# Medical Care Collection Fund (MCCF) Electronic Data Interchange (EDI) Transaction Applications Suite (TAS) ePharmacy Build 7 & 8

**Electronic Claims Management Engine BPS\*1.0\*25**

# Deployment, Installation, Back-Out, and Rollback Guide

**Version 1.0**



### March 2019 Department of Veterans Affairs

**Office of Information and Technology (OI&T)**

**Revision History**

|  |  |  |  |
| --- | --- | --- | --- |
| **Date** | **Version** | **Description** | **Author** |
| March 2019 | 1.0 | Initial Version | REDACTED |

# Artifact Rationale

This document describes the Deployment, Installation, Back-out, and Rollback Plan for new products going into the VA Enterprise. The plan includes information about system support, issue tracking, escalation processes, and roles and responsibilities involved in all those activities. Its purpose is to provide clients, stakeholders, and support personnel with a smooth transition to the new product or software, and should be structured appropriately, to reflect particulars of these procedures at a single or at multiple locations.

Per the Veteran-focused Integrated Process (VIP) Guide, the Deployment, Installation, Back-out, and Rollback Plan is required to be completed prior to Critical Decision Point #2 (CD #2), with the expectation that it will be updated throughout the lifecycle of the project for each build, as needed.

**Table of Contents**

1. [Introduction 1](#_bookmark0)
	1. [Purpose 1](#_bookmark1)
	2. [Dependencies 1](#_bookmark2)
	3. [Constraints 1](#_bookmark3)

[This patch is intended for a fully patched VistA system 1](#_bookmark4)

1. [Roles and Responsibilities 1](#_bookmark5)
2. [Deployment 2](#_bookmark7)
	1. [Timeline 2](#_bookmark8)
	2. [Site Readiness Assessment 2](#_bookmark9)
		1. [Deployment Topology (Targeted Architecture) 2](#_bookmark10)
		2. [Site Information (Locations, Deployment Recipients) 3](#_bookmark11)
		3. [Site Preparation 3](#_bookmark12)
	3. [Resources 3](#_bookmark14)
		1. [Facility Specifics 3](#_bookmark15)
		2. [Hardware 3](#_bookmark17)
		3. [Software 3](#_bookmark19)
		4. [Communications 4](#_bookmark21)
			1. [Deployment/Installation/Back-Out Checklist 4](#_bookmark22)
3. [Installation 4](#_bookmark24)
	1. [Pre-installation and System Requirements 4](#_bookmark25)
	2. [Platform Installation and Preparation 5](#_bookmark26)
	3. [Download and Extract Files 5](#_bookmark27)
	4. [Database Creation 5](#_bookmark28)
	5. [Installation Scripts 5](#_bookmark29)
	6. [Cron Scripts 5](#_bookmark30)
	7. [Access Requirements and Skills Needed for the Installation 5](#_bookmark31)
	8. [Installation Procedure 5](#_bookmark32)
	9. [Installation Verification Procedure 5](#_bookmark33)
	10. [System Configuration 5](#_bookmark34)
	11. [Database Tuning 6](#_bookmark35)
4. [Back-Out Procedure 6](#_bookmark36)
	1. [Back-Out Strategy 6](#_bookmark37)
		1. [Mirror Testing or Site Production Testing 6](#_bookmark38)
		2. [After National Release but During the Designated Support Period 6](#_bookmark39)
		3. [After National Release and Warranty Period 6](#_bookmark40)
	2. [Back-Out Considerations 6](#_bookmark41)
		1. [Load Testing 6](#_bookmark42)
		2. [User Acceptance Testing 6](#_bookmark43)
	3. [Back-Out Criteria 7](#_bookmark44)
	4. [Back-Out Risks 7](#_bookmark45)
	5. [Authority for Back-Out 7](#_bookmark46)
	6. [Back-Out Procedure 7](#_bookmark47)
	7. [Back-out Verification Procedure 8](#_bookmark48)
5. [Rollback Procedure 8](#_bookmark49)
	1. [Rollback Considerations 8](#_bookmark50)
	2. [Rollback Criteria 8](#_bookmark51)
	3. [Rollback Risks 8](#_bookmark52)
	4. [Authority for Rollback 8](#_bookmark53)
	5. [Rollback Procedure 8](#_bookmark54)
	6. [Rollback Verification Procedure 8](#_bookmark55)

# Table of Tables

[Table 1: Deployment, Installation, Back-out, and Rollback Roles and Responsibilities 1](#_bookmark6)

[Table 2: Site Preparation 3](#_bookmark13)

[Table 3: Facility-Specific Features 3](#_bookmark16)

[Table 4: Hardware Specifications 3](#_bookmark18)

[Table 5: Software Specifications 3](#_bookmark20)

[Table 6: Deployment/Installation/Back-Out Checklist 4](#_bookmark23)

# Introduction

This document describes how to deploy and install patch BPS\*1.0\*25 and how to back-out the product and rollback to a previous version or data set.

## Purpose

The purpose of this plan is to provide a single, common document that describes how, when, where, and to whom patch BPS\*1.0\*25 will be deployed and installed, as well as how it is to be backed out and rolled back, if necessary. The plan identifies resources, communications plan, and rollout schedule. Specific instructions for installation, back-out, and rollback are included in this document.

## Dependencies

BPS\*1.0\*24 must be installed BEFORE BPS\*1.0\*25.

## Constraints

This patch is intended for a fully patched VistA system.

# Roles and Responsibilities

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **ID** | **Team** | **Phase / Role** | **Tasks** | **Project Phase (See Schedule)** |
| 1 | VA OI&T, VA OI&THealth Product Support, and PMO (Leidos) | Deployment | Plan and schedule deployment (including orchestration with vendors) | Planning |
| 2 | Local VAMC and CPAC processes | Deployment | Determine and document the roles and responsibilities of those involved in the deployment. | Planning |
| 3 | Field Testing (Initial Operating Capability - IOC), Health Product Support Testing & VIP Release Agent Approval | Deployment | Test for operational readiness | Testing |
| 4 | Health product Support and Field Operations | Deployment | Execute deployment | Deployment |
| 5 | Individual Veterans Administration Medical Centers (VAMCs) | Installation | Plan and schedule installation | Deployment |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **ID** | **Team** | **Phase / Role** | **Tasks** | **Project Phase (See Schedule)** |
| 6 | VIP Release Agent | Installation | Ensure authority to operate and that certificate authority security documentation is in place | Deployment |
| 7 |  | Installation | Validate through facility POC to ensure that IT equipment has been accepted using asset inventory processes | N/A; only existing VistA system will be used |
| 8 | VA’s eBusiness team | Installations | Coordinate training | Deployment |
| 9 | VIP release Agent, Health Product Support & the development team | Back-out | Confirm availability of back-out instructions and back-out strategy (what are the criteria that trigger a back-out) | Deployment |
| 10 | VA OI&T, VA OI&THealth Product Support, and MCCF EDI TASDevelopment Team (Halfaker) | Post Deployment | Hardware, Software and System Support | Warranty |

# Deployment

The deployment is planned as a national rollout.

This section provides the schedule and milestones for the deployment.

## Timeline

The duration of deployment and installation is 30 days, as depicted in the master deployment schedule1.

## Site Readiness Assessment

This section discusses the locations that will receive the deployment of patch BPS\*1.0\*25.

### Deployment Topology (Targeted Architecture)

This BPS\*1.0\*25 patch is to be nationally released to all VAMCs.

1 Project schedule (right click and select open hyperlink to access) REDACTED

### Site Information (Locations, Deployment Recipients)

The IOC sites are:

* + - * Lexington
			* Richmond

Upon national release all VAMCs are expected to install this patch prior to or on the compliance date.

### Site Preparation

The following table describes preparation required by the site prior to deployment.

**Table 2: Site Preparation**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Site/Other** | **Problem/Change Needed** | **Features to Adapt/Modify to New Product** | **Actions/Steps** | **Owner** |
| N/A | N/A | N/A | N/A | N/A |

## Resources

### Facility Specifics

The following table lists facility-specific features required for deployment.

**Table 3: Facility-Specific Features**

|  |  |  |  |
| --- | --- | --- | --- |
| **Site** | **Space/Room** | **Features Needed** | **Other** |
| N/A | N/A | N/A | N/A |

### Hardware

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

**Table 4: Hardware Specifications**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Required Hardware** | **Model** | **Version** | **Configuration** | **Manufacturer** | **Other** |
| Existing VistA system | N/A | N/A | N/A | N/A | N/A |

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

### Software

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

**Table 5: Software Specifications**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Required Software** | **Make** | **Version** | **Configuration** | **Manufacturer** | **Other** |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Required Software** | **Make** | **Version** | **Configuration** | **Manufacturer** | **Other** |
| Fully patched Electronic Claims Management Engine package within VistA | N/A | 1.0 | N/A | N/A | N/A |

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

### Communications

The sites that are participating in field testing (IOC) will use the “Patch Tracking” message in Outlook to communicate with the ePharmacy eBusiness team, the developers, and product support personnel.

#### Deployment/Installation/Back-Out Checklist

The Release Management team will deploy patch BPS\*1.0\*25, which is tracked nationally for all VAMCs in the National Patch Module (NPM) in Forum. Forum automatically tracks the patches as they are installed in the different VAMC production systems. One can run a report in Forum to identify when and by whom the patch was installed into the VistA production at each site. A report can also be run to identify which sites have not currently installed the patch into their VistA production system. Therefore, this information does not need to be manually tracked in the chart below.

**Table 6: Deployment/Installation/Back-Out Checklist**

|  |  |  |  |
| --- | --- | --- | --- |
| **Activity** | **Day** | **Time** | **Individual who completed task** |
| Deploy | N/A | N/A | N/A |
| Install | N/A | N/A | N/A |

# Installation

## Pre-installation and System Requirements

BPS\*1.0\*25 is installable on a fully patched M(UMPS) VistA system and operates on the top of the VistA environment provided by the VistA infrastructure packages. The latter provides utilities which communicate with the underlying operating system and hardware, thereby providing each VistA package independence from variations in hardware and operating system.

## Platform Installation and Preparation

Refer to the BPS\*1.0\*25 documentation on the NPM in Forum for the detailed installation instructions. These instructions include any pre-installation steps if applicable.

## Download and Extract Files

Refer to the BPS\*1.0\*25 documentation on the NPM to find related documentation that can be downloaded. The patch, including the patch description, will be transmitted as a MailMan message from the NPM. This message can also be pulled from the NPM.

## Database Creation

BPS\*1.0\*25 modifies the VistA database. All changes can be found on the NPM documentation for this patch.

## Installation Scripts

No installation scripts are needed for BPS\*1.0\*25 installation.

## Cron Scripts

No Cron scripts are needed for BPS\*1.0\*25 installation.

## Access Requirements and Skills Needed for the Installation

Staff performing the installation of this patch may need access to FORUM’s NPM to view the patch description. The software is to be installed by each site’s or region’s designated VA OI&T IT OPERATIONS SERVICE, Enterprise Service Lines, Vista Applications Division2.

## Installation Procedure

Detailed instructions for installing this patch can be found on the patch description for BPS\*1.0\*25, which can be found on the NPM.

## Installation Verification Procedure

Refer to the BPS\*1.0\*25 documentation on the NPM for detailed installation instructions. These instructions include any post installation steps if applicable.

## System Configuration

No system configuration changes are required for this patch.

2 “Enterprise service lines, VAD” for short. Formerly known as the IRM (Information Resources Management) or IT support.

## Database Tuning

No reconfiguration of the VistA database, memory allocations or other resources is necessary.

# Back-Out Procedure

Back-Out pertains to a return to the last known good operational state of the software and appropriate platform settings.

## Back-Out Strategy

A decision to back out could be made during Site Mirror Testing, during Site Production Testing, or after National Release to the field (VAMCs). The best strategy decision is dependent on the stage during which the decision is made.

### Mirror Testing or Site Production Testing

If a decision to back out is made during Mirror Testing or Site Production Testing, a new version of the patch can be used to restore the build components to their pre-patch condition.

### After National Release but During the Designated Support Period

If a decision to back out is made after national release and within the designated support period, a new patch will be entered into the NPM in Forum and will go through all the necessary milestone reviews, etc., as a patch for a patch. This patch could be defined as an emergency patch, and it could be used to address specific issues pertaining to the original patch or it could be used to restore the build components to their original pre-patch condition.

### After National Release and Warranty Period

After the support period, the VistA Maintenance Program will produce the new patch, either to correct the defective components or restore the build components to their original pre-patch condition.

## Back-Out Considerations

Changes implemented with patch BPS\*1.0\*25 can be backed out in their entirety or on an enhancement-by-enhancement basis. Either could be accomplished via a new version of patch BPS\*1.0\*25 if before national release or a new patch if after national release.

### Load Testing

N/A. The back-out process will be executed at normal rather than raised job priority and is expected to have no significant effect on total system performance. After the reversion, the performance demands on the system will be unchanged.

### User Acceptance Testing

Below are the acceptance criteria for the story included in BPS\*1.0\*25.

US4239

* + - * New codes have been added to the correct file, per the SDD.
			* Revised codes have been renamed, per the SDD.
			* New and renamed reject codes can be:
				+ Selected in the testing tool
				+ Received in a claim response and stored in VistA with the claim response
				+ Displayed on the ECME User screen and the Pharmacists’ Worklist, Third Party Payer View Process and Reject Notifications screens
				+ Displayed on the Rejected Claims Report and Closed Claims Report
				+ Displayed on the LOG Print Claim Log (ECME User Screen)

## Back-Out Criteria

It may be decided to back out this patch if the project is canceled, the requested changes implemented by patch BPS\*1.0\*25 are no longer desired by VA OI&T and the ePharmacy eBusiness team, or the patch produces catastrophic problems.

## Back-Out Risks

Since the ePharmacy software is tightly integrated with external systems, any attempt at a back- out should include close consultation with the external trading partners such as the Financial Services Center (FSC) and the Health Care Clearing House (HCCH) to determine risk.

## Authority for Back-Out

Any back-out decision should be a joint decision of the Business Owner (or his/her representative) and the Program Manager with input from the Health Product Support (HPS) Application Coordinator, developers (both project and Tier 3 HPS), and if appropriate, external trading partners such as the VA Financial Service Center (FSC), Change Healthcare, or Transunion (the HCCH).

## Back-Out Procedure

The back-out plan for VistA applications is complex and not a “one size fits all” solution. The general strategy for a VistA back-out is to repair the code with a follow-up patch. The development team recommends that sites log a ticket if it is a nationally released patch.

Back-Out Procedure prior to National Release

If it is prior to national release, the site will be already working directly with the development team daily and should contact that team. The development team members will have been identified in the Initial Operating Capability (IOC) Memorandum of Understanding (MOU). As discussed in section 5.2, it is likely that development team can quickly address via a new software version. If the site is unsure who to contact, they may log a ticket or contact Health Product Support - Management Systems Team.

Patch BPS\*1.0\*25 contains the following build components:

* + - Routine
		- File entries in multiple files

While the installation procedure allows the installer to back up the modified routines using the ‘Backup a Transport Global’ action, the back-out procedure for global, data dictionary and other VistA components is more complex and requires issuance of a follow-up patch to ensure all components are properly removed and/or restored. All software components (routines and other items) must be restored to their previous state at the same time and in conjunction with the restoration of the data.

Please contact the EPMO team for assistance since this installed patch contains components in addition to routines.

## Back-out Verification Procedure

Successful back-out is confirmed by verification that the back-out patch was successfully implemented. This includes successful installation and testing that the back-out acted as expected, as defined together with the team the site contacted in section 5.5.

# Rollback Procedure

Rollback pertains to data. The data changes in this patch are specific to the operational software and platform settings. These data changes are covered in the Back-out procedures detailed elsewhere in this document.

## Rollback Considerations

Not applicable.

## Rollback Criteria

Not applicable.

## Rollback Risks

Not applicable.

## Authority for Rollback

Not applicable.

## Rollback Procedure

Not applicable.

## Rollback Verification Procedure

Not applicable.

### Template Revision History

|  |  |  |  |
| --- | --- | --- | --- |
| **Date** | **Version** | **Description** | **Author** |
| March 2016 | 2.2 | Changed the title from Installation, Back- Out, and Rollback Guide to Deployment and Installation Guide, with the understanding that Back-Out and Rollback belong with Installation. | VIP Team |
| February 2016 | 2.1 | Changed title from Installation, Back-Out, and Rollback Plan to Installation, Back- Out, and Rollback Guide as recommended by OI&T Documentation Standards Committee | OI&T Documentation Standards Committee |
| December 2015 | 2.0 | The OI&T Documentation Standards Committee merged the existing *“Installation, Back-Out, Rollback Plan”* template with the content requirements in the OI&T End-user Documentation Standards for a more comprehensive Installation Plan. | OI&T Documentation Standards Committee |
| February 2015 | 1.0 | Initial Draft | Lifecycle and Release Management |