Veterans Health Administration
Office of Informatics and Analytics (OIA) Innovation Program

OneVA Pharmacy

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Installation Guide (Deliverable 0002AF)
Version 1.0

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Revision History

Note: *The revision-history cycle begins after the initial version of the installation guide has been completed and approved.*

Date	Patch or Version	Description	Project Manager	Authors
9/15/2014	1.0	Document Creation/First Draft	Sherri Simon	The BITS Team

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1. OneVA Pharmacy Innovations Project

1.1. Overview

OneVA Pharmacy Innovations Project is a necessary and valuable contribution to providing nationwide pharmacy refill and management to the Veteran population. The innovation is focused on the delivery of VA prescription management as a service to the mobile population of Veterans. OneVA Pharmacy includes the following features:

- Retrieve remote prescriptions, through the use of HL7 protocols and RESTful services
- Initiate refills for a remote prescription
- Initiate partial fills for a remote prescription
- Print labels for a remote prescription
- View reports that show remote activity

1.2. Recommended Audience

This guide provides information specifically for Department of Veterans Affairs Medical Center (VAMC) information resource management (IRM) staff.

1.3. About this Guide

This installation guide provides instructions for installing application components that run on M servers at VAMC facilities. It also provides instructions for performing post-installation tasks—including configuration tasks—that require knowledge of the underlying VistA system.

1.4. Section 508 of the Rehabilitation Act of 1973

N/A

1.5. Document Conventions

Bold type indicates application elements (views, panes, links, buttons, prompts, and text boxes, for example) and keyboard key names.

Keyboard key names appear in angle brackets <>.

Italicized text indicates special emphasis or user responses.

ALL CAPS indicates M routines, parameters, and option names.

Dot-dash-dot boarders indicate excerpted text (from other documents or from applications).

1.6. Related Documents

OneVA Pharmacy Innovations Project User Guide
OneVA Pharmacy Innovations Project Technical Manual

2. Pre-Install Instructions

2.1. Install the OneVA Pharmacy KIDs build in Your Test Account

The OneVA Pharmacy Innovations team recommends that you first install the KIDs build in training or test account that is a mirror of your production account. This will give you the opportunity to experiment with the application's configuration options before setting up your site's production configuration.

2.1.1. Retrieve the PSO_INNOV_1_0.KID Host File

TBD

2.2. Check VistA Software Requirements

TBD

3. Installing M Server Components

3.1. Install the OneVA Pharmacy 1.0 Host File

Follow these instructions to install the package. Installation time is less than one minute.

1. Select **Installation** from the **XPD MAIN** option.
2. From the **Select Installation Option** menu, select **Load a Distribution**.
3. At the **Enter a Host File** prompt, type *PSO_INNOV_1_0.KID*.
4. At the **OK to continue with Load? NO//** prompt, type *YES*.
5. At the **Want to Continue with Load? YES//** confirmation, press the **<Enter>** key to confirm that you want to continue.
6. The installation menu presents a list that includes the following options:
    i. Backup a Transport Global
    ii. Compare Transport Global to Current System
    iii. Verify Checksums in Transport Global
    Select these options one by one, as needed
7. From the **XPD MAIN** menu, choose '**Install Package(s)**'.
8. At the Select **INSTALL NAME:** prompt, type *PSO INNOVATION 1.0*, then press enter.
9. When prompted **Want KIDS to Rebuild Menu Trees Upon Completion of Install? YES//** respond *NO*.
10. When prompted **Want KIDS to INHIBIT LOGONs during the install? YES//,** respond *NO*.
11. When prompted **Want to DISABLE Scheduled Options, Menu Options, and Protocols? YES//,** respond *NO*.

Note: *Appendix contains an installation example.*

3.2. Edit the HL7 LOGICAL link

1. In Fileman, choose ENTER OR EDIT FILE ENTRIES.
2. At the **INPUT TO WHAT FILE:** prompt, type *HL LOGICAL LINK* and then press the <**Enter**> key.
3. At the **EDIT WHICH FIELD:** prompt, type *TCP/IP ADDRESS* and then press the <**Enter**> key.
4. At the **THEN EDIT FIELD:** prompt, press the <**Enter**> key.
5. At the **Select HL LOGICAL LINK NODE:** prompt, type *ZJTHS36500* and then press the <**Enter**> key.
6. At the **TCP/IP ADDRESS** prompt, type the IP address where the ***LLP Router*** is deployed and press enter.

4. Pharmacy Manager Installation

The Pharmacy Manager consists of two components: an LLP Listener and Pharmacy Services. The LLP listener listens for HL7 over LLP requests from VistA. It does content based routing to forward the request to an endpoint using HL7 over HTTP.

4.1. Install Java Application Server

A Java Application Server compatible with Java EE v7 is required. The PSO Innovations team used TomEE, available here: http://tomee.apache.org/. Installation of an application server is outside the scope of this document.

4.2. Deploy WARs

Deployment of two WARs is required: llprouter.war and onevapharm.war. Use and follow the deployment instructions for the Java Application Server in-use (step 4.1) when deploying the WARs. These WARs do *not* need to reside on the same server.

4.2.1. LLP Router Configuration

An example configuration is found in Appendix C. The endpoint URLs should be changed to the host and port where the onevapharm.war WAR is deployed. After deployment, the configuration file can be found under the WEB-INF/classes/META-INF folder. Any changes to this file require the restarting of the application server.

4.2.2. OneVA Pharmacy Configuration

An example configuration is found in Appendix D. The endpoint URLs for each VistA site should be changed to the host and port of the site's VistA RESTful Web Services. After deployment, the configuration file can be found under the WEB-INF/classes/META-INF folder. Any changes to this file require the restarting of the application server.

5. VistA RESTful Web Services Installation

The VistA RESTful Web Services uses the Intersystems Globals API. The Globals API is optimized for extremely rapid storage and retrieval of data. The Globals API runs in the same process as the Cache instance; therefore, any Java application using the Globals API to access VistA cache.dat must reside and run on the same machine as the VistA instance. Each VistA server will require the installation of a Java application server and deployment of a WAR.

5.1. Install Java Application Server

A Java Application Server compatible with Java EE v7 is required. The PSO Innovations team used TomEE, available here: http://tomee.apache.org/. Installation of an application server is outside the scope of this document.

5.2. Deploy WARs

Deployment of one WAR is required: globals.war. Use and follow the deployment instructions for the Java Application Server in-use (step 5.1) when deploying the WAR.

5.2.1. Globals Web Services Configuration

An example configuration is found in Appendix E. The username and password should be a valid Cache username and password. After deployment, the configuration file can be found under the WEB-INF/classes/META-INF folder. Any changes to this file require the restarting of the application server.

6. Post Installation

6.1.1. Rebuild Menu Trees

Log in to VistA.

1. At the **Select OPTION NAME** prompt, type *eve* and then press the <**Enter**> key.
2. At the Choose 1-5 prompt, type the number *1* (for **EVE Systems Manager Menu**) and press the <**Enter**> key.
3. At the **Select Systems Manager Menu Option** prompt, type the word *menu* (for **Menu Management**) and press the <**Enter**> key.
4. At the **Select Menu Management Option** prompt, type the word *menu* (for **Menu Rebuild Menu**) and press the <**Enter**> key.
5. At the **Select Menu Rebuild Menu Option** prompt, type the word *build* (for **Build Primary Menu Trees**) and press the <**Enter**> key.
6. At the **Do you wish to verify each primary menu? NO//** prompt, press the <**Enter**> key to accept the default selection.
7. At the **Would you like to build secondary menu trees too? YES//** prompt, press the <**Enter**> key to accept the default selection.
8. At the **Would you like to queue this job? YES//** prompt, press the <**Enter**> key to accept the default selection. If you want to run the job immediately, type *NO,* and then press the <**Enter**> key. If you choose the latter option, be advised that running a menu rebuild can take time.
9. At the **Requested Start Time: NOW//** prompt, press the <**Enter**> key to accept the default selection.

After the system runs the menu rebuild, remove the menu options you do not need.

Appendix A—Host File Installation

The following is an example of the PSO INNOVATIONS Remote Pharmacy Prescription Manager host file (KIDS) installation:

```
Select OPTION NAME: XPD MAIN       Kernel Installation & Distribution System


          Edits and Distribution ...
          Utilities ...
          Installation ...
          Patch Monitor Main Menu ...

Select Kernel Installation & Distribution System <TEST ACCOUNT> Option: INstallation


   1      Load a Distribution
   2      Verify Checksums in Transport Global
   3      Print Transport Global
   4      Compare Transport Global to Current System
   5      Backup a Transport Global
   6      Install Package(s)
          Restart Install of Package(s)
          Unload a Distribution

Select Installation <TEST ACCOUNT> Option: LOad a Distribution
Enter a Host File: C:\PSO_INNOV_1_0.KID

KIDS Distribution saved on Sep 10, 2014@07:54:31
Comment: UPDATED BUILD

This Distribution contains Transport Globals for the following Package(s):
   PSO INNOVATION 1.0
Distribution OK!

Want to Continue with Load? YES//
Loading Distribution...

   PSO INNOVATION 1.0
Use INSTALL NAME: PSO INNOVATION 1.0 to install this Distribution.



   1      Load a Distribution
   2      Verify Checksums in Transport Global
   3      Print Transport Global
   4      Compare Transport Global to Current System
   5      Backup a Transport Global
   6      Install Package(s)
          Restart Install of Package(s)
          Unload a Distribution

Select Installation <TEST ACCOUNT> Option: INstall Package(s)
Select INSTALL NAME:    PSO INNOVATION 1.0    9/15/14@15:08:50
     => UPDATED BUILD  ;Created on Sep 10, 2014@07:54:31

This Distribution was loaded on Sep 15, 2014@15:08:50 with header of
   UPDATED BUILD  ;Created on Sep 10, 2014@07:54:31
   It consisted of the following Install(s):
PSO INNOVATION 1.0
Checking Install for Package PSO INNOVATION 1.0

Install Questions for PSO INNOVATION 1.0

Incoming Files:
```

```
   52        PRESCRIPTION  (Partial Definition)
Note:  You already have the 'PRESCRIPTION' File.


   52.09     REMOTE PRESCRIPTION LOG

Want KIDS to Rebuild Menu Trees Upon Completion of Install? NO//


Want KIDS to INHIBIT LOGONs during the install? NO//
Want to DISABLE Scheduled Options, Menu Options, and Protocols? NO//

Enter the Device you want to print the Install messages.
You can queue the install by enter a 'Q' at the device prompt.
Enter a '^' to abort the install.

DEVICE: HOME//   Console (Cache' on Windows)
```

Appendix B – Pharmacy Manager LLP Router Configuration Example

```
name: OneVA Pharmacy
port: 36500
acceptedSocketTimeout: 15000
threadPoolSize: 10
threadPoolMax: 25
threadKeepAlive: 8000
routings:
  - name: QBP^Q13
    responseTimeout: 75000
    messageType: QBP
    triggerEvent: Q13
    endpoint: http://localhost:8080/onevapharm/hoh/v251/query
    version: 2.5.1
  - name: RDS^O13
    responseTimeout: 75000
    messageType: RDS
    triggerEvent: O13
    endpoint: http://localhost:8080/onevapharm/hoh/v251/fill
    version: 2.5.1
```

Appendix C - Pharmacy Manager Services Configuration Example

```
paths:
   NodeList: /node/_list
   MedHistory: /node/PS/55
   Refill: /function/PSORWRAP/REFILL
   PartialFill: /function/PSORWRAP/PARTIAL

sites:
   - siteNumber: 2301
     name: GoldTest1
     userName: 1radiologist
     password: radiologist1
     endpoint:
       url: http:// site2301:8080/globals/rest/GOLD
       debugMode: true
       timeouts:
          Query:
             connectTimeout: 5000
             requestTimeout: 10000
          Fill:
             connectTimeout: 5000
             requestTimeout: 60000
   - siteNumber: 2302
     name: GoldTest2
     userName: 1radiologist
     password: radiologist1
     endpoint:
       url: http:// site2302:8080/globals/rest/GOLD
       debugMode: true
       timeouts:
          Query:
             connectTimeout: 5000
             requestTimeout: 10000
          Fill:
```

```
        connectTimeout: 5000
        requestTimeout: 60000
- siteNumber: 2303
  name: GoldTest3
  userName: 1radiologist
  password: radiologist1
  endpoint:
    url: http:// site2303:8080/globals/rest/GOLD
    debugMode: true
    timeouts:
      Query:
        connectTimeout: 5000
        requestTimeout: 10000
      Fill:
        connectTimeout: 5000
        requestTimeout: 60000
```

Appendix D – VistA RESTful Web Services Configuration Example

```
cacheConfig:
    username: admin
    password: password
```