VistA Scheduling Enhancements (VSE)

Deployment, Installation, Backout, and Rollback (DIBR) Guide

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Revision History

Date	Version	Description	Author
10/31/2019	6.4	Updates for VSE GUI Release 1.6	AbleVets
12/18/2018	6.3	Updated with new versioning	AbleVets
09/12/2018	6.2	Updated with new patch description	AbleVets
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05/10/2018	6.0	Updates for Release 1.6	AbleVets
05/08/2018	5.1	Response to review comments	AbleVets
02/08/2018	5.0	Updates for Release 1.5	AbleVets
12/01/2017	4.0	Updates for Release 1.4	VSE Team
11/01/2017	3.0	Updates for Release 1.3.2	VSE Team
06/01/2017	2.0	Updates for Release 1.3.1	VSE PMO
01/03/2017	1.0	Initial Baseline	VSE PM/PMO

CLIN Satisfaction Statement

Artifact Rationale

This document describes the deployment, installation, backout, 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, backout, and rollback plan is required to be completed prior to Critical Decision Point #2 (CD2), with the expectation that it will be updated throughout the lifecycle of the project for each build, as needed.

Table of Contents

Table of Figures

Table of Tables

1.   Introduction

This Deployment, Installation, Backout, and Rollback Guide describes how to deploy, install, back out and roll back Release 1.6 of the Veterans Health Information System and Technology Architecture (VistA) Scheduling (VS) Graphical User Interface (GUI) and associated patches.

1.1.   Purpose

The purpose of this plan is to provide a single, common document that describes how, when, where, and to whom the VistA VS GUI Release 1.6 will be deployed and installed, as well as how it is to be backed out and rolled back, if necessary.

1.2.   Dependencies

Table 1 details the VistA Patch dependency for VS GUI Release 1.6.

Table 1: Dependencies

Patch	Application	Purpose/Need
SD*5.3*686	VS GUI	Install prior to deploying the GUI update
SD*5.3*690	VS GUI	Informational patch for Release 1.6 and Patch SD*5.3*686

1.3.   Constraints

VS GUI Release 1.6 is a local installation executable designed to run on Windows platforms. It functions by connecting to a single VistA instance. Installers must have Administrative privileges for the appropriate location for installation.

Depending upon which user model a site uses, possible installation locations for VSE GUI Release 1.6 are:

1.   The local desktop
2.   The CAG desktop
3.   The GoldStar Virtual Machine

There are no additional security or access requirements for installation to a Windows Environment.

2.   Roles and Responsibilities

Deployment and installation activities are performed by representatives from the teams listed in Table 2.

Table 2: DIBR Roles and Responsibilities

Team	Phase/Role	Tasks
VSE Project Manager (PM)	Deployment	Plan and schedule deployment (including orchestration with vendors)

Team	Phase/Role	Tasks
Test Sites	Production Testing	Test for operational readiness and provide concurrence
Team AbleVets Release Manager	Deployment	Ensure the collection of all VIP artifacts required for deployment
VSE Implementation Manager (IM)	Deployment	Confirm project is ready for national release
Facility OIT Staff	Installation	Each facility will install the associated patches that pair with the VS GUI. In some instances, they may install the VS GUI on users' Desktops as well
Enterprise Services Engineering (ESE) and Desktop Device Engineering Client Services Group	Installation	Prepare the Systems Center Configuration Manager (SCCM) package for VS GUI installation
Office of Veteran Access to Care (OVAC)	Installation	Coordinate training

3. Deployment

Deployment of VS GUI Release 1.6 and the associated patch(es) are planned as a National release rollout. The GUI installation package is deployed via the SCCM process, and the associated VistA patch(es) for Legacy VistA via FORUM. Load time will vary by location, ranging from minutes to a few hours. Information Technology Operations and Service (ITOPS) provides deployment support to the local sites.

The VSE schedule with milestones for the deployment can be found on the VSE PMO SharePoint site.[1]

3.1. Timeline

The deployment and installation plan is for the sites to request deployment of the new GUI and associated patches and coordinate with the Regional Enterprise Service Line (ESL) team and the SCCM Deployment team.

The deployment and installation are scheduled to run for approximately 4 weeks, as detailed in the project schedule. The GUI update and associated patch(es) should be installed in the PreProduction environment first. Once the sites have successfully installed and deployed the software in their PreProduction environments and user desktops, sites should begin installing the software in its Production environment.

3.2. Site Readiness Assessment

All field locations will receive the GUI installation package via the SCCM process, and the associated VS patch(es) from FORUM.

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[1] Access to the VSE PMO SharePoint site is restricted and must be requested.

3.2.1. Deployment Topology (Targeted Architecture)

The package for VS GUI Release 1.6 consists of both VistA M code and Windows workstation .msi installation files.

The installation .msi is the deployment package used to install the Windows executable, which becomes the graphical front end of the Legacy VS application, and is automatically installed via SCCM on each end user's workstation. The distribution of access to the executable is the responsibility of OIT leadership at the VistA parent facility. It is strongly recommended that the executable be physically installed on each workstation to prevent errors arising from launching the application from an executable on a shared location.

3.2.2. Site Information (Locations, Deployment Recipients)

Site information, such as the Internet Protocol (IP) address, port number, and namespace of the Production environment, will differ at each VistA instance. Local site OIT personnel, working with local scheduling representatives, will determine the recipients of the VS GUI software. The expectation is that the VS GUI software will be deployed on all scheduling representatives' computers at each facility.

3.2.3. Site Preparation

The VS GUI Release 1.6 Release Notes and SD*5.3*689 Patch Description include a list of required patches and a summary of the installation order, and will prepare each site for installation.

Patches are released on the same day and in the installation order stated in the Release Notes. Additionally, a list of prerequisites is provided in the SD*5.3*690 informational patch, which will be distributed to site staff prior to the deployment date. The Release Notes document will be posted on the VA Software Document Library (VDL).

Prerequisites for the VS GUI Release 1.6 installation are listed in the VS GUI v1.6 Release Notes, and will be distributed to appropriate site staff prior to the deployment date.

3.3. Resources

There will be a daily Initial Operating Capacity (IOC) call set up for sites encountering installation/deployment issues. If a site experiences issues during deployment, a ServiceNow ticket must be submitted to the work group **VSE GUI T3**. Once submitted, Team AbleVets is alerted, and will then be able to provide targeted troubleshooting support during the daily IOC call.

3.3.1. Hardware

There are no required changes to hardware for the VS GUI to function at each site.

3.3.2. Software

The VS GUI application has a dependency on Microsoft's (MS) .NET Framework version 4.0. Each workstation running the application must have version 4.0 or higher to run the VS GUI application.

3.3.3. Communications

The primary objective of the communication plan is to ensure timely dissemination of information across the Integrated Project Team (IPT) and stakeholders. Communication ensures schedules are aligned and project milestones are met.

Project milestones are shared with VA executives and external organizations. The goal is to notify the right audience at the right time, using the appropriate communication method(s).

Table 3 identifies key communication items, a description of each, the initiator/owner of each item, the intended audience, and the method(s) used to disseminate information.

Table 3: Key Communication Items

Key Communication	Goal/Description	Initiator/Owner	Audience	Communication Method(s)
Installation instructions and support	Provide site requirements, instructions and installation support	Team AbleVets VHA Developers	IT/Operation site managers	VA Pulse, daily deployment call, IOC e-mail group
Deployment schedule	Identify key dates and milestones by site	OVAC	IPT and stakeholders	Bi-weekly updates to the project schedule, daily deployment call
Training	Communicate status of training development, who is being trained, and when	OVAC	IPT and stakeholders	VA Pulse, daily deployment call, deployment schedule

3.3.3.1. Deployment/Installation/Backout/Rollback Checklist

Table 4 details the DIBR checklist items.

Table 4: Deployment, Installation, Backout, and Rollback Checklist

Activity	Day	Time	Individual who completed task
Deploy	TBD	< 5 minutes	VSE PM
Install	TBD	< 5 minutes	Facility OIT Staff
Backout	TBD	< 5 minutes	Facility OIT Staff
Rollback	TBD	< 5 minutes	Facility OIT Staff

4. Installation

The following subsections provide installation details.

4.1.   Pre-installation and System Requirements

Installation of VS GUI Release 1.6 does not affect the hardware or software required for VS GUI to function at each site; therefore, there are no system requirements.

The following pre-installation conditions must be met prior to the deployment of VSE Release 1.6:

- All facilities deploying the updated VS GUI release have a fully-patched VistA account
- Patch(es) associated with the updated VS GUI release are installed by the compliance date
- ESE has provided the SCCM package needed for the updated VS GUI release
- OVAC has provided a training plan prior to the deployment date
- The target workstations must have MS .NET Framework 4.0, or higher, installed

4.2.   Platform Installation and Preparation

There are no required changes to hardware or software for the updated VS GUI to function at each site.

4.3.   Download and Extract Files

The procedures for downloading and extracting files for the installation of the updated VS GUI are unchanged from earlier releases.

Once the VS GUI .msi installation package has been downloaded and a workstation or VM has been targeted for installation, the .msi is launched by double-clicking the file and following the installation wizard. The installation wizard will prompt the installer for the target VistA host/IP, port, and namespace.

4.4.   Database (DB) Creation

Not applicable to the installation of the updated VS GUI.

4.5.   Installation Scripts

There are no installation scripts. Follow the instructions found in SD*5.3*690 informational patch, the SD*5.3*689 Patch Description, and the Release 1.6 Release Notes.

4.6.   Cron Scripts

Not applicable to the installation of the updated VS GUI.

4.7.   Access Requirements and Skills Needed for the Installation

The installer must have the authority and access to install VistA patches and GUI software. The installer must have Administrative access to the target workstation to run the .msi installation package, at a minimum.

4.8. Installation Procedures

Follow the instructions found in SD*5.3*690 informational patch, the SD*5.3*689 Patch Description, and the Release 1.6 Release Notes.

4.9. Installation Verification Procedures

Verify the installation of the updated VS GUI by:

1. Ensuring that users can access the system
2. Confirming that users can access the newly-installed software
3. Verifying that the application works as expected

4.10. System Configuration

There are no system configuration changes needed.

4.11. DB Tuning

Not applicable to the installation of the updated VS GUI.

5.   Backout Procedures

Installers with Administrative access can back out the installation process manually by following these steps:

1. Click Control Panel
2. Click Programs
3. Click the Uninstall Program link
4. Find VistA Scheduling GUI
5. Right-click VistA Scheduling GUI
6. Select Uninstall

Schedulers who have the VS GUI application installed on their desktops and want it removed should follow the software removal procedures set by their local facility. This may include submitting a ticket to the Enterprise Service Desk (ESD).

5.1. Backout Strategy

The backout strategy is to uninstall the currently deployed VS GUI application and restore the previously-deployed version of the VS GUI application.

5.2. Backout Considerations

Following are checkpoints to consider when determining if the software needs to be backed out:

- The software functionality has been validated in PreProduction (Mirror/Test) environment at the IOC sites
- The software was validated in the PreProduction environments at the VA Medical centers prior to Production install

- The associated patch installations were conducted in the proper sequence
- The patch descriptions and Release Notes were reviewed to verify that the software was installed correctly
- The patch descriptions, Release Notes and/or the User Guide were used to determine if the software is functioning properly

5.2.1. Load Testing

Not applicable to the installation of the updated VS GUI.

5.2.2. User Acceptance Testing (UAT)

UAT is performed by OIT personnel during IOC testing. UAT ensures the patch/GUI does not interfere with normal system operations. UAT begins in the PreProduction environment with a copy of the existing Production system, but with only test users and a deidentified database (DB) for testing purposes.

When the site has completed its testing and any identified issues have been resolved, the code is moved to the Production environment, and is monitored closely to see if there is any degradation in functionality. Once any identified issues have been resolved, the application passes UAT and is approved for National release.

5.3. Backout Criteria

If, in the process of testing either in the test or Production environments, the functionality, performance, or usability of the application falls below the minimum standard necessary to provide care to Veterans, site management may decide to back the application out. This step is never done lightly, and is only taken if there is a belief that the treatment of the Veterans will be compromised.

5.4. Backout Risks

The following are the risks of backing out the VS GUI:

- Previous versions of the GUI may not remove all associated files and remains under the Add/Remove section of Windows
- Functionality that was added to the application in the new release will be removed
- Fixes that the new release resolved will be removed
- The status of some patient appointments may require manual fixes at the programmer level
- If the backout was authorized due to a data problem, there is a potential that patient data could be compromised

5.5. Authority for Backout

The authority to determine the necessity for a backout and the approval of a backout varies by location.

5.6. Backout Procedures

The VS GUI can be backed out (uninstalled) using the following procedures:

1. Click Control Panel
2. Click Programs
3. Click the Uninstall Program link
4. Find VistA Scheduling GUI
5. Right-click VistA Scheduling GUI
6. Select Uninstall

To continue using the application, install the previous version of the VS GUI by using the previous installation instructions for that specific release.

5.7. Backout Verification Procedures

Once the update has been backed out, the icon for the VistA Scheduling shortcut (Figure 1) will no longer appear on the desktop.

Figure 1: VistA Scheduling Desktop Shortcut
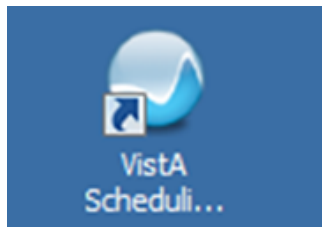
6. Rollback Procedures

Appointed site staff can run the standard patch removal tool to back out the patch(es). If a site determines that a roll back is required, a ServiceNow ticket should be registered with the ESD for assistance with a roll back.

6.1. Rollback Considerations

Following are checkpoints to consider when determining if the software needs to be rolled back:

- Conduct a check of the Transport Global backup
- Validate the checksum(s)
- Check ServiceNow for the submission of previous ESD ticket resolutions

6.2. Rollback Criteria

The criterion for rolling back to the previous version of the VS GUI is that the application is not performing as expected.

6.3. Rollback Risks

The following are the risks of rolling back to the previous version:

- Previous versions of the GUI may not remove all associated files and remains under the Add/Remove section of Windows
- Functionality that was added to the application in the new release will be removed
- Fixes that the new release resolved will be removed
- The status of some patient appointments may require manual fixes at the programmer level
- If the backout was authorized due to a data problem, there is a potential that patient data could be compromised

6.4. Authority for Rollback

The site programmer has the authority to conduct a rollback. Sites with no OIT programmer support should contact their regional OIT support point of contact (POC).

6.5. Rollback Procedures

Once approval for a rollback has been obtained, follow the procedures detailed below to roll back to the previous version of the product.

Locate the results from your site's Transport Global backup, done prior to installing the patches. The Transport Global backup creates a record of any routines exported with the installed patches. It will not back up any other changes, such as Data Dictionaries (DD) or templates.

Locate the backup. Table 5 identifies all the databases that will be created, replaced, interfaced with, or whose structure will be modified (i.e., add/delete tables, or add/delete columns of a table) as part of this effort. There are no DD changes as part of this release.

Table 5: DB Inventory

File Name	Description	Type
SD Audit Statistics (#409.97)	Stores scheduler activity statistics. **NOTE:** This is a new file and will be empty when patch 686 is installed.	FileMan

6.6. Rollback Verification Procedures

Once the rollback is complete, the OIT programmer should manually verify that the GUI and VistA rollback was successful. Verification can be performed by opening the application and having the user ensure that the application is performing as expected.

A. Acronyms and Abbreviations

Table 6 details the acronyms and abbreviations used in this document.

Table 6: Acronyms and Abbreviations

Acronym	Definition
CD2	Critical Decision Point #2
DB	Database
DD	Data Dictionary
DIBR	Deployment, Installation, Backout and Rollback
ESD	Enterprise Service Desk
ESE	Enterprise Services Engineering
ESL	Enterprise Service Line
GUI	Graphical User Interface
IM	Implementation Manager
IOC	Initial Operating Capacity
IP	Internet Protocol
IPT	Integrated Project Team
ITOPS	Information Technology Operations and Service
MS	Microsoft
NLT	No Later Than
OIT	Office of Information and Technology
OVAC	Office of Veteran Access to Care
PM	Program Manager or Project Manager
POC	Point of Contact
SCCM	Systems Center Configuration Manager
UAT	User Acceptance Testing
VA	Department of Veterans Affairs
VDL	VA Software Document Library
VIP	Veteran-focused Integrated Process
VistA	Veterans Health Information System and Technology Architecture
VS	VistA Scheduling
VSE	VistA Scheduling Enhancements