VISTA Metadata

Master Data Management for VA VISTA

Kickoff Brief

January 7, 2016

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The Team

Hokukahu, LLC

- Hokukahu, LLC (Hokukahu) will serve as the prime contractor for the VISTA Metadata project. Headquartered in Honolulu, Hawaii, Hokukahu is a Native Hawaiian Organization-Owned Concern in the Small Business Administration's 8(a) Business Development Program.
- Hokukahu employees who worked on the TAPS project who will continue in the VISTA Metadata project include: Brad Goo (Systems and Integration SME), David Booth (RDF and HL7 SME), and Renton Nip (Program/Contract Manager).

Caregraf, Inc.

- Caregraf, Inc. (Caregraf) specializes in standards-based software solutions that developed the open source FileMan Query Language (FMQL). FMQL was used in TAPS to extract all data and meta-data from CHCS's NoSQL data store called FileMan.
- Conor Dowling, President of Caregraf, worked on the TAPS project and will continue in the VISTA Metadata project serving as Project Architect.

J2 Interactive, LLC

- Ed de Moel, VISTA System and MUMPS SME

HRG Technologies LLC

- Steve Bruno, Senior Software Developer
- Sonny Kim, Senior Software Developer

Project Overview

Project Description

The Project will provide a single comprehensive security-enabled read/write data model and mechanism for all VA VISTA data across all VA VISTA operational systems, establishing enterprise master data management (MDM) for VA VISTA, and provide a common metadata foundation for computable data representation and exchange directly between VA and DoD clinical information systems.

All artifacts and deliverables shall be developed, version-controlled, stored, and delivered on an industry-standard public Github repository

Key Capabilities

- Provide comprehensive always-up-to-date, machine-processable exposure and definition of complete operational VISTA data model (VDM), based on all data dictionaries from all active VISTA instances in standard machine-processable, exchangeable form, supported by off-the-shelf tools.
- Create a fully audited enterprise cross-VISTA Master VISTA data model (MVDM) with no redundancy.
- Enhanced VISTA Data Model to allow management (query, security, read/write) of Patient, Institutional, Knowledge, and Systems data as distinct entities and to enable patient-centric security.

Functional Benefits

- Provides the foundation for enterprise-centric Master Data Management for all VISTA data across all VISTA systems. This reduces the complexity of interoperability against 130 different VISTA models to that of one master VISTA data model.
- Provides embedded "on the data" patient-centric security model in VISTA, allowing real-time, secure exchange of all VISTA data.
- Provides single, consistent operational read- write master data model for VISTA, allowing real-time transaction processing against all VISTA systems using one model and mechanism.

Stakeholders

- *Functional Sponsor (VA):* Rafael Richards, MD MS
- *Functional Sponsor (DoD):* Mark Goodge
- *Program Manager:* Renton Nip, Hokukahu
- *PMO Lead:* CAPT Paul Miller

Financials

12/31/2015 - 12/30/2016
Direct Labor
ODCs
TOTAL

Redacted for publication

Staffing

Labor Category	FTE over PoP	Function
Program/Contract Manager	.5	Organizes, directs, and manages contract operation and personnel
Subject Matter Expert (Master)	3	Serves as SME, possessing in-depth knowledge of highly specialized applications/systems.
Applications Developer (Master)	4	Designs, develops, enhances, debugs, and implements software or major enhancements to existing software.
Applications Developer (Senior)	3	Designs, develops, enhances, debugs, and implements software or major enhancements to existing software.
Test Engineer (Senior)	.5	Evaluates and implements test tools and strategies. Designs and conducts test and evaluation procedures.
Technical Writer (Senior)	1	Produces and reviews content of technical documentation as appropriate to the requirements.
Project Manager	1	Provides Project management and scrum master roles.

Deliverables and Schedule

Deliverable	Frequency
Project Repository (Deliverable #1AA)	Prior to Work Performance
Non-Disclosure/Non-Use Agreement Deliverable #1A)	Prior to Work Performance
Quality Control Plan (Deliverable #1B)	30 days after contract award
Phase-Out Migration Plan (Deliverable #1C)	30 days prior to end of contract
Program Management Plan (Deliverable #2)	At contract award; and updated within 30 days after contract award

Deliverables and Schedule

Deliverable	Frequency
Program Schedule and Monthly Updates (Deliverable #3)	Monthly, the 30th day of the following month
Monthly Progress Report (Deliverable #4)	Monthly, the 30th day of the following month
Quarterly Strategic Communications Message (Deliverable #5)	Quarterly, 5th day following end of each quarter
Date-stamped FileMan Data Model Definitions (Deliverable #8)	Per approved project schedule; with continuous, real-time access on the Github as developed
Approach to "Live VDM" Maintenance of Current State (Deliverable #9)	Per approved project schedule; with continuous, real-time access on the Github as developed
Normalized VISTA Data Model (VDMN) (Deliverable #10)	Per approved project schedule; with continuous, real-time access on the Github as developed
Heuristic Code (Deliverable #11)	Per approved project schedule; with continuous, real-time access on the Github as developed

Deliverables and Schedule

Deliverable	Frequency
Normalization Reports (Deliverable #12)	Per approved project schedule; with continuous, real-time access on the Github as developed
Website that graphically depicts VDM, VDMN, and other metadata (Deliverable #13)	Per approved project schedule; with continuous, real-time access on the Github as developed
Report on Exposure of Older Models (Deliverable #14)	Per approved project schedule; with continuous, real-time access on the Github as developed
Date-stamped Metadata for lab, surgery, TIU notes and other applications in a VDMN compatible format (Deliverable #15)	Per approved project schedule; with continuous, real-time access on the Github as developed
Machine-processable Annotations (Deliverable #18)	Per approved project schedule; with continuous, real-time access on the Github as developed
Software code (Deliverable #19)	Per approved project schedule; with continuous, real-time access on the Github as developed
Prototype query access to VISTA Data Against VDM (Deliverable #25)	Per approved project schedule; with continuous, real-time access on the Github as developed

Deliverables and Schedule

Deliverable	Frequency
Prototype Patient-centric Data Security (Deliverable #28)	Per approved project schedule; with continuous, real-time access on the Github as developed
Prototype Web-Based Rules Hub (Deliverable #32)	Per approved project schedule; with continuous, real-time access on the Github as developed
Prototype Web-Based Query Interface to FileMan Data (Deliverable #33)	Per approved project schedule; with continuous, real-time access on the Github as developed
VISTA Application model(s)/Prototype(s) (Deliverable #35)	Per approved project schedule; with continuous, real-time access on the Github as developed
Meta-model(s)/Prototype(s) (Deliverable #36)	Per approved project schedule; with continuous, real-time access on the Github as developed
Reference model(s)/Prototype(s) (Deliverable #39)	Per approved project schedule; with continuous, real-time access on the Github as developed
Document VISTA-ese vs. FHIR (Deliverable #40)	Per approved project schedule; with continuous, real-time access on the Github as developed

Deliverables and Schedule

First Deliverables:

- Deliverable 1AA: Project Repository
  - Friday, January 8
  - Will email URL to the COR

- Deliverable 2: Program Management Plan
  - Friday, January 8
  - To be posted on Project Repository

- Deliverable 13: Initial Website
  - Friday, January 15

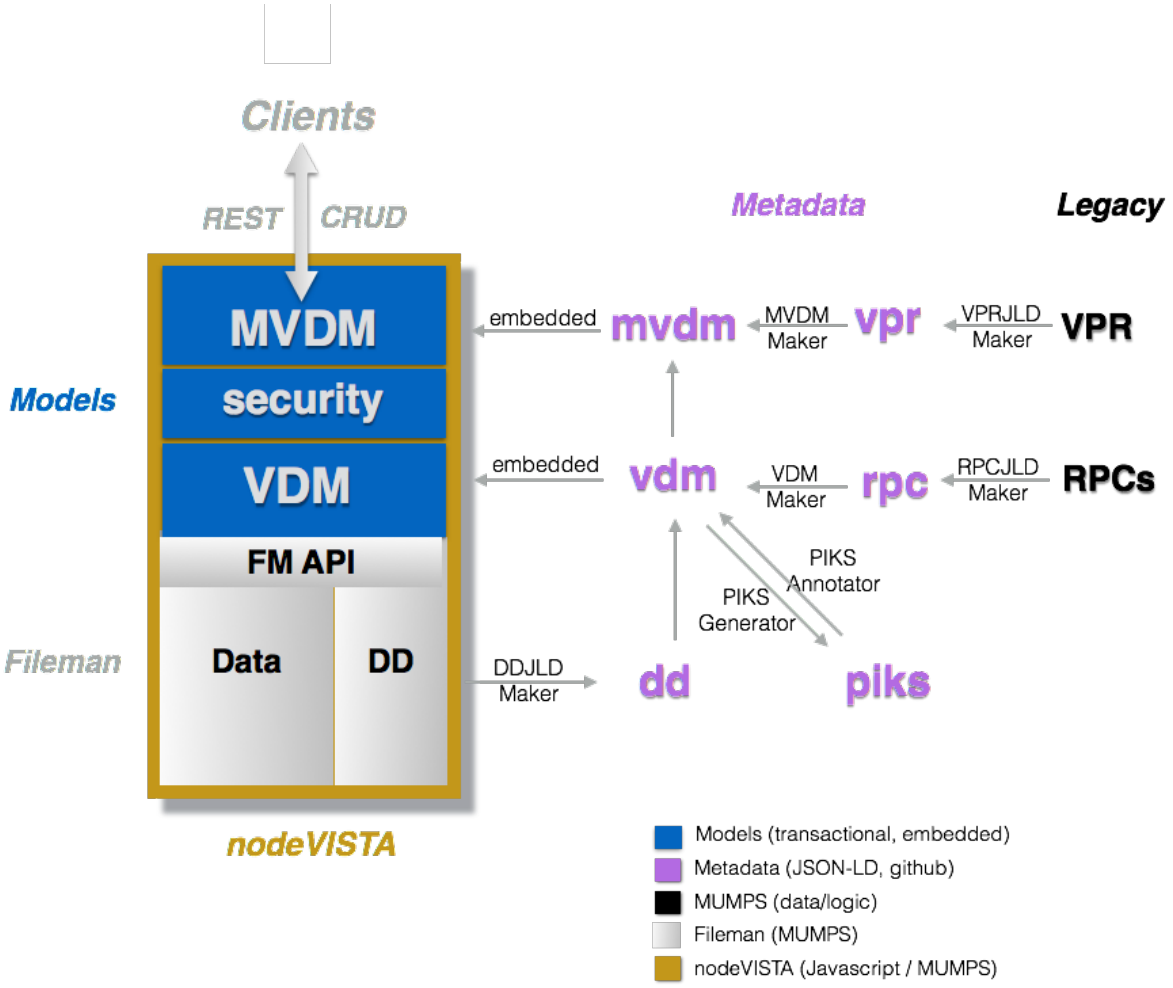
Technical Approach

The technical approach of Team Hokukahu will be largely the same that the team used in the TAPS Project.

The specific technical approach to each deliverable is set forth in the Technical Proposal and will be further detailed in the Program Management Plan (PMP).

The Project Architecture is depicted on the following slide.

Architecture



Project Artifacts

DDJLD Maker
RPCJLD Maker
nodeVISTA
nodeVISTA Commands
VDM Maker
VDM Package
MVDM Maker
MVDM Module
MVDM Test Suite

- 8 Metadata Definition Files
- 18 Software Applications
- 6 Documents

Website
(Document) Approach to "Live VDM" Maintenance of Current State
[MVDM] Normalization Reports
Report on [MVDM] Exposure of older models
Prototype Patient-centric Data Security [Document]
Document VISTA-ese vs. FHIR

dd.jsonld
rpc.jsonld
vpr.jsonld
vdm.jsonld
mvdm.jsonld
piks.jsonld
nodeVISTA Scenarios
MVDM to FHIR Rules

Risks and Mitigations

- The PWS requires that within 30 DACA the Government provide the following GFE/GFI:
  - Data Dictionary (DD) extracts from at least five current operational VISTA systems.
  - Current authoritative Master version of VISTA as maintained internally by the VA. Metadata from this must be complete and without any alterations or redactions.
  - Copy of a VISTA with test patients used by VA for internal projects.
  - Copy of at least one real operational VISTA to be kept within the NIPR network, as it will have non de-identified patient data.
  - A VISTA with real but de-identified patient data.
- Potential mitigation and impact:
  - Mitigation: Use open source OSEHRA VISTA images and resources.
  - Impact: Image is neither a current nor a true VA VISTA image.

Risks and Mitigations

In its Technical Response, the Team requested that additional GFE and GFI be provided within 30 days of contract award to successfully execute the Project.

In the contracting process, the Contract Specialist (CS) intended to satisfy such request by incorporating the Technical Proposal into the contract. The CS suggested resolution at the post-award conference. The additional GFE/GFI for project success are:

- A copy of the latest version of the VPR RPC software and documentation;
- The latest copy of the FileMan namespace spreadsheet;
- A FileMan namespace exclusively for the Team to allow for the creation of Project files and fields in FileMan;
- Access to the most up-to-date VISTA Integrations Agreements;
- Sufficient InterSystems Cache licenses to host FileMan Test VISTA systems; and
- VA VISTA Sandbox Account with full Linux VM.

Assumptions

1. The required GFE/GFI will be provided to the Team on a timely basis.
2. The required access to the ITEC will be provided to the Team on a timely basis.

Defense Health Agency

Mahalo!

VISTA Data Project
vistadataproject.info