

MMISR Project: Progress Description

Introduction

This progress description is organized following the outline of categories found in the Request for Quote (RFQ) Qualifications and Work Products. It is intended to provide a general overview in each category of the work that has been completed, in full or in part, and give context and a starting point for the work required by the selected System Integrator (SI) contractor.

More emphasis, in this description, is placed on the work completed than on the work still required. The work products in the RFQ provide a more complete description of the upcoming work.

1.0 Service Orientation

1.2.1 *Orchestration Implementation Plan*

- The Orchestration and Configuration & Continuous Integration plans will help to define how the work will be structured into continuous integration projects.
- Full SDLC required to accomplish Orchestration Implementation.

1.2.2 *Interfaces Implementation Plan*

- Interface designs are included in the overall System Design Document, as well as in the Interface Management plan. The latest updates to the Interface Management plan include a Proof of Concept of the 'plumbing' within the Development environment. This can be applied in a repeatable process for all interfaces entering or exiting the HHS2020 Enterprise. An 'As-Is' assessment of interfaces was compiled as a starting point for the creation of the backlog.
- Additional environment installation and configuration is required, as well as a backlog for iterative projects.

1.2.3 *Assessment, Remediation, and Implementation Plan for Oracle IDM Service*

- Full SDLC required for ESB service enablement.

1.2.4 *Assessment, Remediation and Implementation Plan for Master Data Management (MDM)*

- Full SDLC required for ESB service enablement.

1.2.5 *Assessment, Remediation and Implementation Plan for Address Standardization, Validation, and Verification (ASVV)*

- Experian CorrectAddress product was selected, installed, and configured in DEV, QAT, and UAT environments, for the Address Standardization and Validation service (not Verification). An update was provided by Experian to correct several issues. The project is in the process of installing and testing the stand-alone product.
- Address Verification was decoupled from ASV; product selection and implementation will need to be accomplished by the SI contractor. Interface batch methodology, monthly postal database updates to MFT and IdAM integration must also be implemented.

1.2.6 *Implement Hyland OnBase and Content Composer*

- The project is working directly with Hyland to install the products and make them production ready prior to the SI contractor coming onboard.
- Service enablement within OFMW will be required by the contractor. Additional work associated with this implementation is described in the work products section of the RFQ.

1.2.7 *Mailroom Imaging Integration and Plan*

- CASA (Consolidated Aspen Scanning Area) analysis was partially completed and the function to support the receipt and capture of incoming mail and processing for outgoing mail was proposed.

- The CASA analysis and integration with Hyland products is within the scope of work for the SI contractor.

2.0 Infrastructure

2.2.1 Assessment of Current Infrastructure

- Build books were created but they are not clear on accuracy and consistency across servers.
- Assessment needs to be completed.

2.2.2 Platform Management

- vROPS appliance has been installed. Initial version of RHEL7.5 and Windows Server 2016 templates exist.
- Templates need to be evaluated and potentially updated. All servers updated to RHEL8 is imminent. Remaining work detailed in work products of SI RFQ.

2.2.3 Infrastructure Design

- Basic VMWare is documented in the overall System Design document.
- Design needs to be detailed out and made specific to HSD environments. System test plan and testing for infrastructure and environments to be completed.

2.2.4 Capacity Analysis

- Initial analysis was completed for hardware purchases.
- Additional analysis is required to ensure adequacy of hardware and recommend any changes.

2.2.5 Disaster Recovery/Business Continuity Plan

- DR site plan and recommendation needs to be completed.

2.2.6 Backup Strategy

- Backup strategy needs to be defined and implemented.

2.2.7 NSX Analysis and Implementation Plan

- NSX Analysis, Implementation Plan and implementation need to be completed.

2.2.8 Performance Test Plan

- Performance Test Plan, execution and monitoring need to be completed.

2.2.9 ServiceNow CMDB Implementation Plan and Management

- Configuration Management Database plan, implementation and management need to be completed.

3.0 Security

3.2.1 Security Artifact Assessment

- The project has assessed current security documents. The SI contractor will also be required to do an assessment of the artifacts and the infrastructure/environments.

3.2.2 Security Document Creation

- The Security Design Document and Approach documents along with the System Security have been completed.
- The CMS required System Risk Assessment, Security Certification and Accreditation Letters, and Security Questionnaire Document need to be completed.

4.0 Canonical Message Models

4.2.1 Functional Analysis and Message Identification

- A demonstration of canonical messaging has been conducted in the absence of any actual requirements using Provider entity as part of the ESB workstream. The demonstration consisted of design, service configuration and functional testing of two sets of functionalities. The first was comprised of services that retrieved Provider instances matching specified search criteria and returned them to the requesting system in message form. The second demonstrated bulk

provider information updates originating from CLIA laboratory information files. Mock provider management services acted as a demonstration of Response Schema Injection pattern adopted by HHS 2020 enterprise to prevent canonical service proliferation. The demonstrations so far were integrating MarkLogic ODS database as the source of Provider records.

- Full SDLC for canonical exchanges needs to be completed.

4.2.2 *Static Structure Designs*

- Design document for the “Provider” domain is defined.
- Full SDLC for remaining canonical messages needs to be completed.

4.2.3 *Communication Dynamic Designs*

- N/A – these are covered under Service Orchestration.

4.2.4 *Test Plans and Results*

- Functional testing of mock service for “Provider” was completed.
- Functional and performance testing for other canonical services needs to be completed.

5.0 **IdAM**

5.2.1 *Assessment and Remediation Plan*

- SI contractor to provide, as defined in the work products of the RFQ.

5.2.2 *Roles and Permissions Definition and Implementation*

- Demonstration of system account authorization was conducted with a mocked-up role set.
- All roles and permission definitions need to be completed and implemented.

5.2.3 *IDM Solution Design*

- Design provided and installed in the QAT environment. This is included in the Technical Library.
- SSO and human user coarse grain authorization designs and implementation needs to be completed.

5.2.4 *Implementation*

- System account authentication, system account authorization, internal human user authentication, external human user provisioning services, external human user authentication services were demonstrated functionally in lower environments.
- Full SDLC for SSO and human user coarse and fine grain authorization required.

5.2.5 *Test Plans and Results*

- Functional testing of capabilities listed above was completed.
- Functional testing of all outstanding capabilities (full SDLC) as well as full performance testing needs to be completed.

6.0 **Master Data Management (MDM)**

6.2.1 *Master Data Management Assessment and Remediation*

- SI contractor to assess, provide a recommendation and path forward.

6.2.2 *Requirements, Data Sources, and Capabilities Definition*

- Preliminary technical requirements for Client and Provider domains are captured. Preliminary process flow diagram and use cases defined.
- Business use requirements for all domains outstanding, as well as data source discovery and mapping need to be completed. Data source profiling and finalized use cases also need to be completed.

6.2.3 *MDM Development and Implementation*

- Preliminary data model design for Client and Provider domains are defined. Preliminary MDM logical component, class, communication and sequence diagrams are defined. MarkLogic SmartMastering installation and initial proof of concept for ‘happy path’ exact match completed. MDM API specification has been defined. Development and test servers have been prepared.

- Data model designs for other domains need to be provided by the SI contractor, as well as full design documents, implemented MDM API, production level server build and all MDM related testing.

7.0 Data Migration, ODS/RDL, Data Models and Reference Data

7.2.1 Data Migration Assessment, Recommendations and Remediation

- MarkLogic services team performed an assessment of the installation of MarkLogic.
- Full assessment of all components needs to be completed.

7.2.2 Development and management of ETL processes and rules

- Requirements for data conversion completed for Omnicaid, ASPEN, CSES. Plans for data migration and data conversion are drafted but are not complete for production data. ETL designs to transform Omnicaid and ASPEN data to the canonical data models have been defined. Partial testing of initial ETL processes was conducted.
- Requirements gathering for incremental data load, other system data load and data cleansing are outstanding. ETL designs for other systems are needed, as well as operational metadata reporting, all remaining testing and data validations. Performance considerations for ETLs also need to be defined.

7.2.3 Creation and management of enterprise test data

- Initial data de-identification design, implementation and testing have been completed, based on elemental classifications.
- Enterprise test data strategy definition needs to be completed, as well as the implementation of the Safe Harbor data de-identification method. Remaining testing to be completed by the SI contractor as per work products details in the RFQ.

7.2.4 Creation and configuration of production environment

- All production build/configuration and testing need to be completed.

7.2.5 Operational Data Store and Raw Data Lake Assessment, Recommendations, and Remediation

- Setup of MarkLogic on development and testing servers complete.
- Design of operational data store to consume real-time data from various data sources needs to be completed.

7.2.6 Data Model Artifacts Assessment, Recommendations and Remediation

- Data models for data domains from Omnicaid, as well as data models for Client and Managed Care data from ASPEN are defined. Partial data profiling completed for ASPEN and Omnicaid.
- Data models for remaining systems need to be completed as well as a unified, canonical data model.

7.2.7 Reference Data Management Assessment, Recommendations and Remediation

- Lists of valid values for ASPEN and Omnicaid have been collected.
- Incomplete items for SI contractor include: list of reference data sources, identification of reference data needs across enterprise, characterization of reference data, remodeling of reference entities to accommodate slowly changing dimensions (type 2) and all testing.

8.0 Testing

- SI Contractor to assess the need for any retesting, as well as follow the project's testing and quality plans. Specific work products defined in the RFQ.

9.0 Project Management

- Enterprise project and technical management plans have been developed and approved. Some plans are in normal evolution and revision.

- The SI contractor must review and follow the plans. The SI contractor has the option to update some of the plans to show how the SI contractor will fit in with the accepted management practices.

10.0 CMS Certification

- R1 initial milestone review completed. SI Certification Process Guide, Amendment 18 and the State Certification Plan (pending approval) provided in the Technical Library.
- SI contractor to assess SI Certification Process Guide and update accordingly. R2 operational milestone review as well as R3 final reviews are pending for future dates. SI contractor to interface with the business for all certification needs.

11.0 Maintenance and Operations

- SI contractor must complete the planning for and the fulfillment of these services.