# SECTION A

1. 1. ONEVA PHARMACY SOFTWARE DEVELOPMENT

The Contractor shall apply, to the maximum extent practical, open source tools in creating all deliverables called for in this effort.  The Contractor shall notify the COR/PM both by email, and as part of the bi-weekly status report, of any instance where open source tools will not be used or may not be practical.

### ONEVA PHARMACY SOFTWARE REQUIREMENTS

The Contractor shall provide a prototype of OneVA Pharmacy software with the following requirements:

1. The Contractor shall develop a multi-site virtual VistA environment in VA’s Innovations Sandbox to mimic multiple different VA sites (minimum of three different VA sites) with different VistA systems (one site would be considered the local site and the other sites would be considered the remote site):
   1. Provide ability to utilize VistA feature “Patient Prescription Processing [PSO LM BACKDOOR ORDERS]” to access local test patient information

No changes were made to access local information.

* 1. Provide ability to enter electronic prescriptions into both the VistA local site and the VistA remote sites on test patients

No new functionality was developed to allow a prescription to be entered from one VistA system on another.

Current live VistA functionality provides the ability to enter a prescription only on the "originating" system. Developers and testers had access to all three VistA Sandbox systems and entered prescriptions for testing accordingly.

* 1. Create test patients that are enrolled or registered in both the local and the remote VistA systems (i.e. PATIENT,TEST ONE is the same exact patient enrolled/registered in the local VistA site and also the remote VistA sites to mimic the same Veteran that would be registered to a “home” VA site and registered while traveling to another VA site)

28 test patients and 57 prescriptions were created for the 96 test cases performed to ensure the prototype provides all require functionality. The Test Plan list these patients along with their test prescriptions. The Test Results document identifies the patient and prescriptions used for each test case.

* 1. Provide ability to display all standard information for patients (e.g. name, address, social security number, prescription listing, etc.) under the “Patient Prescription Processing” that VA uses in the live VistA accounts

No changes were made to the Patient Information screens currently displayed.

1. Develop the functionality to access the patients’ remote site prescription information in order to take action (such as request a refill or print a prescription [RX] label for a refill) on any active prescription(s) available in the remote site patient pharmacy medication profile and:

Added display of prescription information retrieved from remote sites – where a patient is registered – to the Medication Profile screen. Divider lines identify each remote site and group active, suspended, and held prescriptions for the patient at that site. When a patient is registered at a site but has no active, suspended or held prescription the message “<No active prescriptions found.>” is displayed.

The View Orders test cases confirm all combinations of a patient being registered, with and without prescriptions, were tested.

Refill and partial refill actions were added in the prototype for refilling remote prescriptions. The Dispense Orders test cases confirm prescriptions can be refilled and show exceptions are properly handled.

* 1. Provide ability to lock out any remote site users from taking action on the patients’ prescriptions while this information is being accessed and/or actioned by the local VA site

Remote refill actions check and abide by a lock set on a local prescription by a local VistA site user – test case DRO-3.3-1-4a confirms.

Current functionality preventing other local users from accessing a prescription locked is confirmed by test case DLO-3.2-1-2a.

In addition, a lock is set when a remote user refills a prescription to keep all other users from taking action on that same prescription. No test cases were created to show this scenario since the time duration of the remote lock is so short test scripts could not be synchronized to catch this condition without adding a delay to the prototype code. This scenario was checked during unit testing with the delay code (which was removed for the final prototype).

* 1. Provide ability to print a partial RX label or a full refill RX label on accessed remote prescriptions similarly to how this is done for local prescriptions

*Something should be said about this. Will showing the label be added to the test cases?*

* 1. Provide ability for VistA to time out the local site pharmacy user after 5 minutes of inaction, freeing up the patients’ medication profile for action by the remote site again

Current live VistA functionality was not changed. Time-out is controlled by a user’s “TIMED READ” variable value. A patient's medication profile is not locked. A single patient prescription is locked only after the prescription is selected to be edited or refilled (e.g., when “RF” is the action entered on the OP Medications screen).

The lock is held until all required refill responses have been entered or until no user action occurs within the TIMED READ number of seconds.

* 1. Provide ability for the remote site VistA to log any actions taken by the local site pharmacy user on any particular prescription with annotation of the site the action was taken by in real time in under one minute (e.g. Pharmacist X requested or printed a refill label at site X which should be viewable by pharmacy users at site Y in under one minute after the action was taken); information available should contain date, name of pharmacist, name of VA site, brief comment, contact telephone number to the pharmacy that took action on the prescription, and any other standard information that is usually contained in the VistA action logs for partial RX fills or full refills

*Log approach should be described. Wasn’t a new log was created?*

One of the reports created for requirement 5.2.1.3 – “Our prescriptions, filled by other facilities” (Remote Prescription Report option number 2) shows this information from the log on that report’s Remote Refill/Partial Fill Details screen.

*How do we show the time requirement was met?*

1. Develop the ability to run a report for both the local site and the remote sites that captures an itemized list of what prescriptions were filled at another site and for which patients; this report or series of reports should also be able to capture total cost for each prescription filled and provide a total cost summary for prescriptions filled for a selectable date range (e.g. Site X wants to know how many prescriptions they filled for patients that are assigned to site Y or other multiple sites and the total cost of those prescriptions filled)

Three reports were created to show:

Prescriptions we have filled for other facilities

Our prescriptions, filled by other facilities

All Remote activity

Each of these reports can viewed or filtered by:

Date range

Patient - specifying name, or SSN, or last 4 SSN digits, or first initial of last name with last 4 digits of SSN

Site – specifying Institution Name, or STATUS, or Station Number, or Official VA Name, or Current Location, or Coding System/ID Pair, or NPI, or Name (Changed From), or coding system

The report lists all remote prescriptions refilled or partially refilled by date, patient name, drug name, type of refill, the quantity, and the number of days supplied.

The total cost for items in a report is shown at the end.

Details can be viewed for any refill shown in a report:

Request Date/Time

Patient

RX #

Site

Request Type

Requesting Pharmacist

Dispensed Date

Remote Drug Name

Local (matched) drug

Local Refill/Partial Cost

1. Develop and demonstrate the exchange of patient sensitive information between VA sites in a secure manner in accordance with standard VA regulations for privacy

*Statement maybe along the lines of*

Secure exchange of sensitive information is inherent from the architecture and it’s use for all new capabilities.

The Contractor shall develop the interim and final prototypes in VA’s Innovation Sandbox development area. The Contractor shall store the Interim and Final Prototype Software Code in VA’s centralized source code repository on the Innovations Sandbox. The Contractor shall deliver an interim prototype (Sample screens with some remote functionality)six months from date of award via the Innovations Sandbox. The Contractor shall coordinate a virtual meeting with the COR within five business days of interim prototype submission for a software demonstration.

The Contractor shall deliver the final prototype 11 months from date of award. The contractor shall perform a demonstration of the final prototype.

**Deliverables**:

1. Interim Prototype Software Executable and Source Code
2. Final Prototype Software Executable and Source Code

### TEST AND EVALUATION

The Contractor shall conduct functional, integration, and regression testing to validate that requirements were met.

The Contractor shall provide a Test Plan on the day of final prototype software demonstration to include:

Preparation of test plans which shall include: purpose & objective of the test, items to be tested, test approach, acceptance criteria, test schedule, test environment configurations, risks, and test cases. This test plan should include the ability to access patient pharmacy profiles, print patient RXx fills/refills, and run reports on patients who receive RX fill/refills from all locations.

The Contractor shall conduct testing using the Innovations Sandbox test area and document test results in a Test Report**.** The test report is due within 30 days of final prototype software demonstration.

**Deliverables:**

1. Test Plan
2. Test Report

### USER DOCUMENTATION

The Contractor shall develop user manuals for the interim prototype and update the documentation for the final prototype. The Contractor shall provide a report on installation effort required for deploying on the actual VA wide environment.

**Deliverables**:

1. User Manuals
2. Installation Guide

### SOFTWARE TRAINING

The Contractor shall provide training materials for the final prototype. Training documentation shall include information on how to use the OneVA Pharmacy software including, but not limited to the user interface and user actions. One training session for 15 students shall be provided. Training session can be virtual or done via the internet.

**Deliverable**:

1. Training materials

# GENERAL REQUIREMENTS

## ENTERPRISE AND IT FRAMEWORK

The Contractor shall support the VA enterprise management framework. In association with the framework, the Contractor shall comply with OIT Technical Reference Model (One-VA TRM). One-VA TRM is one component within the overall Enterprise Architecture (EA) that establishes a common vocabulary and structure for describing the information technology used to develop, operate, and maintain enterprise applications. One-VA TRM includes the Standards Profile and Product List that collectively serves as a VA technology roadmap. Architecture, Strategy, and Design (ASD) has overall responsibility for the One-VA TRM.

The Contractor solution shall support the latest Internet Protocol Version 6 (IPv6) based upon the directives issued by the Office of Management and Budget (OMB) on August 2, 2005 (<http://www.whitehouse.gov/sites/default/files/omb/assets/omb/memoranda/fy2005/m05-22.pdf>) and September 28, 2010 (<https://cio.gov/wp-content/uploads/downloads/2012/09/Transition-to-IPv6.pdf>). IPv6 technology, in accordance with the USGv6 Profile (NIST Special Publication (SP) 500-267 <http://www-x.antd.nist.gov/usgv6/index.html>), the Technical Infrastructure for USGv6 Adoption (<http://www.nist.gov/itl/antd/usgv6.cfm>), and the NIST SP 800 series applicable compliance (<http://csrc.nist.gov/publications/PubsSPs.html>) shall be included in all IT infrastructures, application designs, application development, operational systems and sub-systems, and their integration. All public/external facing servers and services (e.g. web, email, DNS, ISP services, etc.) shall support native IPv6 users, and all internal infrastructure and applications shall communicate using native IPv6 operations. Information concerning IPv6 transition in addition to OMB/VA Memoranda can be found at <https://www.voa.va.gov/>.

The Contractor IT end user solution that is developed for use on standard VA computers shall be compatible with and be supported on the standard VA operating system, currently Windows 7 (64bit), Internet Explorer 9 and Microsoft Office 2010.  However, the migration from Windows XP to Windows 7 is not yet complete within all of VA.  As a result, compatibility with and support on Windows XP, Internet Explorer 7 and Microsoft Office 2007 are also required until April 2014 when Microsoft’s extended support for Windows XP ends.  Applications delivered to the VA and intended to be deployed to Windows XP or 7 workstation shall be delivered as a signed  .msi package and updates shall be delivered in signed .msp file formats for easy deployment using System Center Configuration Manager (SCCM) VA’s current desktop application deployment tool.   Signing of the software code shall be through a VA trusted code signing authority such as Verizon/Cybertrust or Symantec/VeriSign.  The Contractor shall also ensure and certify that their solution functions as expected when used from a standard VA computer, with non-admin, standard user rights that has been configured using the Federal Desktop Core Configuration (FDCC) and United States Government Configuration Baseline (USGCB) specific to the particular client operating system being used.

The Contractor shall support VA efforts in accordance with the Project Management Accountability System (PMAS) that mandates all new VA IT projects/programs use an incremental development approach, requiring frequent delivery milestones that deliver new capabilities for business sponsors to test and accept functionality. Implemented by the Assistant Secretary for IT, PMAS is a VA-wide initiative to better empower the OIT Project Managers and teams to meet their mission: delivering world-class IT products that meet business needs on time and within budget.

The Contractor shall utilize ProPath, the OIT-wide process management tool that assists in the execution of an IT project (including adherence to PMAS standards). It is a one-stop shop providing critical links to the formal approved processes, artifacts, and templates to assist project teams in facilitating their PMAS-compliant work. ProPath is used to build schedules to meet project requirements, regardless of the development methodology employed.