

# **Pharmacy Product System – National (PPS-N)**

**PPS-N Java version 3.1**

## **Deployment, Installation, Back-Out, and Rollback Guide (DIBR)**



**Version 3.1**

**Revised December 2020**

**Department of Veterans Affairs (VA)**

**Office of Information and Technology (OIT)**

## Revision History

Date	Version	Description	Author
December 2020	4.0	PREN-3.1-3: <ul style="list-style-type: none"> <li>• Updated installation instructions for PPS-N v3.1</li> <li>• Formatted Title Page</li> <li>• Pulled the revision history from the end of the document to incorporate it here</li> <li>• Updated the Footers</li> <li>• Updated version references</li> </ul>	Liberty ITS
December 2018	3.0	Updated version number, date and Installation instructions for the PPS-N v3.0.4 Sustainment Release (PREN*3.0*5).	HPS Sustainment
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 “ <i>Installation, Back-Out, Rollback Plan</i> ” 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

## Artifact Rationale

This document describes the Deployment, Installation, Back-out, and Rollback Plan for the PPS-N Java portion of the PPS-N v3.1 release. This is a subdocument of the main *Pharmacy Product System (PPS)-N Deployment, Installation, Back-Out, and Rollback Guide*. It is separate since many of the details of PPS-N Java application deployment involve a different set of personnel coordinating at just a few critical collaboration points with the VistA/MUMPS portion. Those collaboration points will be highlighted and cross-referenced in the main document as well as in this document.

# Table of Contents

<b>1</b>	<b>Introduction .....</b>	<b>1</b>
1.1	Purpose.....	1
1.2	Dependencies .....	1
1.3	Constraints .....	1
<b>2</b>	<b>Roles and Responsibilities .....</b>	<b>2</b>
<b>3</b>	<b>Deployment.....</b>	<b>3</b>
3.1	Timeline .....	3
3.2	Site Readiness Assessment .....	3
3.2.1	Deployment Topology (Targeted Architecture).....	3
3.2.2	Site Information (Locations, Deployment Recipients) .....	3
3.2.3	Site Preparation .....	3
3.3	Resources .....	4
3.3.1	Facility Specifics .....	4
3.3.2	Hardware.....	4
3.3.3	Software.....	4
3.3.4	Communications .....	5
3.3.4.1	Deployment/Installation/Back-Out Checklist.....	5
<b>4</b>	<b>Installation .....</b>	<b>6</b>
4.1	Pre-installation and System Requirements .....	6
4.2	Platform Installation and Preparation .....	6
4.3	Download and Extract Files.....	6
4.4	Database Creation .....	6
4.5	Installation Scripts .....	6
4.6	Cron Scripts .....	6
4.7	Access Requirements and Skills Needed for the Installation .....	6
4.8	Installation Procedure .....	6
4.9	Installation Verification Procedure .....	7
4.10	System Configuration.....	7
4.10.1	Properties Files .....	7
4.10.2	Import VA Certificates .....	7
4.11	Database Tuning .....	7
<b>5</b>	<b>Back-Out Procedure.....</b>	<b>8</b>
5.1	Back-Out Strategy .....	8
5.2	Back-Out Considerations.....	8
5.2.1	Load Testing .....	8
5.2.2	User Acceptance Testing .....	8

5.3	Back-Out Criteria .....	8
5.4	Back-Out Risks .....	8
5.5	Authority for Back-Out .....	8
5.6	Back-Out Procedure .....	8
5.7	Back-out Verification Procedure.....	8
6	Rollback Procedure.....	9

# 1 Introduction

This document describes how to deploy and install the PPS-N Java Application, including the WebLogic, Oracle, and SSOi configurations for the Pharmacy Product System (PPS) PPS-N v3.1.

## 1.1 Purpose

The purpose of this document is to describe how to deploy and install the PPS-N Java Application, including the WebLogic, Oracle, and SSOi configurations.

## 1.2 Dependencies

The following pre-existing PPS-N v3.0.4 interfacing systems must be available during the deployment.

- SSOi
- ISAAC
- STS/VETS

## 1.3 Constraints

There are no constraints for the PPS-N v3.1 release.

## 2 Roles and Responsibilities

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

ID	Team	Phase / Role	Tasks	Project Phase (See Schedule)
	AITC	Deployment	Plan and schedule deployment (including orchestration with vendors)	
	AITC	Deployment	Determine and document the roles and responsibilities of those involved in the deployment.	
	AITC	Deployment	Test for operational readiness	
	AITC	Deployment	Execute deployment	
	PPS-N Sustainment Team	Back-out	Confirm availability of back-out instructions and back-out strategy (what are the criteria that trigger a back-out)	
	Product Support	Post Deployment	Hardware, Software and System Support	

### 3 Deployment

This section provides the schedule and milestones for the deployment.

#### 3.1 Timeline

The PPS-N v3.1 Java Application will be nationally deployed at AITC after IOC testing and National Release approval.

#### 3.2 Site Readiness Assessment

The PPS-N Java Application is a single, nationally deployed web application deployed in the AITC.

##### 3.2.1 Deployment Topology (Targeted Architecture)

The PPS-N Java Application and Database will be installed on the existing PPS-N v3.0.4 production platform.

##### 3.2.2 Site Information (Locations, Deployment Recipients)

Section 3.2 describes the PPS-N Java Application, and it is a nationally deployed web application deployed in the AITC.

##### 3.2.3 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
AITC	Ensure Firewall access between PPS-N and ISAAC		If connectivity is not open between the PPS-N web application server and the ISAAC server, request that the firewall be opened for this connection	

Site/Other	Problem/Change Needed	Features to Adapt/Modify to New Product	Actions/Steps	Owner
AITC	Ensure Firewall access between PPS-N and STS/VETS		If connectivity is not open between the PPS-N web application server and the STS/VETS server, request that the firewall be opened for this connection	

### 3.3 Resources

The pre-existing PPS-N v3.0.4 environment resources will be used.

#### 3.3.1 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			

#### 3.3.2 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
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.

#### 3.3.3 Software

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

**Table 5: Software Specifications**

Required Software	Version	Configuration
Oracle WebLogic	12.1.3	Pre-existing
Oracle 11g Enterprise Edition Release	11.2.0.2.0	Pre-existing



Required Software	Version	Configuration
Apache httpd	Apache/2.2.15 (Unix)	Pre-existing
Red Hat Enterprise Linux Server	6.9 (Santiago)	Pre-existing
Java SDK	1.8_162 or higher	Pre-existing

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.

### 3.3.4 Communications

- Notify business owner of production deployment
- The Release Manager will schedule activities and identify the required personnel for each activity.
- Meetings will be scheduled for deployment personnel to work through the deployment steps.

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

Table 6: Deployment/Installation/Back-Out Checklist

Activity	Day	Time	Individual who completed task
Deploy			
Install			
Back-Out			

## **4 Installation**

### **4.1 Pre-installation and System Requirements**

The PPS-N Java Application and Database will be installed on the existing PPS-N v3.0.4 production platform.

### **4.2 Platform Installation and Preparation**

The pre-existing PPS-N v3.0.4 platform will be used.

### **4.3 Download and Extract Files**

See Section 4.5, specific filenames will be detailed in the RFC.

### **4.4 Database Creation**

The pre-existing PPS-N v3.0.4 database will be used.

### **4.5 Installation Scripts**

All required scripts and files are provided to the IO team for deployment at AITC. The installer should follow the instructions in the appropriate RFC documents for the target environment.

### **4.6 Cron Scripts**

No Cron job changes are required for this deployment.

### **4.7 Access Requirements and Skills Needed for the Installation**

Linux System Administrator will need:

- Access to the Linux console of the server where PPS-N's WebLogic is running
- Access to the WebLogic web-based Console
- Access to the location indicated in section 4.5 Installation Scripts

Database Administrator will need:

- Access to the Linux console of the server where PPS-N's Oracle Database is running
- Access to the location indicated in section 4.5 Installation Scripts

### **4.8 Installation Procedure**

This section is a high-level overview of the installation procedure steps. Detailed steps are in the RFCs for the Database and Application deployment, and they will be published at the locations in Section 4.5.

1. Stop the Managed Server
2. Un-deploy the two EAR files for PPS-N v3.0.4 Application

3. Deploy the two new EAR files for PPS-N v3.1 Application
4. Start the PPS-N Application
5. Perform Smoke Test on PPS-N

## **4.9 Installation Verification Procedure**

After deployment is updated, PPS-N will be smoke tested.

The system administrator will check application logs for the absence of errors.

## **4.10 System Configuration**

### **4.10.1 Properties Files**

No property file changes are required for this deployment. The pre-existing PPS-N v3.0.4 property files will be used.

### **4.10.2 Import VA Certificates**

No certificate changes are required for this deployment. The pre-existing PPS-N v3.0.4 VA certificates will be used.

## **4.11 Database Tuning**

After installation, the AITC DBA should monitor Oracle Enterprise Manager/Cloud Control to note any performance problems.

## **5 Back-Out Procedure**

### **5.1 Back-Out Strategy**

The back-out strategy for the PPS-N Java application is to restore the previous PPS-N v3.0.4 EAR file.

### **5.2 Back-Out Considerations**

#### **5.2.1 Load Testing**

N/A

#### **5.2.2 User Acceptance Testing**

User Acceptance Testing is performed at test sites during IOC Testing.

### **5.3 Back-Out Criteria**

A back-out should only be considered if it is determined that the PPS-N v3.1 application is the cause of a patient safety issue or catastrophic system failure.

### **5.4 Back-Out Risks**

Risks of backing out include not reconfiguring the application in the same manner it was before the start of the implementation. This can be remediated by taking backups of the appropriate file systems and database before the start of the deployment.

### **5.5 Authority for Back-Out**

The PPS-N Sustainment PM has the authority to determine if a back-out of PPS-N v3.1 is required.

### **5.6 Back-Out Procedure**

Deploy the previous PPS-N 3.0.4 application EAR file in WebLogic.

### **5.7 Back-out Verification Procedure**

A smoke test will be performed to determine that the application is working properly.

## 6 Rollback Procedure

See Section 5, **Back-Out Procedure**, for rollback procedures.