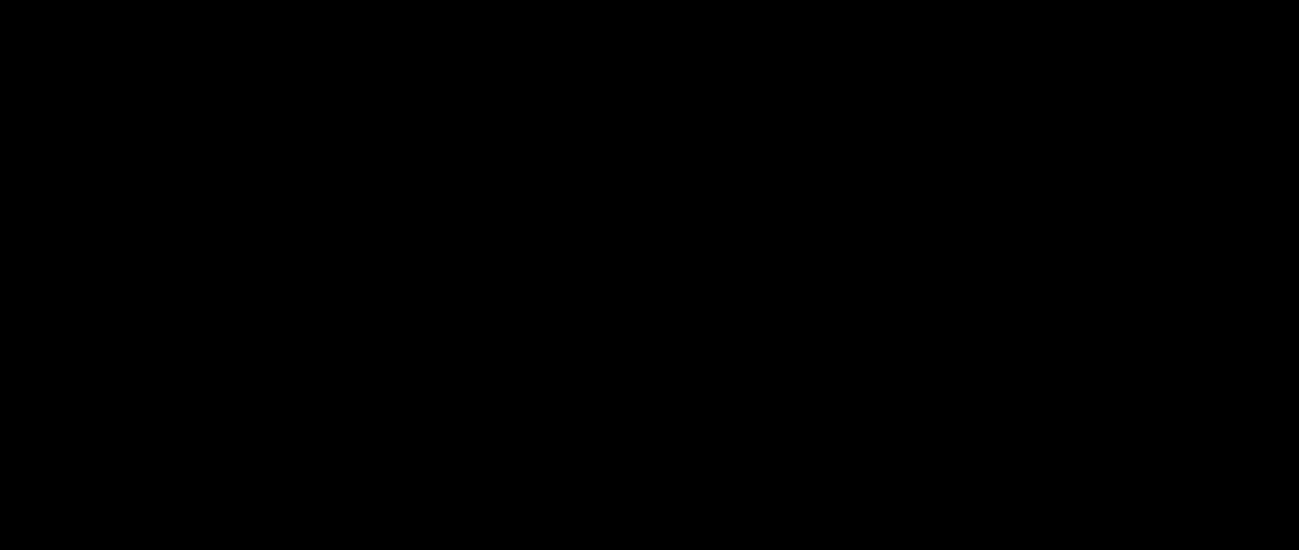


Quantify the Transition Risk

Optum



[Redacted] controls software releases being moved to production to increase quality and reduce errors.



Readiness Activities Approach

During post-implementation, our track manager, the Enhancement team and DHS team will attend the post-deployment meetings to review the Leaked and Post-Production Defects status. It will also be a forum for you and the Enhancement team to discuss any issues encountered.

The M&O Ticket Tracking System confirms that the Enhancement team is working on defects. The track manager is responsible for assigning tickets. If the M&O team has the capacity and post-deployment work is needed, the M&O team will perform the work. The M&O team and the Enhancement team will collaborate on the coordination of timelines for defect resolution and will decide on an appropriate release within the agreed-upon post-deployment support period. We will report overall status to the operations manager.

Optum will update the Operating Manual and system documentation to support new versions of the software. The Operating Manual provides the guidelines for operating procedures and SLAs for new versions of software. We update the system documentation to reflect the change or addition of new functionality introduced with the new version of software.

We will verify that all groups who support the software receive training. We will also make sure staff members receive the appropriate training in the change or addition of functionality introduced with the new version of the software.

4.0 Approach to System Modifications/ Enhancements

The Vendor should ensure that the responses to this section are in alignment with the requirements set forth in Template T-12 – Maintenance and Operations Requirements Traceability Matrix, Section O4.

DHS anticipates modifications and/or enhancements will be required to the IE-BM application as well as other applications transitioned under the Vendor's scope, during the M&O phase. These could range in priority and size. The Vendor will be responsible for managing the entire implementation lifecycle for these changes from receiving the request through successful deployment into the production environment (and training, if required).

Instructions: Describe the entire process required to convert a request into a deployed enhancement. Include a discussion regarding how the Vendor plans to schedule/bundle enhancements, how the process may change based on the size/complexity of any changes, staffing approach to support the potential for variable demand, any challenges envisioned and how the Vendor proposes overcoming these challenges. The response should include a description of the approach for the following:

- Estimating costs
- Defining/documenting the requirements
- Detailed design
- Configuration and development
- Documentation management)
- Testing
- Training
- Deployment
- Coordination between the various teams during deployment including activities performed such as regression and performance testing and deployment scheduling

Optum understands that DHS requires an established SDLC methodology that will support the necessary changes to EEF and the AR IE-BM Solution. It is for this reason we employ the same agile-based Optum Delivery Method that we use as our SDLC for project or enhancement work.

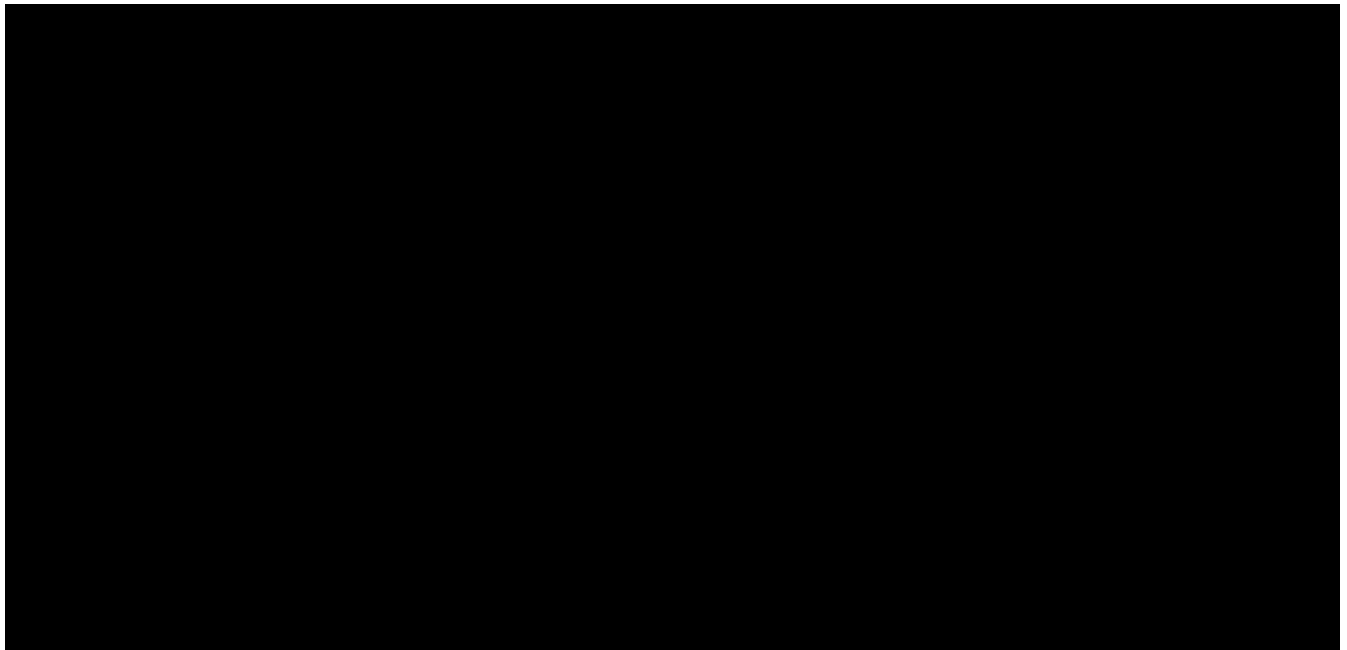
As described in Section 2.0 of the T11 response document, our SDLC methodology focuses on quality and has proven successful in our work in State HHS projects, including those in Massachusetts, Vermont, and West Virginia. Our standard framework and practices for our SDLC provide early and continuous delivery of quality, fully tested software. The Optum SDLC methodology incorporates our experience, lessons learned, development tools and templates that span various HHS projects. The methodology provides a roadmap to produce a stable, sustainable system while reducing project risks that affect budget, schedule and performance. We also understand that DHS has internal standards and existing procedures. We will adapt our work and tailor our methods to meet your requirements for managing changes to the EEF and the AR IE-BM Solution.

Our preferred approach is to use an agile or iterative development approach that mitigates risk during the construction process. We base this recommendation on our experience and lessons learned in successful implementation of similar HHS projects. We are guided by our knowledge

of the integrated eligibility domain, our systems integration expertise and our extensive experience in successfully delivering IT projects.

Our SDLC approach to system modification and enhancement management includes the following phases:

- Analysis and Verification
- Design
- Development
- Validate
- Deployment



We describe our system modification and enhancement SDLC phases and approach discussion with your requirements in the following section.

Analysis and Verification

Analyzing and prioritizing which enhancements should be worked on is a key first step in the planning process. While many requests may be submitted by many various stakeholders, a clearly defined scoring process is required to determine which enhancement requests should take priority. This scoring process should include a cost/benefit analysis that takes into account the end-user impact and benefit, the risk and/or risk avoidance aspects of the enhancement, and the regulatory compliance aspects.

As input to this planning process, we will assist your Staff to identify (and conduct) annual planning for technology refreshes as part of your overall risk mitigation strategy. We will also work with your Staff to help identify system enhancements required to meet federal requirements, align with the Medicaid Enterprise Certification Toolkit (MECT)/Medicaid Enterprise Certification Lifecycle (MECL), and satisfy the objectives described in the State's Advance Planning Document (APD).

Cost Estimation

Our approach to estimating the cost and effort of any given enhancement involves clearly understanding the scope and requirements of the request as they relate to the current environment. With this understanding, we perform a gap analysis to identify the work breakdown structure and tasks to accomplish the delivery of the new functionality. When we create the work breakdown structure and identify the dependencies and resources, we are ready to estimate the effort.

For smaller enhancements, we rely on a simple estimation template that considers the relative size and complexity of each user story based on the team's historic experience. This approach is referred to as Planning Poker in many agile circles. When we agree on the user story size and complexities, the model determines three sets of independently derived estimates (an optimistic estimate, a pessimistic estimate and a most-likely estimate). This allows us to see a range of possible costs and incorporate the level of risk as well as the probability of that risk occurring into the estimation.

For larger enhancements, with a larger number of requirements and user stories, we leverage a more rigorous estimation model. While this model is also based on the relative size and complexity of each user story based on the team's historic experience, it also considers more traditional estimation factors, such as data volumes, usability factors and performance requirements (Non-functional Requirements [NFRs]) and SLAs). The estimation techniques we generally use for these complex enhancements involve developing a Cost Construction Model (COCOMO), Monte Carlo or Function Point Analysis.

Requirement Definition and Documentation

While the relative size of each enhancement determines the level of effort and the degree to which we strictly adhere to the standard SDLC approach, we follow each aspect of our SDLC to some extent, regardless of how big or small the work effort.

As such, for each enhancement, we review, define and document the system modification or enhancement-related requirements definition during analysis and verification. We define the detailed application-specific system requirements and application interface specifications, if applicable, to support your requirements. We then document the application-specific system requirements in the System Requirements Inventory (SRI) and Requirements Traceability Matrix (RTM). The RTM includes both traceability to application-specific system requirements and business requirements. We will use the Project Requirements Document (PRD), Solution Summary Document (SSD) and Business Requirements Traceability Matrix (BRTM) to define application-specific system requirements.

In addition to defining application-specific system requirements, we will also perform assessments to determine whether any project in the release meets the entrance criteria for maintenance and operations support. The major tasks include:

- Identifying application-specific system requirements
- Creating the SRI
- Establishing the application-specific RTM
- Documenting application interface specifications
- Estimating the change

We properly document the tasks performed during this phase. The documentation includes the details of the change, the scope of impact and the proposed process and estimates. We use our detailed Requirement Request Form to document this information.

The documents we typically create during analysis and verification include:

- PRD
- Application interface specifications template
- SRI
- RTM
- Application Risk Analysis Report
- Requirements sign-off

The output of this phase is a recommended schedule for the implementation timeline. We will seek your approval before deploying any changes to the business functionality to production. The guidelines we use for this phase include:

- Referencing requirements documents, use cases and system user documentation to determine the proposed solution
- Tracking and storing artifact versions and approvals using our document management tool, which is described in the following Detailed Design text
- Making release artifacts available for audit post production, according to your specific guidelines

In addition to providing this documentation, we will also support DHS in preparing for annual federal reviews and certifications (e.g. Medicaid and FNS) by preparing required documentation throughout, attending interviews and providing additional information and consultation.

Detailed Design

We will perform detailed design activities for the solution and complete documentation during design. During design, we continue to build on the activities completed during analysis and verification. We create the Technical Specifications for the components identified during requirements analysis and update the Application Interface Specifications as required. Before starting development, we will verify and validate the activities for completeness. Depending on the size and scope of the enhancement, three main components are potentially included in the design:

- **User interface design:** We develop detailed designs for all user interface components consisting of a working model of the application, detailed description of each user interface component and a graphic design. The RTM is an input to the component design in the absence of any other defined design artifact.
- **Components design:** We create the technical specifications required to develop code components for the release. We use the RTM as input to component design in the absence of any other defined design artifact.
- **Data architecture design:** We create the data conversion design that helps us develop the data conversion tools. The physical data model enables us to build the database.

Our design documents will include the following, as appropriate, depending on the enhancement:

- User Interface Component Specification
- Data Classification Document
- Logical and Physical Data Model
- Technical Specifications
- Use Cases
- Solution Summary Document
- REF Checklist
- Design Sign-off

Guidelines we use for this phase include:

- We will leverage existing solution designs, user interface designs, component designs and data architecture designs.
- We will make sure that the design is reviewed and agreed upon before proceeding to development. We recommended reviewers include DHS, the technical lead and the database administrator.

Configuration and Development

Our Development team will use the designs generated during design and develop or update the appropriate database and application components during this phase. We will perform the appropriate configuration and development activities that include the coding, code review and unit testing of the release components (.e.g., user interfaces, program code, job control code, databases) during development. Before the start of testing, we will verify the successful completion of these activities. If we identify any needed changes to the solution design during this phase, we will update the design documents and take the design through the review and approval process again.

Development documents include:

- Code review and defect tracking workbook
- Coding standards addendum
- Test Summary Report

Guidelines we will use for this phase include:

- We will document code changes using an automated configuration management tool (e.g., Rational ClearCase, CA Endeavor®) or using an Application Change Log; our Development team will verify that source code is protected per the Security Policy.
- We will use output from code scanning tools (e.g., Checkstyle, PMD, FindBugs™) as appropriate.
- We will support automated tools for defect tracking and management as a best practice; Optum has had success using various tools, such as ALM and ServiceNow, with state clients.

Documentation Management

For enhancement work, we will follow the same document management practice established during the AR IE-BM Project. In most cases, we will assign each enhancement an identification number based on a change request number or other means. We will identify documents produced specifically for an enhancement with this enhancement identification (ID) number as well as the unique document ID and name. To provide clarity, these IDs will be consistent with the deliverable numbers you provided in the RFP. We will include the enhancement ID number as well as the document ID number in the file name. The standard format for a document name is as follows:

- < Enhancement ID_Document ID_Document Name >

Document names will be concise so that they are easily identifiable. Additionally, to maintain proper documentation organization, each document will have a cover page containing the contract name, contract number, and the document ID.

Reference Documents

For any related documents tied to a deliverable, we will list them in a Referenced Document table and place them in a reference folder with a link in the deliverable to that folder. We will update these documents and maintain them as necessary.

Deliverable Tracker

In planning, we will identify deliverables and develop a spreadsheet for tracking purposes. For enhancement work, these deliverables are often merely updates to existing documentation. The Deliverable Tracker will identify a document by title and document ID and include a description of the deliverable, identify an owner, and track informal and formal review processes. The Deliverable Tracker is also a good tool to support project audits.

Store - SharePoint Repositories

To best meet your needs, we will use two Web-accessible project SharePoint repositories. These include one that Optum will maintain for internal development use and one that you will maintain to share information/documents with your stakeholders.

When our team develops an initial deliverable draft, we will store it on the Optum internal SharePoint site. Only Optum resources will have access to this site.

When the document is ready for your review, we will upload it to your SharePoint site where it will remain throughout the co-creation process. Authorized DHS and Optum resources engaged on the project will access the document from the DHS SharePoint repository.

We will also store any supporting artifacts (non-deliverables, such as Visio diagrams or PDFs) on the Optum SharePoint site during development. They will be listed in the Referenced Documents table at the end of each document and uploaded to your SharePoint site, along with the deliverable.

Workflow Process

At a high level, our document workflow process is as follows:

1. We will store initial draft document deliverables in the *Work in Progress* folder on the Optum SharePoint site.

2. During our internal review, we will move the document to the *PMO Review* folder on the Optum SharePoint site.
3. After we assess the document against the Deliverables Expectation Document (DED) and PMO quality criteria, and approve it internally, we will upload the document to the *DHS Review* folder on the Optum SharePoint site.
4. We will then upload the document to the DHS SharePoint site for your review and feedback.
5. After revising the document to address your feedback, we will re-submit the document to you for approval.
6. We will store the final accepted document version in the *Contract* folder on both the DHS and Optum SharePoint sites.

We will use both automated SharePoint workflows and manual workflows to develop deliverables and documentation.

Document Retention

We will adapt our requirements to match your standard document retention policies.

Security and Protection

We maintain and enforce a clear desk policy company-wide for confidential and sensitive documents. To reduce the risk of unauthorized access, theft or damage, we follow these protocols:

- We lock confidential or sensitive document hard copies in cabinets when not in use.
- We lock away electronic storage media, including laptops, mobile phones, personal digital assistants and others that contain confidential or sensitive information when not in use and password protect its access.
- We store documents on a central storage device (SharePoint site), which will only be accessible to authorized users.

Certain documents that contain particularly sensitive information will be subject to additional protocols. For example, we will store documents that contain protected health information (PHI) or personally identifiable information (PII), System Security Plan findings or disaster recovery findings in a secured SharePoint location requiring pre-approved access and traceable login credentials.

SharePoint version control allows us to recover older document versions. This gives us the option of reverting to a previous version of a document and recovering the content within that version. We will back up the Optum SharePoint repository daily. Optum also maintains a mirrored backup site, which provides an additional mirrored environment for disaster recovery and business continuity purposes. Our processes, combined with your standard backup processes, will create redundancy so that we can recover important documentation. The two SharePoint repositories will also provide redundancy, since final DHS-approved documents will be stored on both the DHS and Optum SharePoint sites.

During planning, we will review email encryption requirements with you and implement DHS-approved email encryption practices. Additionally, Optum will follow industry standard and DHS-prescribed virus detection and prevention measures, including proper user awareness

procedures. We emphasize to users that preventing viruses is the best possible way to protect against them.

Document Sign-off and Sharing

As described earlier, we will use the DHS SharePoint site as the AR IE-BM Solution shared document repository. When all required revisions are complete, we will upload the final-draft document to the DHS SharePoint for approval. We will then notify you that the document is ready for review, or a joint final review walkthrough.

Upon reaching mutual agreement on the final version of a document, Optum will send a sign-off request for electronic approval. After receiving approval, we will upload the final, electronically signed deliverable to both the DHS and Optum Contract SharePoint sites. We will also update the Deliverable Tracker and record the date in the approved column.

SharePoint Version Control

We take advantage of standard SharePoint version control functionality. Version control for a document library in SharePoint is configurable depending on the particular requirements.

We use the following two SharePoint versioning options:

- **Create major versions:** This option specifies that numbered versions of documents are retained by using a simple numbering scheme, such as 1, 2 and 3. In major versioning, all users who have permissions to the document library will be able to view the content each time a new version of a document is saved. This option is useful when differentiation between draft document and published versions is not necessary.
- **Create major and minor versions:** This option specifies that numbered versions of documents are retained by using a major and minor numbering scheme, such as 1.0, 1.1, 1.2, 2.0, 2.1 and so forth. Versions ending in .0 are major versions and versions ending with non-zero extensions are minor versions. In major and minor versioning, any user who has read permission can view major versions of documents. We will specify users who can also view minor versions as agreed upon with DHS. Major and minor versioning is typically useful to differentiate between draft content, which has not been approved, and published content that is viewable by a broader stakeholder audience.

Check-Out and Check-In

Within SharePoint, as prescribed by industry best practices, we will require that users check out a document from the library prior to editing. The user will then check in the document when finished. The benefits of the check-out and check-in features include:

- **Control over when document versions are created:** When a document is checked out, the author can save the document without checking it back in. Only the author can view these drafts and changes. A new version will be visible to other users when the author checks in the document and creates the new version.
- **Control over and accurate retention of changes made by more than one author:** When a document is checked out, only one person at a time can edit that document. This prevents multiple contributing authors from making simultaneous document changes that might be unknowingly overwritten and lost when the documents are saved on top of each other.

- **Capture of historical revision information:** When checking in a document, the author can add comments describing the changes made to the document, creating a historical record of revisions that can be maintained on an ongoing basis.

Testing

Our testing process includes the test planning and execution activities necessary to confirm that the enhancement or change is working properly and according to your requirements documented during analysis and verification. We also perform test verification to confirm your acceptance of the test results.

Test planning activities help identify and allocate the required resources, define the test schedule and modify/develop test scripts for each requirement. Initially, the majority of the test-related artifacts from the AR IE-BM Project will be reused and leveraged to the extent possible, including the use of test automation tools and scripts. However, as time passes, there will be a need to develop new test cases and develop test planning activities for unit, system, integration, regression and performance testing of new functionality.

The RTM helps identify, verify and create test scripts or conditions that trace back to requirements. We update the RTM periodically to make sure test cases and the test scripts trace back to the requirements.

For all phases of testing, we document the expected results for each test script. As the testers execute each test script, the actual results are documented and compared against expected results. We analyze each script and assign a pass or fail designation. For scripts that fail any component of testing, we send them back to the Development team on a period basis or on a predetermined schedule.

After successfully completing testing activities, we compile the Test Summary Report. We submit this report for your review and approval before deployment begins.

As appropriate, our test documents include the following, based on the size of the enhancement:

- Master Test Plan
- Test Scripts
- Test Summary Report

Training

Again, depending on the size of the enhancement, we will provide initial and ongoing training for our team members as documented in the Training Plan, maintaining training records in SharePoint, as appropriate.

As appropriate, training documents include the following, based on the size of the enhancement:

- Training and Knowledge Transfer Plan
- Training materials (e.g., PowerPoint presentation, Webinar)

End-user training curriculum will go through a regular maintenance cycle upon starting M&O. A well-maintained curriculum ultimately affects the preparedness and productivity of your staff members. The goals and objectives for executing on a predetermined curriculum maintenance plan with regularly scheduled revision cycles include:

- Verifying the curriculum meets business goals and objectives in preparing the employee for his or her role by completing timely updates related to programs, systems, processes and procedures
- Mitigating the snowball effect of continual curriculum changes by monitoring sources of change and bundling revisions into a manageable, predictable schedule, allowing effective workload balancing and resource planning

Sources of changes can come from many different avenues:

- Company-wide initiatives
- System releases and updates
- Process updates
- Business partner feedback
- Training delivery feedback

A regularly scheduled curriculum maintenance rhythm provides a consistent, predictable framework for handling revisions to existing training materials. The maintenance schedule is an agreed-upon calendar between Optum and DHS that considers the IT release schedule and other business initiatives.

Deployment

The activities performed during the solution deployment include developing the Deployment Plan, the Back-Out Plan and deployment readiness activities.

We document the plans and activities in a Change Ticket. The Change Ticket is part of our change management process to track each change through the approval process. We can submit the Change Ticket early and update it as the release progresses. The Change Approval Board must approve Change Tickets when completed, prior to the production deployment date.

Our Deployment and Back-Out Plans document the activities related to implementation of the change to production, and the steps necessary to back out the change if unexpected issues arise after deployment. Specifically, the plans include:

- The Change Ticket number
- Identification of the systems impacted by the change
- The names and roles of each individual participating in the deployment process
- An itemization of the deployment activities and schedule (date and time)
- The tools and artifacts that will be used during the deployment process
- A Deployment Readiness Checklist that identifies the items to verify, and actions to take to confirm readiness for deployment to the production environment
- Documentation of change approval reviews and approvals
- Detailed steps to follow to back out the change if unexpected issues occur after deployment
- A Post-Deployment Checklist that identifies the individuals and tasks required to verify that the change was successful (i.e., post-implementation functional testing, regression testing and written confirmation from the change owner prior to the change request being closed)

- Frequent and communication (e.g., emails, change reviews) to the appropriate stakeholders, including business, technical, change owner and affected organizations, throughout the change process

Solution deployment documents include:

- Deployment Plan
- Deployment Readiness Checklist
- Test Summary Report

Guidelines we use for this phase include:

- We will bundle multiple enhancements together into a single release and update the following artifacts sections as described:
 - Deployment Plan/Activities
 - Deployment Readiness Activities
 - Back-Out Plan
- If a change/enhancement includes batch applications, we will verify that the Job Control Operations Checklist is included.
- We will track and store artifact versions and approvals using our document management tool.
- We will make release artifacts available for 36 months following deployment to production to support audit requirements.

Team Coordination

Coordination across the various teams during deployment, including activities performed, such as regression and performance testing and deployment scheduling, is a key element. This coordination begins right up front with the initial requirements verification, estimation and prioritization of enhancements. We will work with your teams during these early phases to verify the work we are planning aligns with your strategic direction.

During design, building and testing, we will provide weekly status updates of the enhancements. This will include the state (phase) each enhancement is in, cost tracking (actuals versus estimates) and issues/risks associated with each enhancement in the queue. These status updates will be in the form of a written report as well as a weekly scheduled review session.

During testing, and especially during UAT, we will work with your SMEs to validate the final functionality before scheduling the enhancement into a release. As previously noted, we will schedule each enhancement using a Change Ticket, whether implemented as a stand-alone release or as a bundle (packages with a group of enhancements). During this phase, the coordination and communication among the stakeholder teams follows our standard change management process. This will include frequent and ongoing communication (e.g., emails, change reviews) to the appropriate stakeholders (business, technical and affected organizations), as identified in the Change Management Plan.

5.0 Approach to M&O Turn-Over or Transition Services

The Vendor should ensure that the responses to this section are in alignment with the requirements set forth in Template T-12 – Maintenance and Operations Requirements Traceability Matrix, Section O5.

M&O of all applications under the Vendor’s scope may be transitioned to a successor service provider or to the State, after the contracted operational support period (through roll-out and steady-state) expires. The Vendor must provide assistance in this transition. The detailed roles/expectations are outlined in the RFP and Response Template. The expectation is the Vendor will provide all of the support required to transition the DHS IE-BM Solution to the new support organization without any adverse impact to DHS stakeholders during transition.

Instructions: Describe the Vendor’s approach to providing transition support including planning activities, roles required, approach to communicating/interacting with the new support organization and DHS stakeholders, the inherent challenges and how the Vendor has overcome these challenges in the past.

This section describes our approach to meeting the requirements set forth in Template T-12 – Maintenance and Operations Requirements Traceability Matrix, Section O5. All of these requirements have been answered with a ‘Yes’.

We understand our responsibility to you to consistently and effectively meet the needs of your program clients, DHS staff members and stakeholders. If maintenance, enhancement and operations responsibilities should transfer from Optum to another vendor, Optum will continue to uphold the duties to facilitate a transparent transition.

Our experience in providing HHS IT solutions results in considerable knowledge and qualifications as both an incoming and an outgoing vendor. This dual perspective gives us a clear understanding of each party’s transition responsibilities and the key factors contributing to a successful transition.

Transition Out Plan – Project Initiation With a New Vendor

We will cooperate fully with the incoming vendor, other contractors and you to provide the required transition services. We will supply you with existing data, code and documentation needed to provide continuity of the project. Planning and transfer of operations allows uninterrupted continuation of services. Our transition services will include meeting with the incoming vendor and devising work schedules agreeable for both you and the vendor. We have experience in successful transitional activities in New York, Maryland, North Carolina, Mississippi and Oregon. We supported these states and the new vendor in a proper hand-off of responsibilities on various complex HHS systems. We have experience transitioning into engagements and fully appreciate and understand the importance of a well-planned and coordinated transition-out plan to deliver a smooth handover. Performance and relationships are

Turnover and Closeout Best Practices

- Work collaboratively with DHS and vendors
- Shadowing process is critical
- Assign turnover responsibility to a senior manager, experienced with the DHS and knowledgeable about turnover requirements
- Assign turnover activities and deliverables to individual owners who are knowledgeable in that area
- Adapt the proven quality tools we use during transition for use during turnover
- Follow our mature change management process and incorporate lessons learned for our turnover activities

two other core values of Optum—we bring both to making sure we provide a successful transition of AR IE-BM project responsibilities. Providing uninterrupted services to you and your citizens is important to us.

Optum will provide a transition strategy supported by plans, complete documentation and trained staff (including dedicated special transition resources, as necessary). Key elements of our transition strategy include:

- Developing a Transition Plan to assist you in continuing operations throughout the transition period
- Initiating the project with the incoming vendor to identify the services and information we will provide
- Project planning and management
- Turning over system documentation for the AR IE-BM Solution under our control
- Transferring Optum system testing to the incoming vendor
- Transferring UAT support to the incoming vendor
- Supporting system conversion activities from Optum to the incoming vendor
- Transmitting or supplying data as directed by DHS
- Securely destroying all program data held or stored by Optum at the end of contract, following your approval

Our transition approach minimizes disruption of ongoing services. We will provide a smooth transition for your and your project stakeholders.

Figure 20 shows the process of transitioning to a new vendor.

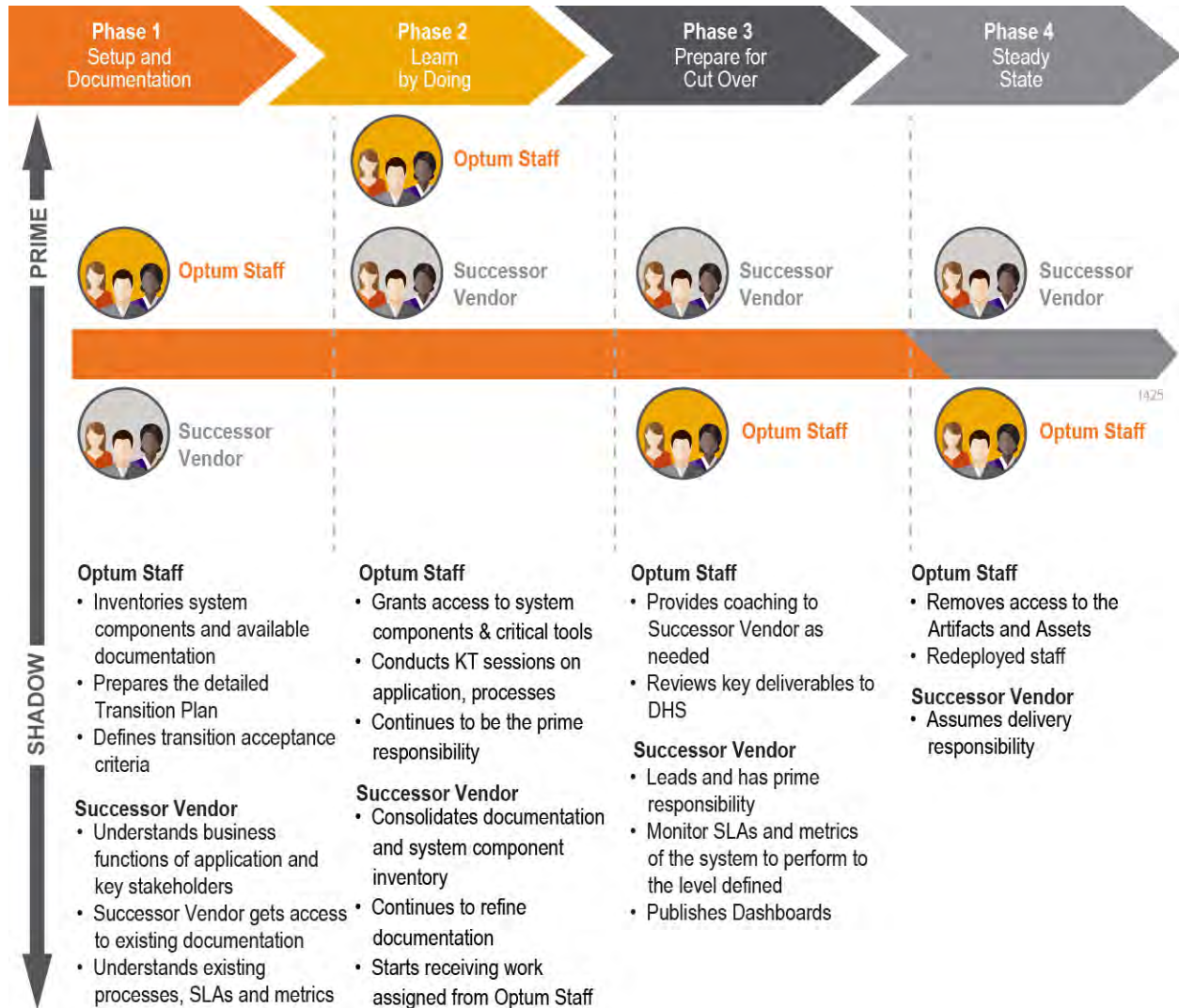


Figure 20. Optum Transition-out Plan - Project Start to a New Vendor.

Our goal during turnover is to make sure you and your stakeholders receive ongoing, uninterrupted service.

Setup and Documentation (Phase 1) is the preparation and planning of transition where Optum inventories system components and available documentation and transfers project assets to the new vendor. These assets come in multiple forms, which are categorized as either artifacts or digital assets. For artifacts, Optum will grant access to the artifacts location for the new vendor. For digital assets, Optum will provide the new vendor access to such repositories. The new vendor will review the existing documentation for maintenance and operations processes, SLAs and metrics.

The following list is a sample inventory of documents we often provide in Turnover. Optum will inventory the current state of artifacts documentation similar to the following documents of AR IE-BM Solution applications:



- System Design Document
- Database Design Document
- Data Management Plan
- Interface Control Document
- System Security Plan
- Interface Design Specification
- Disaster Recovery and Business Continuity Plan
- Process diagrams related to M&O services
- Application inventory (code, configuration, reports)
- Production run books
- Known issues and workarounds
- Service management toolset usage documentation

Phase 1

In Phase 1, we also prepare a detailed Transition Plan with inputs from the new vendor and DHS. This detailed plan will include the number of KT sessions, topics per KT session, effort, attendees and mode of KT sessions. The KT sessions are critical to the success of the transition, and we supply extra attention to detail with them to obtain a successful result. We will provide the current M&O processes and procedures, and grant access to the required documentation. We will also provide the past defects and their resolutions.

Optum will deliver the M&O Transition documents, including:



- Finalized M&O transition scope
- Current SLAs and metrics
- Role assignments/responsibilities (RACI)
- Production support roster
- Current M&O dashboard/reporting requirements
- Escalation processes to DHS
- Current M&O processes the Optum team follows
- Completed Transition Plan and acceptance criteria

The following table includes the content our Transition Plan will include, at a minimum.

Table G: Transition Plan Contents

Section	Section Description and Approach
[Redacted Content]	

Section	Section Description and Approach

Phase 2

In Phase 2, the new vendor will attend KT sessions conducted by Optum. Optum will grant access to the digital assets, tools, resources which are needed to perform successful KT. The new vendor will refine documents with the missing or outdated application information during the KT phase (e.g., run books, known error database, Entity Relationship diagrams, batch jobs, workarounds and contact list). The new vendor will also gain access to the service management tool used by DHS. They will follow the established ticket management process and consolidate all system artifacts in this phase.

Phase 2 is also the *Learn by Doing* Phase in which the new vendor will shadow the Optum team and actively participate in the execution of project tasks. Hands-on experience for the new vendor helps fill any gaps in knowledge. The new vendor will also learn how components interact, about process workflows and where to find additional detail as needed. Optum will still have primary responsibility of the AR IE-BM Solution in this phase.

Phase 3

Phase 3, *Prepare for Cutover* is the Reverse Shadow Phase where the new vendor takes the primary responsibility of the AR IE-BM and continues to perform the maintenance and operations. They will monitor the SLRs and continue to adjust the system to perform at the level defined. Optum will provide coaching as needed. Optum resources will be available to address queries and handle any unknown critical issues.

Phase 4

The new vendor will perform the full array of M&O and enhancement activities during Phase 4 *Steady State*. The new vendor will remove Optum access to the artifacts and assets. The Optum team will disengage from the project at this point.

6.0 Tool Usage

DHS is driving to improve its approach to applications maintenance and operations and expects the Vendor to leverage tools to ensure M&O activities are efficient and effective including items such as the automation of tasks and tracking IE-BM related activities/information

Instructions: Describe how the Vendor plans to leverage the tools outlined in Template T-9 Technical Requirements Approach to make the M&O activities efficient and effective. The response should highlight the integration points with other DHS tools, tasks which will be automated and information/activities/processes that are tracked. This should also include a discussion of the benefits, cost, issues and risks of the approach recommended.

At Optum, we embrace the use of modern tools and technologies to increase the project team's efficiency, quality and delivery performance. Whether these tools are focused on helping us more effectively manage the project or whether they are to help us deliver better quality code or more automation, the end objective is the same: To leverage cost-effective tools and technologies that can truly move the needle on our delivery performance.

The two driving forces that craft our overall tools strategy are our ODM project management methodology and our DevOps strategy for software development ("Dev") and operations ("Ops"). These are summarized below:

Project Management Tools

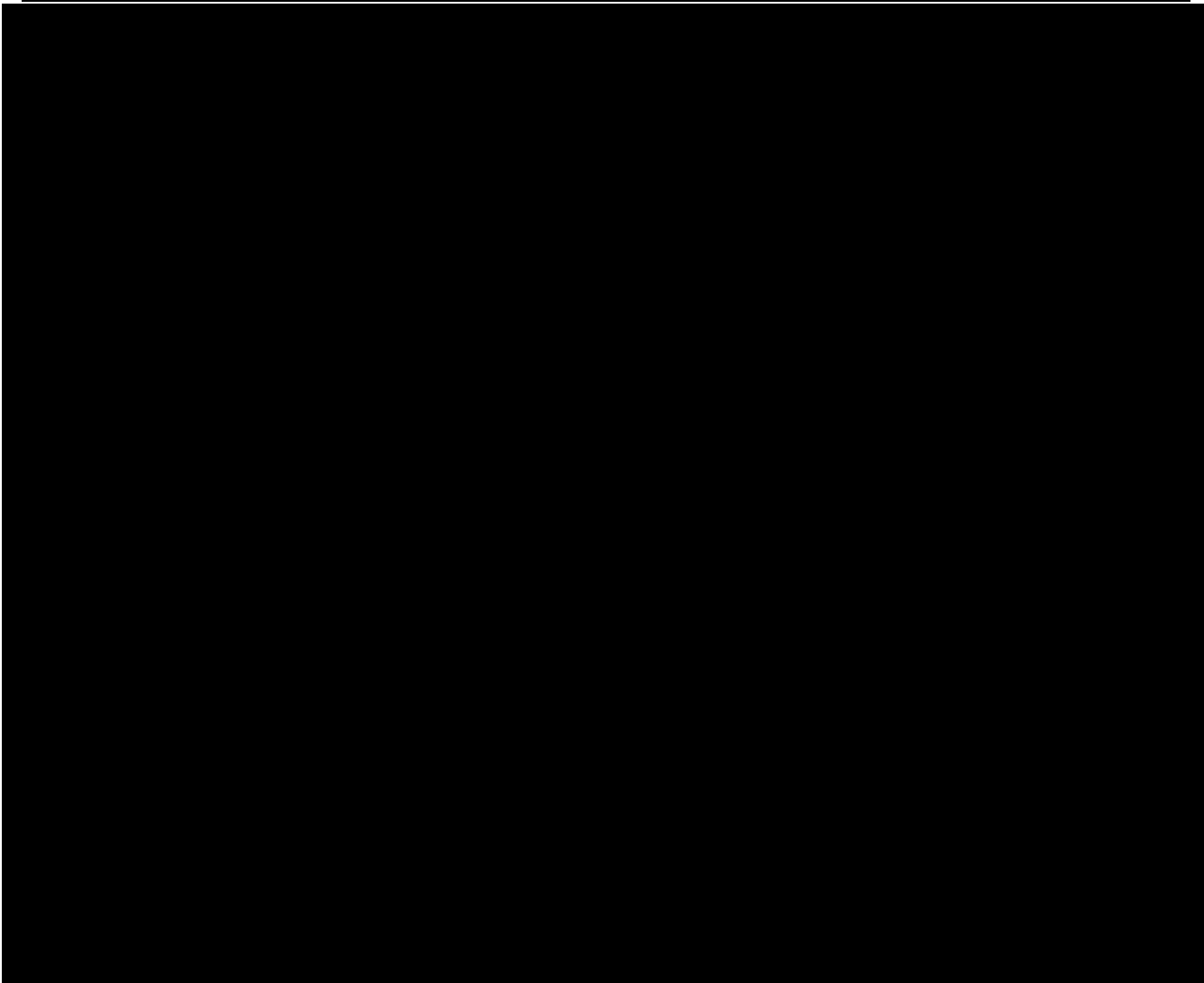
Optum uses a variety of standard tools to facilitate project management activities and maximize the effectiveness of the Optum project manager. Our experienced project management teams are proficient in using industry standard PM tools, such as Microsoft Office, Microsoft Project, and the HP Application Lifecycle Management (ALM) as well as Rally ALM tools, to track and manage facets of the project management process. During the project planning process, we will confirm that the versions of our software tools comply with DHS's approved standards. Versions include:

- **Microsoft Office:** This suite of tools is used to prepare reports, documentation, spreadsheets, presentations and other documents.
- **Microsoft Project:** This tool is used to develop and maintain the AR IE-BM Project Schedule; and to generate schedule reports for status reporting to DHS.

- **Microsoft SharePoint:** This tool is used to create and maintain a central repository of key project artifacts and information. Optum will use an internal SharePoint site to store working and final documents. DHS will provide a shared SharePoint site for storage of pertinent project artifacts and final deliverables that can be readily accessible by authorized DHS and Optum project personnel.
- **Microsoft Visio:** This tool is used to create technical, architectural or other infrastructure diagrams relevant to the project.
- **IRAAD (Issues, Risks, Actions, Assumptions, and Decisions):** The IRAAD tool is used as a central repository for all identified issues, risks, actions, assumptions and decisions, as well as their current status. Use of IRAAD allows DHS and Optum leadership to have a common understanding of project activities that may affect the project schedule.
 - Optum will create and maintain an Excel-based tracking log for this purpose, the Issue/Risk Tracking Log. The log will be stored on the DHS SharePoint site where it will be readily accessible by authorized DHS and Optum project personnel.
 - Alternatively, Optum will work with the State to create an online SharePoint IRAAD log (on the DHS SharePoint site) if that is the preferred tool of choice.
- **Rally ALM:** This is a Web-based application lifecycle management (ALM) tool used primarily for requirements management, including the creation and maintenance of requirements traceability matrices (RTMs), user stories, backlogs, release plans and test scripts.
- **Deliverable Tracker** (automated Optum internal tracker and shared Excel tracker): These tools track the progress of all contract deliverables from inception to signoff. The shared Deliverable Tracker provides a visual summary of each deliverable, and is a comprehensive resource for project audits.
- **PPM Optics:** This is a project portfolio management tool that Optum uses internally. It enables project resources to track time against the AR IE-BM project. Data is extracted from this system into financial workbooks that enable us to track and manage our project finances - budget, actual labor costs, projected labor costs and variance.

DevOps Tools - Software Development and Automation

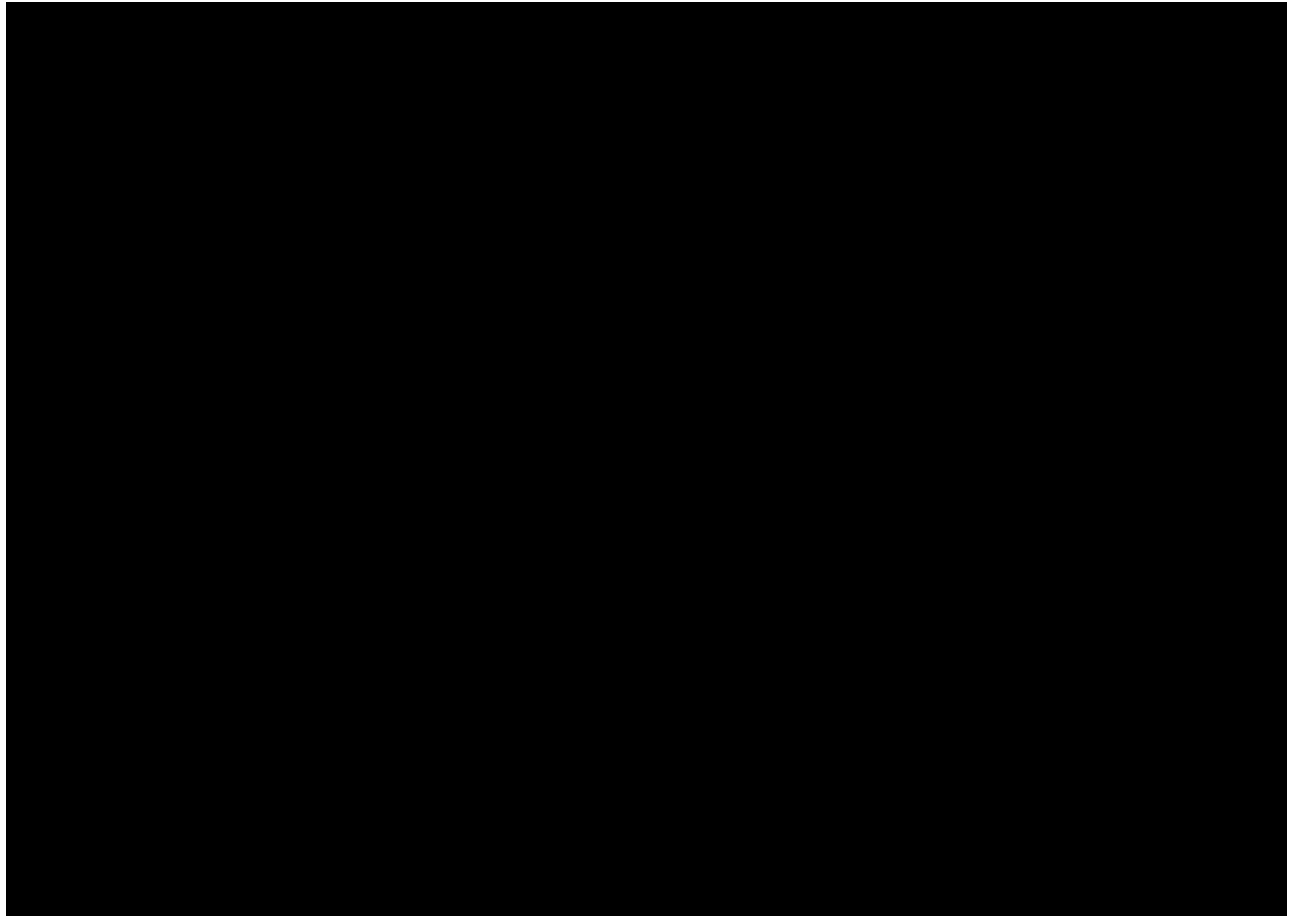
Our DevOps approach to software code management and development that reduces risk and speeds solution delivery. With a strong emphasis on automation, it promotes collaboration and communication between the development and technical operations teams. This approach will give our teams more control over the solution so they can respond to your requirements quickly. We have completely automated our delivery pipeline through the phases, from build to deployment to upgrade. This reduces the chances of an error occurring from manual intervention, resulting in consistently and quickly delivering a higher quality application.



As a standard software development practice, we configure the individual developer machine to have the required compilers and integrated development tools. These tools include Commercial Off-the-Shelf (COTS) products such as JBoss Developer, SQL Developer, Internet Explorer and Firefox. We use standard Optum tools, techniques and processes to perform rigorous code evaluations before code check-in. This includes using products such as [REDACTED] to perform static and dynamic source code evaluations that will help produce code that is more easily maintained. Using these tools, we establish target thresholds before code check-in to build quality into our solution. These tools identify and run the automated [REDACTED] scripts that developers create to perform automated unit testing. Analyzing the results will determine our code coverage targets. This approach also tells us when code will be available to check out for the build process into our QA testing process.

With respect to build automation, [REDACTED] is our tool of choice for orchestrating the build, deployment and upgrade of applications. We have automated code compiling and testing as part of the delivery pipeline. An automated vulnerability scan finds any issues much earlier in the build process. The application is also automatically containerized, along with its dependencies and configurations. These containerized applications provide the ability to quickly perform blue-green upgrades of an application on the Apache Mesos™ COTS product.

Once the build has been deployed, our quality assurance team leverages a full suite of testing and test automation tooling to effectively and efficiently execute our test strategy. These tools include:



The following table summarizes development and testing software tools described above and shown in Figure 21:


Table H: Advanced Technology Capabilities Used by Optum

Software Item	Manufacturer	Functional Purpose
[Redacted Content]		

Software Item	Manufacturer	Functional Purpose

DevOps Tools - Operational Support and Monitoring

Optum leverages various tools to perform the M&O activities more efficiently in a standardized and repeatable way, to increase quality, performance and reliability within the system. We will leverage the DHS JIRA system for help desk and defect management tracking and resolution. Autosys will be used for batch scheduling and Sharepoint for M&O documentation management.

We will use our end-to-end Application Performance Management (APM) process to monitor, chart and trend the performance of our Web applications. This involves using synthetic monitoring tools to run scripted tests from various browsers, locations and user workstations to evaluate capacity, performance, availability, and configuration of applications and infrastructure. These tools can send alerts if a performance parameter exceed a defined threshold. This monitoring also supplies information about configuration and operational state, and assists in system support. The following Figure 22 

Finally, the Mesos and Marathon monitoring tools will continue to be used by the M&O team to support the automation of upgrades and enhancements while minimizing application down time. We will follow the concept of blue-green deployments for performing upgrades of the AR IE-BM application in the higher solution environments. We will use the [REDACTED] tool to deploy onto a dedicated green area and will use our test automation tooling to test for any issues. When all tests have passed, user traffic diverts from the old blue instance onto the green instance. The blue instance is turned off when users have started using the green instance without any issues. In the unlikely scenario of a critical issue occurring, we can quickly switch users back to the blue instance, leaving the green instance for debugging purposes. In this manner, the use of multiple DevOps tools will help deliver your enhancements and upgrades efficiently and with a high degree of quality and automation.

These are the State's preferred tools and will require no additional integration efforts with other DHS systems. This approach will reduce costs by leveraging existing tools and support expertise. The risks of this approach are around the capabilities of the tools as they are currently implemented. Part of this approach will be to perform a full analysis of the current versions and capabilities of the tools to make sure they provide the required level of functionality needed to support EEF and the AR IE-BM solution. If it is determined additional capabilities are required, a plan would be developed to remediate the gaps.

7.0 Approach to Providing Hosted Private Cloud Services (DHS Optional)

The Vendor should ensure that the responses to this section are in alignment with the requirements set forth in Template T-12 – Maintenance and Operations Requirements Traceability Matrix, Section O6.

DHS is considering having the Vendor provide the hosting and infrastructure services for the IE-BM Solution. This includes all components (e.g. OS, servers, data center, network, storage, etc.) and the related services (e.g. back-up and disaster recovery) required to provide the hosted private cloud services.

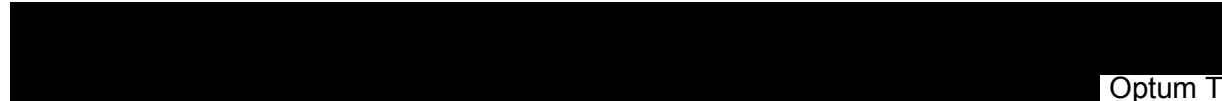
Instructions: Describe the Vendor's understanding of DHS' needs for hosted private cloud services and how it will cost effectively scale the infrastructure. The response should also discuss the role and responsibilities (Vendor vs. the State of Arkansas), how it will provide the staff to support the infrastructure, meet the Service Levels, when the current infrastructure would be migrated and its approach and the critical success factors required to coordinate with DHS and other applications.

Include a discussion of each of the following areas, the challenges and approaches to overcome these challenges:

- Network, hosting and data center services
- Storage management
- Operating system, application and database backup and recovery
- Remote access
- Capacity management
- System monitoring
- Performance management
- Change and release management
- Configuration management
- Infrastructure support
- Infrastructure security
- Disaster recovery
- Batch-job control and scheduling

Network, Hosting and Data Center Services

Optum experience covers the construction, commissioning, operation, retrofit, and upgrading of over 100 data centers including the construction of two Tier III data centers. These sites provide world-class data center services to the health care industry. We do this using industry best practice from multiple sources including the Uptime Institute of which we are members. Our Tier III data centers will provide an integrated, structured approach to hosting, operating, and maintaining an application's portfolio.



Optum Tier

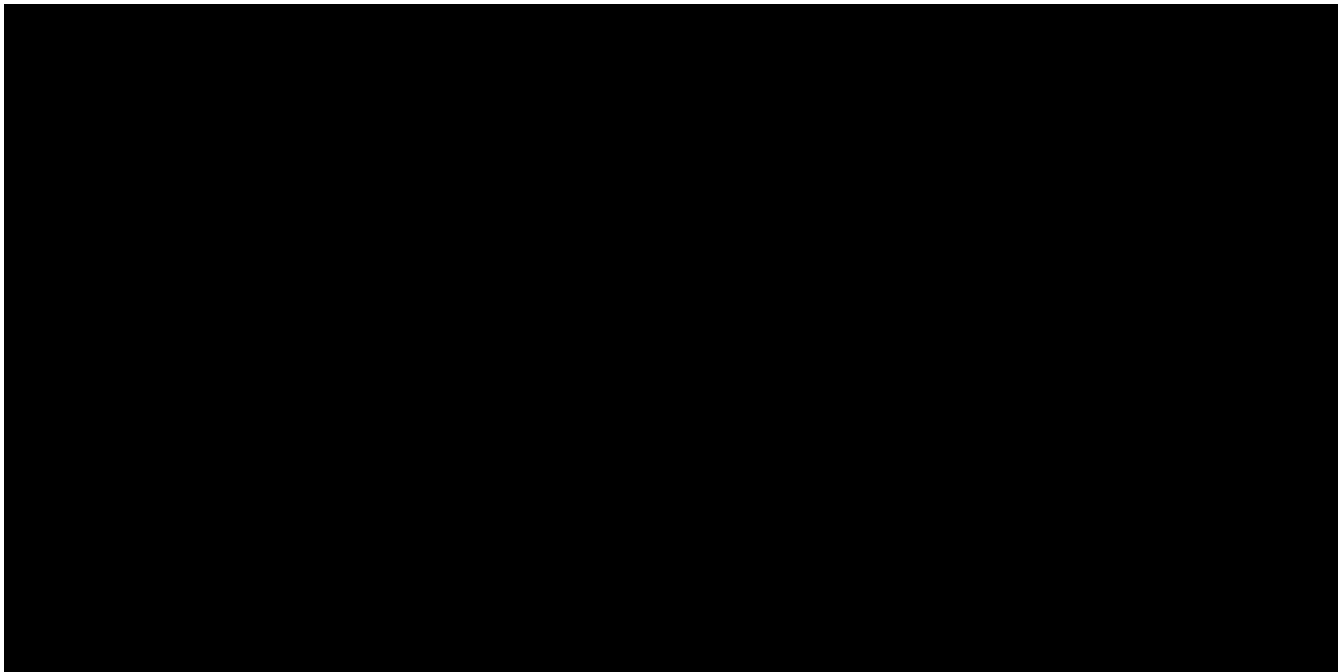
Tier III data centers require that the mechanical and electrical systems are concurrently maintainable, which allows for any component within these systems to be isolated and maintained on a planned basis with no impact to the critical IT load.

Optum offers a geographically dispersed solution that optimizes costs, improves performance and reduces risk using our two Tier III facilities.

Optum data centers deliver highest levels of service availability. Our Tier III certified data centers provide best in class services by utilizing the following:

- 24/7 proactive monitoring of servers including server CPU, disk space and memory utilization, power consumption, and critical services monitoring
- Our next generation architecture leverages scale, improved speed, and stability and is built on virtualized infrastructure architecture
- The appropriate tiered support including: full support, self-support, or custom support
- Resiliency, elasticity, and other features are built into the core infrastructure, providing higher reliability and availability
- Servers that are scalable horizontally and vertically; We offer services to move servers from physically zoned to a highly virtual model, allowing us to use capacity more efficiently

The various power and cooling capacity components supporting the raised floor IT environment have redundant counterparts, as well as multiple independent power and cooling distribution paths. There is sufficient, permanently installed capacity to meet the power and cooling needs of the site when redundant components are removed from service. Production hardware is located in each of these data centers.



Storage Management

Virtual servers utilize block storage from within Optum's hosting services environment.

Currently

Enterprise class storage offers very high levels of availability with no single points of failure (SPOF). In addition to integrated array high availability, redundant storage arrays are deployed across multiple Optum data centers.

Optum storage arrays utilize a performance based auto-tiering capability which encompasses multiple tiers of storage technologies (integrated cache, solid state, SAS and SATA). This dynamic auto-tiering helps verify an adequate level of IOPS is available to hosted environments. Over time, IOPS are optimized as frequently accessed blocks of data are promoted to higher tiers of storage within the array.

Block storage LUNs are presented to the virtual computing environment via redundant SAN fabrics. The SAN fabrics are comprised of Brocade director class switches. Like storage arrays in this environment the SAN switches are highly available. Each SAN fabric is attached to the network via multiple high speed optical fiber cables. The cables attach to redundant Cisco Fabric Interconnects.

Optum has designed and implemented a highly scalable and redundant hosting platform consisting of ESX nodes which are configured to utilize the VMware Virtual Machine File systems (VMFS). VMFS provides advanced storage capabilities that allows for scalability beyond the boundaries of a single system. These file systems reside on data stores within ESX and are comprised of LUN's provisioned from storage within Optum's hosting environment. The file systems, underlying data stores and LUN's provided to the AR IE-BM virtual servers are logically separated. This logical separation prevents other tenants from accessing application data. Optum leverages storage array based thin provisioning to help verify efficient use of the physical storage capacity.

Throughout the entire infrastructure, components including storage arrays and fabric, firewalls, load-balancers, server blades and chassis are deployed in a redundant pair and/or N+1 configurations.

From a storage architecture perspective, disks are presented to virtual machines in a thick provisioned, lazy zeroed design. The disk is presented to each virtual machine in Virtual Machine Disk (VMDK) format on a Virtual Machine File System (VMFS).

Operating System, Application and Database Backup and Recovery

Optum information assets are backed up on a regularly scheduled basis to confirm availability of information assets and limit data loss in the event of an outage. Optum develops, documents and implements backup schedules outlining the type of backup, interval, storage location and the number of copies for all information assets under their control. System and Information Owners are accountable for determining what assets are backed-up per the Optum Classification Levels.

Backups may include, but are not limited to:

- Master files
- Databases
- Transactions files
- System programs/utilities
- Application software
- Parameter settings
- System documentation

Optum backup policy maintains two copies of operational data at its secured technology centers. A Virtual Tape Library System is maintained at the primary data center that emulates physical tape and stores data on hard drives for the purpose of daily operational recovery in case of data corruption or accidental deletion. The data is then electronically transmitted to another disk based array or Physical Tape Library located in Optum's geographically dispersed data centers. Optum maintains sole custody of the data at all times by transmitting over our secured channels.

In reference to the second copy, Optum is the sole entity in the chain of custody for the data, and has opted to encrypt the data, at the time the media is written, for risk mitigation purposes. The data encryption occurs at the time the tape media is created using industry accepted encryption algorithms (256-Bit Advanced Encryption Standard (AES)).

Optum invests significant resources in its information security program and uses a number of network, security monitoring, and encryption technologies to protect our environment and maintain the confidentiality and integrity of the data and information entrusted to us. Optum strategy is to encrypt data at rest without regard to its content or type at the storage media (device) level on both disk and tape. The primary and secondary locations are not fixed entities and can change based on business demands and operational need (i.e. growth, expansion or disaster recovery).

In addition, Optum has implemented several mitigating controls to verify data is protected. These include sourcing of its tape management facilities, implementing a Rapid Recovery solution to confirm data is protected and available, onsite processes for data eradication of disk drives that are replaced during maintenance, and data eradication on all decommissioned storage arrays to Department of Defense (DOD) standards prior to leaving Optum's controlled facilities.

Operational Backups

The Data Protection Infrastructure exists in all primary technology centers. The overall concept is to maintain a primary copy locally with a second copy geographically dispersed offsite. Offsite copies are maintained within Optum owned facilities to reduce cost and business risks. Data is segregated by production/non-production and functional characteristics (i.e. Wintel, UNIX, Database, Archive). The process is managed by the IBM Tivoli Storage Manager (TSM) product. Optum's Backup Strategy includes:

- Systems and databases are backed up daily
 - The primary copy is held in virtual tape and off site copies are replicated before the next cycle begins
 - Five versions of a file are retained for operational recovery
 - Deleted files are kept in the system for 90 days
-
- Use of a Virtual Tape Library System that emulates a physical tape system and stores data on hard drives, which facilitates fast backup and restore time
 - Operational recovery of systems in place in case of data corruption or accidental deletion

Retention/Preservation

Data retention requirements are managed by Records Information Management Policies (RIMS) and are based on governance requirements and drive retention periods (Preservation orders, Sarbanes-Oxley Act (SOX), HIPAA). These are separate from operational backups.

Remote Access

Our proposed connection allowing the State remote access to Optum internal network is through an External Corporate Connection (ECC) Business to Business (B2B) Virtual Private Network (VPN). VPN connections use the Internet to connect maintaining privacy through security procedures and tunneling protocols such as Layer Two Tunneling Protocol (L2TP). These protocols encrypt data at the sending end and decrypt data at the receiving end while preventing unencrypted data from entering the secure tunnel.

Capacity Management

Optum Enterprise Capacity Management verifies there is adequate resource capacity to meet required levels of service for customers and existing capacity is optimized. Enterprise Capacity Management monitors and forecasts infrastructure resource capacity by aggregating and analyzing information using vendor supplied and in-house developed tools to determine appropriate hardware capacity needed to proactively meet forecasted computing needs [REDACTED]

[REDACTED]

delivery of formal monthly reports and provides a quarterly executive-level capacity review.

Along with capacity management, Optum performs additional application performance evaluations by instrumenting and optimizing system and application performance delivering superior response time, enhanced stability, and improved scalability. We accomplish efficient and cost-effective system utilization by monitoring performance indicators such as response times, resource utilization, demand and contention, queue lengths, etc. This data is analyzed and proactive tuning actions performed to confirm maximum system and application efficiency, responsiveness and throughput.

System Monitoring

Optum instruments, measures, and optimizes system and application performance to verify consistent and superior response time, enhanced stability, and required scalability. Optum standard monitoring tools capture the availability status of each environment. Optum monitors hosted environments 24x7x365 to identify, record, report, and analyze equipment or system alarms and conditions that may lead to abnormal operations.

Optum monitors at multiple levels in the environment to accelerate incident identification and problem or incident resolution. Historic Optum data shows Mean Time to Restore (MTTR) is 75 percent less when applications and environments are completely instrumented.

Various tools are employed to perform:

- Infrastructure and application instrumentation/monitoring (e.g., alerting/notification)
- Event monitoring (e.g., process completion, file transfer)
- Application performance monitoring and reporting
- Transaction monitoring

Optum has event notification services via email, SMS, or Web portal. For critical services/components, Optum uses advanced instrumentation software integrated with our IT service management system to monitor network traffic and infrastructure and automatically report any events detected. The incidents recorded via these automated events as well as escalated priority incidents are handled by our Technology Command Center.

Monitoring agents are typically installed on all servers; virtual or physical. These measure and report on the following: port status, error logs, and server level performance for items such as memory, CPU, disk utilization, and network.

Optum also employs several technologies to monitor and maintain the security of the network and devices that connect to it. The various technologies offer an in-depth approach to securing and monitoring the network. The Optum IT Security Operations Center (SOC) consists of Network Security personnel who provide 24/7/365 monitoring of the network via industry standard monitoring tools. The SOC utilizes a dashboard which monitors the integrity of Optum's network from intrusions. Accountable technology owners are alerted based on the classification of the event.

Performance Management

Our Application Performance Management team consists of tuning experts who evaluate code to determine ways the development team can improve the application's performance via a structured recommendation approach. These recommendations are delivered as Detailed Tuning Recommendations (DTRs). The most important objective of any DTR analysis is to replace intuitive decision making with fact-based decision making.

Tuning teams search for unusual trends in consumption to locate possible improvement opportunities. Each opportunity is documented and moves through a structured review process. This process is designed to select the code changes which will have the greatest performance and financial impact on the application. Governance verifies tuners and application owners and business owners are in agreement prior to code changes.

Change and Release Management

Change Management

Uncontrolled change can cause significant impacts to the integrity and stability of the customer's environment. Optum has the experience, methods, tools, and techniques to manage change throughout the engagement. Any change to deliverable, requirement, system software, application software or system hardware is subject to change management processes documented by Optum and agreed upon by the customer.

All change activity to our IT environment, application and infrastructure is tracked and managed through our Change Management process. This process requires the Change Owner to properly document all activity related to the change including pre-implementation test, implementation, validation, and back out plans. The risk of each change is assessed automatically by two primary factors. First, our configuration management database determines how the proposed change could potentially impact other components in the system. Second, historical change performance data is used to determine the likelihood of an unplanned impact occurring because of the proposed change. This risk then drives the level of scrutiny and approval required before the change can be implemented from departmental level review to the executive Change Approval Board. Optum works with the customer on the prioritization of resources to reduce the number of formal change requests.

We establish a change management process that defines the procedures for addressing proposed changes to scope, schedule, resources & deliverables, as well as detailing the procedures for addressing system and technical changes. The change management approach also defines the change promotion process, addressing the promotion of changes through the various system environments. Optum follows approved change-promotion procedures that align with those shown in Figure 23 below and we work with the customer to modify the process as necessary.

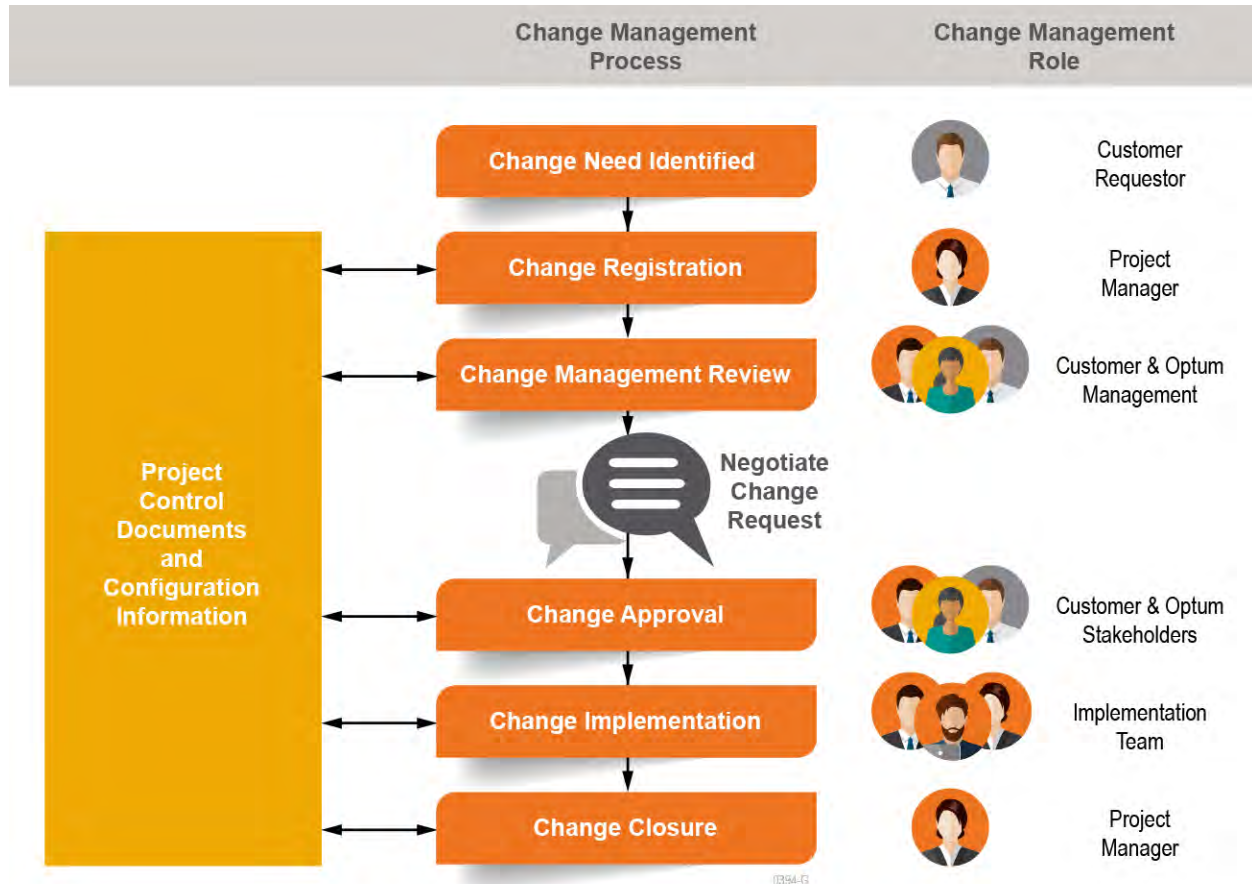


Figure 23. Change Management Process.

The proposed Optum Change Management Process for use to manage change requests.

Optum uses the change management process to confirm that upgrades and changes do not affect current business practices. The process is used to define the change, assess the effect of the change, identify and engage parties involved in the change, define and track appropriate sign-offs, schedule the change, notify affected parties of the change, notify affected parties of the results of the change and other appropriate change management-related items. Change records are also one of the first points of reference utilized by the Technology Command Center to determine the potential cause of a high-priority incident.

Our change process is audited over a dozen times each year by numerous parties including State Departments of Insurance for individual states, independent customer audits, audits for SOX, SAS 70, and General Computing Controls compliance as well as our own internal audit teams. The current process has never had a material finding against it.

Release Management - Software Releases

Software releases require systematic controls for new versions. Optum has a comprehensive set of processes to support this requirement including:

- Release Management
- Gatekeeper Process
- Release Entry Framework (REF)

Release Management

The Optum Release Management process controls and supports all the associated tasks and artifacts necessary for Release Planning, Release Execution and Control, and Release Closure. Figure 24 shows the flow of our Release Management process. Although these activities and their artifacts are not code development, we understand that they are critical to the proper guidance and management of the code delivery process.

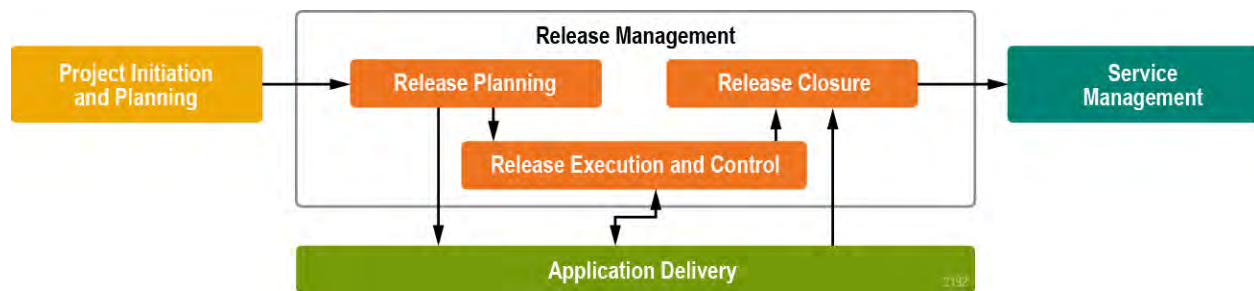


Figure 24. Release Management Process Diagram.

This process provides tight integration and controls for each phase.

The main phases of our Release Management process include Release Planning, Release Execution and Control, and Release Closure.

Release Planning

The Release Planning phase initiates the Release Management function and continues through Detailed Design. Within the Release Plan, the release's scope and structure, management, execution, and control plans are defined. The process is tailored to the specifics of the release, and sign-off is obtained from the appropriate stakeholders.

Release Planning articulates the objectives of the release and documents how these objectives will be accomplished. As set forth in the Release Plan, the objectives will be formally reviewed for feasibility and acceptability with stakeholders. Figure 25 is a flow diagram of our Release Planning process.



Figure 25. Release Planning Process Diagram.

Optum defines a repeatable process for effective Release planning.

Our Release Plan is a living document with its own lifecycle. It is the single controlling source for all subsequent life cycle phases. The original draft of the Release Plan may undergo significant changes up until the end of Detailed Design of the Enhancements/Release components. Once Detailed Design is completed, the Release Plan is reviewed by the appropriate stakeholders and baselined. Subsequent changes to the Release Plan must go through the Change Management Process. The Release Plan, once approved, serves as the basis for all Release activities and execution.

System releases are required to maintain their milestone schedule dates. The dates provide management with critical status and planning information to assist with resource management.

The major tasks within Release Planning include:

- Initiate Release
- Define Scope and Structure
- Define Management Plans
- Define Execution and Control Plans
- Tailor Process
- Compile and Review Release Plan

Release Execution and Control

The Release Execution and Control phase includes the management activities for the Release. The management activities execute and monitor the Release tasks and artifacts as defined during Release Planning. Figure 26 is a diagram of our Release Execution and Control phase.



Figure 26. Release Execution and Control.

Optum’s Release execution and control phase provides multi-layered management to reduce risk and provide more control

This phase includes the following tasks.

Risk Management

We design our Risk Management process to identify and minimize possible problems within the release by analyzing, tracking, and managing potential risks. We define risks as potential events derived from “what-if” analyses and we identify the degree of exposure to negative events and their probable consequences. We work with customers to define and implement a Release Risk Log that is maintained and managed throughout the release delivery process. We will perform the following activities within Risk Management:

- **Identify Risks:** We will identify risks and categorize under Cost, Resource, Schedule, Technical, Performance, Operational or Support risk.
- **Analyze Risks:** We will analyze and categorize risks as Technology, Requirements, Resource, Skills, Dependency or Environment.
- **Plan Risk Response:** We will determine the approach that will be taken, the actions that will be executed, and the team member responsible for executing that approach.
- **Execute Risk Response:** We will perform the activities according to the Risk Response Plan.
- **Monitor Risks:** We will monitor risks that are remediated for potential re-occurrence.
- **Report Risk Status:** We will provide periodic updates to appropriate stakeholders.

Issue Management

The objective of the Issue Management process is to provide a systematic approach to identify, analyze, resolve, and report issues that threaten the ability to meet the release objectives as defined in the Release Plan. Optum defines an issue as an existing problem that, if not addressed, may impact schedule, quality, cost, direction, or other aspects of a release.

We work with customers to define and implement a Release Issue Log that is maintained and managed throughout the release delivery process. We perform the following activities within Issue Management:

- **Identify Issues:** We will determine and document situations that might impact the release. We will then further categorize the issue under Technology, Resource, Skills, Business, Environment, or Dependency issue.
- **Analyze Issues:** We will analyze and categorize the issue as Critical, High, Medium or Low.
- **Plan Issue Resolution:** We will evaluate options to determine the best course of action, and assign responsibility for executing those actions.
- **Resolve Issues:** We will execute the action plan to completion in coordination with other teams and other relevant stakeholders.
- **Report Issue Status:** We will provide periodic updates and information about the issues to appropriate stakeholders.

Quality Management

Our objective with quality management is to create high-quality artifacts, following approved processes within the appropriate time frame for all phases of lifecycle of a release.

We will provide Quality Management by implementing the following steps:

- **Proactive Monitoring:** Our release managers will proactively monitor all release activities using a Self-Assessment Checklist.
- **SQA Reviews:** We will conduct Software Quality Assurance (SQA) reviews to assess compliance with the processes and to verify quality artifacts are produced and delivered on time.

Communications Management

Optum believes that effective Communication Management is critical when evaluating the quality of the Release activities and artifacts. Optum understands that communicating release metrics and taking corrective action as necessary provides increased effectiveness and productivity for each release.

Optum works with customers to implement a Release Metrics Package that will detail all release communications. The following activities will be involved within communication management:

- **Plan Release Metrics:** We will review standard metrics, identify additional metrics, establish baseline and set metric goals.
- **Gather Release Metrics:** We will collect, organize and verify metrics.
- **Analyze Release Metrics:** We will compare metrics with baseline and goals, analyze and explain variances, and take corrective actions.
- **Execute Communications Plan:** We will execute the Communications Plan at the appropriate time.

Release Change Management

The Optum Release Change Management provides the framework for managing proposed changes to scope, schedule, resources or base-lined artifacts for a release. All changes to the base-lined scope are identified, controlled, consistently handled, and traced throughout the development lifecycle. The following activities are included in Release Change Management:

- **Configuration Management:** We will establish an Artifact Library and manage baseline status.
- **Identify Change Request:** We will identify and document change request as needed.
- **Validate change Request:** We will set up periodic Release Change Management review and review all change requests with appropriate stakeholders.
- **Perform Impact Analysis:** We will determine the overall impact (if any) of the change request on level of effort, duration and cost.
- **Evaluate Change Request Impact:** We will review the Impact Analysis, establishing a cost vs. benefits and determine to accept, defer or reject the change request.
- **Communication:** We will communicate Change Request Decision to all affected team members and appropriate stakeholders.
- **Complete Change Request:** We will update all base-lined artifacts in a synchronized fashion for baseline integrity.
- **Monitoring:** We will monitor Change Requests and updates.

Release Closure

Our Release Closure phase concludes the Release Management and delivery functions and archives all release artifacts. The purpose of Release Closure is to shut down the release; complete release activities, evaluate the release, and conduct the final closure meeting with the customer. This process results in the creation and signoff of the Release Closure Memo. Figure 27 is a diagram of our Release Closure process.



Figure 27. Release Closure Process.

Release Closure concludes the Release Management and Delivery functions and archives all Release artifacts.

Tasks we will perform for this phase include:

- Release Completion
- Close Release

Gatekeeper Process

Optum controls new version of software releases moved to production with the Gatekeeper process. Through this process, maintenance and operations application managers agree that deployments to production are of high quality. This process also forces the remediation of non-compliant issues when a change moves into production without fully meeting the readiness criteria.

The Optum Gatekeeper process controls software releases moved to Production.

The gatekeeper process helps:

- Decrease deployment fallout (i.e., post-production issues)
- Reduce/prevent high-impact quality issue
- Broadly communicates knowledge of the impending change
- Enhancement teams spend less time on post-implementation support issues allowing them to move to their next release sooner

Using the Gatekeeper Review checklist, we confirm that:

- Balancing and File controls for new or changes to existing files
- New Batch Jobs comply to standards, internal and external file transfers conform to standards
- Security scans have been performed with no critical identified issues
- System Testing has been completed and all critical defects have been resolved
- User Acceptance Testing has been completed and all critical defects have been resolved
- Integration Testing has been completed and all critical defects have been resolved
- Regression Testing has been completed and all critical defects have been resolved

- Performance Testing has been completed and performance results are within expected parameters
- Release Deployment plan has been created, tasks are complete and a Go/No-Go meeting has been conducted
- Detailed Back-out Plan has been established and is attached to the change ticket

Release Entry Framework

Optum supports software releases for changes moved to production with a Release Entry Framework (REF) Process. This process prevents reoccurrence of known issues by ensuring application developers receive user feedback about the performance of developed applications. For each phase of the development life cycle, REF provides processes and checklists to verify proper support and consistent communication of new changes.

Planning Phase

During this phase, the team plans, schedules, and assigns leadership and participation resources for the REF processes. The enhancement release coordinator delivers the Release Plan to the support team. The project manager and enhancement lead complete a capacity forecast on a periodic basis. Team members also develop a Knowledge Transfer plan.

Designing Phase

During this phase, a pilot delivers ongoing input and feedback. The track manager determines what impact new code will have on the release, including but not limited to users, volume, processing time, and business criticality. Static and dynamic code analysis and security scans are performed prior to deployment. The team defines Knowledge Transfer requirements and deliverables, reviews batch and end-to-end control reports for each interface and file feed (both inbound and outbound), and reviews error-handling processes. Leaked Defect and Post-Production Defect processes are established. If applicable, the first intended use date and any vital business functions are identified and updated. Test results are reviewed and working processes are confirmed. The team utilizes knowledge from prior experience to verify quality product delivery and seamless knowledge transfer.

Testing Phase

During this phase, the team reviews of the following test results: Functionality, Errors, Abnormal Ends (Abends), Performance, Stress and Volume. The team holds test planning and status meetings to share test results, knowledge and past experience.

Deployment Phase

During this phase, a formal Knowledge Transfer is performed, requirements are validated, approval expressed, and the final gatekeeper checklist is reviewed.

- All responsible parties review deployment considerations
- Consumer-centric testing is filed



- [REDACTED]
- Validate testing requirements pass:
 - User acceptance testing
 - Load/stress testing
 - Performance testing
 - Cross-application testing
- Validate requirements are defined and met including:
 - File inventory control
 - Response time
 - Volume
 - Peak
 - Batch window
 - Security
- Validate deployment plan tasks including:
 - Checkout
 - Put jobs on hold
 - Run scripts
 - Create a production problem ticket for leaked defects

Post-Implementation Phase

During this phase, the track manager, enhancement lead and DHS attend the post-deployment meetings to review the leaked and post-production defects status. It is also a forum to discuss encountered issues. Ticket tracking confirms the team is working on defects. The track manager owns oversight of ticket assignment. If post-deployment work is needed and if the team has the capacity, work is completed to prevent ongoing issues during future enhancement releases. Timelines are coordinated for defect resolution and decide on an appropriate release within the agreed upon post-deployment support period. Overall status is reported to the project manager and the application manager.

Optum will update the operating manual and system documentation to support new software versions. Operating manuals provide the guidelines for operating procedures and SLRs for newer versions. We update system documentation to reflect the change or addition of new functionality introduced.

Transition and training confirm that all support groups are trained in the change or addition of new functionality introduced with the new version of the software.

Configuration Management

Configuration management stores information on infrastructure components and establishes relationships between these components.

Configuration management identifies, maintains and verifies information on IT assets and configurations related to a specific customer or service. Up-to-date information is stored on each

Configurable Item (CI). CIs include hardware, software, databases, applications, services and the relationships between CIs. The Configuration Management Database (CMDB) contains information on each CI such as version, location and inter-relationships.

Configuration management is critical to the change management process. The CMDB allows us to automatically assess the risk of each change by analyzing relationships between all CIs and the CIs involved in the proposed change. All secondary upstream and downstream relationships between CIs are evaluated by the system to determine the overall impact of a proposed change. The CMDB flags conflicts where multiple changes impact the same CI at the same time creating a high-risk situation. This level of automation reduces the likelihood of introducing new issues improving overall application stability.

Infrastructure Support

Our M&O team is your point of contact for any issue related to the AR IE-BM. If the solution is hosted by Optum, the M&O team will leverage the Optum Technology Support Center (TSC) for infrastructure hosting issues.

Optum provides full user support through the TSC for critical business/client needs. Our integrated knowledge management system provides the analysts with all the information they need to properly record, triage, and either correct or escalate any user issues. Optum resolves customer issues using a tiered service model:

- **Level 1:** Front Line Support/Self Service (Minor Issues)
- **Level 2:** Specialized Technical Support
- **Level 3:** Subject Matter Expert Support

Incidents are classified utilizing impact and urgency which determine the ticket priority as agreed upon with the client based on business needs.

Current TSC services offerings vary according to the needs of the customer, but Optum is fully capable of – and currently supports – the following:

- 7x24x365, Level-1 technical support, service requests, incident management, and escalation services.
- Support for 225,000 users worldwide using more than 4,000 applications from eight locations with a staff of over 500.
- Contact volume around 200,000 contacts per month or 2,500,000 per year.

Optum utilizes best in class support center workforce management tools and processes to make sure our support centers are adequately staffed to confirm customer satisfaction with response times and call resolution.

The Optum M&O team will work with the State's help desk to verify the Jira ticket is updated and closed appropriately for infrastructure issues, just as it would for AR IE-BM incidents. The M&O team will use the TSC to quickly assemble any Optum infrastructure support teams that are needed to resolve the infrastructure issue. The M&O team will be responsible to manage incident resolution throughout the entire lifecycle of the issue, and be the State's single point of contact for communication and accountability for the incident.

Infrastructure Security

Optum has a comprehensive approach to monitoring application and infrastructure components to support secure access, performance and availability. Optum utilizes multiple methods for monitoring, which include:

- **Baseline Operating System Monitoring:** Servers are scanned to monitor operating system security baselines. The security baselines are reviewed and updated annually based on vendor, customer and auditor recommendations.
- **Web Vulnerability Scanning:** External Web applications are scanned to identify and remediate Web vulnerabilities.
- **Data Loss Prevention Solution:** Allows management to monitor and prevent data loss on the network with comprehensive coverage including email, IM, Web, Secure Web (HTTPS), FTP, P2P and generic TCP.
- **Source Code Analysis:** Analysis of source code with industry recognized tools to identify and remediate security defects and vulnerabilities as part of the development process.
- **Email Monitoring:** In accordance with policy, emails containing confidential, sensitive, or protected information are encrypted using secure delivery before being sent outside the company's email network. An automated tool is used to scan emails being sent outside the network to check for confidential, sensitive, or PHI.

Optum has developed a unified, defense-in-depth security program which combines industry best security practices, applicable regulatory obligations, and customer considerations. We deliver a fully compliant security and privacy solution by harmonizing these practices in support of regulations, standards, and customer requirements. We achieve this by applying controls based on a tiered-methodology. The tiered methodology first considers federal regulations and laws, then State Agency mandates; State IT security policies and procedures, Optum policies and procedures, and lastly, contractual agreements. Therefore, whichever law, regulation, standard or policy is more stringent; it will take precedence in our implementation.

By harmonizing security requirements in this manner we do not overburden our customers with an unmanageable amount of information, resulting in more questions than answers. Using this approach we make the governance, risk and compliance requirements more easily understood and measurable.

Optum is well-versed and knowledgeable with applying, implementing and maintaining HITRUST, FISMA, CMS MARS-E, IRS 1075 and HIPAA security control guidance. Our capabilities in this area have been repeatedly proven successful, as evidenced by the numerous instances wherein our state clients successfully achieved "first attempt" receipt of project Authority to Connect (ATC) and Authority to Operate (ATO). These ATCs and ATOs require a security assessment of the CMS MARS-E and IRS 1075 security controls implementation. These assessments verify and validate the security controls have been implemented and are operating as intended.

Our continuous monitoring program further provides our clients with the knowledge and comfort that the confidentiality, integrity, and availability of their solution and sensitive PHI data are securely maintained over the life of the project.

Disaster Recovery

Optum recognizes that planning for disaster recovery is essential to mitigating risk for our customers and overall business. Our solutions include designing and implementing the appropriate disaster recovery (DR) infrastructure capability, as well as creating the supporting recovery documentation (DR Plan, critical contact lists, application recovery scripts, and validation procedures), and eventually exercising the DR solution.

Optum leverages geographically dispersed resilient operations and data centers to perform critical business functions in order to minimize any single points of failure. [REDACTED]

We refresh the DR plans as changes occur but no less than once per calendar year. Testing options including simulated and actual failover exercises are available dependent upon architectural design.

Disaster recovery is one component of our overall crisis management approach (see Figure 28).



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Figure 28. Components of Optum Crisis Management.

Disaster recovery is one of the critical event processes required to restore business and technical functionality.

Disaster Recovery Prevention and Protection

We base our approach to DR on the two fundamentals: prevention and protection. A focus on balancing the combination of disaster prevention and protection results in reducing both the probability and impact of a disaster. The Optum program first eliminates or reduces disaster risk in critical areas, and then it plans for the most probable disaster scenarios. While disaster recovery handles the complete failure of a data center, other processes are required to solve for critical events.

The mission of the Optum DR program is to minimize the risk and impact to the customer from the occurrence of disaster events, focused on the overall viability of hosting to survive an event. The program first eliminates or reduces disaster risk in critical areas, and then plans for the most probable disaster scenarios. This focus on balancing the combination of disaster

prevention and protection results in reducing both the probability and impact in the event of a disaster.

Prevention – Eliminating Risk

For many companies, disaster recovery means minimizing downtime as they try to restore systems and get them back online. Optum’s strategy includes focusing on items that would assist in preventing a disaster from taking down systems in the first place.

We have invested in creating an effective combination of people, process and technology (see Figure 29) that provides the fundamentals for a proven production method resulting in a stable, scalable environment for our applications to perform at operational excellence. This investment creates the “prevention” which is fundamental to the DR program.



Figure 29. DR Program Components.

The Optum strategy incorporates people, process and technology taking a preventative approach to avoid system downtime.

People

Optum is a team of over 20,000 Information Technology professionals responsible for computing hardware, software and communications. We have system operations and facilities management teams with on-call rotations providing access to technical staff at any time of the day or night.

Process

Optum has established formal processes that reduce the likelihood of unexpected infrastructure occurrences and confirm that we are using best practices. Optum employs a formal ITIL based service delivery model to further govern our operations reducing the risk of unplanned situations. Our Product Lifecycle Management (PLM) processes verify deployed versions of software are within the general available support provided by our vendors. This reduces infrastructure variability and promotes standards and stability. Our patch management automation further safeguards the availability and stability of our core applications.

Technology

Optum leverages a number of technologies to reduce the probability of unexpected conditions from impacting services. Our concurrently maintainable Tier III data centers are certified by the Uptime Institute® for operational sustainability. The operational sustainability certification verifies that practices and procedures are in place to avoid preventable errors. Our highly available and resilient core infrastructure is designed to maintain acceptable levels of service and recover quickly from a degraded state. In addition, Optum uses the most current anti-viral software to prevent network intrusions that could potentially lead to disaster events.

Protection – Planning for Probable Scenarios

While our focus is to prevent disasters, it also recognizes that there is always the potential for a disaster to occur and has developed strategies to protect the business should there be an unforeseen event. The DR program is based on anticipating and planning for the common types of disasters and designing solutions to address them. Disaster protection addresses recovery from the most probable disaster scenarios and a worst case “smoking hole” scenario.

Our primary DR strategy involves identifying critical business processes and transitioning these critical applications, data, and supporting infrastructure to an alternate recovery location in a timely manner, thereby reducing the impact of a technology event to our critical business clients.

Some secondary DR strategies include:

1. The ability for data centers to operate in a “Lights out” mode for up to three days without additional fuel. With fuel deliveries, generators are designed to run in this mode indefinitely. Optum has contracted for a four hour fuel delivery guarantee.
2. Restoration of operational backups first using the high performance disk-to-disk copy with a second copy available on virtual tape stored at a secondary site.
3. DR plans for critical applications refreshed and tested annually.
4. Metrics in the form of Key Performance Indicators (KPIs) used to derive the “health” of the DR program.

Optum is committed to using state-of-the-art technology while providing excellent customer service. Protection technologies include the failover of production processing to geographically dispersed systems and multiple data replication approaches. Our core infrastructure is designed with high availability and resiliency. Storage and server virtualization increases the portability of host systems through consolidation and replication allowing them to fail to an alternate site quickly, reliably and in large numbers. These capabilities combine to help achieve the objective of resuming operation with limited to no data loss or disruption to stakeholders.

Organizational support teams can utilize our Virtual Call Center (VCC) technology in the event of a disaster to verify telephony is available for customer communications. Optum dynamically routes a million calls daily across 40+ contact centers.

DR Plans

Our DR plans for critical information technology systems are exercised annually. DR exercise results are documented and confidential. Application owners and the DR team jointly review plans to identify:

- Equipment updates
- Employee changes
- Changes in business requirements not reflected in specific plans
- Third-party preparedness to validate against contractual obligations
- Inaccurate assumptions or oversights
- Scheduled DR exercises

DR Plan Recovery Objectives

The DR program utilizes a variety of recovery strategies which align to the defined criticality of the application. Business critical applications, as defined by the Business Impact Analysis (BIA) and subsequent Business Continuity Plan (BCP), are given the highest priority and generally have a [REDACTED] Recovery Time Objective (RTO).

The RTO is the period of time within which systems, applications or functions must be recovered after a disaster outage is declared. The RTO is measured in minutes, hours, or days and is an important consideration in recovery planning. The Recovery Point Objective (RPO) is the point in time to which you must recover data as defined by the business. This is generally a definition of what an organization determines is an “acceptable loss” of data in a distressed situation. The RPO is expressed backward in time (that is, into the past) from the instant at which the failure occurs and can be specified in minutes, hours or days.

Communication

We define a disaster as an event of such magnitude that it may threaten critical business functions and/or services for an extended period. A disaster may create serious impact to human life/safety issues, security, and/or business viability.

Some examples of a disaster include a full outage of a data center, where the hardware and/or infrastructure is unusable and recovery is not immediate or a partial outage of a data center that impacts critical IT infrastructure.

In order for an event to be declared a disaster, a disaster declaration must be made by Optum Executive Leadership. When a disaster is declared, we activate the DR plans. A disaster declaration is the formal identification of an event of such severity as to warrant the implementation of business continuity and DR plans. A disaster declaration provides authorization to execute third party contingency contracts where applicable.

Once a disaster has been declared and plans have been activated, there are several groups and individuals who need to be notified a disaster situation has occurred. Additionally, individuals need to be notified the application is unavailable and given a timeframe of when it will be available for use. Notification may include staff, vendors or suppliers and customers and clients.

If a disaster has not been declared, the recovery from a systems disruption would be handled as an incident – and the Technology Command Center (TCC) standard processes would be followed.

Once a disaster has been declared, our technical resources will respond by immediately initiating the restoration of infrastructure and applications for all of the different DR capabilities.

Batch-Job Control and Scheduling

We understand and appreciate the importance of successful production control management. Executing and monitoring batch jobs within the defined batch window are essential for system resource availability during peak online usage periods.

We will use a series of quality checks to facilitate smooth batch operations. We will put additional checks in place after the batch execution for critical programs to validate accuracy. On a regular basis, we also perform validation of batch output against expected results. This identifies batch exceptions, increased run-times, and data accuracy problems, once each batch process is completed.

The Optum M&O team will monitor and execute scheduled batch jobs daily and keep the batch schedule up-to-date. Our team will implement and support current scheduling requirements, interdependencies, and rerun requirements for production jobs. The team will identify data availability, provide input/output needs for the batch cycle monitoring, and provide documentation on the batch process. We will process special requests for running batch cycles in production by reviewing the batch schedule.

We understand that successful operations projects require more commitment than simply maintaining the status quo. We will record the performance of batch jobs using batch logs and in real-time which helps us identify changes that will improve the execution of your batch processes.

We will work collaboratively with hosting providers, third-party vendors, and your team to resolve issues related to job scheduling and execution. We currently share the job schedules and provide reporting of job execution when requested.

8.0 Approach to meeting Operational and Performance Service Level Requirements

The Vendor is required to meet various Operational and Performance SLRs. The Vendor should ensure that the responses to this section are in alignment with the requirements set forth in Template T-12 – Maintenance and Operations Requirements Traceability Matrix, **Tab O7**.

Instructions: Describe the Vendor's approach to meeting the various SLRs some of which include:

- System Availability
- System Performance
- System Response time
- Incident Response time
- Security Incidents Response Time
- Customer Satisfaction Survey

We will rely on proactive monitoring and reporting to operate the AR IE-BM Solution within established service levels. Our routine maintenance practices will make sure the system maintains high availability. In addition, we will provide emergency maintenance processes in the event of unscheduled downtime. We will use the State's automated performance monitoring tools, including CA Wily Intrascope to monitor AR IE-BM Solution performance. These tools will send appropriate alerts if system performance drops below agreed-upon thresholds. Our ITIL-based service management approach will enable us to keep your success as our primary focus while we manage any operational issues. Each heading below corresponds to a requirement and we have provided details on how we will meet your requirement.

Optum will restore normal service levels as quickly as possible and minimize adverse impact on the business. We will [REDACTED] which uses COTS technologies like Tableau and Datameer. It creates a visual performance reporting system for current and historical trends for the SLRs and KPIs we measure. We will measure and report on them monthly and periodically for the overall solution, as well as for different

areas of the solution, according to your requirements.

System Availability

We offer a comprehensive availability management solution to help you consistently maintain high availability and resilience of the AR IE-BM Solution. The core focus of our services and solution is to understand and analyze the cause of the outage, and the time it takes to resolve it. Our incident and problem management services provide the required input to help us deliver relevant and appropriate corrective actions. [REDACTED]

[REDACTED]

- **Unplanned downtime** is reducible by monitoring and early detection, or eliminated by product lifecycle management and/or problem management.
- **Planned outages** are reducible by improving the batch job run time and minimizing the maintenance window, or eliminated by planning deployments without outage.

Optum agrees to meet SLR 06-1 – Availability in T12 RTM, which states, “The Application must be available to all users of the System” with a target of 99.75 percent.

[REDACTED]

System Performance

Optum will leverage a Performance Management System called Detailed Tuning Recommendation (DTR) for AR IE-BM Solution monitoring purposes. The most important objective of any performance measurement and management system is to replace intuitive decision-making with fact-based ones. To achieve this objective, the DTR system performs the following functions:

- Evaluates the success of a system's implementation to help continuously improve the performance of the system being measured
- Standardizes processes and governance to enable efficient monitoring and reporting
- Provides a comprehensive DTR request with adequate information for all stakeholders to view, understand and implement without the need for additional time consuming analysis or ancillary processes

We provide more information on our system performance approach in our response to T9 Section 2.8.7 Performance Monitoring and Management.

Optum agrees to meet T12 RTM SLR 07-3 – Performance - Average Response Time, which states, "System performance must meet end-user expectations to deliver increased customer satisfaction and efficiency gains" with a target of average response time of two seconds.

Optum also agrees to meet T12 RTM SLR 07-4 – Performance - Maximum Response Time, which states, "System performance must meet end-user expectations to deliver increased customer satisfaction and efficiency gains" with a target of 99.5 percent of transactions complete (response time from entering command to receiving result) in less than three seconds.

We recommend the following guidelines to calculate performance:

System Response Time

In previous engagements, we have used several tools to measure system response. These tools include HP OpenView, Oracle Enterprise Manager, Dynatrace, Splunk, ITSM automation with ServiceNow! and associated Security Information and Event Management (SIEM) plugins. We used these tools to collect data and KPIs to verify adherence to contractual and expected SLRs. These tools also assist us in providing operational reporting and Root Cause Analysis if needed. These typical measures include:

- Transaction response/completion times
 - Page load times
 - Module startup and load times
 - Query response time
 - CPU
 - RAM utilization
 - Storage
 - Availability
 - Network latency
 - Network load / availability
- Incident, problem and service request ticket status
 - Incident notification and restoration
 - Transaction performance
 - Reconciliation

We will work with you to implement monitoring within your data center. We will also identify any gaps and work with you to implement remediation as necessary.

Incident Response Time

We will focus primarily on restoring normal service levels as quickly as possible and minimizing adverse impact on your business. Our incident management processes will rely on incident prioritization. We will prioritize incidents based on business impact and urgency to align with your needs. The core focus of the Optum incident model is on high severity incidents based on

prescribed SLRs and business requirements. We provide additional information in our earlier response to the Incident and Problem Management section in this document.

Optum agrees to meet T12 RTM SLR 07-5 – Critical Incident Restoring of Service (break/fix), which states, “Critical incidents must be addressed quickly to minimize the business impact of the incident (critical incident is defined as any high severity application issue for which no work around is available and users cannot perform their task)” with a target of 95 percent of high severity incidents fixed within 24 hours.

Security Incident Response Time

Throughout the engagement, we will work closely with you to follow appropriate protocols and policies. During the start of this engagement, we will work with you to define, document and submit the AR IE-BM Solution security specifications supporting system security as governed by HIPAA, CMS, other applicable federal and state regulations and contractual requirements for the Optum IE solution.

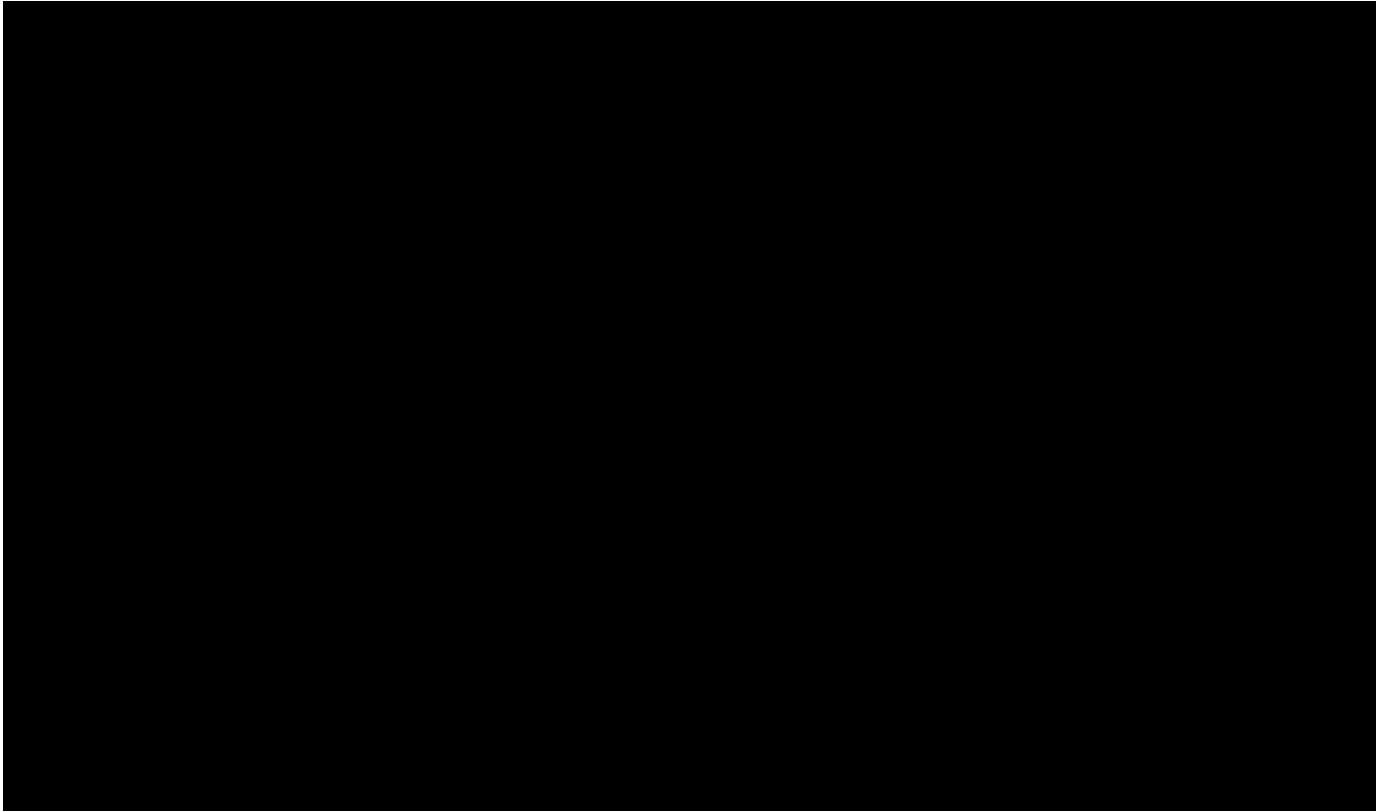
We will perform security testing of system components to validate that application components are not vulnerable to malicious attack. Optum personnel will perform this testing using a variety of tools and techniques.

We have developed architectural guidelines and security test plans to help implement the necessary security. More information on our security approach is available in our response to T9 Section 2.6 Regulatory and Security.

Optum agrees to meet T12 RTM SLR 07-6 – Security Incidents Response Time, which states “DHS needs to be aware of any security incidents as quickly as possible” with a target of all of notifications completed in less than one hour (all notifications shall occur as soon as possible).

Customer Satisfaction Survey

We will evaluate our performance and service delivery after transitioning to operations by asking you and your key stakeholders for feedback.



Survey feedback is most useful when respondents tie their feedback to specific situations or people. Two sections of free-form text are available in the survey for respondents to cite specific examples, roles or individual names that warrant attention. We will encourage you to be as specific as possible when completing the NPS Survey post-transition.

Survey results help us improve processes to deliver service that is consistent, meets requirements, and results in high levels of customer satisfaction.

Optum agrees to meet T12 RTM SLR 07-12 – Customer Satisfaction Survey – Usability, which states, “Customer (internal and external) satisfaction surveys provide insight into the usability of the Solution” with a target of 90 percent of all responses must have a satisfaction score of seven out of 10 (or equivalent) or higher (10 being the highest score).

9.0 Statement of Work

9.1 M&O Deliverables

The Vendor should provide a Statement of Work that details the work to be performed during the M&O phase. The narrative for the Statement of Work should include a detailed description of each Phase deliverable. The Statement of Work should also clearly define the approach and provide assumptions on which the Statement of Work was developed. The Vendor must NOT include any pricing or pricing assumptions in this section.

For each Deliverable, the Vendor should provide the following information:

- **Deliverable Description** – Provide an overview of the Deliverable
- **Vendor Responsibilities** – Provide a clear and concise narrative of Vendor responsibilities to perform the work for this Deliverable
- **State Responsibilities** – Provide a clear and concise narrative of what the Vendor expects from DHS to perform the work for this Deliverable
- **Deliverable Timeline** – Please include start and end dates
- **Deliverable Duration** – Total Duration of the Deliverable in working days
- **WBS ID Number** – Provide the reference to the Project WBS ID number related to this Deliverable
- **Reference** – Indicate the section, page and paragraph where referenced

Instructions: Provide a Statement of Work including each of the Deliverables in the following Table, and any additional Vendor-proposed deliverables. Each Deliverable should include at least the template in the Deliverable Response Template Table. Replicate the template for each Deliverable. Change only the cells containing “<Insert>”. Do not change any of the completed cells. Any changes to the completed cells could lead to the disqualification of the Proposal.

Please refer to Attachment 6 – M&O SOW.

Table 1. List of Deliverables

Grouping	#	Deliverable/ Work Product Name	Frequency
O.1- EEF M&O Transition Planning and Services	O.1.1	EEF M&O Transition Plan	Once and updated as needed or requested by DHS
	O.1.2	EEF M&O Transition Status Report	Weekly during transition activities
	O.1.3	Application Maintenance and Operations Plan	Once
	O.1.4	Completed EEF M&O Readiness Checklist	Once
O.2 – Provide M&O	O.2.1	M&O Status Report and Service	Monthly

Grouping	#	Deliverable/ Work Product Name	Frequency
Services, Status Reporting and Quality Assurance		Level Agreement Reporting	
O.3 – DDI to M&O Transition Services	O.3.1	IE-BM DDI team to M&O team Transition Plan	Once per release/ updated as needed or requested by DHS
	O.3.2	Updated Application Maintenance and Operations Plan	Once and updated for each release
	O.3.3	Completed Transition Readiness Checklist	Once
O.4 – Enhancements and Modifications	O.4.1	Enhancement Requirements and Cost Estimates	Once per change request
	O.4.2	Completed Enhancement Check-List	Once per release
O.5 – M&O Turnover Services	O.5.1	M&O Turnover Plan	Once and updated as needed or requested by DHS
	O.5.2	M&O Turnover Assessment Report	Monthly during transition activities

Table 2. Deliverable Response Template

0.1.1	EEF M&O Transition Plan
Deliverable Description	The EEF Solution M&O Transition Plan captures all of the activities Optum will perform to establish the EEF Solution support organization and migrate the M&O processes and tools to Optum. The Transition Plan will include a schedule to complete the tasks before the end of the incumbent’s contract.

0.1.1	EEF M&O Transition Plan
Vendor Responsibilities	<p>Documentation of the proposed target state will include:</p> <ul style="list-style-type: none"> ■ Proposed staff ■ Roles and responsibilities of all partners related to the EEF Solution support and operations ■ Proposed list of activities and processes to support the activities ■ Acquisition, transition and need for tools ■ Training plans to make sure staff members gain the required knowledge aligned with the incumbent vendor's Requirement Statement outlining the technical resources and requisite knowledge, skills and experiences required to transition M&O activities ■ Plan for coordinating roles and responsibilities between Optum and the Information Support Services (ISS) vendor ■ Plan for developing the EEF Solution Design Assessment Report ■ Approvals for plans by you and commitment to supply resources ■ Staffing of target organizations and ongoing support through the duration of the Contract ■ Security and confidentiality plan ■ Inventory and plan for all Solution hardware and software, documentation, supplies, facilities and other resources within the Contract ■ Plan for migrating all required documentation to the vendor ■ Plan to transition for all applicable development tools, processes and procedures and management tools (e.g., security management, systems management) <p>This deliverable will include measureable progress milestones/checkpoints so you can quantify the transition risk.</p> <p>The EEF Solution M&O Transition Plan will include a Readiness Checklist, which captures all activities that will be completed before completing the transition of EEF Solution M&O activities from the incumbent vendor, grouped by service to allow for incremental transition.</p>
Expectations for the State's Responsibilities	<p>It is the State's responsibility to make sure resources from the State and third-party vendors are sufficient.</p> <p>This deliverable shall also include the assumed level of support required from the State and the incumbent vendor.</p>

0.1.1	EEF M&O Transition Plan	
	Start	End
Timeline	1/12/2018	2/15/2018
Duration	Once	
WBS ID#(s)	4.1.2.1.1	
Reference (Section, Page Paragraph)	3.8.2.1 Group 1 Deliverables – EEF M&O Transition Planning and Services, Page 110	

0.1.2	EEF M&O Transition Status Report	
Deliverable Description	This deliverable will document progress against the EEF (MAGI Medicaid only) Solution M&O Transition Plan and capture tasks performed, planned tasks, risks and issues and track progress against the plan and readiness checklist.	
Vendor Responsibilities	<ul style="list-style-type: none"> ■ If tasks are not performed per the EEF (MAGI Medicaid only) Solution M&O Transition Plan, then Optum will provide a recovery plan with updated projected dates. ■ This deliverable must include mitigation steps being taken against any identified risks and any contingency plans. ■ This deliverable must also highlight upcoming activities that you must perform and risks/issues that require your involvement to resolve. ■ This deliverable must include documentation confirming (and proof of your approval) activities have been effectively started and completed. ■ This deliverable will track progress against the Readiness Checklist to make sure all required activities are completed (and your approval received) before transitioning ownership of any EEF (MAGI Medicaid only) M&O activities. 	
Expectations for the State's Responsibilities	You must be involved to provide approvals of transition activities and deliverables.	
	Start	End
Timeline	Start of transition period, starting with the approval of Transition plan	Transition completion
Duration	Weekly	
WBS ID#(s)	4.1.4	
Reference (Section, Page Paragraph)	3.8.2.1 Group 1 Deliverables – EEF M&O Transition Planning and Services, Page 111	

0.1.3	Application Maintenance and Operations Plan	
Deliverable Description	The Application M&O Plan describes the establishment of a	

0.1.3	Application Maintenance and Operations Plan
	support organization, and the processes and tools to be managed and staffed by the vendor.
Vendor Responsibilities	<p>Plans for the following services must be included in this deliverable:</p> <ul style="list-style-type: none"> ■ System administration and operations ■ Help desk and incident/problem management ■ RCA ■ System monitoring ■ User account management ■ Security administration ■ Database administration ■ Break-fix ■ Change and release management ■ Training (initial and ongoing) of M&O and State staff ■ Configuration Management ■ The Configuration Management Plan establishes a consistent method for formally identifying and controlling Project configuration items. Project configuration items include software, as well as deliverables and other Project artifacts. The intent of this Plan is to facilitate the protection of configuration items and communicate changes that have been made to them. The scope of this Plan must include: <ul style="list-style-type: none"> <input type="checkbox"/> Processes to track software installed and the combination of hardware and software residing on each component of equipment <input type="checkbox"/> Tools used to manage software configuration management, standards and processes ■ Standards and processes to describe the Optum's approach to any concurrent development code streams needed ■ Performance Management ■ Capacity Planning and Management ■ Technology Refresh and Replenishment Services ■ Disaster Recovery Services ■ Data Retention and Archiving <p>Scope of this deliverable includes:</p> <ul style="list-style-type: none"> ■ Documentation of the Optum's proposed target state including: <ul style="list-style-type: none"> <input type="checkbox"/> Proposed staff <input type="checkbox"/> Roles and responsibilities of all partners related to Optum IES support and operations <input type="checkbox"/> Proposed list of activities and processes to support the activities

0.1.3	Application Maintenance and Operations Plan	
	<ul style="list-style-type: none"> <input type="checkbox"/> Acquisition and need for tools <input type="checkbox"/> Plan for coordinating roles and responsibilities <input type="checkbox"/> Staffing of target organizations and ongoing support through the duration of the Contract 	
Expectations for the State's Responsibilities	Approvals for plans by you and commitment to supply required resources	
	Start	End
Timeline	1/24/2018	2/27/2018
Duration	Once	
WBS ID#(s)	4.1.2.1.2	
Reference (Section, Page Paragraph)	3.8.2.1 Group 1 Deliverables – EEF M&O Transition Planning and Services, Page 112	

0.1.4	EEF M&O Readiness Checklist and Report	
Deliverable Description	This deliverable documents that all activities required to transition EEF Solution M&O services from the incumbent vendor to Optum is complete.	
Vendor Responsibilities	<p>This deliverable must include documented proof that the M&O processes have been transitioned including, but not limited to, the following:</p> <ul style="list-style-type: none"> ■ Solution Components M&O ■ Ownership of all operational processes and stages executed by the Optum ■ Management and operations of M&O tools ■ Incident Management ■ Break-Fix <p>This deliverable will be the completed checklist and include, at a minimum:</p> <ul style="list-style-type: none"> ■ Proof that all activities planned in the System M&O Plan are established/completed, are being used, have been documented and have been approved by you including: ■ Support organization is in place and is fully staffed ■ Operational processes are established and are active ■ Tools have been established and are being appropriately used ■ Initial training is complete and ongoing training is initiated ■ Operational processes, tools, structures and artifacts are sufficiently documented and documentation is posted ■ Reporting tools and processes are complete 	
Expectations for the State's Responsibilities	Review and provide approval that all activities planned in the System M&O Plan are established/completed, are being used, have been documented	

0.1.4	EEF M&O Readiness Checklist and Report	
	Start	End
Timeline	3/2/2018	3/29/2018
Duration	Once per hand-over of M&O service responsibilities	
WBS ID#(s)	4.1.3.7	
Reference (Section, Page Paragraph)	3.8.2.1 Group 1 Deliverables – EEF M&O Transition Planning and Services, Page 114	

0.2.1	M&O Status Report and Service Level Agreement Reporting
Deliverable Description	This deliverable is documentation to confirm that all System M&O reporting activities and the implementation of reporting and reporting tools and processes are complete, as described in the System M&O Plan.
Vendor Responsibilities	<p>This deliverable will include, at a minimum:</p> <ul style="list-style-type: none"> ■ M&O Reports (weekly) — All maintenance requests that occur during the M&O period must be documented and communicated regularly with DHS within a reasonable, agreed-upon time frame. The Maintenance Report must contain the description of the maintenance request, resolution status and the proposed course of action for remedying all open maintenance requests. ■ Service Level Reporting (monthly) — This report details at least the SLAs in-scope for that reporting period. This must include: <ul style="list-style-type: none"> <input type="checkbox"/> A relevant history of the SLAs reported on in previous reporting periods <input type="checkbox"/> All SLAs in scope for the current reporting period <input type="checkbox"/> Progress on corrective action plans established in the last reporting period or since that time <input type="checkbox"/> Any new corrective action plans established due to the current reporting period ■ Service Level Improvement Plan (once with as-needed updates) — In case of deficiencies, Optum shall develop an Improvement Plan to achieve agreed-upon service levels. ■ Service Level Improvement Plan Progress Updates (monthly) — Optum will provide monthly Progress Updates against improvement plans. ■ System Incident Reports (weekly) — All incidents that occur during the Base and Optional Extension M&O periods must be documented and communicated with DHS regularly. The System Incident Report must contain the severity of the incident, a description of the incident, incident resolution status, RCA and the proposed course of action for remedying all open incidents.

0.2.1	M&O Status Report and Service Level Agreement Reporting	
	<ul style="list-style-type: none"> ■ Configuration Management Documentation (monthly) — Software Configuration Management is the identification and maintenance of system software components and the relationships and dependencies among them. Optum must provide a monthly list of changes and reference to the various change and configuration managements documents. <p><i>Note – The M&O Status Report will include all M&O activities for both the EEF Solution and the IE-BM Solution.</i></p>	
Expectations for the State’s Responsibilities	None	
	Start	End
Timeline	3/30/2018	12/31/2020
Duration	Weekly (M&O status reports) and Monthly (Service Level Reports)	
WBS ID#(s)	4.3.2.3	
Reference (Section, Page Paragraph)	3.8.2.2 Group 2 Deliverables – Provide M&O Services, Status Reporting and Quality Assurance, Page 115	

0.3.1	IE-BM DDI Team to M&O Team Transition Plan	
Deliverable Description	The AR IE-BM DDI team to M&O team Transition Plan captures the planned changes required to the EEF Solution M&O environment (staff, processes, procedures) to support AR IE-BM.	
Vendor Responsibilities	<p>The AR IE-BM DDI team to M&O team Transition Plan captures the planned changes required to the EEF Solution M&O environment (staff, processes, procedures) to support AR IE-BM. It also includes the activities required to prepare Optum’s M&O team to support AR IE-BM, including solution training, process training, and changes to team structure/staffing and process/procedure modifications.</p> <p>The IE-BM M&O Transition Plan will include a plan to perform the required activities prior to go-live to make sure the team is ready to support the Solution when it launches.</p> <p>The IE-BM M&O Transition Plan will also include a checklist of activities required to verify the M&O team is prepared to support the solution.</p>	
Expectations for the State’s Responsibilities	None	
	Start	End
Timeline	7/9/2018	11/8/2019
Duration	Once per IE-BM release	
WBS ID#(s)	4.2.1.1, 4.2.2.1.1, 4.2.2.2.1, 4.2.2.3.1, 4.2.3.1.1, 4.2.3.2.1,	

0.3.1	IE-BM DDI Team to M&O Team Transition Plan
	4.2.3.3.1, 4.2.3.4.1
Reference (Section, Page Paragraph)	3.8.2.3 Group 3 Deliverables – DDI to M&O Transition Services, Page 116, Paragraph 1

0.3.2	Updated Application Maintenance and Operations Plan	
Deliverable Description	Optum will be required to update the Application Maintenance and Operations Plan to accommodate any of the changes introduced by IE-BM going live.	
Vendor Responsibilities	Prior to updating the Application Maintenance and Operations Plan, Optum needs to understand required changes. The Updated Application Maintenance and Operations Plan will be deemed accepted when you have reviewed and approved.	
Expectations for the State's Responsibilities	Review and approve the updated Application Maintenance and Operations Plan	
	Start	End
Timeline	2/11/2019	6/12/2020
Duration	Once per Optum IES release	
WBS ID#(s)	4.2.1.6, 4.2.2.1.6, 4.2.2.2.6, 4.2.2.3.6, 4.2.3.1.6, 4.2.3.2.6, 4.2.3.3.6, 4.2.3.4.6	
Reference (Section, Page Paragraph)	3.8.2.3 Group 3 Deliverables – DDI to M&O Transition Services, Page 116	

0.3.3	Completed Transition Readiness Checklist	
Deliverable Description	This deliverable documents all activities required to transition IE-BM into M&O have occurred.	
Vendor Responsibilities	<p>This deliverable must be a completed version of the checklist included in the Optum IES M&O Transition Plan with documented proof that the activities have been completed and include, at a minimum:</p> <ul style="list-style-type: none"> ■ Proof that all activities planned in the System M&O Plan are established/completed, are being used, have been documented and have been approved by you including: <ul style="list-style-type: none"> <input type="checkbox"/> Support organization is in place and is fully staffed. <input type="checkbox"/> Operational processes are established and are active. <input type="checkbox"/> Tools have been established and are being appropriately used. <input type="checkbox"/> Initial training is complete and ongoing training is started. <input type="checkbox"/> Operational processes, tools, structures and artifacts 	

0.3.3		Completed Transition Readiness Checklist	
	are sufficiently documented, and documentation is posted.		
	<input type="checkbox"/> Reporting tools and processes are complete.		
Expectations for the State's Responsibilities	Review and approve the proof that all activities planned in the System M&O Plan are established / completed, are being used and have been documented.		
	Start	End	
Timeline	2/18/2019	6/19/2020	
Duration	Once per Optum IES release		
WBS ID#(s)	4.2.1.7, 4.2.2.1.7, 4.2.2.2.7, 4.2.2.3.7, 4.2.3.1.7, 4.2.3.2.7, 4.2.3.3.7, 4.2.3.4.7		
Reference (Section, Page Paragraph)	3.8.2.3 Group 3 Deliverables – DDI to M&O Transition Services, Page 116		

0.4.1		Enhancement Requirements and Cost Estimates	
Deliverable Description	Enhancement Requirements and Cost Estimates		
Vendor Responsibilities	For each agreed-upon release, Optum shall produce the following deliverables: <ul style="list-style-type: none"> ■ Release Requirements/Scope (including list of requested changes) <ul style="list-style-type: none"> <input type="checkbox"/> Development Plan including: <input type="checkbox"/> Documentation (e.g., updates to specification or new specs) <input type="checkbox"/> Testing Plans <input type="checkbox"/> Change Management/Training Plans <input type="checkbox"/> Infrastructure impact <input type="checkbox"/> Staffing plan ■ Acceptance Criteria Checklist, including: <ul style="list-style-type: none"> <input type="checkbox"/> Testing results/Passed UAT <input type="checkbox"/> Updated documentation <input type="checkbox"/> Updated Operations Plan ■ Interim deliverables <ul style="list-style-type: none"> <input type="checkbox"/> Function Point and Cost Estimates <input type="checkbox"/> Release Checklist 		
Expectations for the State's Responsibilities	None		

0.4.1	Enhancement Requirements and Cost Estimates	
	Start	End
Timeline	Before commencing DDI activities for the release	Before commencing DDI activities for the release
Duration	Once per release	
WBS ID#(s)	Not Applicable	
Reference (Section, Page Paragraph)	3.8.2.4 Group 4 Deliverables – Enhancements and Modifications, Page 118	

0.4.2	Completed Enhancement Checklist	
Deliverable Description	Completed Enhancement Checklist	
Vendor Responsibilities	For each agreed-upon release, Optum will produce the completed checklist.	
Expectations for the State’s Responsibilities	None	
	Start	End
Timeline	Submitted once the release is completed	Submitted once the release is completed
Duration	Once per release	
WBS ID#(s)	Not Applicable	
Reference (Section, Page Paragraph)	3.8.2.4 Group 4 Deliverables – Enhancements and Modifications, Page 118	

0.5.1	M&O Turnover Plan
Deliverable Description	M&O Turnover Plan
Vendor Responsibilities	The Turnover Plan will comprehensively detail at least the following: <ul style="list-style-type: none"> ■ The activities needed to transition services to another provider, including roles and responsibilities throughout the transition ■ The coordination means, tools and artifacts to be used by all providers ■ The staffing transition plan, including the methods for assuring Optum will provide adequate staffing until the other provider is prepared to take ownership ■ Process for monthly vendor assessments of all activities critical to the M&O transition and completion of M&O activities
Expectations for the State’s Responsibilities	None

0.5.1	M&O Turnover Plan	
	Start	End
Timeline	3/13/2020	4/16/2020
Duration	Updated as needed or requested by you	
WBS ID#(s)	5.1	
Reference (Section, Page Paragraph)	3.8.2.5 Group 5 Deliverables – M&O Turnover Services, Page 119	

0.5.2	M&O Turnover Assessment Report	
Deliverable Description	M&O Turnover Assessment Report	
Vendor Responsibilities	Reporting shall include progress of transition activities by Optum and other providers, as appropriate.	
Expectations for the State’s Responsibilities	Provide necessary resources per the turnover plan.	
	Start	End
Timeline	6/12/2020	7/16/2020
Duration	Six (6) months prior to Contract expiration	
WBS ID#(s)	5.2	
Reference (Section, Page Paragraph)	3.8.2.5 Group 5 Deliverables – M&O Turnover Services, Page 119	

9.2 Deliverables Expectations Document (DED)

The awarded Vendor will be required to prepare all deliverables based on a DED that will be written by the Vendor and approved by DHS with guidance from at least the QA/IV&V vendor prior to the Vendor starting any work on the Deliverable. Once approved by DHS, the DED will be a tool used to monitor the Vendor’s work on the deliverable and to discuss the Vendor’s successful delivery of the Deliverable as defined by the deliverable acceptance criteria.

No work may be performed on any deliverable until the associated DED has been approved in writing by DHS. As each Project Deliverable is submitted, the Vendor must include a copy of the DED as the cover sheet.

Submission of DEDs for these deliverables will be evaluated as part of the Vendor’s Proposal. But submission with a Proposal, or issuance of a Contract does not constitute acceptance of the DED.

Instructions: Provide DEDs for the following deliverables (see the RFP document for additional details), using the template in the DED Template Table below. Replicate the template for each DED submitted. Change only the cells containing “<Insert>”. Do not change any of the completed cells. Any changes to the completed cells could lead to the disqualification of the Proposal.

Table 3. Deliverables For Which The Vendor Should Complete A DED Within The Proposal

Deliverable #	Name of Deliverable
O.1.1	EEF M&O Transition Plan
O.1.3	Application Maintenance and Operations Plan
O.2.1	M&O Status Report and Service Level Agreement Reporting
O.4.1	Enhancement Requirements and Cost Estimates
O.5.1	M&O Turnover Plan

Table 4. DED Template

Project Deliverable Expectations Document (DED)	
Project Deliverable Number:	Title of Deliverable:
0.1.1	EEF M&O Transition Plan
Proposal Reference:	Contract Reference:
3.8.2.1 Group 1 Deliverables – EEF M&O Transition Planning and Services, Page 110	<Leave Blank>
Frequency:	Draft Submission Due:
Once	<Leave Blank>
State’s Draft Review and Comment Period:	Final Submission Due:
<Leave Blank>	<Leave Blank>
Approval Required:	Distribution:
<Leave Blank>	<Leave Blank>
Vendor:	
Prepared by:	Date Submitted:
<Leave Blank>	<Leave Blank>
Date Submitted 2:	Date Submitted 3:
<Leave Bank>	<Leave Blank>
Phone Number:	FAX:
<Leave Blank>	<Leave Blank>
Email:	
<Leave Blank>	
Deliverable Acceptance Criteria – To be reviewed by QA Provider and DHS and Approved by the Project Director	

Project Deliverable Expectations Document (DED)	
Proposed Format: PDF	
Content Description: The EEF Solution M&O Transition Plan captures all of the activities Optum will perform to establish the EEF Solution support organization and migrate the M&O processes and tools to Optum. The Plan will include a schedule to complete the tasks prior to the end of the incumbent’s contract.	
DHS Approval/Comments	
Approved by:	Date:
<Leave Blank>	<Leave Blank>
Signature: <Leave Blank>	
Comments: <Leave Blank>	

Project Deliverable Expectations Document (DED)	
Project Deliverable Number:	Title of Deliverable:
0.1.3	Application Maintenance and Operations Plan
Proposal Reference:	Contract Reference:
3.8.2.1 Group 1 Deliverables – EEF M&O Transition Planning and Services, Page 112	<Leave Blank>
Frequency:	Draft Submission Due:
Once	<Leave Blank>
State’s Draft Review and Comment Period:	Final Submission Due:
<Leave Blank>	<Leave Blank>
Approval Required:	Distribution:
<Leave Blank>	<Leave Blank>
Vendor:	
Prepared by:	Date Submitted:
<Leave Blank>	<Leave Blank>
Date Submitted 2:	Date Submitted 3:
<Leave Bank>	<Leave Blank>
Phone Number:	FAX:
<Leave Blank>	<Leave Blank>
Email:	
<Leave Blank>	
Deliverable Acceptance Criteria – To be reviewed by QA Provider and DHS and Approved by the Project Director	
The Application M&O Plan describes the establishment of a support organization, and the processes and tools to be managed and staffed by Optum.	

Project Deliverable Expectations Document (DED)	
DHS Approval/Comments	
Approved by:	Date:
<Leave Blank>	<Leave Blank>
Signature: <Leave Blank>	
Comments: <Leave Blank>	

Project Deliverable Expectations Document (DED)	
Project Deliverable Number:	Title of Deliverable:
0.2.1	M&O Status Report and Service Level Agreement Reporting
Proposal Reference:	Contract Reference:
3.8.2.2 Group 2 Deliverables – Provide M&O Services, Status Reporting and Quality Assurance, Page 115	<Leave Blank>
Frequency:	Draft Submission Due:
Weekly (M&O status reports) and Monthly (Service Level Reports)	<Leave Blank>
State’s Draft Review and Comment Period:	Final Submission Due:
<Leave Blank>	<Leave Blank>
Approval Required:	Distribution:
<Leave Blank>	<Leave Blank>
Vendor:	
Prepared by:	Date Submitted:
<Leave Blank>	<Leave Blank>
Date Submitted 2:	Date Submitted 3:
<Leave Bank>	<Leave Blank>
Phone Number:	FAX:
<Leave Blank>	<Leave Blank>
Email:	
<Leave Blank>	
Deliverable Acceptance Criteria – To be reviewed by QA Provider and DHS and Approved by the Project Director	
This deliverable is documentation to confirm that all System M&O reporting activities and the implementation of reporting, reporting tools and processes are complete, as described in the System M&O Plan.	
DHS Approval/Comments	
Approved by:	Date:

Project Deliverable Expectations Document (DED)	
<Leave Blank>	<Leave Blank>
Signature: <Leave Blank>	
Comments: <Leave Blank>	

Project Deliverable Expectations Document (DED)	
Project Deliverable Number:	Title of Deliverable:
0.4.1	Enhancement Requirements and Cost Estimates
Proposal Reference:	Contract Reference:
3.8.2.4 Group 4 Deliverables – Enhancements and Modifications, Page 118	<Leave Blank>
Frequency:	Draft Submission Due:
Once per release	<Leave Blank>
State’s Draft Review and Comment Period:	Final Submission Due:
<Leave Blank>	<Leave Blank>
Approval Required:	Distribution:
<Leave Blank>	<Leave Blank>
Vendor:	
Prepared by:	Date Submitted:
<Leave Blank>	<Leave Blank>
Date Submitted 2:	Date Submitted 3:
<Leave Bank>	<Leave Blank>
Phone Number:	FAX:
<Leave Blank>	<Leave Blank>
Email:	
<Leave Blank>	
Deliverable Acceptance Criteria – To be reviewed by QA Provider and DHS and Approved by the Project Director	

Project Deliverable Expectations Document (DED)	
For each agreed upon release, Optum shall produce the following deliverables:	
<ul style="list-style-type: none"> ■ Release Requirements/Scope (including list of requested changes) ■ Development Plan including: <ul style="list-style-type: none"> <input type="checkbox"/> Documentation (e.g., updates to specification or new specs) <input type="checkbox"/> Testing Plans <input type="checkbox"/> Change Management/Training Plans <input type="checkbox"/> Infrastructure impact <input type="checkbox"/> Staffing plan ■ Acceptance Criteria Checklist including: <ul style="list-style-type: none"> <input type="checkbox"/> Testing results/Passed UAT <input type="checkbox"/> Updated documentation <input type="checkbox"/> Updated Operations Plan ■ Interim deliverables ■ Function Point and Cost Estimates ■ Release Checklist 	
DHS Approval/Comments	
Approved by:	Date:
<Leave Blank>	<Leave Blank>
Signature: <Leave Blank>	
Comments: <Leave Blank>	

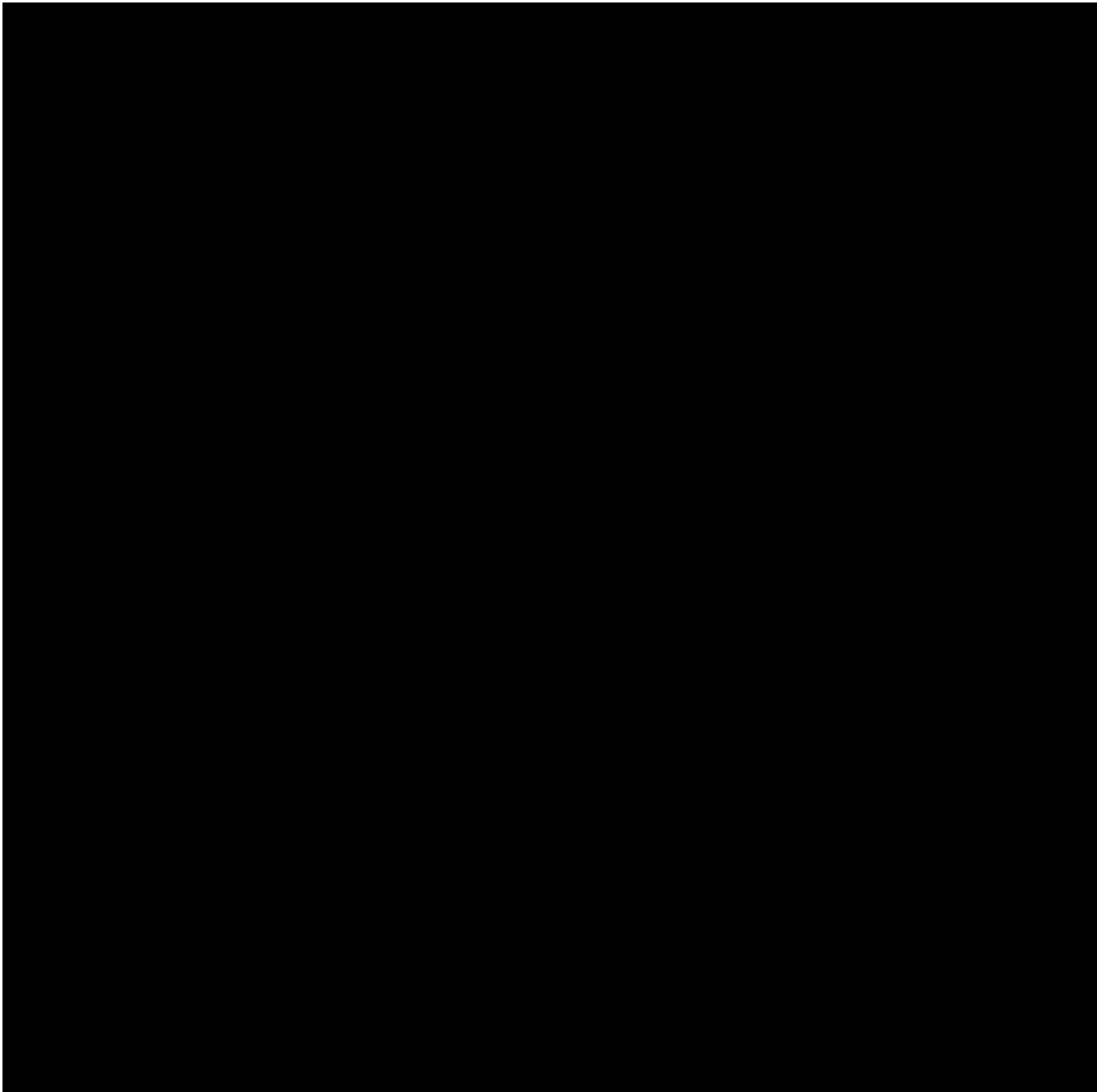
Project Deliverable Expectations Document (DED)	
Project Deliverable Number:	Title of Deliverable:
0.5.1	M&O Turnover Plan
Proposal Reference:	Contract Reference:
3.8.2.5 Group 5 Deliverables – M&O Turnover Services, Page 119	<Leave Blank>
Frequency:	Draft Submission Due:
Updated as needed or requested by DHS	<Leave Blank>
State’s Draft Review and Comment Period:	Final Submission Due:
<Leave Blank>	<Leave Blank>
Approval Required:	Distribution:
<Leave Blank>	<Leave Blank>
Vendor:	
Prepared by:	Date Submitted:
<Leave Blank>	<Leave Blank>
Date Submitted 2:	Date Submitted 3:

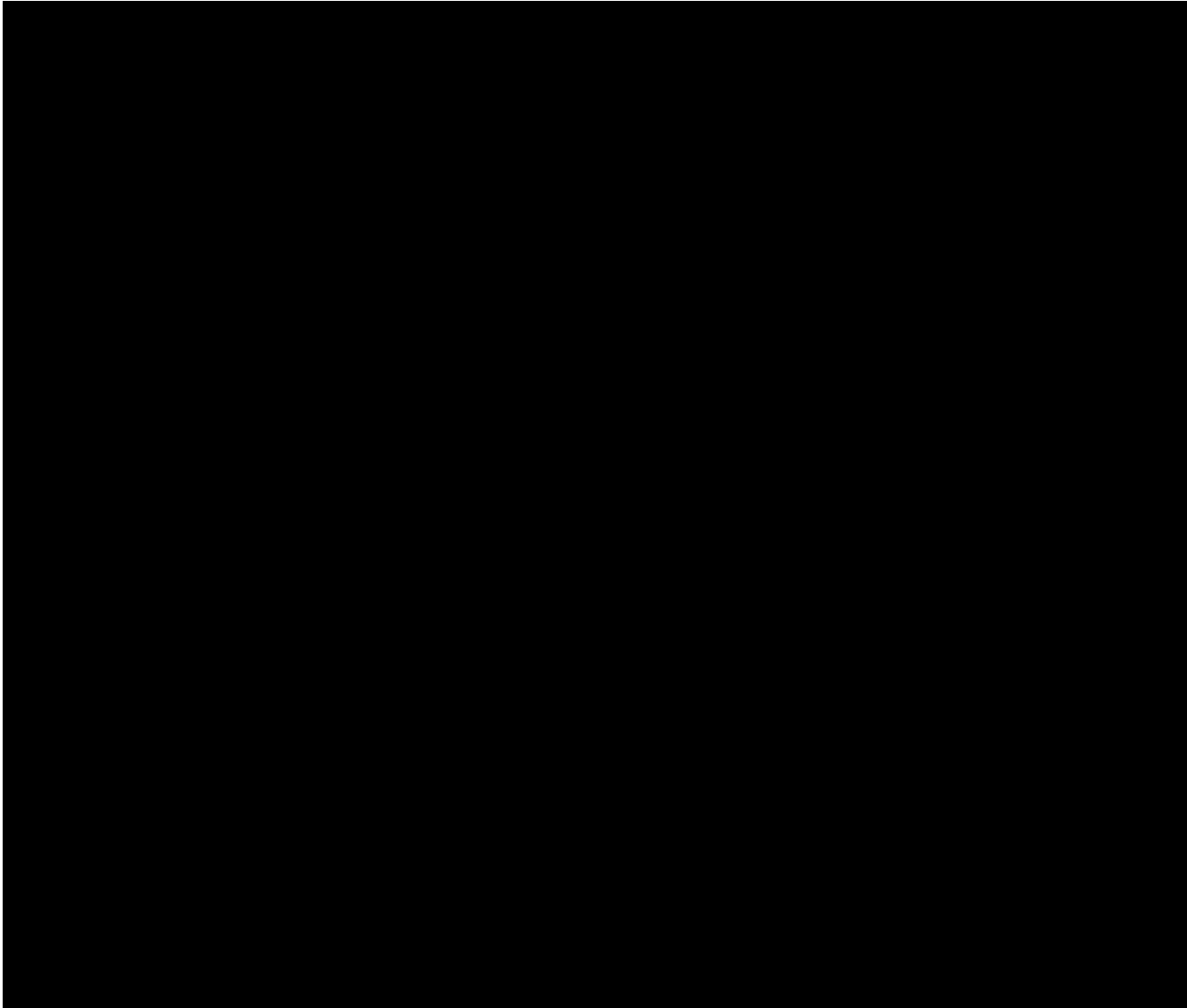
Project Deliverable Expectations Document (DED)	
<Leave Bank>	<Leave Blank>
Phone Number:	FAX:
<Leave Blank>	<Leave Blank>
Email:	
<Leave Blank>	
Deliverable Acceptance Criteria – To be reviewed by QA Provider and DHS and Approved by the Project Director	
<p>The Plan will comprehensively detail at least the following:</p> <ul style="list-style-type: none"> ■ The activities needed to transition services to another provider, including roles and responsibilities throughout the transition ■ The coordination means, tools and artifacts to be used by all providers ■ The staffing transition plan including the methods for making sure Optum will provide adequate staffing until the other vendor is prepared to take ownership ■ Process for monthly vendor assessments of all activities critical to the M&O transition and completion of M&O activities 	
DHS Approval/Comments	
Approved by:	Date:
<Leave Blank>	<Leave Blank>
Signature: <Leave Blank>	
Comments: <Leave Blank>	

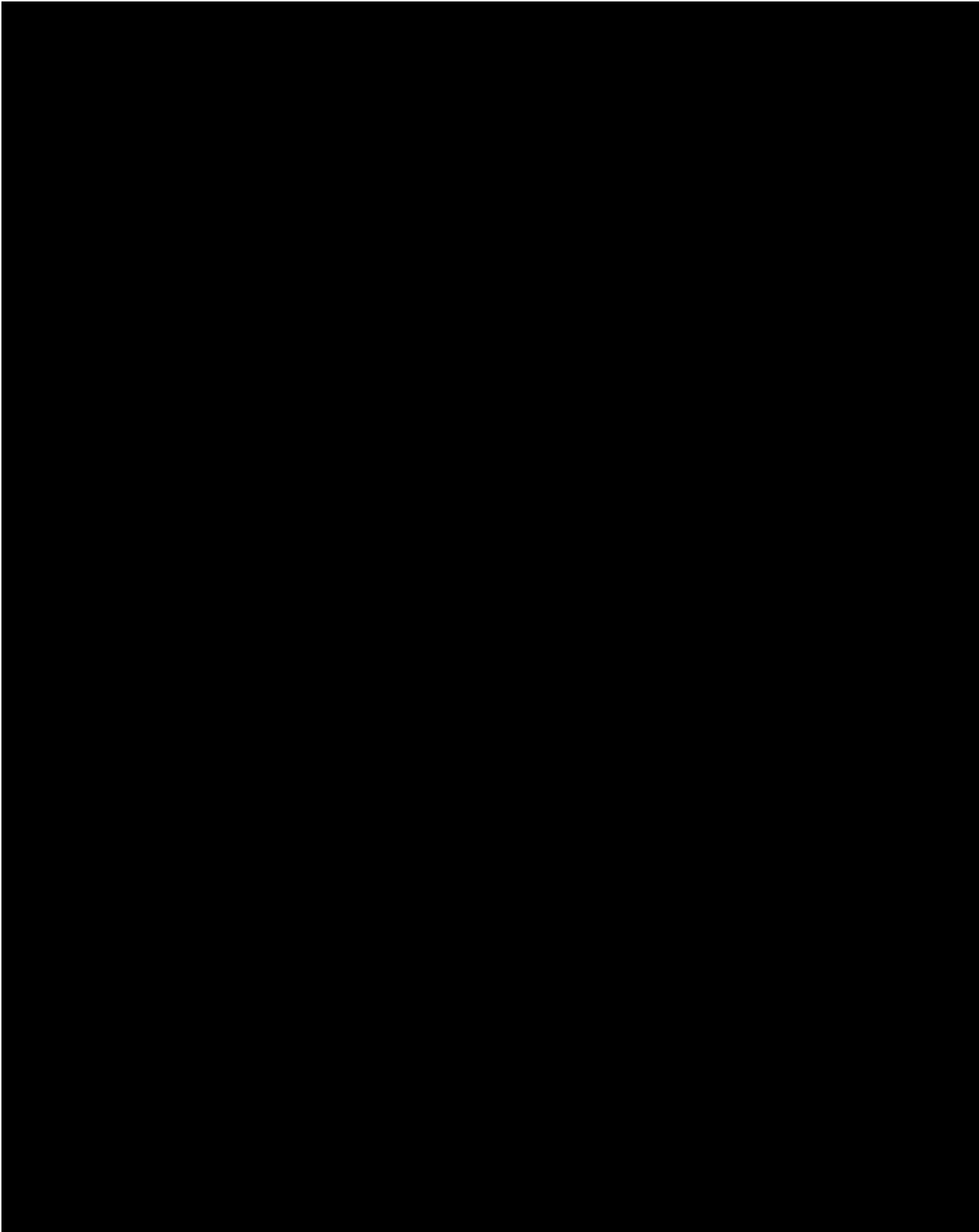
10.0 Value Added Services and Benefits

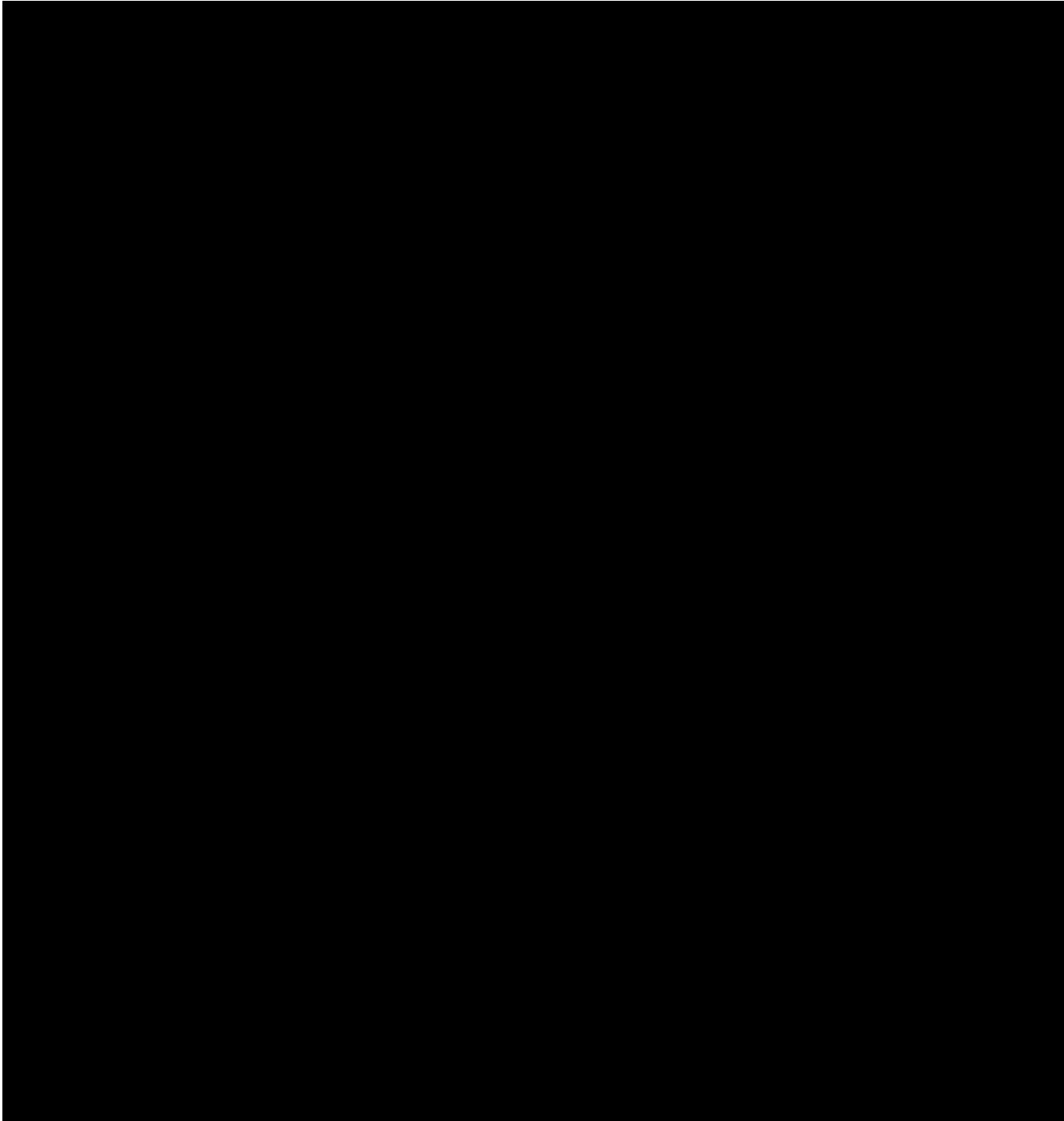
The Vendor may describe any services or deliverables that are not required by the RFP, and thus at no additional cost to DHS, but that the Vendor proposes to provide that will add value to the Phase and further differentiate the Vendor from other bidders. The Vendor is not required to propose value-added benefits, but inclusion of such services may impact the Vendor's overall evaluation.

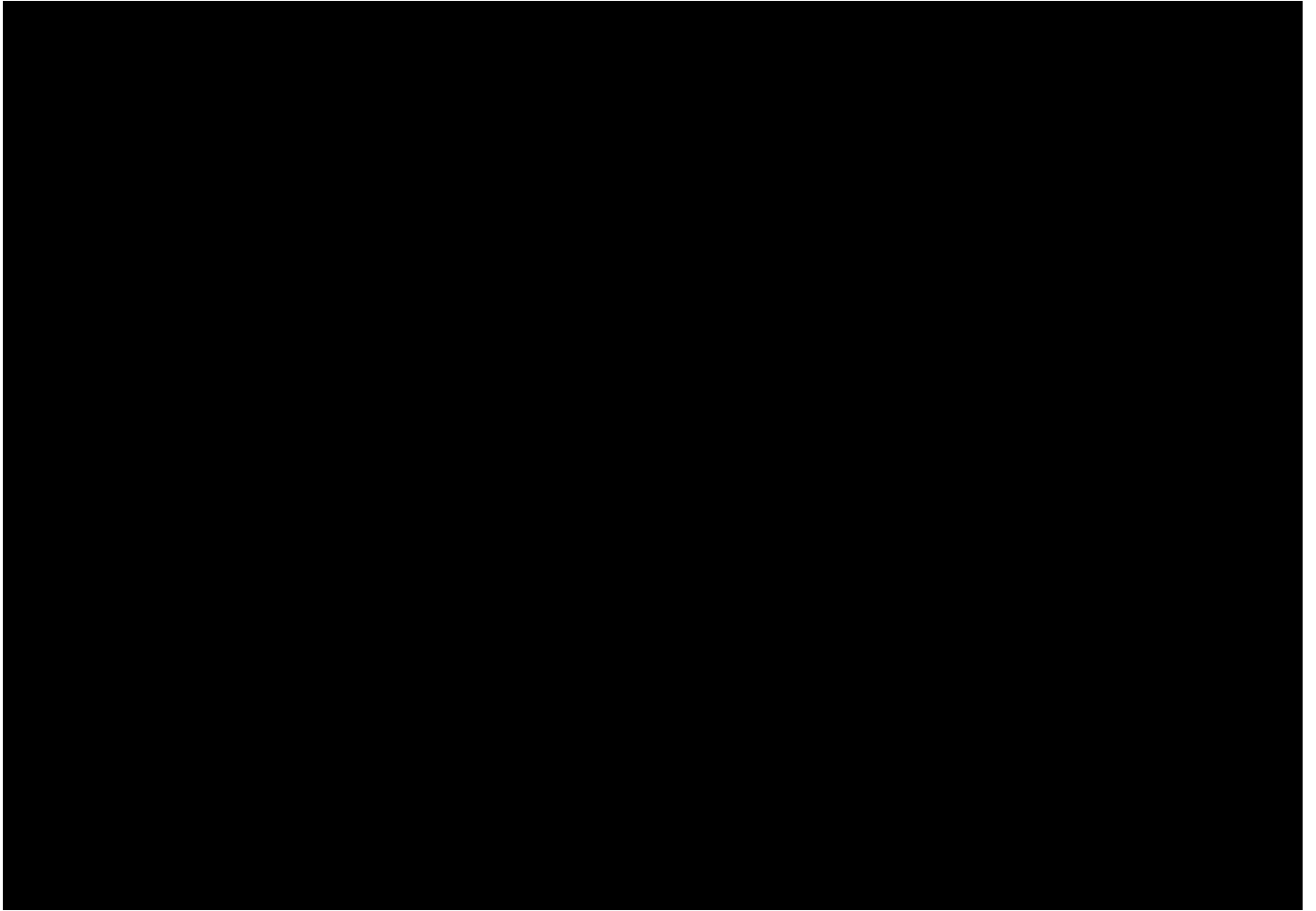
Instructions: Please describe any value added services or deliverables the Vendor is including as part of its Proposal that is at no additional cost to DHS.

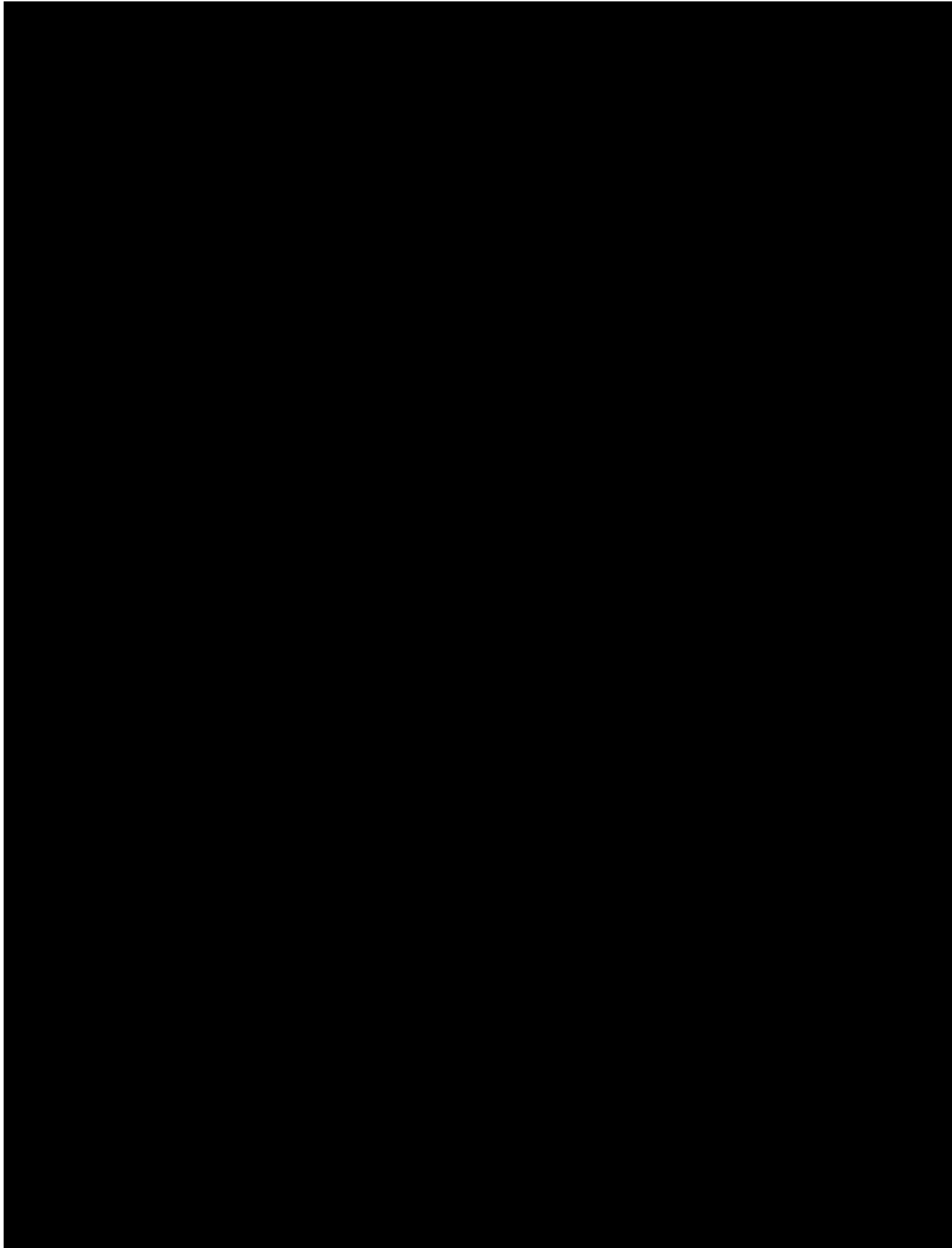


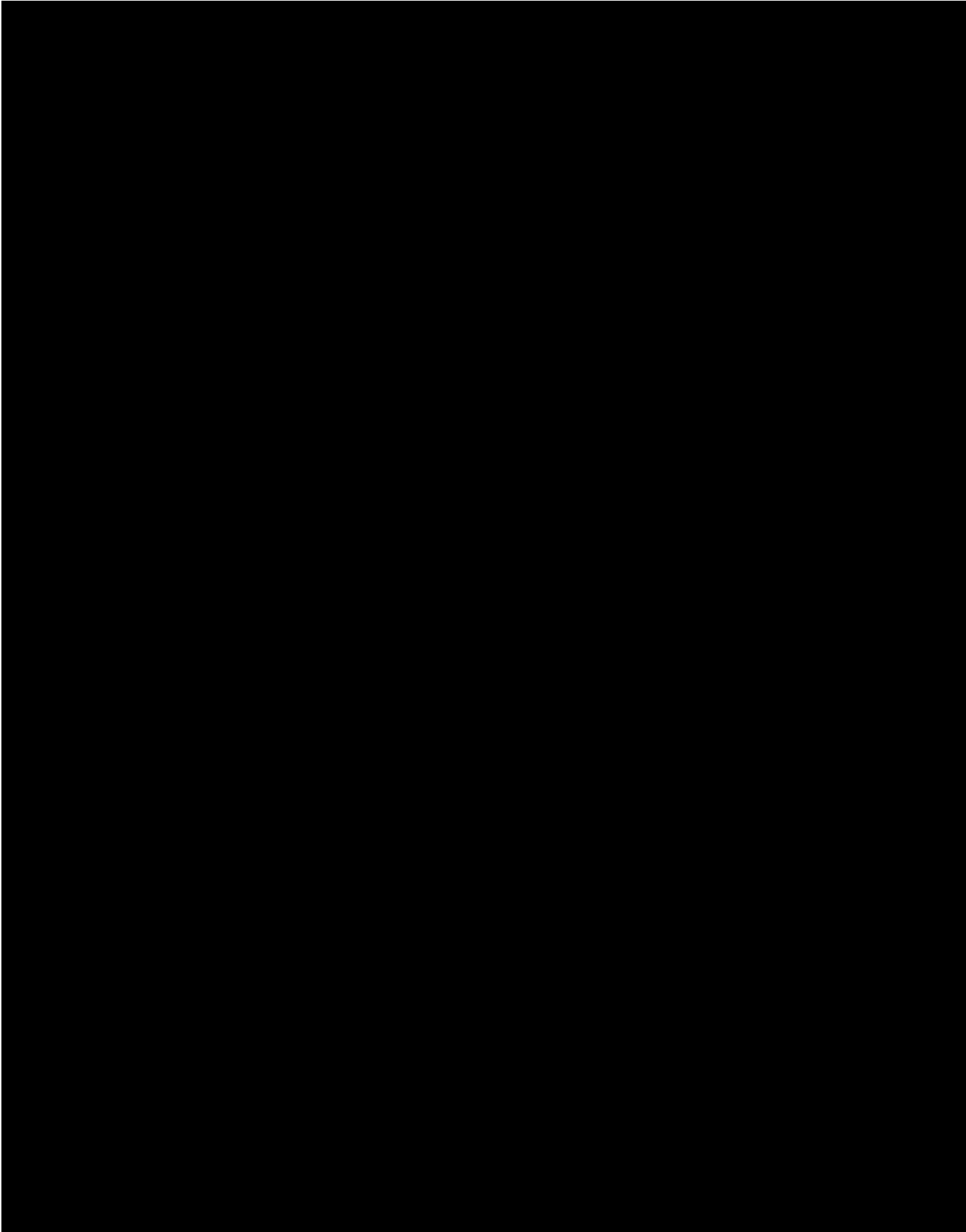


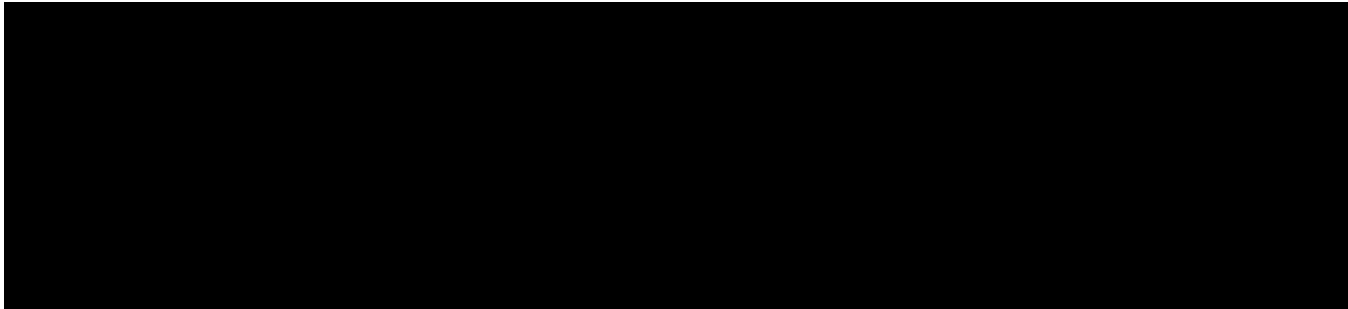








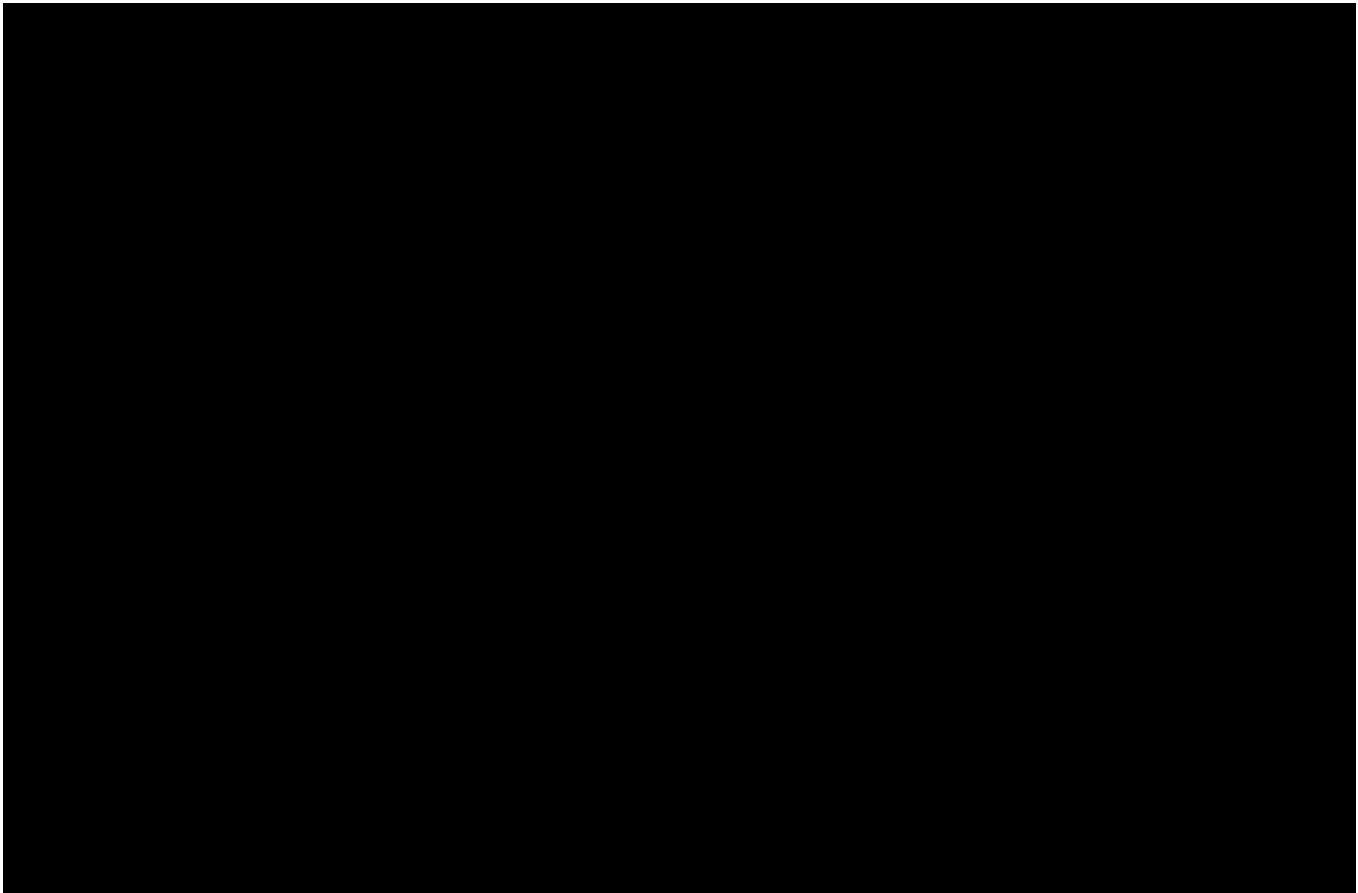




10.1 Lessons Learned

DHS learns from the experiences of others. The Vendor should describe what it sees as the success factors and primary challenges in managing and operating similar systems and Multi-Vendor environments.

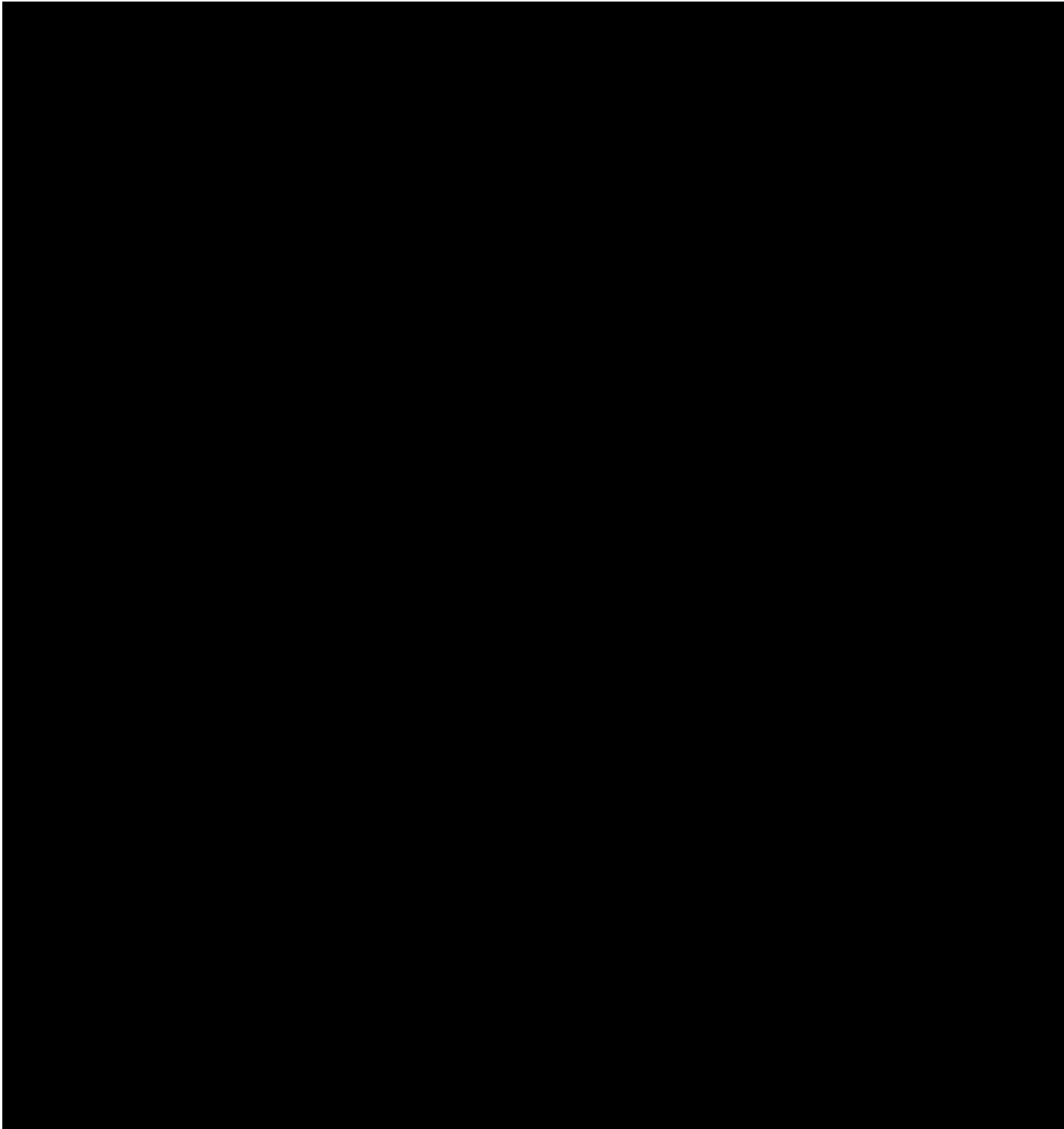
Instructions: Please describe any “lessons learned” from the Vendor’s relevant experience and how those lessons learned will impact the Vendor’s approach to this Project.

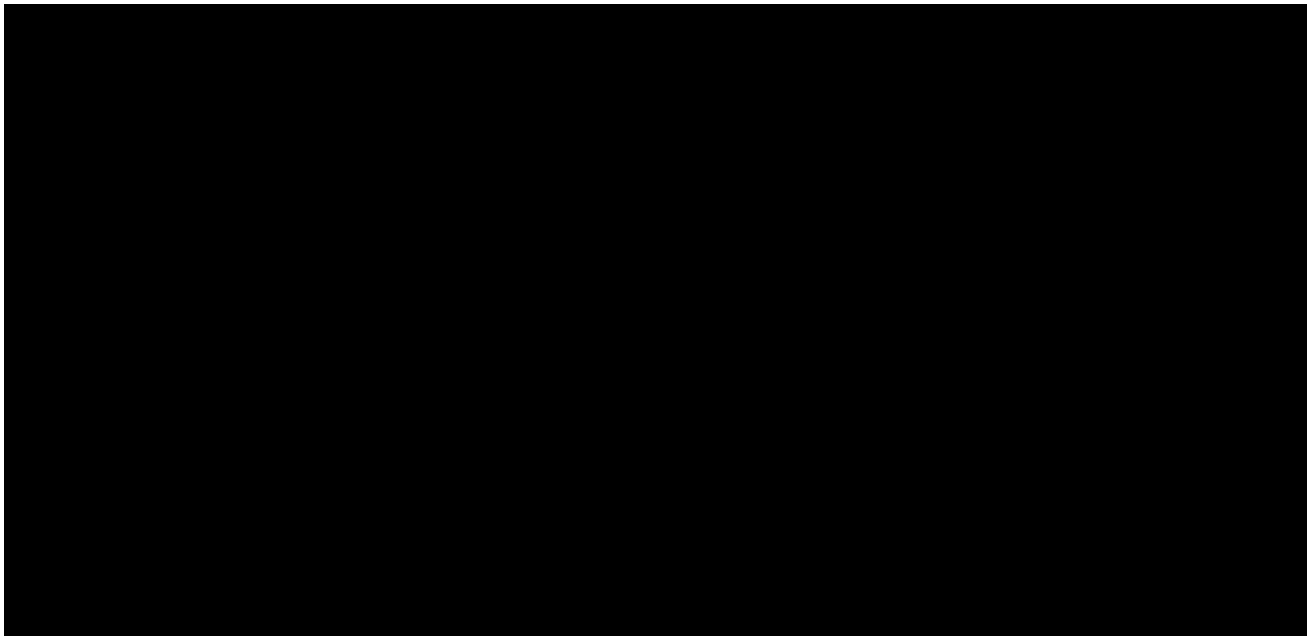


10.2 Issues, Challenges and Potential Risks

DHS is interested in any information that may help to identify issues, clarify the requirements, reduce risk of the procurement, and identify issues and challenges of managing and implementing the proposed System.

Instructions: Describe the primary concerns, risks, issues and recommendations for DHS as it proceeds with this Project.





11.0 Maintenance and Operations Approach Assumptions

Instructions: Document all assumptions related to this Response Template in the following Table. Add rows as necessary. Do not change any of the completed cells. Any changes to the completed cells could lead to the disqualification of the Proposal.

Table 5. Maintenance and Operations Requirements Assumptions

ITEM #	REFERENCE (Section, Page, Paragraph)	DESCRIPTION	RATIONALE
1.	Table 13 on page 75	Given that Arkansas has stated the preference to host the final AR IE-BM Solution in the Arkansas State Data Center, we assume Arkansas will also provide the infrastructure (e.g., servers, network) necessary to meet the specifications we have detailed in our proposal. As such, we have not included these infrastructure costs in our proposal. We also assume that Arkansas will cover the cost of hardware refresh and associated labor, and we have not included those costs in our proposal.	It is our understanding that the State prefers to host the solution in the State's data center for cost reasons.
2.	Table 13 on page 75	Given that Arkansas has stated the preference to host the final AR IE-BM Solution in the Arkansas State Data Center, we assume Arkansas will also provide the infrastructure support	It is our understanding that the State prefers to host the solution in the State's data center for cost reasons. As it is not

ITEM #	REFERENCE (Section, Page, Paragraph)	DESCRIPTION	RATIONALE
		services (e.g., support for servers, network and other infrastructure components) necessary to meet the SLRs described in the RFP. As such, we have not included these infrastructure support (labor and non-labor) costs in our proposal. We have included application-level M&O costs.	Optum's data center, Optum assumes the State has the appropriate support team in place.
3.	Section 3.4 page 46	The incumbent vendor will make adequate transition staff available for tasks and for the full transition-in duration.	Adequate staff will be required for a successful Transition-In to the project.
4.	Section 3.4 page 46	The State will assist with overseeing the transition and provide a single point of contact with decision-making authority to facilitate decision-making and to reduce bottlenecks. This is inclusive for transition-in and M&O turnover.	Having the State oversee the transition will provide an escalation point of contact to settle any transition disputes.
5.	Section 3.8.2.5 page 118	The incoming vendor resources will be dedicated to transition activities for Optum transition.	Adequate staff from the incoming vendor will be required for a successful transition-in to the project.
6.	Section 3.8.2.5 page 118	The incoming vendor will be responsible for confirming their staff skills align with the Scope of Work and technology stack used in the AR IE-BM solution.	Having appropriate skill sets is vital to the success of the M&O turnover.
7.	Section 3.6.6 page 66	We will have access to your ITSM system to enable us to pull metrics required for us to perform reporting.	This will be required for us to report on SLRs and KPIs.
8.	Section 3.8.2 page 110		This clarifies terms and calculations for availability.

ITEM #	REFERENCE (Section, Page, Paragraph)	DESCRIPTION	RATIONALE

ITEM #	REFERENCE (Section, Page, Paragraph)	DESCRIPTION	RATIONALE
9.	Section 3.8.2 page 110	[REDACTED]	This clarifies terms and calculations for performance.
10.	Section 3.6.6 page 66	The State ITSM system will have the capability to send notifications and alerts to Optum.	This will be required for us to respond to incidents in proportion to the severity of the incident, enabling us to meet SLRs.
11.	General	Completion of the Cúram upgrade to the Arkansas system.	Arkansas DHS will complete the Cúram version 6.1.0.1 upgrade to version 7 prior to the start of this contract.
12.	General	We assumed that there is not a requirement for shared support resources to be located in Arkansas. M&O team members would provide enough resources in AR for day-day customer interactions and issue handling.	

ITEM #	REFERENCE (Section, Page, Paragraph)	DESCRIPTION	RATIONALE
13.	[REDACTED]	[REDACTED]	

Template T-14

Work Plan

Response Template

RFP #: SP-17-0012

Table of Contents

1.0 Integrated Eligibility and Benefit Management (IE-BM) Engagement Work Plan.....	1
2.0 Assumptions	12

List of Figures

[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]

Optum’s List of Tables

Table A: Release Scope and Timing	3
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[REDACTED]	[REDACTED]
------------	------------

1.0 Integrated Eligibility and Benefit Management (IE-BM) Engagement Work Plan

The Vendor should submit a Work Plan for the Design, Develop, and Implement (DDI) and the Maintenance and Operations (M&O) of the IE-BM Engagement. This Work Plan should demonstrate that the Vendor has a thorough understanding of all activities required to develop and deploy the IE-BM System. The Vendor should provide a schedule with the shortest duration while providing enough time to perform the activities required as outlined in the RFP and without interruption to business operations.

The Work Plan should show all key elements including details with responsibilities, timelines, durations, milestone dates, deliverables, and Vendor personnel hours by deliverables during the Transition phase, State personnel hours, and all critical dependencies for the milestones and deliverables. The Work Plan may be an attachment to the Vendor's Technical Proposal and tabbed as such in the submission as well as an electronic soft copy (Microsoft Project® or equivalent and Adobe® PDF) version in the Vendor's electronic submission of the Technical Proposal.

All content should be formatted for effective viewing in hard and soft copy.

Instructions: Provide a Work Plan including at least:

- High level schedule (Microsoft Project® preferred and Adobe® PDF) including all deliverables and milestones, and timeline for phased approach, if appropriate
- A listing of what staff is assigned responsibility for each deliverable within the WBS to the level at which control will be exercised (i.e., DHS, incumbent vendor and Vendor staff)
- Major milestones and target date(s) for each
- Definition of the review processes for each milestone and deliverable and a description of how the parties will conduct communication and status review

Include or attach associated artifacts such as Gantt charts and flowcharts as appropriate.

We have submitted a Work Plan for the design development and implementation and maintenance and operation of the AR IE-BM Solution. Our key consideration while developing this plan and our approach was to implement the solution, according to the requirements in the RFP, as quickly as possible without interrupting DHS business operations. Our proposed Work Plan is included as Attachment 3 to our proposal.

Project Approach

Optum understands and commits that no more than 25% of the aggregate work effort occur off-site. Optum acknowledges the State's requirement to denote which tasks on the project schedule are planned to occur offsite. At this time, we are unable to accurately represent the tasks that will occur in specific work locations. Some of these tasks will likely be accomplished through a coordinated and collaborative effort with offsite team members. In addition, the work locations at which each task will be accomplished will be dependent on what skill sets

Our multi-phased release approach is consistent with your person-centric vision, will minimize risk, and support your successful migration to the most modern technology platform in the market.

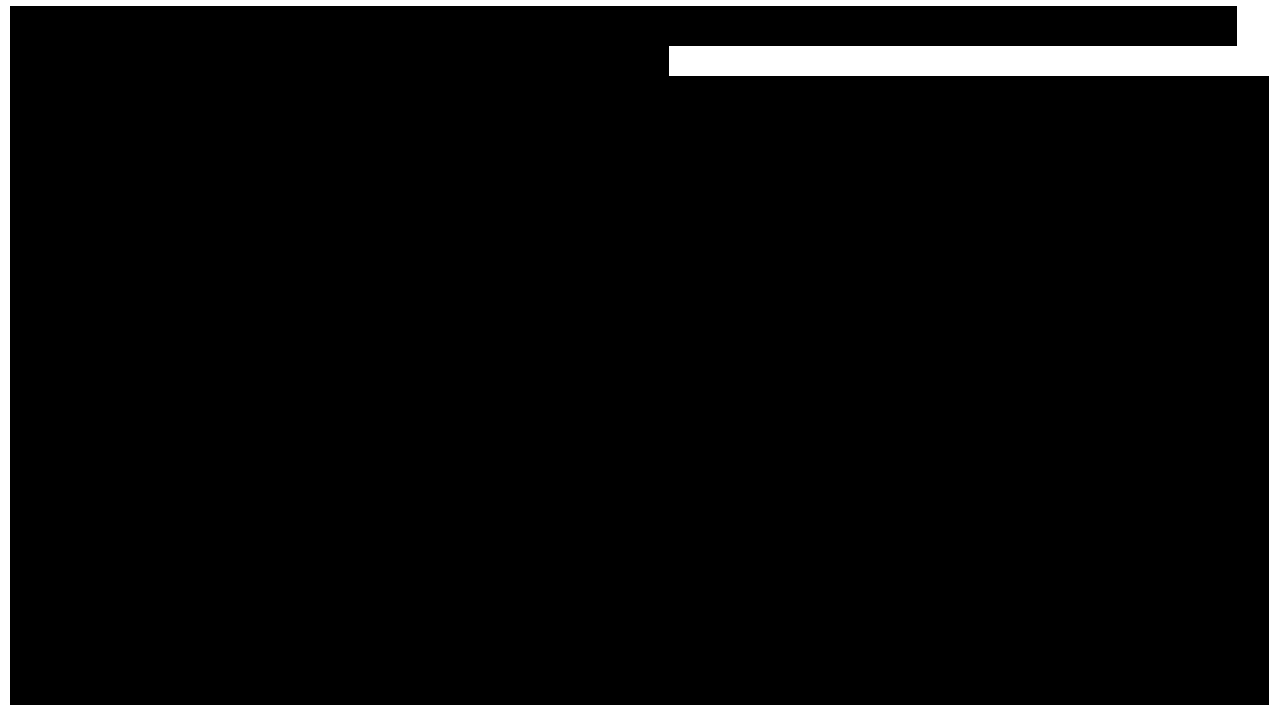
are necessary and where those team members will be located, which is yet to be determined. During planning sessions, we will work with you to determine the proper geographic distribution of work effort and align with RFP requirements.

Optum has experience implementing complex eligibility, HHS, data warehouse, and other modular systems in 37 states including Arkansas and the District of Columbia. For the AR IE-BM project we will use the same implementation methodology we used to successfully implement the Arkansas Medicaid Enterprise Decision Support System.

All of our projects are based on strong communication and an understanding of the existing environment as well as the desired business outcome. We have reviewed and understand the requirements in your RFP. Once we are awarded your business, we will meet with you and establish joint roles and responsibilities. Aligning with your RFP requirements, we will implement the AR IE-BM Solution in multiple phases. This approach helps you realize the full benefits of a modular COTS-based system in a controlled rollout. This release strategy aligns with our integrated delivery and project management methodology, the Optum Delivery Model (ODM). Our PMBOK-based ODM combines our proven software development lifecycle (SDLC) with an established project management methodology. Our approach will provide you with early and continuous delivery of high quality, fully tested solution components according to your business needs.

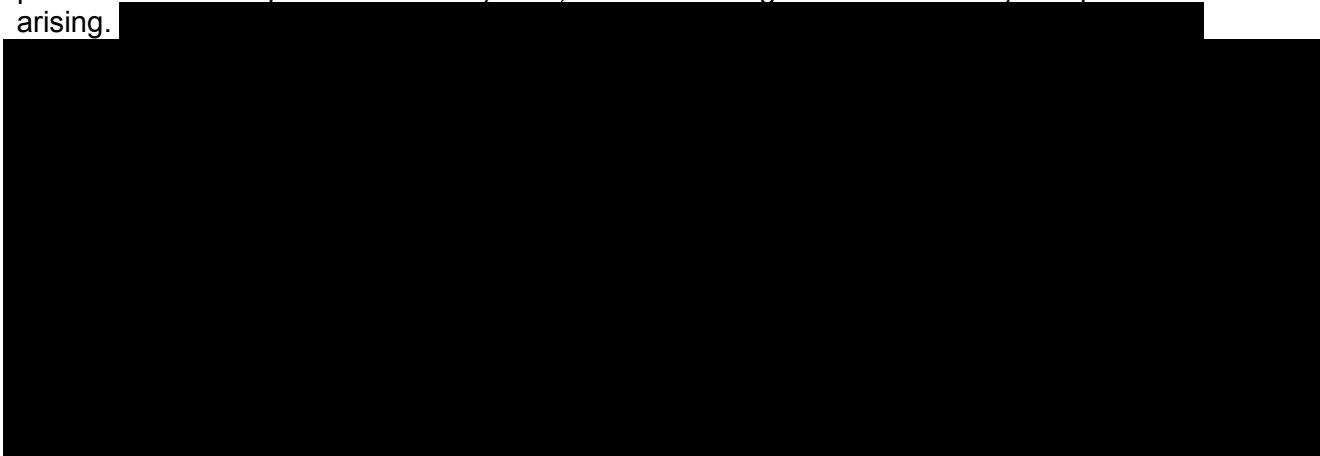


This multi-release approach, as described below, significantly reduces the risk associated with a big bang implementation. It also takes full advantage of our Agile-based ODM by executing multiple work streams in parallel. By identifying synergies across these parallel work streams, we can compress our overall timeline. As a result, our approach provides you a lower risk implementation in a shorter amount of time.



As we jointly establish the work plan to move you to a modular COTS-based environment, we will work to understand the HHS components of your existing system and to understand what is

working well and what is not. The output of our discussion will help develop a release plan consisting of parallel work streams (R0 through R3) to address the components and functionality you desire. This strategy is consistent with your vision of a person-centered practice model because it recognizes the interrelationships and dependencies between health care, cash assistance, and other family assistance programs. Although the work streams will run in parallel, we will pilot and roll out each program increment (PI) independently. This approach will enable us to minimize delivery risk by dividing the work into smaller, more manageable efforts. It will also provide a phased approach that will allow your staff a longer period of time to adjust to the new system, thus minimizing the chance of any complications arising.



The following table summarizes the scope and timing of each release shown in the previous figure.

Table A: Release Scope and Timing

Release #	Release description	Release date	What business functions will this release enable?
R0	[Redacted Content]		
R1			
R2-PI1			

Release #	Release description	Release date	What business functions will this release enable?
R2-PI2			
R2-PI3			
R3			

Factors Determining our Approach

Determining factors of our approach are the RFP requirements, your business needs, realization of your person-centric delivery model, the Optum IES solution design, architecture, and COTS components utilized, ability to leverage existing assets, and your desired business outcomes. We will also apply our experiences and lessons learned to work collaboratively with you on identifying latent issues. Key objectives are speed to live operations, risk mitigation, cost containment, and of course successful delivery of all requirements.

Our work plan is based on the iterative approach described above that maps to your program needs and timing. We will migrate your existing environment and simultaneously maintain your operations, working with you to identify and mitigate any risks for minimal disruption to current operations.

This approach will deliver a solution that has been tested at an agreed-upon pilot site in accordance with established success milestones. We will introduce system functionality into the pilot environment. Once the system meets the milestone success criteria, we will implement statewide functionality incrementally based on the established release schedule. This approach will enable us to train workers more effectively on the AR IE-BM Solution and promote incident avoidance problems related to system unfamiliarity. It will support your successful migration from your current technology to the most modern platform on the market.

While our iterative approach will serve to promote a rapid and low risk delivery, our execution of multiple parallel work streams will allow us to identify interdependencies between the various HHS programs. As such, we will be able to implement these interdependencies as a cohesive unit.

Our approach to substantially reduce risks of this implementation includes:

- Maintaining a technology framework enabling integrated application and review processing for TEA/TANF, SNAP, Medicaid, Arkansas Works, and WIC applicants
- Reducing impact to worker caseload by providing an integrated presentation of the application functionality throughout the pilot and interim phases of the project
- Enabling an easier rollback of new functionality, if needed, through our solution architecture; allowing a rollback of pilot functionality at any point in time, maintaining a solid strategy throughout implementation

Integrated Eligibility – Release Details

The following provides more detail on these releases, as well as our proposed pilot strategy for a successful implementation.

R0 – Base Technology Configuration

[Redacted content]

R1 – Data Collection User Interface

[Redacted content]

R2 – HHS Program Functionality

[Redacted content]

[REDACTED]

R3 – Reporting, Document, and Financial Management

[REDACTED]

[REDACTED]

[REDACTED]

Release Pilots

Preceding each major release, we will work with you to identify representative county/counties for a two- or three- month pilot, depending on the release. Our experience shows that piloting each major release will further reduce delivery risk by resolving any deployment and operational issues prior to a full statewide rollout. While these pilots will leverage the new production system, [REDACTED]

[REDACTED] We will provide training to the State workers within the pilot county prior to the commencement of the pilot. Statewide training delivery will occur during the pilot, just in time for the statewide production rollout.

[REDACTED]

[REDACTED] This approach will minimize both the technical and organizational impact to your existing people, processes, and technology. It will also reduce the impact on the end user with the transition of programs from your existing systems to the new AR IE-BM Solution. We will accomplish these goals by taking advantage of the modular architecture of our IE solution, allowing us to enable business rules and functionality systematically.

The user experience and underlying data synchronization aspects of these pilots will consider the impact on the end user, namely, your staff. [REDACTED]

[REDACTED] will also minimize the need to work within dual systems. The end result will be a system that is less complex, more modular and flexible to grow as your business needs change without multiple modifications.

As we configure and finalize each program increment in the second release (R2), we will also undertake several parallel efforts, including:

- Dedicated work streams for data conversion, migration and synchronization
- Integration development between OIL, the existing Arkansas ESB, and downstream systems
- Implementation of document management and notices

The timing and functionality contained within these parallel efforts will enable us to conduct a pilot after each release. Each pilot will target a county that has a broad cross-section of volume and use cases. Again, this strategy will help us validate the specific release is ready for a statewide rollout after each pilot. This approach will help us to improve the existing environment by focusing on lessons learned and applying them to our pilot and over all release strategy resulting in an environment that is user friendly and more accessible.

The final release [REDACTED] implements the underlying modules for [REDACTED]

[REDACTED] While we refer to this as a stand-alone release, in reality the functional component [REDACTED]

Interim Solution Architecture

During each release, we will incrementally deploy the new system functionality while maintaining the existing legacy functionality. [REDACTED]

[REDACTED] As a result, the downstream systems such as client notices, reports and MDM will have a unified view of the data irrespective of where the case is being processed. This will reduce or eliminate any need for dual operations by the end users. This will also spread out the training for the State workers on the new system, making the transition easier. After the functionality completely transitions to the AR IE-BM Solution, we will retire the existing Cúram system and support DHS with the retirement of its four legacy systems. The end result will provide you, your departments, and citizens the benefits of an interconnected COTS system that is easy to use, modular and accessible.

Data Conversion Strategy

Data conversion is an important aspect of this migration process. We will use an incremental approach in converting data from your existing legacy systems to the new AR IE-BM Solution. As we transfer functionality to the new solution, we convert the underlying data. After transfer, the new AR IE-BM Solution then becomes the owner of that data. At that point, future changes made to the new database take place through the new solution functionality, and we copy the data back to your legacy systems to keep them synchronized.

[REDACTED]

This strategy will help us verify the data integrity throughout and provide us a recovery point to address any data conversion issues from our interim releases to the final rollout and decommissioning of the legacy applications.

Each pilot conversion phase increases our understanding of the data, which helps provide better, more informed decisions as we progress through data conversion. This leads to more efficient and cost effective delivery of service to the citizens of Arkansas.

We provide detailed information about Data Conversion Strategy in T11 section 5.0 Approach to Data Conversion.

Rollback Strategy

We understand the complexity of large application migrations, which is why we are proposing a multi-release approach. Our approach will deliver smaller, more manageable functional releases, enabling us to mitigate the current risks while we migrate to the new solution. In addition, each release will be designed so that we can roll back the new changes and return to the prior operational environment, if necessary.

[REDACTED]

This approach helps verify a truly modular architecture, providing partial rollbacks rather than being forced to take a more drastic all or none approach and rolling back an entire release. While rolling back a release is never expected, our philosophy is to design the solution to mitigate the negative and dramatic psychological and operational effect a rollback can cause if not done properly.

SDLC Methodology for DDI

We will follow our proven SDLC methodology, which uses a hybrid waterfall and Agile development approach. The key benefit of this hybrid approach is that it blends the rigor, familiarity and discipline inherent in the traditional SDLC phases. Within these phases, we use an Agile approach that provides rapid design and flexibility. We accomplish this by integrating design, build and testing activities into smaller, more manageable units of work. These units of work are referred to as sprints. We designed our hybrid methodology to bring the structure and rigor necessary for a project undertaking of this size. Using Agile and sprints provides the flexibility and nimbleness to deliver functionality and minimize delivery risk. We will incorporate the Agile approach in our project releases. Our detailed project approach is located in T11 section 1.1, Project Management.

Project Initiation

During project initiation, we will establish a Project Management Office (PMO). We will outline critical planning deliverables, including communications, monitoring and status reporting, organizational structure and general project logistics.

Requirements Analysis

After we establish the PMO, each project team will conduct a detailed analysis of their respective requirements. While these activities will require Subject Matter Expert (SME) participation from your staff, we realize and appreciate that their time is limited. As such, our approach will seek to heavily leverage any existing Arkansas systems and documentation, as well as leveraging our existing business and technical SMEs. We provide additional detail in T11 section 4.1, Requirements Validation and System Design Methodology.

System Design and Release Planning

We will review and document the solution/system design through design preview sessions with you. With the information gathered from these sessions, we will document the design and begin detailed planning of the associated releases in this phase. We will create a Preliminary Solution Design document describing our high-level solution. In addition, the detailed design activities will commence for the first release, while system design and release planning continues for the other releases. [REDACTED]

[REDACTED] We provide more information about our system design approach in T11 section 4.1, Requirements Validation and System Design Methodology.

Execution (Design/Build/System Test)

Our response to T11 section 4.2, System Development and Configuration Methodology also describes the Optum Delivery Method, which breaks up the overall detailed design, development and system testing activities into sprints. [REDACTED]

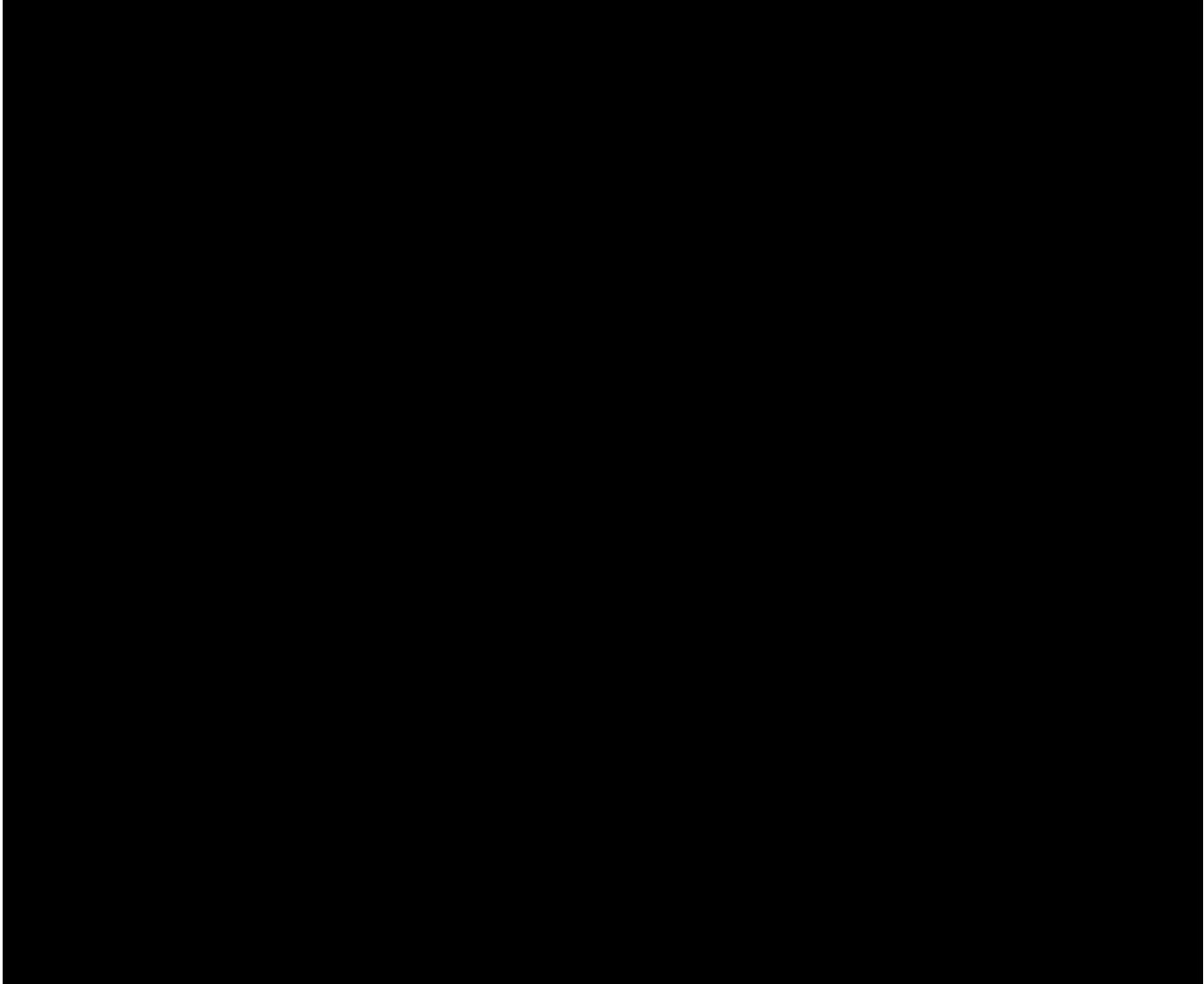
[REDACTED] After we complete the sprints associated with a PI and release and complete system testing, the entire package is ready for integration testing, End-To-End (E2E) testing and User Acceptance Testing (UAT).

Testing (Integration/E2E/Performance/UAT)

Each test phase will focus on the appropriate level of testing that corresponds to the software release life cycle. Using entrance and exit criteria, we will confirm compliance with the predetermined milestone criteria before moving to the next step of testing. Our testing approach is detailed in T11 section 6.0, Approach to Testing.

Implementation

Consistent with the RFP requirements, to further reduce implementation risk, for every major release and sub-release, we will deploy a pilot implementation. Our target pilot county will be chosen with a diverse mix of cases so there is broad exposure to different types of cases in the county. We will work with our DHS colleagues to choose the pilot counties at the time of implementation. [REDACTED]

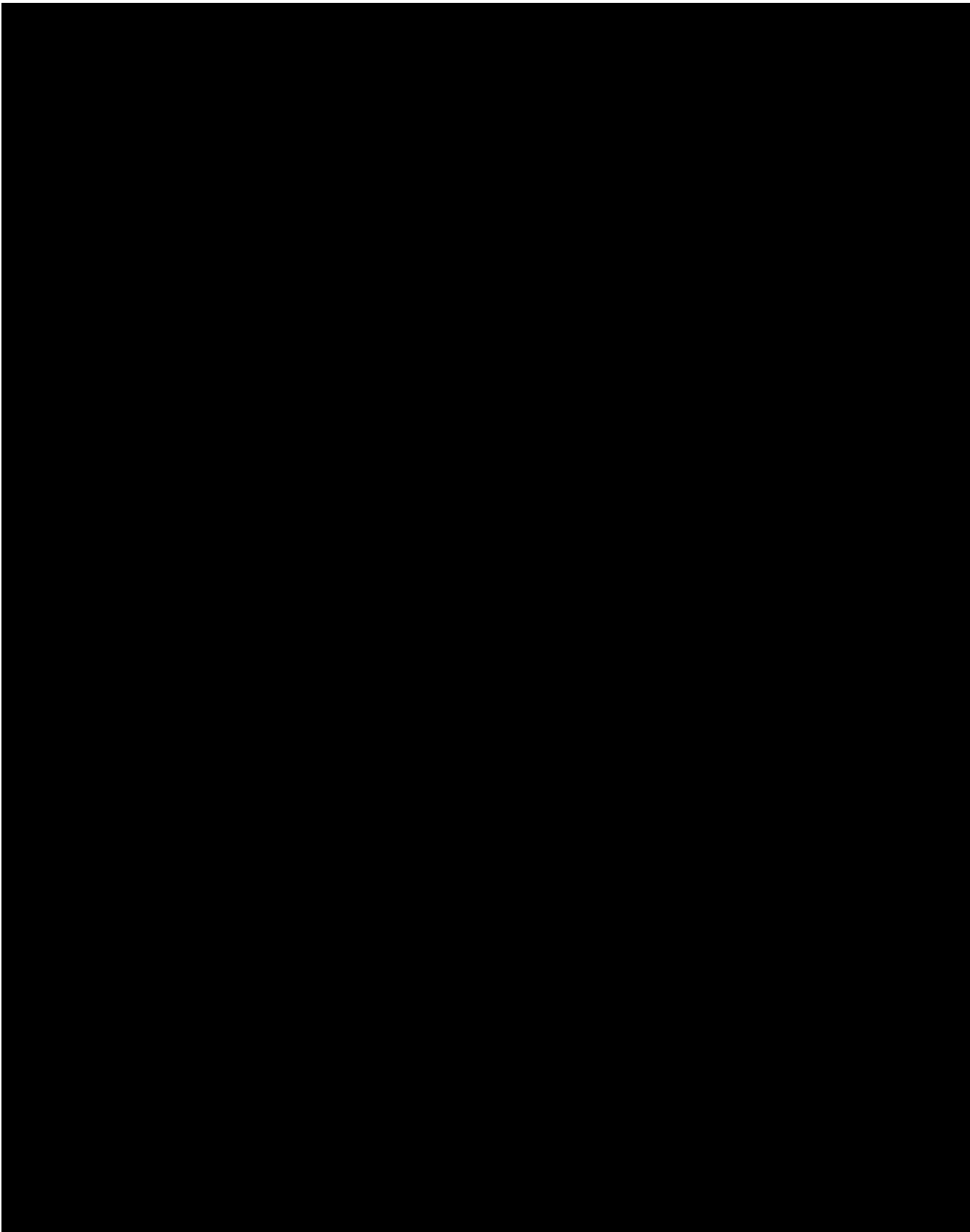


Quality Management and Deliverable Review

During the planning and initiation of the project, we will work with you to develop a Deliverables Expectations Document (DED) for each deliverable. The DED will provide a description of the deliverable and the acceptance criteria for assessing the deliverable’s completeness. DHS will provide a formal sign-off on each DED prior to our development of the deliverable. Through this collaboration, we will make certain that each DED captures and satisfies the necessary requirements. This will provide you with significant input into deliverables and minimize the time needed for review and approval.

Deliverable Review Process

We follow an established and proven deliverable review process. This helps us to promote and validate the delivery and quality of submitted contract deliverables, driving the successful completion of project milestones. The following table outlines our deliverable review process.



Additional information related to the deliverable review process is discussed in our response to T11. We will also document this in the Integrated Project Management Plan (PMP) Quality Management sub-plan.

We submit a draft DDI Work Plan with this response for your review. The draft Work Plan includes the following:

- A high-level Microsoft Project schedule with deliverables, milestones and phased approach timeline
- A list of staffing responsibilities for the deliverables including DHS, incumbent vendor and Optum staff
- Major milestones and associated target dates
- Review process for the milestones and deliverables, including the communication and status review

Assumptions

2.0 Assumptions

Instructions: Document all assumptions related to this Response Template in the following Table. Add rows as necessary. Do not change any of the completed cells. Any changes to the completed cells could lead to the disqualification of the Proposal.

ITEM #	REFERENCE (Section, Page, Paragraph)	DESCRIPTION	RATIONALE
1.	Section 1.0, Page 3, Table A	A contract start date of December 31, 2017	As stated in the RFP
2.	Section 1.0, Page 3, Table A	DHS subject matter expertise will be readily available to provide timely feedback during requirements analysis and design, as well as during UAT and pilot phases	To allow for the timely delivery of requirements
3.	General	One project schedule re-baseline after design	PMI and industry standard
4.	Section 1.0, Page 11, Table B	DHS deliverable review completion within 10 business days of submission for signature	Proposed in DDI SOW
5.	General	M&O support of the Cúram application as well as the new IE-BM Solution will be provided by Optum as part of a separate SOW. M&O support for all other systems will be maintained by the State and/or State-appointed vendor(s).	The knowledge transfer effort and timeline may need to be extended if the M&O vendor is not familiar with the Optum IE solution

Template T-15

State of Arkansas Terms & Conditions of this RFP and Any Resulting Contract

Including Response Template Instructions

RFP #: SP-17-0012

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1.0 Instructions

The Vendor **must** review and sign Template T-15, “Terms & Conditions of this RFP and Any Resulting Contract” in multiple sections in order to note the Vendor’s acknowledgement of and intent to comply with all Mandatory Terms and Conditions, including General Contractual Requirements and Standard Terms and Conditions.

All signatures in this template are required to be wet signatures (in ink, not electronic).

2.0 General Contractual Requirements

Vendors must strictly adhere to the Mandatory Terms and Conditions, including General Contractual Requirements, of this RFP. Failure to follow any instruction within this RFP may, at the State’s sole discretion, result in the disqualification of the Vendor’s Proposal. Rejection of the Mandatory Terms and Conditions, including General Contractual Requirements, in whole or in part, is grounds for the State’s rejection of a bidder’s proposal.

Payment and Invoice Provisions

- All invoices **shall** be forwarded to:
Arkansas Department of Human Services
Division of Medical Services
Financial Activities
P.O. Box 1437, Slot S416
Little Rock, AR 72203
- Payment will be made in accordance with applicable State of Arkansas accounting procedures upon acceptance goods and services by the agency.
- The State shall not be invoiced in advance of delivery and acceptance of any goods or services.
- Payment will be made only after the vendor has successfully satisfied the agency as to the reliability and effectiveness of the goods or services purchased as a whole.
- The vendor should invoice the agency by an itemized list of charges. The agency’s Purchase Order Number and/or the Contract Number should be referenced on each invoice.
- Other sections of this *Bid Solicitation* may contain additional Requirements for invoicing.
- Selected vendor **must** be registered to receive payment and future *Bid Solicitation* notifications. Vendors may register on-line at <https://www.ark.org/vendor/index.html>.

2.1 General Information

- The State **shall not** lease any equipment or software for a period of time which continues past the end of a fiscal year unless the contract allows for cancellation by the State Procurement Official upon a 30 day written notice to the vendor/lessor.
- The State **shall not** contract with another party to indemnify and defend that party for any liability and damages.

- The State **shall not** pay damages, legal expenses, or other costs and expenses of any other party.
- The State **shall not** continue a contract once any equipment subject to the contract has been repossessed.
- Any litigation involving the State **must** take place in Pulaski County, Arkansas.
- The State **shall not** agree to any provision of a contract which violates the laws or constitution of the State of Arkansas.
- The State **shall not** enter a contract which grants to another party any remedies other than the following:
 - The right to possession.
 - The right to accrued payments.
 - The right to expenses of de-installation.
 - The right to expenses of repair to return the equipment to normal working order, normal wear and tear excluded.
 - The right to recover only amounts due at the time of repossession and any unamortized nonrecurring cost as allowed by Arkansas Law.
- The laws of the State of Arkansas **shall** govern this contract.
- A contract **shall not** be effective prior to award being made by a State Procurement Official and any legislative review, if necessary.
- In a contract with another party, the State will accept the risk of loss of the equipment or software and pay for any destruction, loss, or damage of the equipment or software while the State has such risk, if:
 - The extent of liability for such risk is based upon the purchase price of the equipment or software at the time of any loss, and
 - The contract has required the State to carry insurance for such risk.

2.2 Conditions of the Contract

- The vendor **shall** at all times observe and comply with federal and State of Arkansas laws, local laws, ordinances, orders, and regulations existing at the time of, or enacted subsequent to the execution of a resulting contract which in any manner affect the completion of the work.
- The vendor **shall** indemnify and save harmless the agency and all its officers, representatives, agents, and employees against any claim or liability arising from or based upon the violation of any such law, ordinance, regulation, order or decree by an employee, representative, or subcontractor of the vendor.

2.3 Statement of Liability

- The State will demonstrate reasonable care but will not be liable in the event of loss, destruction, or theft of vendor-owned equipment or software and technical and business or operations literature to be delivered or to be used in the installation of deliverables and services. The vendor **shall** retain total liability for equipment, software and technical

and business or operations literature. The State **shall** not at any time be responsible for or accept liability for any vendor-owned items.

- The vendor's liability for damages to the State **shall** be limited to the value of the Contract or \$5,000,000, whichever is higher. The foregoing limitation of liability **shall not** apply to claims for infringement of United States patent, copyright, trademarks or trade secrets; to claims for personal injury or damage to property caused by the gross negligence or willful misconduct of the vendor; to claims covered by other specific provisions of the Contract calling for damages; or to court costs or attorney's fees awarded by a court in addition to damages after litigation based on the Contract. The vendor and the State **shall not** be liable to each other, regardless of the form of action, for consequential, incidental, indirect, or special damages. This limitation of liability **shall not** apply to claims for infringement of United States patent, copyright, trademark or trade secrets; to claims for personal injury or damage to property caused by the gross negligence or willful misconduct of the vendor; to claims covered by other specific provisions of the Contract calling for damages; or to court costs or attorney's fees awarded by a court in addition to damages after litigation based on the Contract.
- Language in these terms and conditions **shall not** be construed or deemed as the State's waiver of its right of sovereign immunity. The vendor agrees that any claims against the State, whether sounding in tort or in contract, **shall** be brought before the Arkansas Claims Commission as provided by Arkansas law, and **shall** be governed accordingly.

2.4 Record Retention

- The vendor **shall** maintain all pertinent financial and accounting records and evidence pertaining to the contract in accordance with generally accepted principles of accounting and as specified by the State of Arkansas Law. Upon request, access to financial and accounting records **shall** be granted to State or Federal Government entities or any of their duly authorized representatives.
- Financial and accounting records **shall** be made available, upon request, to the State of Arkansas's designee(s) at any time during the contract period and any extension thereof, and for five (5) years from expiration date and final payment on the contract or extension thereof.
- Other sections of this *Bid Solicitation* may contain additional Requirements regarding record retention.

2.5 Price Escalation

- Price increases may be considered at the time of contract renewal.
- The vendor **must** provide to OSP a written request for the price increase. The request **must** include supporting documentation demonstrating that the increase in contract price is based on an increase in market price. OSP **shall** have the right to require additional information pertaining to the requested increase.
- Increases **shall not** be considered to increase profit or margins.
- OSP **shall** have the right to approve or deny the request.

2.6 Confidentiality

- The vendor, vendor's subsidiaries, and vendor's employees, including subcontractors of the vendor, **shall** be bound to all laws and to all Requirements set forth in this *Bid Solicitation* concerning the confidentiality and secure handling of information of which they may become aware of during the course of providing services under a resulting contract.
- Consistent or uncorrected breaches of confidentiality is grounds for cancellation of the contract. The State **shall** have the right to cancel the contract on these grounds.
- Previous sections of this *Bid Solicitation* may contain additional confidentiality Requirements.

2.7 Contract Interpretation

- If the State and vendor interpret contract provisions or specifications differently, either party may request clarification. However if mutual agreement cannot be reached, the determination of the State **shall** be final and controlling.

2.8 Cancellation


- In the event the State no longer needs the service or commodity specified in the contract or purchase order for any reason, including without limitation, program changes, changes in laws, rules, or regulations, relocation of offices, or lack of appropriated funding, the State **shall** give the vendor written notice of cancellation, specifying the terms and the effective date of contract termination. The effective date of termination **shall** be 30 days from the date of notification, unless a longer timeframe is specified in the notification.
- Upon default of a vendor, the State **shall** agree to pay only sums due for goods and services received and accepted up to cancellation of the contract.

2.9 Severability

- If any provision of the contract, including items incorporated by reference, is declared or found to be illegal, unenforceable, or void, then both the agency and the vendor **shall** be relieved of all obligations arising under such provision. If the remainder of the contract is capable of performance, it **shall not** be affected by such declaration or finding and **shall** be fully performed.

2.10 Vendor's Acknowledgement of General Contractual Requirements

Please provide a signature stipulating the Vendor's acknowledgement of these General Contractual Requirements.

Print Name/Signature of Authorized Personnel	Date
Timothy Wicks, Chief Financial Officer, Optum 	6/29/2017

3.0 Standard Terms and Conditions

Vendors must strictly adhere to the Standard Terms and Conditions of this RFP. Rejection of the Standard Terms and Conditions, in whole or in part, may be cause for the State's rejection of a bidder's proposal.

- **GENERAL:** Any special terms and conditions included in this solicitation **shall** override these Standard Terms and Conditions. The Standard Terms and Conditions and any special terms and conditions **shall** become part of any contract entered into if any or all parts of the bid are accepted by the State of Arkansas.
- **ACCEPTANCE AND REJECTION:** The State **shall** have the right to accept or reject all or any part of a bid, accept or reject all or any and all bids, to waive minor technicalities or irregularities, and to award the bid to the bidder that the State feels will best serve the interest of the State.
- **BID SUBMISSION:** Original Proposal Packets **must** be submitted to the Office of State Procurement on or before the date and time specified for bid opening. The Proposal Packet **must** contain all documents, information, and attachments as specifically and expressly required in the *Bid Solicitation*. The bid **must** be typed or printed in ink. The signature **must** be in ink. Unsigned bids **shall** be disqualified. The person signing the bid should show title or authority to bind his firm in a contract. Multiple proposals **must** be placed in separate packages and be completely and properly identified. Late bids **shall not** be considered under any circumstances.
- **PRICES:** Bid unit price F.O.B. destination. In case of errors in extension, unit prices **shall** govern. Prices **shall** be firm and **shall not** be subject to escalation unless otherwise specified in the *Bid Solicitation*. Unless otherwise specified, the bid **must** be firm for acceptance for thirty days from the bid opening date. "Discount from list" bids are not acceptable unless requested in the *Bid Solicitation*.
- **QUANTITIES:** Quantities stated in a *Bid Solicitation* for term contracts are estimates only, and are not guaranteed. Vendor **must** bid unit price on the estimated quantity and unit of measure specified. The State may order more or less than the estimated quantity on term contracts. Quantities stated on firm contracts are actual Requirements of the ordering agency.
- **BRAND NAME REFERENCES:** Unless otherwise specified in the *Bid Solicitation*, any catalog brand name or manufacturer reference used in the *Bid Solicitation* is descriptive only, not restrictive, and used to indicate the type and quality desired. Bids on brands of like nature and quality will be considered. If bidding on other than referenced specifications, the bid **must** show the manufacturer, brand, or trade name, and other descriptions, and should include the manufacturer's illustrations and complete descriptions of the product offered. The State **shall** have the right to determine whether a substitute offered is equivalent to and meets the standards of the item specified, and the State may require the vendor to supply additional descriptive material. The vendor **shall** guarantee that the product offered will meet or exceed specifications identified in this *Bid Solicitation*. Vendors not bidding an alternate to the referenced brand name or manufacturer **shall** be required to furnish the product according to brand names, numbers, etc., as specified in the solicitation.
- **GUARANTY:** All items bid **shall** be newly manufactured, in first-class condition, latest model and design, including, where applicable, containers suitable for shipment and storage, unless otherwise indicated in the *Bid Solicitation*. The vendor hereby

guarantees that everything furnished hereunder **shall** be free from defects in design, workmanship and material, that if sold by drawing, sample or specification, it **shall** conform thereto and **shall** serve the function for which it was furnished. The vendor **shall** further guarantee that if the items furnished hereunder are to be installed by the vendor, such items **shall** function properly when installed. The vendor **shall** guarantee that all applicable laws have been complied with relating to construction, packaging, labeling and registration. The vendor's obligations under this paragraph **shall** survive for a period of one year from the date of delivery, unless otherwise specified herein.

- **SAMPLES:** Samples or demonstrators, when requested, **must** be furnished free of expense to the State. Each sample should be marked with the vendor's name and address, bid or contract number, and item number. If requested, samples that are not destroyed during reasonable examination will be returned at vendor's expense. After reasonable examination, all demonstrators will be returned at vendor's expense.
- **TESTING PROCEDURES FOR SPECIFICATIONS COMPLIANCE:** Tests may be performed on samples or demonstrators submitted with the bid or on samples taken from the regular shipment. In the event products tested fail to meet or exceed all conditions and Requirements of the specifications, the cost of the sample used and the reasonable cost of the testing **shall** be borne by the vendor.
- **AMENDMENTS:** Vendor's proposals cannot be altered or amended after the bid opening except as permitted by regulation.
- **TAXES AND TRADE DISCOUNTS:** Do not include State or local sales taxes in the bid price. Trade discounts should be deducted from the unit price and the net price should be shown in the bid.
- **AWARD:** Term Contract: A contract award will be issued to the successful vendor. It results in a binding obligation without further action by either party. This award does not authorize shipment. Shipment is authorized by the receipt of a purchase order from the ordering agency. Firm Contract: A written State purchase order authorizing shipment will be furnished to the successful vendor.
- **DELIVERY ON FIRM CONTRACTS:** This solicitation shows the number of days to place a commodity in the ordering agency's designated location under normal conditions. If the vendor cannot meet the stated delivery, alternate delivery schedules may become a factor in an award. The Office of State Procurement **shall** have the right to extend delivery if reasons appear valid. If the alternative delivery schedule is not acceptable, the agency may buy elsewhere and any additional cost **shall** be borne by the vendor.
- **DELIVERY REQUIREMENTS:** No substitutions or cancellations are permitted without written approval of the Office of State Procurement. Delivery **shall** be made during agency work hours only 8:00 a.m. to 4:30 p.m. Central Time, unless prior approval for other delivery has been obtained from the agency. Packing memoranda **shall** be enclosed with each shipment.
- **STORAGE:** The ordering agency is responsible for storage if the contractor delivers within the time required and the agency cannot accept delivery.
- **DEFAULT:** All commodities furnished **shall** be subject to inspection and acceptance of the ordering agency after delivery. Back orders, default in promised delivery, or failure to meet specifications **shall** authorize the Office of State Procurement to cancel this contract, or any portion of it, and reasonably purchase commodities elsewhere and

charge full increase in cost and handling, if any, to the defaulting contractor. The contractor **must** give written notice to the Office of State Procurement and ordering agency of the reason for default and the expected delivery date. Consistent failure to meet delivery without a valid reason may cause removal from the vendors list or suspension of eligibility for award.

- **VARIATION IN QUANTITY:** The State assumes no liability for commodities produced, processed, or shipped in excess of the amount specified on the agency's purchase order.
- **INVOICING:** The contractor **shall** be paid upon the completion of all of the following: (1) submission of an original and the specified number of copies of a properly itemized invoice showing the bid and purchase order numbers, where itemized in the *Bid Solicitation*, (2) delivery and acceptance of the commodities, and (3) proper and legal processing of the invoice by all necessary State agencies. Invoices **must** be sent to the "Invoice To" point shown on the purchase order.
- **STATE PROPERTY:** Any specifications, drawings, technical information, dies, cuts, negatives, positives, data, or any other commodity furnished to the contractor hereunder or in contemplation hereof or developed by the contractor for use hereunder **shall** remain property of the State, **shall** be kept confidential, **shall** be used only as expressly authorized, and **shall** be returned at the contractor's expense to the F.O.B. point provided by the agency or by OSP. Vendor **shall** properly identify items being returned.
- **PATENTS OR COPYRIGHTS:** The contractor shall indemnify and hold the State harmless from all claims, damages, and costs including attorneys' fees, arising from infringement of patents or copyrights.
- **ASSIGNMENT:** Any contract entered into pursuant to this solicitation **shall not** be assignable nor the duties thereunder delegable by either party without the written consent of the other party of the contract.
- **CLAIMS:** Any claims the Contractor may assert under this contract shall be brought before the Arkansas State Claims Commission ("Commission"), which shall have exclusive jurisdiction over any and all claims that the Contractor may have arising from or in connection with this contract. Unless the Contractor's obligations to perform are terminated by the State, the Contractor shall continue to provide the Services under this contract even if the Contractor has a claim pending before the Commission.
- **CANCELLATION:** In the event the State no longer needs the commodities or services specified for any reason, (e.g., program changes; changes in laws, rules or regulations; relocation of offices; lack of appropriated funding, etc.), the State **shall** have the right to cancel the contract or purchase order by giving the vendor written notice of such cancellation thirty (30) days prior to the date of cancellation.
- Any delivered but unpaid for goods will be returned in normal condition to the contractor by the State. If the State is unable to return the commodities in normal condition and there are no funds legally available to pay for the goods, the contractor may file a claim with the Arkansas State Claims Commission under the laws and regulations governing the filing of such claims. If upon cancellation, the contractor has provided services which the State has accepted but not paid for, the contractor may file a claim with the Commission.
- **NOTHING IN THIS CONTRACT SHALL BE DEEMED A WAIVER OF THE STATE'S RIGHT TO SOVEREIGN IMMUNITY.**

- **DISCRIMINATION:** In order to comply with the provision of Act 954 of 1977, relating to unfair employment practices, the vendor agrees that: (a) the vendor **shall not** discriminate against any employee or applicant for employment because of race, sex, color, age, religion, handicap, or national origin; (b) in all solicitations or advertisements for employees, the vendor **shall** state that all qualified applicants **shall** receive consideration without regard to race, color, sex, age, religion, handicap, or national origin; (c) the vendor will furnish such relevant information and reports as requested by the Human Resources Commission for the purpose of determining compliance with the statute; (d) failure of the vendor to comply with the statute, the rules and regulations promulgated thereunder and this nondiscrimination clause **shall** be deemed a breach of contract and it may be cancelled, terminated or suspended in whole or in part; (e) the vendor **shall** include the provisions of above items (a) through (d) in every subcontract so that such provisions **shall** be binding upon such subcontractor or vendor.
- **CONTINGENT FEE:** The vendor guarantees that he has not retained a person to solicit or secure this contract upon an agreement or understanding for a commission, percentage, brokerage or contingent fee, except for retention of bona fide employees or bona fide established commercial selling agencies maintained by the vendor for the purpose of securing business.
- **ANTITRUST ASSIGNMENT:** As part of the consideration for entering into any contract pursuant to this solicitation, the vendor named on the Submission Cover Sheet (Template T-1, Cover Letter and Executive Summary) for this solicitation, acting herein by the authorized individual or its duly authorized agent, hereby assigns, sells and transfers to the State of Arkansas all rights, title and interest in and to all causes of action it may have under the antitrust laws of the United States or this State for price fixing, which causes of action have accrued prior to the date of this assignment and which relate solely to the particular goods or services purchased or produced by this State pursuant to this contract.
- **DISCLOSURE:** Failure to make any disclosure required by Governor's Executive Order 98-04, or any violation of any rule, regulation, or policy adopted pursuant to that order, **shall** be a material breach of the terms of this contract. Any contractor, whether an individual or entity, who fails to make the required disclosure or who violates any rule, regulation, or policy **shall** be subject to all legal remedies available to the agency.
- **SOFTWARE AND OWNERSHIP RIGHTS:**

The State of Arkansas will have all ownership rights in any completed system including all software or modifications thereof and associated materials, work products, data, models, forms, source code, procedures, manuals, system descriptions, workflows, and other Intellectual Property developed by the Vendor(s) under this RFP and any resulting contract, with the exception of proprietary operating/vendor software packages which are provided at established catalog or market prices and sold or leased to the general public. All agencies of the federal government shall have a royalty-free, nonexclusive, and irrevocable license to reproduce, publish, or otherwise use and to authorize others to use for Federal Government purposes, such software, modifications, and documentation in accordance with 45 CFR 95.617 and 45 CFR 95 Subpart F.

The State of Arkansas reserves the right to use any and all ideas presented in a proposal unless the respondent presents a valid legal case that such ideas are trade secret or confidential information, and identifies the information as such in its proposal. A respondent may not object to the use of ideas that are not the respondent's intellectual

property and so designated in the proposal that: (1) were known to State of Arkansas before the submission of the proposal, (2) were in the public domain through no fault of State of Arkansas, or (3) became properly known to State of Arkansas after proposal submission through other sources or through acceptance of the proposal

FNS REQUIRED FEDERAL PROVISIONS

The Implementation contractor must comply with the following Federal provisions:

1. Executive Order 11246, entitled “Equal Employment Opportunity,” as amended by Executive Order 11375, and as supplemented by the Department of Labor Regulations (41 CFR Part 60): The Executive Order prohibits federal contractors and federally-assisted construction contractors and subcontractors who do over \$10,000 in Government business in one year from discriminating in employment decisions on the basis of race, color, religion, sex, or national origin. The Executive Order also requires Government contractors to take affirmative action to ensure that equal opportunity is provided in all aspects of their employment.
2. The Clean Air Act, Section 306:
 - a. No Federal agency may enter into any contract with any person who is convicted of any offense under section 113(c) for the procurement of goods, materials, and services to perform such contract at any facility at which the violation which gave rise to such conviction occurred if such facility is owned, leased, or supervised by such person. The prohibition in the preceding sentence shall continue until the Administrator certifies that the condition giving rise to such a conviction has been corrected. For convictions arising under section 113(c)(2), the condition giving rise to the conviction also shall be considered to include any substantive violation of this Act associated with the violation of 113(c)(2). The Administrator may extend this prohibition to other facilities owned or operated by the convicted person.
 - b. The Administrator shall establish procedures to provide all Federal agencies with the notification necessary for the purposes of subsection (a).
 - c. In order to implement the purposes and policy of this Act to protect and enhance the quality of the Nation's air, the President shall, not more than 180 days after enactment of the Clean Air Amendments of 1970 cause to be issued an order (1) requiring each Federal agency authorized to enter into contracts and each Federal agency which is empowered to extend Federal assistance by way of grant, loan, or contract to effectuate the purpose and policy of this Act in such contracting or assistance activities, and (2) setting forth procedures, sanctions, penalties, and such other provisions, as the President determines necessary to carry out such requirement.
 - d. The President may exempt any contract, loan, or grant from all or part of the provisions of this section where he determines such exemption is necessary in the paramount interest of the United States and he shall notify the Congress of such exemption.
 - e. The President shall annually report to the Congress on measures taken toward implementing the purpose and intent of this section, including but not limited to the progress and problems associated with implementation of this section. [42 U.S.C. 7606]
3. The Clean Water Act:
 - a. No Federal agency may enter into any contract with any person who has been convicted of any offense under Section 309(c) of this Act for the procurement of goods, materials,

- and services if such contract is to be performed at any facility at which the violation which gave rise to such conviction occurred, and if such facility is owned, leased, or supervised by such person. The prohibition in preceding sentence shall continue until the Administrator certifies that the condition giving rise to such conviction has been corrected.
- b. The Administrator shall establish procedures to provide all Federal agencies with the notification necessary for the purposes of subsection (a) of this section.
 - c. In order to implement the purposes and policy of this Act to protect and enhance the quality of the Nation's water, the President shall, not more than 180 days after the enactment of this Act, cause to be issued an order:
 - (1) requiring each Federal agency authorized to enter into contracts and each Federal agency which is empowered to extend Federal assistance by way of grant, loan, or contract to effectuate the purpose and policy of this Act in such contracting or assistance activities, and
 - (2) setting forth procedures, sanctions, penalties, and such other provisions, as the President determines necessary to carry out such requirement.
 - d. The President may exempt any contract, loan, or grant from all or part of the provisions of this section where he determines such exemption is necessary in the paramount interest of the United States and he shall notify the Congress of such exemption.
 - e. The President shall annually report to the Congress on measures taken in compliance with the purpose and intent of this section, including, but not limited to, the progress and problems associated with such compliance.
 - f. (1) No certification by a contractor, and no contract clause, may be required in the case of a contract for the acquisition of commercial items in order to implement a prohibition or requirement of this section or a prohibition or requirement issued in the implementation of this section.
 - (2) In paragraph (1), the term "commercial item" has the meaning given such term in section 4(12) of the Office of Federal Procurement Policy Act (41 U.S.C. 403(12)).
4. The Anti-Lobbying Act: This Act prohibits the recipients of federal contracts, grants, and loans from using appropriated funds for lobbying the Executive or Legislative Branches of the federal government in connection with a specific contract, grant, or loan. As required by Section 1352, Title 31 of the U.S. Code and implemented at 34 CFR Part 82 for persons entering into a grant or cooperative agreement over \$100,000, as defined at 34 CFR Part 82, Section 82.105 and 82.110, the applicant certifies that:
- a. No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with the making of any federal grant, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal grant or cooperative agreement;
 - b. If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with this federal grant or cooperative agreement, the

- undersigned shall complete and submit Standard Form – LLL, “Disclosure Form to Report Lobbying,” in accordance with its instructions;
- c. The undersigned shall require that the language of this certification be include in the award documents for all sub-awards at all tiers (including sub-grants, contracts under grants and cooperative agreements, and subcontracts) and that all sub-recipients shall certify and disclose accordingly.
5. Americans with Disabilities Act: This Act (28 CFR Part 35, Title II, Subtitle A) prohibits discrimination on the basis of disability in all services, programs, and activities provided to the public by State and local governments, except public transportation services.
 6. Drug Free Workplace Statement: The Federal government implemented the Drug Free Workplace Act of 1988 in an attempt to address the problems of drug abuse on the job. It is a fact that employees who use drugs have less productivity, a lower quality of work, and a higher absenteeism, and are more likely to misappropriate funds or services. From this perspective, the drug abuser may endanger other employees, the public at large, or themselves. Damage to property, whether owned by this entity or not, could result from drug abuse on the job. All these actions might undermine public confidence in the services this entity provides. Therefore, in order to remain a responsible source for government contracts, the following guidelines have been adopted:
 - a. The unlawful manufacture, distribution, dispensation, possession or use of a controlled substance is prohibited in the work place.
 - b. Violators may be terminated or requested to seek counseling from an approved rehabilitation service.
 - c. Employees must notify their employer of any conviction of a criminal drug statue no later than five days after such conviction.
 - d. Although alcohol is not a controlled substance, it is nonetheless a drug. It is the policy of the Arkansas Department of Health WIC Program that abuse of this drug will also not be tolerated in the workplace.
 - e. Contractors of federal agencies are required to certify that they will provide drug-free workplaces for their employees.
 7. Debarment, suspension, and other responsibility matters: As required by Executive Order 12549, Debarment and Suspension, and implemented at 34 CFR Part 85, for prospective participants in primary covered transactions, as defined at 34 CFR Part 85, Sections 85.105 and 85.110.
 - a. The applicant certifies that it and its principals:
 - (1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any federal department or agency;
 - (2) Have not within a three-year period preceding this application been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (federal, state, or local) transaction or contract under a public transaction; violation of federal or state antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

Template T-15 – Terms and Conditions of this RFP and Any Resulting Contract

- (3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (federal, state, or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and
 - (4) Have not within a three-year period preceding this application had one or more public transactions (federal, state, or local) terminated for cause or default.
- b. Where the applicant is unable to certify to any of the statements in this certification, he or she shall attach an explanation to this application.
8. The federal government reserves a royalty-free, non-exclusive, and irrevocable license to reproduce, publish, or otherwise use, and to authorize others to use, for federal government purposes, the copyright in any work developed under a grant, sub-grant, or contract under a grant or sub-grant or any rights of copyright to which a contractor purchases ownership.

3.1 Vendor's Acknowledgement of Standard Terms and Conditions

Please provide a signature stipulating the Vendor's acknowledgement of these Terms & Conditions.

Print Name/Signature of Authorized Personnel	Date
Timothy Wicks, Chief Financial Officer, Optum 	6/29/2017

4.0 Forms Required

The below listed forms which the Vendor must submit as part of the Proposal and the Contract award process. The actual Forms are available in the Procurement Library in an editable format.

4.1 Mandatory Forms Due at Proposal Submission

The Mandatory forms due at proposal submission must completed and included as part of the Vendor's proposal. The table below lists all of the mandatory forms which must be submitted as part of the Vendor's proposal. The Vendor must complete each of the forms and provide a copy below the table.

The Vendor must complete submitted as directed with wet signatures.

FORM ID	FORM NAME	COMMENTS
	Proposed Subcontractor's Form	See Section 2.4.2.1 of the RFP. A fillable PDF is located in the Procurement Library and on the OSP Website

PROPOSED SUBCONTRACTORS FORM

- *Do not include additional information relating to subcontractors on this form or as an attachment to this form.*

VENDOR PROPOSES TO USE THE FOLLOWING SUBCONTRACTOR(S) TO PROVIDE SERVICES.

Type or Print the following information

Subcontractor's Company Name	Street Address	City, State, ZIP
Connvertex Technologies, Inc.	10855 S. River Front Parkway, Suite 275	South Jordan, UT 84095

VENDOR DOES NOT PROPOSE TO USE SUBCONTRACTORS TO PERFORM SERVICES.

By signature below, vendor agrees to and **shall** fully comply with all Requirements related to subcontractors as shown in the bid solicitation.

Authorized Signature: 
Use Ink Only.

Printed/Typed Name: Timothy Wicks, Chief Financial Officer, Optum
Date: 6/29/2017

4.2 Mandatory Forms Due Prior to Contract Work Beginning

The table below lists the forms which will be required after the Contract is awarded but prior to any work beginning.

FORM ID	FORM NAME	COMMENTS
EO-98-04	Disclosure Form	See Section 2.7.16 of the RFP. A fillable PDF is located in the Procurement Library and on the OSP Website.
	Copy of Vendor's Equal Opportunity Policy	See Section 2.7.8 of the RFP.
	Voluntary Product Accessibility Template (VPAT)	See Section 2.7.11 of the RFP.
	Vendor Registration with DFA	In order to receive payment under any contract award, Vendor must register with DFA online at https://www.ark.org/vendor/index.html
	Illegal Immigrants Certification	See Section 2.7.9 of the RFP. The Vendor must certify online at www.arkansas.gov/dfa/procurement
	Registration with Arkansas Secretary of State	

4.2.1 Vendor's Commitment to Submit Forms Requirements

Please provide a signature stipulating the Vendor's commits to submit all required Forms listed in Section 4.2.

Print Name/Signature of Authorized Personnel	Date
Timothy Wicks, Chief Financial Officer, Optum 	6/29/2017

5.0 Clarifications

The Vendor may provide in the Table clarifications to requirements or terms in this RFP or may state “No Clarifications Noted.” If no Proposal Clarifications Summary Form is included, the Vendor is indicating that it has no clarifications to any item in this RFP document. If clarifications are not noted in the RFP but raised during contract negotiations, OSP and DHS reserve the right to cancel the negotiation. OSP and DHS reserve the right to reject any Proposals, including those with clarifications, prior to and at any time during negotiations.

1. Unless specifically disallowed on any specification herein, the Vendor may make clarifications to any point within Section 3 of the main RFP or Template 6, 8, 10, and 12, including a specification denoted as mandatory, as long as the following are true:
 - a. The specification is not a matter of State law;
 - b. The Proposal still meets the intent of the RFP;
 - c. A Proposal Clarification Summary Form is included with Vendor’s Proposal; and
 - d. The clarification is clearly explained, along with any alternative or substitution the Vendor proposes to address the intent of the specification on the Proposal Clarification Summary Form. Clarifications shall not be allowed for any other section or template corresponding to this RFP.
2. The Vendor has no obligation to provide items to which a clarification has been made. OSP and DHS have no obligation to accept any clarifications. During the proposal evaluation and/or contract negotiation process, the Vendor and OSP and DHS will discuss each clarification and take one (1) of the following actions:
 - a. The Vendor will withdraw the clarification and meet the specification in the manner prescribed;
 - b. OSP and DHS will determine that the clarification neither poses significant risk to the Engagement nor undermines the intent of the RFP and will accept the clarification;
 - c. OSP, DHS, and the Vendor will agree on compromise language dealing with the clarification and will insert same into the Contract; or,
 - d. None of the above actions is possible, and OSP and DHS either disqualifies the Vendor’s Proposal or withdraws the award and proceeds to the next ranked Vendor.
3. Should OSP, DHS, and the Vendor reach a successful agreement, OSP and DHS will sign adjacent to each clarification which is being accepted or submit a formal written response to the Proposal Clarification Summary responding to each of the Vendor’s clarifications. The Proposal Clarifications Summary, with those clarifications approved by OSP and DHS, will become a part of any Contract on acquisitions made under this RFP.
4. A clarification will be accepted or rejected at the sole discretion of OSP and DHS.
5. OSP and DHS desire to award this RFP to a Vendor with whom there is a high probability of establishing a mutually agreeable Contract. As such, Vendors who’s Proposals reflect a substantial number of material clarifications to this RFP may place themselves at a comparative disadvantage in the evaluation process or risk

disqualification of their proposals.

Instructions: In the following table, list and clearly explain any clarifications for all RFP Sections, Supplements and Exhibits. Add rows as appropriate. Do not change any of the completed cells. Any changes to the completed cells could lead to the disqualification of the Proposal.

Optum understands that the General Contractual Requirements and the Standard Terms and Conditions, as set forth in T-15 will become part of a mutually agreed upon contract and may include the following clarifications as agreed to by State. Optum anticipates negotiations taking place as set forth in Section 5.1.1., where parties will add supplemental as needed to support the services contemplated by the procurement, including additional intellectual property rights for any preexisting intellectual property not developed specifically for the State under the contract.

Table 1. Proposal Clarification Summary Form

RFP REFERENCE	VENDOR PROPOSAL REFERENCE	BRIEF EXPLANATION OF CLARIFICATION
<i>(Reference specific point to which clarification is made)</i>	<i>(Page, section, items in Vendor's Proposal where clarification is explained)</i>	<i>(Short description of clarification being made)</i>
1. T6-FR1.60	T6, Page 6 of 10, General Requirements, FR1.60	Optum will leverage the Arkansas' "CA Identity and Access Management (IAM)" solution to provide this functionality.
2. T6-FR1.62	T6, Page 6 of 10, General Requirements, FR1.62	Optum will leverage the Arkansas' "CA Identity and Access Management (IAM)" solution to provide this functionality.
3. T6-FR1.64	T6, Page 6 of 10, General Requirements, FR1.64	Optum will leverage the Arkansas' "CA Identity and Access Management (IAM)" solution to provide this functionality.
4. T6-FR1.65	T6, Page 6 of 10, General Requirements, FR1.65	Optum will leverage the Arkansas' "CA Identity and Access Management (IAM)" solution to provide this functionality.
5. T6-FR1.70	T6, Page 6 of 10, General Requirements, FR1.70	Optum will leverage the Arkansas' "CA Identity and Access Management (IAM)" solution to provide this functionality.
6. T6-FR1.71	T6, Page 7 of 10, General Requirements,	Optum will leverage the Arkansas' "CA Identity and Access Management (IAM)" solution to provide this functionality.

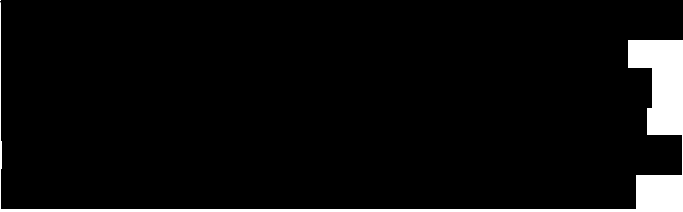
RFP REFERENCE	VENDOR PROPOSAL REFERENCE	BRIEF EXPLANATION OF CLARIFICATION
	FR1.71	
7. T6-FR1.72	T6, Page 7 of 10, General Requirements, FR1.72	Optum will leverage the Arkansas' "CA Identity and Access Management (IAM)" solution to provide this functionality.
8. T6-FR1.75	T6, Page 7 of 10, General Requirements, FR1.75	Optum will leverage the Arkansas' "CA Identity and Access Management (IAM)" solution to provide this functionality.
9. T6 – FR1.76	T6, Page 7 of 10, General Requirements, FR1.76	Optum will leverage the Arkansas' "CA Identity and Access Management (IAM)" solution to provide this functionality.
10. T6-FR2.2	T6, Page 1 of 5, Pre-Screening, FR2.2	Programs that are included in the base Optum IES product include: b, c, d, e, g, and h. Pre-screening capabilities for WIC, LIHEAP, and VA (f, g, and i) will be developed for the state specific requirements.
11. T6-FR3.26	T6, Page 3 of 5, Integrated Eligibility Application, FR3.26	Preventing the submitted application from being edited up until the eligibility interview will be custom-built for Arkansas.
12. T6-FR6.18	T6, Page 2 of 3, Eligibility Determination/Spend-Down, FR6.18	WIC eligibility will be customized and configured for Arkansas.
13. T6-FR6.24	T6, Page 2 of 3, Eligibility Determination/Spend-Down, FR6.24	Functionality for full eligibility for HCBS waivers will be customized to ensure all required capabilities are addressed for the State of Arkansas
14. T6-FR9.13	T6, Page 1 of 3, Client Change, FR9.13	Will use Arkansas' Xerox DocuShare solution rather than the Optum solution.
15. T6-FR9.14	T6, Page 2 of 3, Client Change, FR9.14	Will use Arkansas' Xerox DocuShare solution rather than the Optum solution.
16. T6-FR9.15	T6, Page 2 of 3, Client Change, FR9.15	Will use Arkansas' Xerox DocuShare solution rather than the Optum solution.
17. T6-FR9.28	T6, Page 3 of 3, Client Change, FR9.28	The functionality to accept and record a client match from the DHS WIC system will be custom developed for the State of Arkansas to ensure all required

RFP REFERENCE	VENDOR PROPOSAL REFERENCE	BRIEF EXPLANATION OF CLARIFICATION
		capabilities are addressed.
18. T6-FR9.31	T6, Page 3 of 3, Client Change, FR9.31	Optum will develop the ability to track clients who have appeared on external databases for the State of Arkansas.
19. T6-FR9.36	T6, Page 3 of 3, Client Change, FR9.36	A report to match WIC participants will be custom developed for the State of Arkansas.
20. T6-FR10.4	T6, Page 1 of 3, Medical Review Team, FR10.4	Medical Review/Disability Certification functionality and workflows will be custom-developed to ensure all required capabilities for the State of Arkansas are addressed.
21. T6-FR10.5	T6, Page 1 of 3, Medical Review Team, FR10.5	Medical Review/Disability Certification functionality and workflows will be custom-developed to ensure all required capabilities for the State of Arkansas are addressed.
22. T6-FR10.6	T6, Page 2 of 3, Medical Review Team, FR10.6	Medical Review/Disability Certification functionality and workflows will be custom-developed to ensure all required capabilities for the State of Arkansas are addressed.
23. T6-FR10.7	T6, Page 2 of 3, Medical Review Team, FR10.7	Medical Review/Disability Certification functionality and workflows will be custom-developed to ensure all required capabilities for the State of Arkansas are addressed.
24. T6-FR10.8	T6, Page 2 of 3, Medical Review Team, FR10.8	Medical Review/Disability Certification functionality and workflows will be custom-developed to ensure all required capabilities for the State of Arkansas are addressed.
25. T6-FR10.10	T6, Page 2 of 3, Medical Review Team, FR10.10	Medical Review/Disability Certification functionality and workflows will be custom-developed to ensure all required capabilities for the State of Arkansas are addressed.
26. T6-FR10.13	T6, Page 2 of 3, Medical Review Team, FR10.13	Medical Review/Disability Certification functionality and workflows will be custom-developed to ensure all required capabilities for the State of Arkansas are addressed.
27. T6-FR10.14	T6, Page 3 of 3, Medical Review Team, FR10.14	Medical Review/Disability Certification functionality and workflows will be custom-developed to ensure all required capabilities for the State of Arkansas are addressed.
28. T6-FR10.16	T6, Page 3 of 3, Medical Review Team, FR10.16	Medical Review/Disability Certification functionality and workflows will be custom-developed to ensure all required capabilities for the State of Arkansas are

RFP REFERENCE	VENDOR PROPOSAL REFERENCE	BRIEF EXPLANATION OF CLARIFICATION
		addressed.
29. T6-FR12.7	T6, Page 1 of 5, Appointment and Caseload Management, FR12.7	Scheduling of individual resources for appointments requires integration with other email and scheduling systems so some development would be required.
30. T6-FR12.11	T6, Page 2 of 5, Appointment and Caseload Management, FR12.11	Scheduling of individual resources for appointments requires integration with other email and scheduling systems so some development would be required.
31. T6-FR12.23	T6, Page 3 of 5, Appointment and Caseload Management, FR12.23	Scheduling of individual resources for appointments requires integration with other email and scheduling systems so some development would be required.
32. T6-FR12.27	T6, Page 4 of 5, Appointment and Caseload Management, FR12.27	Integration with other email and scheduling systems is not standard for our customers so some development would be required.
33. T6-FR12.28	T6, Page 4 of 5, Appointment and Caseload Management, FR12.28	Integration with other email and scheduling systems is not standard for our customers so some development would be required.
34. T8-G4.39	T8, Page 4 of 4, Interoperability/Interfaces, G4.39	The capability to accomplish this is inherent within the AR IE-BM but individual interfaces require configuration and development
35. T8-G6.24	T8, Page 3 of 4, Regulatory & Security, G6.24	Since the AR IE-BM solution will be hosted in the AR data center, monitoring will be a combined integrated effort between AR and Optum using Wiley, Dynatrace SaaS and Managed (formerly Ruxit) for Application Monitoring; Nagios and Ganglia for infrastructure monitoring. This is compliant with all the State of Arkansas' technology and architecture standards as outlined at http://www.dis.arkansas.gov/policiesStandards/Pages/default.aspx
36. T8-G6.32	T8, Page 4 of 4, Regulatory & Security, G6.32	This functionality does not exist and has not been requested by other states in their IE implementations so this will need to be developed for AR and is included in our costs.

RFP REFERENCE	VENDOR PROPOSAL REFERENCE	BRIEF EXPLANATION OF CLARIFICATION
37. T8-G6.37	T8, Page 4 of 4, Regulatory & Security, G6.37	Optum is leveraging the State's existing IAM solution (CA IAM).
38. T8-G7.5	T8, Page 1 of 2, Interface List, G7.5	We will develop this interface within our Optum Integration Layer (OIL) and will build a reusable service. We will add this to the registry as we have with the other interfaces already available for configuration.
39. T8-G7.18	T8, Page 2 of 2, Interface List, G7.18	We will develop this interface within our Optum Integration Layer (OIL) and will build a reusable service. We will add this to the registry as we have with the other interfaces already available for configuration.
40. T8-G7.19	T8, Page 2 of 2, Interface List, G7.19	We will develop this interface within our Optum Integration Layer (OIL) and will build a reusable service. We will add this to the registry as we have with the other interfaces already available for configuration.
41. T8-G7.20	T8, Page 2 of 2, Interface List, G7.20	We will develop this interface within our Optum Integration Layer (OIL) and will build a reusable service. We will add this to the registry as we have with the other interfaces already available for configuration.
42. T8-G7.21	T8, Page 2 of 2, Interface List, G7.21	We will develop this interface within our Optum Integration Layer (OIL) and will build a reusable service. We will add this to the registry as we have with the other interfaces already available for configuration.
43. T8-G8.7	T8, Page 1 of 8, Solution Management and Administration G8.7	Since the AR IE-BM solution will be hosted in the AR data center, monitoring will be a combined integrated effort between AR and Optum using Wiley, Dynatrace SaaS and Managed (formerly Ruxit) for Application Monitoring; Nagios and Ganglia for infrastructure monitoring. This is compliant with all the State of Arkansas' technology and architecture standards as outlined at http://www.dis.arkansas.gov/policiesStandards/Pages/default.aspx .
44. T8-G8.27	T8, Page 3 of 8, Solution Management and	As a web-based service (not client server like Curam), this is not an issue for our solution; however, if required, Optum can support the remote control ability and will leverage AR DHS's current software

RFP REFERENCE	VENDOR PROPOSAL REFERENCE	BRIEF EXPLANATION OF CLARIFICATION
	Administration, G8.27	capability.
45. T8-T0-T3.4	T8, T0. Technology solution Stack, Technical Solution Architectural Components, Page 1 of 3, T3.4	Suggested Alternative Technology: JBOSS, Mesos
46. T8-T1.1.9	T8, Page 1 of 2, Portal, T1.1.9	This function will require some development. The cost for this is included in our bid.
47. T8-T1.1.12	T8, Page 1 of 2, Portal, T1.1.12	This function will require some development. The cost for this is included in our bid.
48. T8-T1.1.17	T8, Page 2 of 2, Portal, T1.1.17	[REDACTED]
49. T8-T1.1.18	T8, Page 2 of 2, Portal, T1.1.18	[REDACTED]
50. T8-T3.1.17	T8, Page 3 of 4, Business Rules Engine, T3.1.17	Unlike Curam, our COTS-based BRE does not need to store sessions by design. Unlike other solutions, our BRE isn't invoked until the application is submitted. At this point, a determination is made and stored.
51. T8-T3.3.1	T8, Page 1 of 7, Enterprise Content Management/Document Management, T3.3.1	Optum is leveraging the State's existing EMC solution, including the use of Xerox DocuShare.
52. T8-T3.3.2	T8, Page 1 of 7, Enterprise Content Management/Document Management, T3.3.2	Optum is leveraging the State's existing EMC solution, including the use of Xerox DocuShare.
53. T8-T3.3.3	T8, Page 1 of 7, Enterprise Content Management/Document Management,	Optum is leveraging the State's existing EMC solution, including the use of Xerox DocuShare.

RFP REFERENCE	VENDOR PROPOSAL REFERENCE	BRIEF EXPLANATION OF CLARIFICATION
	T3.3.3	
54. T8-T3.3.4	T8, Page 1 of 7, Enterprise Content Management/Document Management, T3.3.4	Optum is leveraging the State's existing EMC solution, including the use of Xerox DocuShare.
55. T8-T3.3.5	T8, Page 1 of 7, Enterprise Content Management/Document Management, T3.3.5	Optum is leveraging the State's existing EMC solution, including the use of Xerox DocuShare.
56. T8-T3.3.10	T8, Page 1 of 7, Enterprise Content Management/Document Management, T3.3.10	Optum is leveraging the State's existing EMC solution, including the use of Xerox DocuShare.
57. T8-T3.3.12	T8, Page 2 of 7, Enterprise Content Management/Document Management, T3.3.12	
58. T8-T3.3.13	T8, Page 2 of 7, Enterprise Content Management/Document Management, T3.3.12	Optum is leveraging the State's existing EMC solution, including the use of Xerox DocuShare.
59. T8-T3.3.21	T8, Page 2 of 7, Enterprise Content Management/Document Management, T3.3.21	Optum is leveraging the State's existing EMC solution, including the use of Xerox DocuShare, and assuming that it currently meets or will meet all listed requirements.
60. T8-T3.3.22	T8, Page 2 of 7, Enterprise Content Management/Document Management,	Optum is leveraging the State's existing EMC solution, including the use of Xerox DocuShare, and assuming that it currently meets or will meet all listed requirements.

RFP REFERENCE	VENDOR PROPOSAL REFERENCE	BRIEF EXPLANATION OF CLARIFICATION
	T3.3.22	
61. T8-T3.3.23	T8, Page 2 of 7, Enterprise Content Management/Document Management, T3.3.23	Optum is leveraging the State's existing EMC solution, including the use of Xerox DocuShare, and assuming that it currently meets or will meet all listed requirements.
62. T8-T3.3.25	T8, Page 3 of 7, Enterprise Content Management/Document Management, T3.3.25	Optum is leveraging the State's existing EMC solution, including the use of Xerox DocuShare, and assuming that it currently meets or will meet all listed requirements.
63. T8-T3.3.32	T8, Page 3 of 7, Enterprise Content Management/Document Management, T3.3.32	Optum is leveraging the State's existing EMC solution, including the use of Xerox DocuShare.
64. T8-T3-3.33	T8, Page 3 of 7, Enterprise Content Management/Document Management, T3.3.33	Optum is leveraging the State's existing EMC solution, including the use of Xerox DocuShare.
65. T8-T3.3.35	T8, Page 4 of 7, Enterprise Content Management/Document Management, T3.3.35	Optum is leveraging the State's existing EMC solution, including the use of Xerox DocuShare.
66. T8-T3.3.42	T8, Page 4 of 7, Enterprise Content Management/Document Management, T3.3.42	Optum is leveraging the State's existing EMC solution, including the use of Xerox DocuShare.
67. T8-T3.3.51	T8, Page 5 of 7, Enterprise Content Management/Document Management, T3.3.51	Optum is leveraging the State's existing EMC solution, including the use of Xerox DocuShare, and assuming that it currently meets or will meet all listed requirements.

RFP REFERENCE	VENDOR PROPOSAL REFERENCE	BRIEF EXPLANATION OF CLARIFICATION
68. T8-T3.3.65	T8, Page 7 of 7, Enterprise Content Management/Document Management, T3.3.65	This functionality will require some development effort. We need to better understand this deliverable during the requirements validation phase.
69. T8-T4.1.8	T8, Page 2 of 6, Enterprise Service Bus/Application Integration, T4.1.8	[REDACTED]
70. T8-T4.1.15	T8, Page 3 of 6, Enterprise Service Bus/Application Integration, T4.1.15	[REDACTED]
71. T8-T4.1.18	T8, Page 4 of 6, Enterprise Service Bus/Application Integration, T4.1.18	[REDACTED]
72. T8-T4.1.28	T8, Page 6 of 6, Enterprise Service Bus/Application Integration, T4.1.28	[REDACTED]
73. T8-T4.1.30	T8, Page 6 of 6, Enterprise Service Bus/Application Integration, T4.1.30	[REDACTED]
74. T8-T4.1.31	T8, Page 7 of 6, Enterprise Service Bus/Application Integration, T4.1.31	[REDACTED]
75. T8-T4.1.33	T8, Page 7 of 6, Enterprise Service Bus/Application	[REDACTED]

RFP REFERENCE	VENDOR PROPOSAL REFERENCE	BRIEF EXPLANATION OF CLARIFICATION
	Integration, T4.1.33	
76. T8-T4.2.1	T8, Page 1 of 11, Data Integration, Quality, and ETL, T4.2.1	For the AR IE-BM solution, Optum will be leveraging the State's existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
77. T8-T4.2.2	T8, Page 1 of 11, Data Integration, Quality, and ETL, T4.2.2	For the AR IE-BM solution, Optum will be leveraging the State's existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
78. T8-T4.2.3	T8, Page 1 of 11, Data Integration, Quality, and ETL, T4.2.3	For the AR IE-BM solution, Optum will be leveraging the State's existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
79. T8-T4.2.4	T8, Page 1 of 11, Data Integration, Quality, and ETL, T4.2.4	For the AR IE-BM solution, Optum will be leveraging the State's existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
80. T8-T4.2.5	T8, Page 2 of 11, Data Integration, Quality, and ETL, T4.2.5	For the AR IE-BM solution, Optum will be leveraging the State's existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
81. T8-T4.2.6	T8, Page 2 of 11, Data Integration, Quality, and ETL, T4.2.6	For the AR IE-BM solution, Optum will be leveraging the State's existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
82. T8-T4.2.7	T8, Page 2 of 11, Data Integration, Quality, and ETL, T4.2.7	For the AR IE-BM solution, Optum will be leveraging the State's existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
83. T8-T4.2.8	T8, Page 3 of 11, Data Integration, Quality, and ETL, T4.2.8	For the AR IE-BM solution, Optum will be leveraging the State's existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
84. T8-T4.2.9	T8, Page 3 of 11, Data Integration, Quality, and ETL, T4.2.9	For the AR IE-BM solution, Optum will be leveraging the State's existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
85. T8-T4.2.10	T8, Page 3 of 11, Data Integration, Quality, and ETL, T4.2.10	For the AR IE-BM solution, Optum will be leveraging the State's existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.

RFP REFERENCE	VENDOR PROPOSAL REFERENCE	BRIEF EXPLANATION OF CLARIFICATION
86. T8-T4.2.11	T8, Page 3 of 11, Data Integration, Quality, and ETL, T4.2.11	For the AR IE-BM solution, Optum will be leveraging the State's existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
87. T8-T4.2.12	T8, Page 3 of 11, Data Integration, Quality, and ETL, T4.2.12	For the AR IE-BM solution, Optum will be leveraging the State's existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
88. T8-T4.2.13	T8, Page 4 of 11, Data Integration, Quality, and ETL, T4.2.13	For the AR IE-BM solution, Optum will be leveraging the State's existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
89. T8-T4.2.14	T8, Page 4 of 11, Data Integration, Quality, and ETL, T4.2.14	For the AR IE-BM solution, Optum will be leveraging the State's existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
90. T8-T4.2.15	T8, Page 4 of 11, Data Integration, Quality, and ETL, T4.2.15	For the AR IE-BM solution, Optum will be leveraging the State's existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
91. T8-T4.2.16	T8, Page 5 of 11, Data Integration, Quality, and ETL, T4.2.16	For the AR IE-BM solution, Optum will be leveraging the State's existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
92. T8-T4.2.17	T8, Page 5 of 11, Data Integration, Quality, and ETL, T4.2.17	For the AR IE-BM solution, Optum will be leveraging the State's existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
93. T8-T4.2.18	T8, Page 5 of 11, Data Integration, Quality, and ETL, T4.2.18	For the AR IE-BM solution, Optum will be leveraging the State's existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
94. T8-T4.2.19	T8, Page 6 of 11, Data Integration, Quality, and ETL, T4.2.19	For the AR IE-BM solution, Optum will be leveraging the State's existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
95. T8-T4.2.20	T8, Page 6 of 11, Data Integration, Quality, and ETL, T4.2.20	For the AR IE-BM solution, Optum will be leveraging the State's existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
96. T8-T4.2.21	T8, Page 6 of 11, Data Integration, Quality, and ETL,	For the AR IE-BM solution, Optum will be leveraging the State's existing Data Warehousing and Data Integration software, including the use of Informatica

RFP REFERENCE	VENDOR PROPOSAL REFERENCE	BRIEF EXPLANATION OF CLARIFICATION
	T4.2.21	and SQL Server.
97. T8-T4.2.22	T8, Page 6 of 11, Data Integration, Quality, and ETL, T4.2.22	For the AR IE-BM solution, Optum will be leveraging the State's existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
98. T8-T4.2.23	T8, Page 6 of 11, Data Integration, Quality, and ETL, T4.2.23	For the AR IE-BM solution, Optum will be leveraging the State's existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
99. T8-T4.2.24	T8, Page 6 of 11, Data Integration, Quality, and ETL, T4.2.24	For the AR IE-BM solution, Optum will be leveraging the State's existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
100. T8-T4.2.25	T8, Page 6 of 11, Data Integration, Quality, and ETL, T4.2.25	For the AR IE-BM solution, Optum will be leveraging the State's existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
101. T8-T4.2.26	T8, Page 7 of 11, Data Integration, Quality, and ETL, T4.2.26	For the AR IE-BM solution, Optum will be leveraging the State's existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
102. T8-T4.2.27	T8, Page 7 of 11, Data Integration, Quality, and ETL, T4.2.27	For the AR IE-BM solution, Optum will be leveraging the State's existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
103. T8-T4.2.28	T8, Page 7 of 11, Data Integration, Quality, and ETL, T4.2.28	For the AR IE-BM solution, Optum will be leveraging the State's existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
104. T8-T4.2.29	T8, Page 7 of 11, Data Integration, Quality, and ETL, T4.2.29	For the AR IE-BM solution, Optum will be leveraging the State's existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
105. T8- T4.2.30	T8, Page 7 of 11, Data Integration, Quality, and ETL, T4.2.30	For the AR IE-BM solution, Optum will be leveraging the State's existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
106. T8- T4.2.31	T8, Page 7 of 11, Data Integration, Quality, and ETL, T4.2.31	For the AR IE-BM solution, Optum will be leveraging the State's existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
107. T8-T4.2.32	T8, Page 8 of 11,	For the AR IE-BM solution, Optum will be leveraging

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RFP REFERENCE	VENDOR PROPOSAL REFERENCE	BRIEF EXPLANATION OF CLARIFICATION
	Data Integration, Quality, and ETL, T4.2.32	the State's existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
108. T8-T4.2.33	T8, Page 8 of 11, Data Integration, Quality, and ETL, T4.2.33	For the AR IE-BM solution, Optum will be leveraging the State's existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
109. T8-T4.2.34	T8, Page 9 of 11, Data Integration, Quality, and ETL, T4.2.34	For the AR IE-BM solution, Optum will be leveraging the State's existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
110. T8-4.2.35	T8, Page 9 of 11, Data Integration, Quality, and ETL, T4.2.35	For the AR IE-BM solution, Optum will be leveraging the State's existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
111. T8-T4.2.36	T8, Page 9 of 11, Data Integration, Quality, and ETL, T4.2.36	For the AR IE-BM solution, Optum will be leveraging the State's existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
112. T8-T4.2.37	T8, Page 10 of 11, Data Integration, Quality, and ETL, T4.2.37	For the AR IE-BM solution, Optum will be leveraging the State's existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
113. T8-T4.2.38	T8, Page 10 of 11, Data Integration, Quality, and ETL, T4.2.38	For the AR IE-BM solution, Optum will be leveraging the State's existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
114. T8-T4.2.39	T8, Page 11 of 11, Data Integration, Quality, and ETL, T4.2.39	For the AR IE-BM solution, Optum will be leveraging the State's existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
115. T8-T4.2.40	T8, Page 11 of 11, Data Integration, Quality, and ETL, T4.2.40	For the AR IE-BM solution, Optum will be leveraging the State's existing Data Warehousing and Data Integration software, including the use of Informatica and SQL Server.
116. T8-T4.3.1	T8, Page 1 of 6, Master Data Management, T4.3.1	[REDACTED]
117. T8-T4.3.2	T8, Page 1 of 6, Master Data Management,	[REDACTED]

RFP REFERENCE	VENDOR PROPOSAL REFERENCE	BRIEF EXPLANATION OF CLARIFICATION
	T4.3.2	[REDACTED]
118. T8-T4.3.3	T8, Page 1 of 6, Master Data Management, T4.3.3	[REDACTED]
119. T8-T4.3.4	T8, Page 1 of 6, Master Data Management, T4.3.4	[REDACTED]
120. T8-T4.3.5	T8, Page 1 of 6, Master Data Management, T4.3.5	[REDACTED]
121. T8-T4.3.6	T8, Page 1 of 6, Master Data Management, T4.3.6	[REDACTED]
122. T8-T4.3.7	T8, Page 2 of 6, Master Data Management, T4.3.7	[REDACTED]
123. T8-T4.3.8	T8, Page 2 of 6, Master Data Management, T4.3.8	[REDACTED]
124. T8-T4.3.9	T8, Page 2 of 6, Master Data Management, T4.3.9	[REDACTED]
125. T8-T4.3.10	T8, Page 2 of 6, Master Data Management, T4.3.10	[REDACTED]
126. T8-T4.3.11	T8, Page 2 of 6,	[REDACTED]

RFP REFERENCE	VENDOR PROPOSAL REFERENCE	BRIEF EXPLANATION OF CLARIFICATION
	Master Data Management, T4.3.11	[REDACTED]
127. T8-T4.3.12	T8, Page 2 of 6, Master Data Management, T4.3.12	[REDACTED]
128. T8-T4.3.13	T8, Page 2 of 6, Master Data Management, T4.3.13	[REDACTED]
129. T8-T4.3.14	T8, Page 3 of 6, Master Data Management, T4.3.14	[REDACTED]
130. T8-T4.3.15	T8, Page 3 of 6, Master Data Management, T4.3.15	[REDACTED]
131. T8-T4.3.16	T8, Page 3 of 6, Master Data Management, T4.3.16	[REDACTED]
132. T8-T4.3.17	T8, Page 3 of 6, Master Data Management, T4.3.17	[REDACTED]
133. T8-T3.4.18	T8, Page 3 of 6, Master Data Management, T4.3.18	[REDACTED]
134. T8-T4.4.3.19	T8, Page 3 of 6, Master Data Management,	[REDACTED]

RFP REFERENCE	VENDOR PROPOSAL REFERENCE	BRIEF EXPLANATION OF CLARIFICATION
	T4.3.19	[REDACTED]
135. T8-T4.3.20	T8, Page 3 of 6, Master Data Management, T4.3.20	[REDACTED]
136. T8-T4.3.21	T8, Page 4 of 6, Master Data Management, T4.3.21	[REDACTED]
137. T8-T4.3.22	T8, Page 4 of 6, Master Data Management, T4.3.22	[REDACTED]
138. T8-T4.3.23	T8, Page 4 of 6, Master Data Management, T4.3.23	[REDACTED]
139. T8-T4.3.24	T8, Page 4 of 6, Master Data Management, T4.3.24	[REDACTED]
140. T8-T4.3.25	T8, Page 4 of 6, Master Data Management, T4.3.25	[REDACTED]
141. T8-T4.3.26	T8, Page 4 of 6, Master Data Management, T4.3.26	[REDACTED]
142. T8-T4.3.27	T8, Page 4 of 6, Master Data Management, T4.3.27	[REDACTED]

RFP REFERENCE	VENDOR PROPOSAL REFERENCE	BRIEF EXPLANATION OF CLARIFICATION
143. T8-T4.3.28	T8, Page 5 of 6, Master Data Management, T4.3.28	[REDACTED]
144. T8-T4.3.29	T8, Page 5 of 6, Master Data Management, T4.3.29	[REDACTED]
145. T8-T4.3.30	T8, Page 5 of 6, Master Data Management, T4.3.30	[REDACTED]
146. T8-T4.3.31	T8, Page 5 of 6, Master Data Management, T4.3.31	[REDACTED]
147. T8-T4.3.32	T8, Page 5 of 6, Master Data Management, T4.3.32	[REDACTED]
148. T8-T4.3.33	T8, Page 5 of 6, Master Data Management, T4.3.33	[REDACTED]
149. T8-T4.3.34	T8, Page 5 of 6, Master Data Management, T4.3.34	[REDACTED]
150. T8-T4.3.35	T8, Page 6 of 6, Master Data Management, T4.3.35	[REDACTED]
151. T8-T4.3.36	T8, Page 6 of 6, Master Data Management, T4.3.36	[REDACTED]

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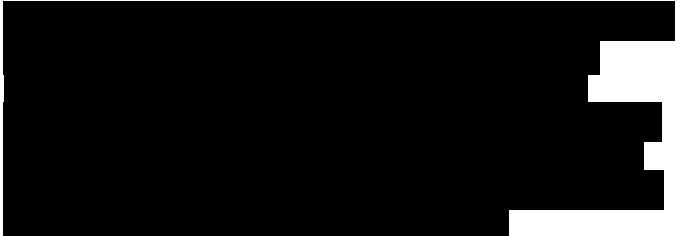
RFP REFERENCE	VENDOR PROPOSAL REFERENCE	BRIEF EXPLANATION OF CLARIFICATION
152. T8-T5.2.1	T8, Page 1 of 2, Analytical Processing and Business Intelligence, T5.2.1	For the AR IE-BM, Optum is leveraging the State's existing Business Intelligence platform which includes reporting & analytics using Cognos and Tableau.
153. T8-T5.2.2	T8, Page 1 of 2, Analytical Processing and Business Intelligence, T5.2.2	For the AR IE-BM, Optum is leveraging the State's existing Business Intelligence platform which includes reporting & analytics using Cognos and Tableau.
154. T8-T5.2.3	T8, Page 1 of 2, Analytical Processing and Business Intelligence, T5.2.3	For the AR IE-BM, Optum is leveraging the State's existing Business Intelligence platform which includes reporting & analytics using Cognos and Tableau.
155. T8-T5.2.4	T8, Page 1 of 2, Analytical Processing and Business Intelligence, T5.2.4	For the AR IE-BM, Optum is leveraging the State's existing Business Intelligence platform which includes reporting & analytics using Cognos and Tableau.
156. T8-T5.2.5	T8, Page 1 of 2, Analytical Processing and Business Intelligence, T5.2.5	For the AR IE-BM, Optum is leveraging the State's existing Business Intelligence platform which includes reporting & analytics using Cognos and Tableau.
157. T8-T5.2.6	T8, Page 2 of 2 Analytical Processing and Business Intelligence, T5.2.6	For the AR IE-BM, Optum is leveraging the State's existing Business Intelligence platform which includes reporting & analytics using Cognos and Tableau.
158. T8-T5.2.7	T8, Page 2 of 2, Analytical Processing and Business Intelligence, T5.2.7	For the AR IE-BM, Optum is leveraging the State's existing Business Intelligence platform which includes reporting & analytics using Cognos and Tableau.
159. T8-T6.1.1	T8, Page 1 of 6, Identity and	Optum is leveraging the State's existing IAM solution (CA IAM). The IAM technical capabilities will be

RFP REFERENCE	VENDOR PROPOSAL REFERENCE	BRIEF EXPLANATION OF CLARIFICATION
	Access Management, T6.1.1	implemented in R0. Specific IAM setup and requirements will be fulfilled in R1 (for UI) and R2 (for HHS programs) and R3 (for State Hub).
160. T8-T6.1.2	T8, Page 1 of 6, Identity and Access Management, T6.1.2	Optum is leveraging the State's existing IAM solution (CA IAM)
161. T8-T6.1.3	T8, Page 1 of 6, Identity and Access Management, T6.1.3	Optum is leveraging the State's existing IAM solution (CA IAM)
162. T8-T6.1.4	T8, Page 1 of 6, Identity and Access Management, T6.1.4	Optum is leveraging the State's existing IAM solution (CA IAM)
163. T8-T6.1.5	T8, Page 1 of 6, Identity and Access Management, T6.1.5	Optum is leveraging the State's existing IAM solution (CA IAM)
164. T8-T6.1.6	T8, Page 1 of 6, Identity and Access Management, T6.1.6	Optum is leveraging the State's existing IAM solution (CA IAM)
165. T8-T6.1.7	T8, Page 1 of 6, Identity and Access Management, T6.1.7	Optum is leveraging the State's existing IAM solution (CA IAM)
166. T8-T6.1.8	T8, Page 2 of 6, Identity and Access Management, T6.1.8	Optum is leveraging the State's existing IAM solution (CA IAM)
167. T8-T6.1.9	T8, Page 2 of 6, Identity and Access Management, T6.1.9	Optum is leveraging the State's existing IAM solution (CA IAM)



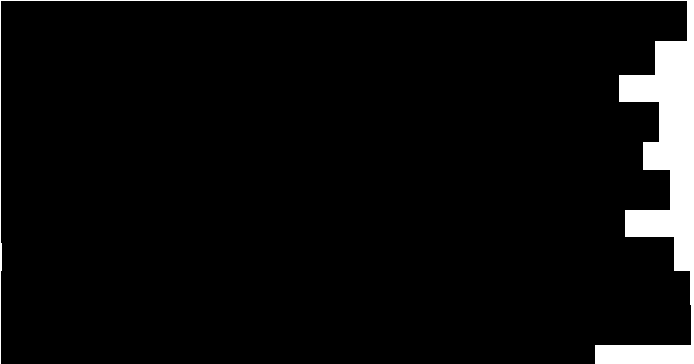
RFP REFERENCE	VENDOR PROPOSAL REFERENCE	BRIEF EXPLANATION OF CLARIFICATION
168. T8-T6.1.18	T8, Page 2 of 6, Identity and Access Management, T6.1.18	If there is a requirement to store PHI data on a mobile device, we will need to perform some development to provide this capability since we do not currently have a need to store any data on a local device. We will be happy to address this requirement with you during the requirements validation phase.
169. T8-T6.1.19	T8, Page 3 of 6, Identity and Access Management, T6.1.19	Optum is leveraging the State's existing IAM solution (CA IAM)
170. T8-T6.1.20	T8, Page 3 of 6, Identity and Access Management, T6.1.20	Optum is leveraging the State's existing IAM solution (CA IAM)
171. T8-T6.1.21	T8, Page 3 of 6, Identity and Access Management, T6.1.21	Optum is leveraging the State's existing IAM solution (CA IAM)
172. T8-T6.1.23	T8, Page 3 of 6, Identity and Access Management, T6.1.23	Optum is leveraging the State's existing IAM solution (CA IAM)
173. T8-T6.1.31	T8, Page 4 of 6, Identity and Access Management, T6.1.31	Optum is leveraging the State's existing IAM solution (CA IAM)
174. T8-T6.1.40	T8, Page 4 of 6, Identity and Access Management, T6.1.40	Optum is leveraging the State's existing IAM solution (CA IAM)
175. T8-T6.1.44	T8, Page 5 of 6, Identity and Access Management, T6.1.41	Optum is leveraging the State's existing IAM solution (CA IAM)
176. T8-T6.1.45	T8, Page 5 of 6, Identity and	Optum is leveraging the State's existing IAM solution (CA IAM)

RFP REFERENCE	VENDOR PROPOSAL REFERENCE	BRIEF EXPLANATION OF CLARIFICATION
	Access Management, T6.1.45	
177. T8-T6.1.45	T8, Page 5 of 6, Identity and Access Management, T6.1.45	Optum is leveraging the State's existing IAM solution (CA IAM)
178. T8-T6.1.47	T8, Page 5 of 6, Identity and Access Management, T6.1.47	Optum is leveraging the State's existing IAM solution (CA IAM)
179. T8-T6.1.48	T8, Page 5 of 6, Identity and Access Management, T6.1.48	Optum is leveraging the State's existing IAM solution (CA IAM)
180. T8-T6.1.49	T8, Page 5 of 6, Identity and Access Management, T6.1.49	Optum is leveraging the State's existing IAM solution (CA IAM)
181. T8-T6.1.50	T8, Page 5 of 6, Identity and Access Management, T6.1.50	Optum is leveraging the State's existing IAM solution (CA IAM)
182. T8-T6.1.51	T8, Page 5 of 6, Identity and Access Management, T6.1.51	Optum is leveraging the State's existing IAM solution (CA IAM)
183. T8-T6.1.52	T8, Page 5 of 6, Identity and Access Management, T6.1.52	Optum is leveraging the State's existing IAM solution (CA IAM)
184. T8-T6.1.53	T8, Page 5 of 6, Identity and Access Management, T6.1.53	Optum is leveraging the State's existing IAM solution (CA IAM)

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185. T8-T6.1.54	T8, Page 6 of 6, Identity and Access Management, T6.1.54	Optum is leveraging the State's existing IAM solution (CA IAM)
186. T8-T6.1.55	T8, Page 6 of 6, Identity and Access Management, T6.1.55	Optum is leveraging the State's existing IAM solution (CA IAM)
187. T8-T6.1.58	T8, Page 6 of 6, Identity and Access Management, T6.1.58	Optum is leveraging the State's existing IAM solution (CA IAM)
188. T8-T6.1.59	T8, Page 6 of 6, Identity and Access Management, T6.1.59	Optum is leveraging the State's existing IAM solution (CA IAM)
189. T8-T7.2	T8 Page 1 of 2, Infrastructure, T7.2	We intend to use the State's preferred technology, as listed.
190. T8-T7.3	T8 Page 1 of 2, Infrastructure, T7.3	We intend to use the State's preferred technology in addition to providing requirements that will allow for integration into our platform to address possible compatibility with the P-770 Platform
191. T8-T7.4	T8 Page 1 of 2, Infrastructure, T7.4	We intend to use the State's preferred technology, as listed.
192. T8-T7.5	T8 Page 1 of 2, Infrastructure T8-, T7.5	We intend to use the State's preferred technology, as listed.
193. T8-T7.6	T8 Page 1 of 2, Infrastructure, T7.6	We intend to use the State's preferred technology, as listed.
194. T8-T7.7	T8 Page 2 of 2, Infrastructure, T7.7	We intend to use the State's preferred technology, as listed.
195. T8-T7.8	T8 Page 2 of 2, Infrastructure, T7.8	We intend to use the State's preferred technology, as listed.

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196. T8-T7.9	T8 Page 2 of 2, Infrastructure, T7.9	We intend to use the State's preferred technology, as listed.
197. T8-T7.10	T8 Page 2 of 2, Infrastructure, T7.10	We intend to use the State's preferred technology, as listed.
198. T8-T7.11	T8 Page 2 of 2, Infrastructure, T7.11	We intend to use the State's preferred technology, as listed.
199. T8-T7.12	T8 Page 2 of 2, Infrastructure, T7.12	We intend to use the State's preferred technology, as listed.
200. T8-T7.13	T8 Page 2 of 2, Infrastructure, T7.13	We intend to use the State's preferred technology, as listed.
201. T10-I4.28	T10, Page 2 of 4, Solution Design, Development and Implementation, I4.28	Yes, we will provide this for any custom development and configurations. This is not possible for some COTS OEM products that make up the IE-BM solution, but we will provide all documentation necessary for proper usage, maintenance and enhancements.
202. T10-I4.32	T10, Page 3 of 4, Solution Design, Development and Implementation, I4.32	Yes, Optum will deposit the following materials with a third party escrow agent: (1) source code and object (executable) code for the custom developed and integration related code, and (2) for any COTS product, Optum will deposit object code (i.e., the medium necessary to reinstall that version as part of the IES platform). Updated deposits to these escrowed materials shall be made periodically during the term of the Agreement. Optum will also place in escrow one (1) paper copy and one (1) electronic copy of all available documentation for the deposited materials. All new software functionality that is custom developed and paid for by DHS that is built on top of COTS software will be owned by DHS. The escrow agreement will provide industry standard terms for release of such escrowed material.
203. T10-I6.15	T10, Page 2 of 3, Testing Requirements, I6.15	

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204. T10-I6.17	T10, Page 2 of 3, Testing Requirements, I6.17	Yes, we will automate regression testing to the extent possible; however, some regression testing may need to be manual due to the type of testing or timeframe required. In some cases, manual testing may result in faster results and assist the project team to remain on schedule.
205. T10-I10.1	T10, Page 1 of 4, Implementation SLRs, I10.1, Scheduled Deliverables	
206. T10-I10-2	T10, Page 2 of 4, Implementation SLRs, I10-2, Deliverable Quality	
207. T10-I10-3	T10, Page 2 of 4 and 3 of 4, Implementation SLRs, I10-3, Benefit Payment Accuracy	

RFP REFERENCE	VENDOR PROPOSAL REFERENCE	BRIEF EXPLANATION OF CLARIFICATION
		[REDACTED]
208. T10-I10-4	T10, Page 4 of 4, Implementation SLRs, I10-4, Additional Vendor Proposed SLRs	[REDACTED]
209. T12-O6.15	T12, Page 2 of 8, Provide Hosted Private Cloud Services, O6.15	The RFP does not currently have Network Response time SLAs.
210. T12-O6.16	T12, Page 2 of 8, Provide Hosted Private Cloud Services, O6.16	The RFP does not currently have Hosting Services SLRs.
211. T12-O7-1	T12, Page 1 of 19, Maintenance, Operations and Support SLRs O7-1, Transition Execution	[REDACTED]

RFP REFERENCE	VENDOR PROPOSAL REFERENCE	BRIEF EXPLANATION OF CLARIFICATION
		[REDACTED]
212. T12-07-2	T12, Page 2 of 19, Maintenance, Operations and Support SLRs, O7-2, Availability	[REDACTED]
213. T12-07-3	T12, Page 3 of 19, Maintenance, Operations and Support SLRs, O7-3, Performance-Response Time	[REDACTED]

RFP REFERENCE	VENDOR PROPOSAL REFERENCE	BRIEF EXPLANATION OF CLARIFICATION
		[REDACTED]
214. T12-07-4	T12, Page 4 of 19, Maintenance, Operations and Support SLRs, O7-4, Performance- Maximum Response Time	[REDACTED]
215. T12-07-5	T12, Page 5 of 19, Maintenance, Operations and Support SLRs, O7-5, Critical Incident Restoring of Service (break/fix)	[REDACTED]

RFP REFERENCE	VENDOR PROPOSAL REFERENCE	BRIEF EXPLANATION OF CLARIFICATION
		[REDACTED]
216. T12-O7-6	T12, Page 6 of 19, Maintenance, Operations and Support SLRs, O7-6, Security Incidents Response Time	[REDACTED]
217. T12-O7-7	T12, Page 7 of 19, Maintenance, Operations and Support SLRs, O7-7, Response to Patches and Fixes	[REDACTED]

RFP REFERENCE	VENDOR PROPOSAL REFERENCE	BRIEF EXPLANATION OF CLARIFICATION
		[REDACTED]
218. T12-O7-8	T12, Page 8 of 19, Maintenance, Operations and Support SLRs, O7-8, Responses to Patches and Fixes-Critical Security Patches	[REDACTED]
219. T12-O7-9	T12, Page 9 of 19, Maintenance, Operations and Support SLRs, O7-9, DHS Enhancement Request	[REDACTED]

RFP REFERENCE	VENDOR PROPOSAL REFERENCE	BRIEF EXPLANATION OF CLARIFICATION
	Response Time	[REDACTED]
220. T12-O7-10	T12, Page 10 of 19, Maintenance, Operations and Support SLRs, O7-10, Delivery of Enhancements	[REDACTED]
221. T12-O7-11	T12, Page 11 of 19, Maintenance, Operations and Support SLRs, O7-11,	[REDACTED]

RFP REFERENCE	VENDOR PROPOSAL REFERENCE	BRIEF EXPLANATION OF CLARIFICATION
	Documentation Updates	[REDACTED]
222. T12-O7-12	T12, Page 12 of 19, Maintenance, Operations and Support SLRs, O7-12, Customer Satisfaction Survey - Usability	[REDACTED]
223. T12-O7-13	T12, Page 13 of 19 Maintenance, Operations and Support SLRs, O7-13, Customer Satisfaction Survey - Internal Vendor/Partners	[REDACTED]

RFP REFERENCE	VENDOR PROPOSAL REFERENCE	BRIEF EXPLANATION OF CLARIFICATION
		[REDACTED]
224. T12-O7-14	T12, Page 14 of 19, Maintenance, Operations and Support SLRs, O7-14, Disaster Recovery Time Objective (RTO)	[REDACTED]
225. T12-O7-15	T12, Page 15 of 19, Maintenance, Operations and Support SLRs, O7-15, Disaster Recovery; Recovery Point Objective(RPO)	[REDACTED]

RFP REFERENCE	VENDOR PROPOSAL REFERENCE	BRIEF EXPLANATION OF CLARIFICATION
		[REDACTED]
226. T12-O7-16	T12, Page 16 of 19, Maintenance, Operations and Support SLRs, O7-16, Additional Vendor Proposed SLRs	[REDACTED]
227. T12-O7-17	T12, Page 17 of 19, O7-17, Critical Incident Response and Initial Notification, Vendor Proposed SLRs	[REDACTED]

RFP REFERENCE	VENDOR PROPOSAL REFERENCE	BRIEF EXPLANATION OF CLARIFICATION
		[REDACTED]
228. T12-O7-18	T12, Page 18 of 19, O7-18, New Enhancement M&O Training, Vendor Proposed SLRs	[REDACTED]
229. T12-O7-19	T12, Page 18 of 19, O7-19, IE-BM Turnover Plan, Vendor Proposed SLRs	[REDACTED]

RFP REFERENCE	VENDOR PROPOSAL REFERENCE	BRIEF EXPLANATION OF CLARIFICATION
		[REDACTED]
230. T12-O7-20	T12, Page 19 of 19, O7-20, IE-BM Turnover Execution, Vendor Proposed SLRs	[REDACTED]

Template T-16
RFP Response Checklist
RFP #: SP-17-0012

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1.0 Vendor Response Checklist

The Vendor should complete the following Tables to verify that all the RFP response requirements have been completed as instructed. The Vendor should provide specific references to Proposal locations (e.g., section and page numbers) for each Template included. During the evaluation process, OSP will perform an initial review of the Proposals to confirm these are included. If the items identified in this checklist are not included, the Proposal may be disqualified.

Instructions: Complete the following Table. Do not change any of the completed cells. Any changes to the completed cells could lead to the disqualification of the Proposal.

Table 1. Vendor General Requirements

PROPOSAL RESPONSE ITEM	COMPLETED AND PROVIDED AS INSTRUCTED?	
Vendor's Proposal's stamped date meets date and time specified in the RFP	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
Proposal is sealed	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
Technical Proposal and Cost Proposal are sealed in separate envelopes or boxes within the "Sealed Bid." Each Proposal is clearly marked "Technical Proposal" or "Cost Proposal"	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
Proposal includes redacted copy.	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
Minimum Mandatory Requirements – The Vendor has documented proof that it meets the minimum mandatory requirements outlined in the RFP and in Template T-1.	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>

Table 2. Vendor Package 1 Checklist

SECTION / TEMPLATE	PROPOSAL RESPONSE ITEM	COMPLETED AND PROVIDED AS INSTRUCTED?		REFERENCE TO PROPOSAL RESPONSE SECTION
T-1	Cover Letter and Executive Summary	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	T-1 Tab
T-2	Vendor Experience	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	T-2 Tab
T-3	Vendor References	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	T-3 Tab
T-4	Vendor Project Organization and Staffing	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	T-4 Tab
T-5	Staff Experience	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	T-5 Tab
T-6	Functional Requirements Traceability Matrix	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	T-6 Tab
T-7	Functional Requirements Approach	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	T-7 Tab

SECTION / TEMPLATE	PROPOSAL RESPONSE ITEM	COMPLETED AND PROVIDED AS INSTRUCTED?		REFERENCE TO PROPOSAL RESPONSE SECTION
		YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	
T-8	Technical Requirements Traceability Matrix	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	T-8 Tab
T-9	Technical Requirements Approach	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	T-9 Tab
T-10	Implementation Requirements Traceability Matrix	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	T-10 Tab
T-11	Implementation Requirements Approach	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	T-11 Tab
T-12	Maintenance and Operations Requirements Traceability Matrix	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	T-12 Tab
T-13	Maintenance and Operations Requirements Approach	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	T-13 Tab
T-14	Work Plan	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	T-14 Tab
T-15	Terms & Conditions of this RFP and Any Resulting Contract	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	T-15 Tab
T-15	Proposed Subcontractor's Form	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	T-15 Tab Inserted into T15 template, page 13
T-16	RFP Response Checklist	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	T-16 Tab
O-1	Letter of Intent	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	Submitted 6/8/2017
O-2	Written Questions	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	Submitted 2/9/2017

Table 3. Vendor Package 2 Checklist

SECTION / TEMPLATE	PROPOSAL RESPONSE ITEM	COMPLETED AND PROVIDED AS INSTRUCTED?		REFERENCE TO PROPOSAL RESPONSE SECTION
		YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	
C-1	Cost Workbook	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	C-1: Cost Workbook Tab

2.0 Vendor Attachments

The Vendor should identify all attachments that are part of the Technical or Cost Proposals. The Vendor should provide specific references to Proposal locations (e.g., section and page numbers) for each attachment included. All attachments should be included in both soft and hard Proposal copies.

Instructions: Complete the following Table with any attachments to the Technical or Cost Proposals. Add rows as necessary. Do not change any of the completed cells. Any changes to the completed cells could lead to the disqualification of the Proposal.

Optum includes the following Attachments in a separate Attachment binder.

Table 4. Vendor Attachment Checklist

ATTACHMENT ID	ATTACHMENT NAME	ATTACHMENT PROVIDED?		REFERENCE TO PROPOSAL RESPONSE SECTION
Attachment 1	D& B Report_OPTUMINSIGHT,+INC. 3 15 17	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	Attachment 1 tab Proposal reference: T2, page 32
Attachment 2	UHG 10K 2015 UHG 10K 2016	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	Attachments are provided on CD as requested Proposal reference: T2, page 33 T2, page 34
Attachment 3	Work Plan	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	Attachment 3 tab Proposal references: T11, page 9 T14, page 1

ATTACHMENT ID	ATTACHMENT NAME	ATTACHMENT PROVIDED?		REFERENCE TO PROPOSAL RESPONSE SECTION
Attachment 4	Draft Plans	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	Attachment 4 tab Proposal References: T11, page 9 T11, page 31
Attachment 5	DDI Statement of Work	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	Attachment 5 tab Proposal Reference: T11, page 113
Attachment 6	M&O SOW	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	Attachment 6 tab Proposal Reference: T13, page 102