Pharmacy Reengineering (PRE)

Inbound ePrescribing Version 2.0

VistA Patch # PSO*7.0*467

Deployment, Installation, Back-Out, and Rollback Guide

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Version 2.0

Department of Veterans Affairs

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Revision History

Date	Version	Description	Author
11/21/2017	2.0	New Document, Baseline Release	Technatomy

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1 Introduction

This document describes how to deploy and install the Pharmacy Reengineering (PRE) Inbound ePrescribing (IEP) VistA Patch (PSO*7.0*467).

The purpose of this plan is to provide a single, common document that describes how, when, where, and to whom the IEP patch PSO*7.0*467 will be deployed and installed, as well as how it is to be backed out and rolled back, if necessary. The plan also identifies resources, communications plan, and rollout schedule. Specific instructions for installation, back-out, and rollback are included in this document.

1.1 Dependencies

Patch PSO*7.0*467 possesses a direct application dependency on the VistA Outpatient Pharmacy (OP) v.7.0 application. The following patches PSO*7.0*444 and PSO*7.0*446 are required to install before PSO*7.0*467.

1.2 Constraints

No constraints have been identified for patch PSO*7.0*467.

2 Roles and Responsibilities

This section outlines the roles and responsibilities for managing the deployment of the patch PSO*7.0*467.

Table 1: Deployment, Installation, Back-out, and Rollback Roles and Responsibilities

ID	Team	Phase / Role	Tasks	Project Phase (See Schedule)
1	Field Operations (FO), Enterprise Operations (EO), or Enterprise Program Management Office (EPMO) (depending upon project ownership)	Deployment	Plan and schedule deployment (including orchestration with vendors)	Deployment
2	FO, EO, or EPMO (depending upon project ownership)	Deployment	Determine and document the roles and responsibilities of those involved in the deployment.	Design/Build
3	FO, or EO	Deployment	Test for operational readiness	Design/Build
4	FO or EO	Deployment	Execute deployment	Design/Build
5	FO or EO	Installation	Plan and schedule installation	Deployment
6	Regional Project Manager (PM)/ Field Implementation Services (FIS)/ Office of Policy and Planning (OPP) PM	Installation	Ensure authority to operate and that certificate authority security documentation is in place	Design/Build

ID	Team	Phase / Role	Tasks	Project Phase (See Schedule)
7	Regional PM/FIS/OPP PM/ Nat'l Education & Training	Installations	Coordinate training	Deployment
8	FO, EO, or Product Development (depending upon project ownership)	Back-out	Confirm availability of back-out instructions and back-out strategy (what are the criteria that trigger a back-out)	Deployment
9	FO, EO, or Product Development (depending upon project ownership)	Post Deployment	Hardware, Software and System Support	Maintenance

3 Deployment

The deployment is planned as a concurrent rollout. During initial operating capability (IOC) testing and after national release, patch PSO*7.0*467 will be distributed via the FORUM Patch Module, and may be deployed at any site without regard to deployment status at other sites.
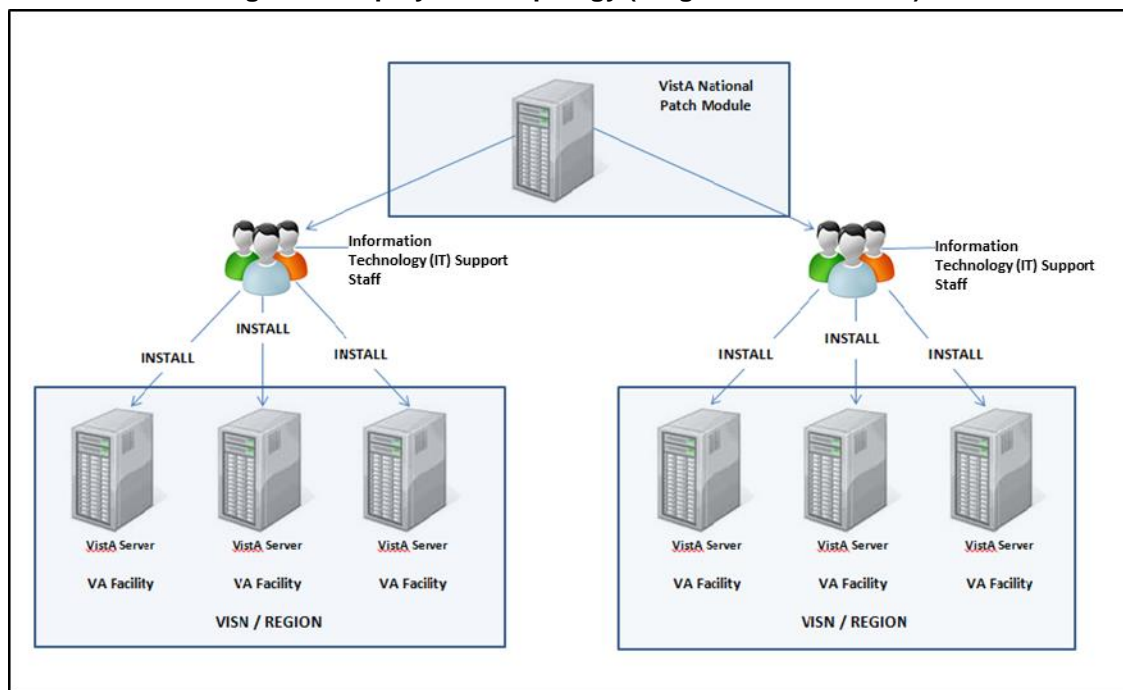
3.1 Timeline

The deployment and installation is scheduled to run for a period of thirty days, as depicted in the Master Deployment Schedule.

3.1.1 Deployment Topology

Patch PSO*7.0*467 will be released to all VistA sites.

Figure 1: Deployment Topology (Targeted Architecture)

3.1.2   Site Information (Locations, Deployment Recipients)

During IOC testing, patch PSO*7.0*467 will be deployed at the following sites:

- Central Alabama Veterans Health Care System (CAVHCS)
- VA Omaha Medical Center (Central Plains) Region 2 (VISN 23)
- Sioux Falls VA Healthcare System
- Veterans Health Care System of the Ozarks
- Health Administration Center (Meds by Mail)
- Indianapolis VA Medical CenterPatch

PSO*7.0*467 will be delivered to the Information Technology (IT) support staff responsible for the VistA installation at those sites. The software will be installed in the IOC test and production environments.

After National Release, Patch PSO*7.0*467 will be deployed at all sites running the Outpatient Pharmacy v.7.0 application.

3.1.3   Site Preparation

To prepare for the site, the following patches PSO*7.0*444 and PSO*7.0*446 are required to install before PSO*7.0*467.

3.2 Resources

Deployment of Patch PSO*7.0*467 requires an up to date VistA environment running the Outpatient Pharmacy v.7.0 application, as well as designated IT support available to perform the patch installation.

3.2.1   Facility Specifics

There are no facility-specific deployment or installation features of patch PSO*7*467.

3.2.2   Hardware

Patch PSO*7.0*467 is being released to enhance VistA's Pharmacy Outpatient Pharmacy package. The patch allows the VA to receive prescriptions from external providers and allows the pharmacist to validate the prescription for final processing and dispensing in existing VistA functionality. It will be deployed to all VA pharmacy VistA sites nationwide.

It does not require additional hardware capabilities other than what is currently used by a VistA installation at the sites.

3.2.3   Software

The following table describes software specifications required at each site prior to deployment.

Table 2: Software Specifications

Required Software	Make	Version	Configuration	Manufacturer	Other
Outpatient Pharmacy		7.0	Standard	VHA	

Please see the Roles and Responsibilities table in Section 2 for details about who is responsible for preparing the site to meet these software specifications.

3.2.4 Communications

No notifications are required for deployment of patch PSO*7.0*467 other than the patch description released through Forum.

3.2.4.1 Deployment/Installation/Back-Out Checklist

Sites should fill out the table below indicating who performed an activity and when it was performed prior to installation.

Table 3: Deployment/Installation/Back-Out Checklist

Activity	Day	Time	Individual who completed task
Deploy -The Deploy activity is performed when the patch is sent to site(s) by the National Patch Module or Release Agent.			
Install - The Install activity is performed when the patch is installed at the site(s).			
Back-Out - The optional Back-Out activity is performed in the event the patch must be uninstalled, or removed, from the site(s).			

4 Installation

4.1 Pre-installation and System Requirements

Access to the National VA Network and to the local network of each site to receive patch PSO*7.0*467 is required to perform the installation, as well as the authority to install patches.

Knowledge of, and experience with, the Kernel Installation and Distribution System (KIDS) software is required. For more information, see Section V, Kernel Installation and Distribution System, in the Kernel 8.0 & Kernel Toolkit 7.3 Systems Management Guide.

Pre/Post Installation Overview: The user installing this patch must hold the XUMGR security key. This key is needed to ensure the creation of the application proxy user (PSOAPPLICATIONPROXY,PSO) completes properly.

Pre-Installation Instructions: This patch may be installed with users on the system, although it is recommended that it be installed outside normal business hours to minimize potential

disruption to users. Follow the below instructions to install PSO*7.0*467. No options need to be placed out of service. Installation time is expected to be less than five minutes.

4.2 Platform Installation and Preparation

Patch PSO*7.0*467 does not require any platform installation or preparation.

4.3 Download and Extract Files

Patch PSO*7.0*467 is being released as a FORUM Patch message, which will be sent to the G.PATCHES mail group.

Documentation describing the new functionality introduced by this patch is available. The preferred method is to retrieve files from download.vista.med.va.gov. This transmits the files from the first available server. Sites may also elect to retrieve files directly from a specific server.

Sites may retrieve the software and/or documentation directly using Secure File Transfer Protocol (SFTP) from the ANONYMOUS.SOFTWARE directory at the following OI Field Offices:

Hines: fo-hines.med.va.gov
Salt Lake City: fo-slc.med.va.gov

The documentation will be in the form of Adobe Acrobat files. Documentation can also be found on the VA Software Documentation Library at: http://www4.va.gov/vdl/

Title: Deployment, Installation, Back-Out, Rollback Guide PSO_7_0_467
File Name: PSO_7_0_P467_IG.pdf
FTP Mode: Binary

Title: Inbound ePrescribing (IEP) 2.0 / VistA Patch # PSO*7.0*467 User Guide
File Name: PSO_7_0_P467_UM.pdf
FTP Mode: Binary

Title: Inbound ePrescribing (IEP) 2.0 / VistA Patch # PSO*7.0*467 Release Notes
File Name: PSO_7_0_P467_RN.pdf
FTP Mode: Binary

Title: Outpatient Pharmacy (OP) PSO Technical Manual/Security Guide V7.0
File Name: PSO_7_0_TM.pdf
FTP Mode: Binary

Title: Inbound ePrescribing (IEP) 2.0 / VistA Patch # PSO*7.0*467 Implementation Guide
File Name: PSO_7_0_P467_IMG.pdf
FTP Mode: Binary

4.4 Database Creation

No new database is required for the patch PSO*7.0*467.

4.5 Installation Scripts

No installation scripts are required for installation of patch PSO*7.0*467.

4.6 Cron Scripts

No Cron scripts are required for installation of patch PSO*7.0*467.

4.7 Access Requirements and Skills Needed for the Installation

Access to the National VA Network and to the local network of each site to receive patch PSO*7.0*467 is required to perform the installation, as well as the authority to install patches.

Knowledge of, and experience with, the Kernel Installation and Distribution System (KIDS) software is required. For more information, see Section V, Kernel Installation and Distribution System, in the Kernel 8.0 & Kernel Toolkit 7.3 Systems Management Guide.

4.8 Installation Procedure

This patch may be installed with users on the system, although it is recommended that it be installed outside normal business hours to minimize potential disruption to users. Follow the below instructions to install PSO*7.0*467. No options need to be placed out of service. Installation time is expected to be less than five minutes.

1. Choose the PackMan message containing this patch.
2. Choose the INSTALL/CHECK MESSAGE PackMan option.
3. From the Kernel Installation and Distribution System Menu, select the Installation Menu. From this menu, you may elect to use the following options. When prompted for the INSTALL NAME enter the patch # (e.g., PSO*7.0*467):

   a. Backup a Transport Global - This option will create a backup message of any routines exported with this patch. It will not backup any other changes such as DDs or templates.

   b. Compare Transport Global to Current System - This option will allow you to view all changes that will be made when this patch is installed. It compares all components of this patch (e.g., routines, data dictionaries, templates, etc.).

   c. Verify Checksums in Transport Global - This option will allow you to ensure the integrity of the routines that are in the transport global.

4. From the Installation Menu, select the Install Package(s) option and choose the patch to install.
5. When prompted 'Want KIDS to Rebuild Menu Trees Upon Completion of Install? NO//', answer 'NO//.

6. When prompted 'Want KIDS to INHIBIT LOGONs during the install? NO//', answer 'NO//'.

7. When prompted 'Want to DISABLE Scheduled Options, Menu Options, and Protocols? NO//', answer 'NO//'.

4.9 Installation Verification Procedure

Local sites can verify the installed components by verifying routine checksums.

The checksums below are new checksums, and can be checked with CHECK1^XTSUMBLD.

```
Routine Name: PSO467PI
     Before:        n/a    After:   B851231   **467**
Routine Name: PSO467PO
     Before:        n/a    After: B15790041   **467**
Routine Name: PSOERX
     Before:        n/a    After: B62148150   **467**
Routine Name: PSOERX1
     Before:        n/a    After: B73483713   **467**
Routine Name: PSOERX1A
     Before:        n/a    After:B116223189   **467**
Routine Name: PSOERX1B
     Before:        n/a    After:B200406933   **467**
Routine Name: PSOERX1C
     Before:        n/a    After: B35864468   **467**
Routine Name: PSOERXA0
     Before:        n/a    After: B33077655   **467**
Routine Name: PSOERXA1
     Before:        n/a    After:B228588207   **467**
Routine Name: PSOERXA2
     Before:        n/a    After: B75232526   **467**
Routine Name: PSOERXA3
     Before:        n/a    After: B37438894   **467**
Routine Name: PSOERXA4
     Before:        n/a    After: B86435195   **467**
Routine Name: PSOERXD1
     Before:        n/a    After:B120565051   **467**
Routine Name: PSOERXD2
     Before:        n/a    After:B205678720   **467**
Routine Name: PSOERXH1
     Before:        n/a    After: B14280628   **467**
Routine Name: PSOERXO1
     Before:        n/a    After: B57309099   **467**
Routine Name: PSOERXP1
     Before:        n/a    After: B23837983   **467**
Routine Name: PSOERXR1
     Before:        n/a    After: B24483319   **467**
Routine Name: PSOERXU1
     Before:        n/a    After: B72865919   **467**
Routine Name: PSOERXX1
     Before:        n/a    After: B44864162   **467**
Routine Name: PSOERXX2
     Before:        n/a    After:B181162473   **467**
```

```
Routine Name: PSOERXX3
    Before:      n/a  After: B81556769  **467**
Routine Name: PSOERXX4
    Before:      n/a  After: B86144240  **467**
Routine Name: PSOERXX5
    Before:      n/a  After:B181218192  **467**
Routine Name: PSOORFI1
    Before: B79665537  After: B82061614  **7,15,23,27,32,44,51,46,71,
                                           90,108,131,152,186,210,222,258,
                                           260,225,391,408,444,467**

Routine Name: PSOORNE2
    Before:B107853949  After:B111459106  **11,21,23,27,32,37,46,84,103,
                                           117,131,146,156,210,148,222,
                                           238,264,281,289,251,379,391,
                                           313,282,427,454,446,467**
```

4.10 Post-Installation Procedure

There are additional steps to be completed prior to Implementation and Go-Live for Inbound eR$_X$. Please refer to Inbound ePrescribing (IEP) VistA PSO*7.0*467 / IEP Web-based GUI Version 2.0 Implementation Guide found in the Documentation Retrieval Instructions or on the Outpatient Pharmacy VA Software Document Library (VDL) when site is ready to complete final setup. The VDL URL is https://www.va.gov/vdl/application.asp?appid=90.

4.11 Database Tuning

No database tuning is required before or after deployment of PSO*7.0*467.

Note: Installation of PSO*7.0*467 is completed. The following procedure is to be followed only if PSO*7.0*467 needs to be backed out.

5 Back-Out Procedure

NOTE: Due to the complexity of this patch (because of the data dictionary changes), it is not recommended for back-out. However, in the event that a site decides to back-out this patch, the site should contact the NSD at 855-NSD-HELP (673-4357) and reference "Inbound eRx" to submit a CA SDM ticket; the development team will assist with the process.

The Back-out Procedure consists of restoring the routines and removing the Data Dictionaries (DD) introduced by the Patch PSO*7.0*467.

The rollback/backout procedure for these patches should only occur when there is concurrence from the Enterprise Product Support and Inbound ePrescribing development teams, because of the complexity and risk involved in a rollback/backout. Normal installation back-ups using KIDS will back up only Mumps routines. For all non-routine components of these builds, Enterprise Product Support will have a build available if needed. Make sure the 'Backup a Transport Global' step in section 4.8 of this document is followed, so you do have a backup of all the routines if needed.

The back-out is to be performed by persons with programmer-level access.

5.1 Back-Out Strategy

The Back-out Strategy is to manually delete the new Data Definitions (DDs) introduced with this patch.

The Back-out and Rollback plan for VistA applications is complex and not able to be a "one size fits all." The general strategy for VistA back-out and rollback is to repair the code with a follow-on patch. However, the backup of the transport global when created as part of the install will allow the routines to be converted to the prior patch state. For IEP, this is sufficient to restore the code to prior functionality.

The development team recommends that sites log a help desk ticket if it is a nationally released patch; otherwise, the site should contact the product development team directly for specific solutions to their unique problems.

5.2 Back-Out Considerations

The back-out should only be done in the event that the local facility management determines that the Patch PSO*7.0*467 is not appropriate for that facility, and should only be done as a last resort.

5.2.1 Load Testing

No load testing is required for patch PSO*7.0*467.

5.2.2 User Acceptance Testing

User Acceptance Testing (UAT) for IEP occurred from May 15 – May 19, 2017.

5.3 Back-Out Criteria

Local Facility Management would need to determine patch PSO*7.0*467 is not appropriate for their facility.

5.4 Back-Out Risks

By backing out PSO*7.0*467, the local facility will not be able to use the IEP functionality to validate and process Inbound ePrescriptions (eR$_x$) from external providers.

5.5 Authority for Back-Out

Local Facility Management has the authority to back-out patch PSO*7.0*467.

5.6 Back-Out Procedure

Due to the complexity of this patch, it is not recommended for back-out. However, in the event that a site decides to back-out this patch, the site should contact the National Service Desk (NSD) at 855-NSD-HELP (673-4357) and reference "Inbound eRx" to submit a CA SDM ticket; the development team will assist with the process.

6 Rollback Procedure

The rollback procedures for this patch are the same as the back-out procedures.

6.1 Rollback Considerations

Refer to the Back-Out Procedure section of this document.

6.2 Rollback Criteria

Refer to the Back-Out Procedure section of this document.

6.3 Rollback Risks

The risks of performing a rollback include the downtime of not validating and processing eR_xs received from external providers.

6.4 Authority for Rollback

The chief of Pharmacy Benefits Management (PBM) must provide the authority to roll back patch PSO*7.0*467.

6.5 Rollback Procedure

Refer to the Back-Out Procedure section of this document.