VistA Adaptive Maintenance VAEC Security (VAM)

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



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Revision History

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Artifact Rationale

This document describes the deployment, installation, backout, and rollback plans for new products going into the VA Enterprise. The guide 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 Integration Process (VIP) Guide, the Deployment, Installation, Backout, and Rollback Guide 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.

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# Introduction

The Veterans Health Information Systems and Technology Architecture (VistA) Adaptive Maintenance (VAM) System is a cloud-native Platform as a Service (PaaS), deployed entirely and exclusively within the Federal Risk and Authorization Management Program (FedRAMP), Health Insurance Portability and Accountability Act of 1996 (HIPAA)-compliant VA Enterprise Cloud (VAEC), leveraging the Amazon Web Services (AWS) commercial cloud infrastructure and services.

VAM provides comprehensive, commercial cloud-based monitoring and security for all clients, applications, and users of the VistA Remote Procedure Call (RPC) interface. VAM is operationalized and scaled for Enterprise Production use for all VistA systems migrated to the VAEC, leveraging FedRAMP High, VAEC-approved AWS Kinesis and AWS CloudWatch Logs.

VAM is a passive monitoring PaaS that mirrors VistA RPC traffic via AWS Kinesis to the AWS CloudWatch Logs, which is then interpreted by the RPC Monitor. AWS CloudWatch Logs are FedRAMP High certified and store all data in an encrypted form.

VAM is a 100% cloud-native, legacy-free, and non-invasive PaaS. VAM requires no change to any VistA system, nor to any end user client or application, allowing VAM to be safely and reliably deployed and scaled Enterprise-wide with minimal to no risk. Should VAM (RPC Mirror or Monitor) be disabled or deactivated, all RPC traffic flows between VistA and all its clients as usual, only without monitoring.

All of VAM’s functionality is contained exclusively and entirely as a PaaS within the VAEC, thus inheriting all security and compliance controls of the Federal Information Security Management Act of 2002 (FISMA) High VAEC. VAM has neither a connection with, nor does it share any information with, any organization, application, or system outside of the VAEC.

## Purpose

The purpose of the DIBR is to provide a single, common document that describes how, when, where, and to whom the VAM product will be deployed and installed, as well as how it is to be backed out and rolled back, if necessary. The DIBR identifies resources, a communication plan, and a rollout schedule, and is a companion to the Project Charter and Management Plan, and the User Guide for this effort.

## Dependencies

Table 1 details the VistA Patch dependency for version 1.0.0 of the Graphical User Interface (GUI). Patch details will be provided when available.

Table 1: VAM 1.0.0 Patches

|  |  |  |
| --- | --- | --- |
| Patch Name | Application Name | Purpose or Need |
| TBD | VAM | TBD |

## Constraints

Changes to VAM introduced by this release do not affect the current Section 508 compliance. The Veterans Health Administration (VHA) recognizes that these cross-cutting legal requirements apply across the Enterprise for all developed electronic and Information Technology (IT). Enterprise-level requirements maintained by VHA Health IT, Software Engineering and Integration, and Enterprise Requirements Management ensure the compliance of these requirements.

# Roles and Responsibilities

Deployment and installation activities are performed by representatives from the teams listed in Table 2. This phase begins after the solution design.

Table 2: Roles and Responsibilities

| Team | Phase/Role | Tasks |
| --- | --- | --- |
| VAM Project Manager (PM) | Deployment | Plan and schedule deployment (including orchestration with vendors) |
| Test Sites | Production Testing | Test for operational readiness and provide concurrence |
| VIP Release Readiness Team | Deployment | Ensure collection of artifacts required for deployment |
| VAM Implementation Manager (IM) | Deployment | Confirm project is ready for national release |
| Facility Office of Information and Technology (OIT) Staff | Installation | Facilities will install the associated patches that pair with VAM. |
| Enterprise Services Engineering (ESE) and Desktop Device Engineering Client Services Group | Installation | Prepare the System Center Configuration Manager (SCCM) package for VAM installation |
| Office of Veterans Access to Care (OVAC) | Installation | Coordinate training |

# Deployment

This DIBR describes the associated patches necessary for a successful deployment. The deployment package is comprised of the VAM update.

The deployment of this release will be supported by a compliance period.

The VAM schedule and milestones for the deployment can be found on the project’s [GitHub workspace](https://github.com/vistadataproject/VAM2ProjectManagement).[[1]](#footnote-1)

## Timeline

The deployment and installation are scheduled to run for approximately 4 weeks, as detailed in the project schedule. The updated GUI and associated patches will be installed in the Pre-Production environment first. Once the site has successfully installed and deployed the software in the Pre-Production environment and on end user desktops, the sites will install the software in their Production environments. The current plan calls for sites to request the deployment of the new GUI and patches, requiring coordination with the regional Enterprise Service Line (ESL) and the SCCM deployment teams. All locations should have the VAM associated patches installed in their Production environments prior to deployment.

## Site Readiness Assessment

VAM has not yet been released to Production. Procedures are in discussion and development.

### Deployment Topography (Targeted Architecture)

VAM has not yet been released to Production. Procedures are in discussion and development.

### Site Information (Locations, Deployment Recipients)

Site information such as the Internet Protocol (IP) address, port number, and namespace of the Production environment is different at each VistA instance. Local site OIT personnel, working with local scheduling representatives, will determine the recipients of VAM. A list of the local sites can be found in the Appendix.

### Site Preparation

VAM has not yet been released to Production. Procedures are in discussion and development.

## Resources

There will be a daily call set up for sites that are having install/deployment issues. If a site experiences issues, a ServiceNow ticket must be submitted for tracking and remediation purposes. The vendor will provide troubleshooting support during the daily Initial Operating Capacity (IOC) call.

### Facility Specifics

The following conditions will be assumed for VAM Release 1.0.0:

* All facilities deploying VAM will have a fully patched VistA account
* VAM release patches will be installed by the compliance date
* ESE will provide the SCCM package needed for the VAM release
* OVAC will provide a training plan prior to deployment

### Hardware

No hardware changes are necessary for VAM to function properly at each site.

### Software

Software specifications required at each site prior to deployment will be provided when available. The party(ies) responsible for preparing the site to meet the software specifications will be provided when available.

### Communications

The primary objective of the communication plan is to ensure the timely dissemination of information to stakeholders. Clear communication is necessary to ensure that schedules are aligned, and project milestones are met.

Project milestones and information will be shared with VA executives and external organizations, to notify the right audience, at the right time, using the appropriate communication method(s).

Table 3 identifies key project communication along with the owner, recipients, and the method(s) used to disseminate information.

Table : Key Communication

| Subject | Goal/Description | Initiator/Owner | Audience | Communication Method |
| --- | --- | --- | --- | --- |
| Installation instruction and support | Site requirements, instructions, and installation support (hardware, software, patches) | Team AbleVets, VHA Developers | IT, Operation Site Managers | VA Pulse, daily deployment call, IOC e-mail group |
| Deployment Schedule | Key dates and milestones, per site | OVAC | Project Team, stakeholders | Online schedule, daily deployment call |
| Training | Training development status, training dates, and trainees | OVAC | Project Team, stakeholders | VA Pulse, daily deployment call, deployment schedule |

#### Deployment/Installation/Backout Checklist

Table 4 lists the deployment, installation, and backout checklist.

Table : Deployment/Installation/Backout Checklist

| Activity | Date | Time | Completed By |
| --- | --- | --- | --- |
| Deployment | TBD | TBD | VAM PM |
| Installation | TBD | TBD | Facility OIT Staff |
| Backout | TBD | TBD | Facility OIT Staff |

# Installation

The following subsections detail the installation process and procedures.

## Pre-installation and System Requirements

The installation of release 1.0.0 does not affect the hardware or software required for VAM to function properly at each site.

## Platform Installation and Preparation

The installation of release 1.0.0 does not affect the hardware or software required for VAM to function properly at each site.

## Downloading and Extracting Files

VAM has not yet been released to Production. Procedures are in discussion and development.

## Database Creation

Not applicable to the installation of VAM.

## Installation Scripts

VAM has not yet been released to Production. Procedures are in discussion and development.

## Cron Scripts

There are no cron scripts associated with the installation of VAM.

## Access Requirements and Skills Needed for the Installation

Need information here.

## Installation Procedures

VAM has not yet been released to Production. Procedures are in discussion and development.

## Installation Verification Procedures

VAM has not yet been released to Production. Procedures are in discussion and development.

## System Configuration

VAM has not yet been released to Production. Procedures are in discussion and development.

## Database Tuning

Database tuning is not applicable.

# Backout Procedures

The following subsections detail backout procedures.

## Backout Strategy

The backout strategy is to uninstall the newly deployed VAM system components and restore the previously deployed version.

## Backout Considerations

The following subsections detail the considerations for backing out of the newly deployed version of VAM.

### Load Testing

VAM has not yet been released to Production. Procedures are in discussion and development.

### User Acceptance Testing (UAT)

UAT results were not available at the time of this writing. When all testing cycles, including UAT, are complete, the data will be made available in the project’s [GitHub](https://github.com/vistadataproject/TestingAndReporting) workspace.

## Backout Criteria

The criterion for backing out of the new installation is that VAM does not operate as intended during installation verification testing.

## Backout Risks

A backout is performed to remove the installed components if the VAM deployment did not pass the installation verification procedures. The backout procedures are followed by a rollback to restore the previously deployed version of VAM. The risks for executing the backout are minimal because a backout is performed during planned downtime when users are not accessing the system. Once the restored system is online and validated, user access continues.

If a backout is initiated later in the deployment window, restoration time may exceed the downtime planned for deployment. This risk is mitigated by scheduling deployments for weekends and other times when expected usage levels are low.

## Authority for Backout

If a backout is necessary, the VA PM provides the approval to back the product out of Production.

## Backout Procedures

VAM has not yet been released to Production. Procedures are in discussion and development.

## Backout Verification Procedures

Backout verification procedures mirror installation verification procedures.

# Rollback Procedures

The following subsections detail rollback procedures.

## Rollback Strategy

The rollback strategy is to restore the previously deployed version of the product.

## Rollback Considerations

The consideration for performing a rollback is that VAM does not operate as intended when tested.

## Rollback Criteria

The criterion for a rollback is that VAM does not operate as intended during installation verification testing.

## Rollback Risks

A rollback is performed to remove the installed components if the VAM deployment did not pass the installation verification procedures. The rollback procedures restore the previously deployed version of VAM. The risks for executing the rollback are minimal because a rollback is performed during planned downtime when users are not accessing the system. Once the restored system is online and validated, user access continues.

If a rollback is initiated later in the deployment window, restoration time may exceed the downtime planned for deployment. This risk is mitigated by scheduling deployments for weekends and other times when expected usage levels are low.

## Authority for Rollback

If a rollback is necessary, the VA PM provides the approval.

## Rollback Procedures

VAM has not yet been released to Production. Procedures are in discussion and development.

## Rollback Verification Procedures

Rollback verification procedures mirror installation verification procedures.

1. Appendix 1: Acronyms and Abbreviations

Table 5 lists the acronyms and abbreviations used throughout this document.

Table : Acronyms and Abbreviations

|  |  |
| --- | --- |
| Acronym | Definition |
| AWS | Amazon Web Services |
| DIBR | Deployment, Installation, Backout, and Rollback |
| ESE | Enterprise Services Engineering |
| ESL | Enterprise Service Line |
| FedRAMP | Federal Risk and Authorization Management Program |
| FISMA | Federal Information Security Management Act of 2002 |
| GUI | Graphical User Interface |
| HIPAA | Health Insurance Portability and Accountability Act of 1996 |
| IM | Implementation Manager |
| IOC | Initial Operating Capacity |
| IT | Information Technology |
| OIT | Office of Information and Technology |
| OVAC | Office of Veterans Access to Care |
| PaaS | Platform as a Service |
| PM | Project Manager, Program Manager |
| RPC | Remote Procedure Call |
| SCCM | System Center Configuration Manager |
| VA | Department of Veterans Affairs |
| VAEC | VA Enterprise Cloud |
| VAM | VistA Adaptive Maintenance |
| VHA | Veterans Health Administration |
| VIP | Veteran-focused Integration Process |
| VistA | Veterans Health Information Systems and Technology Architecture |

1. [↑](#footnote-ref-1)