Remote Veterans Apnea Management Platform (REVAMP)

Deployment, Installation, Back-Out, and Rollback Guide



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**Revision History**

| **Date** | **Version** | **Description** | **Author** |
| --- | --- | --- | --- |
| 5/15/2017 | 1.0 | Started converting Technical Guide to the new template | REVAMP Team |
| 9/7/2017 | 1.0 | Updated link to stash for services | REVAMP Team |
| 9/22/2017 | 1.0 | Updating to clarify that links to stash are unique to specific builds | REVAMP Team |

**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.

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# Introduction

This document describes how to deploy and install the Remote Veterans Apnea Management Platform (REVAMP) application as well as how to back-out the product and rollback to a previous version or data set. This document is a companion to the project charter and management plan for this effort. In cases where a non-developed COTS product is being installed, the vendor provided User and Installation Guide may be used, but the Back-Out Recovery strategy still needs to be included in this document.

## Purpose

The purpose of this plan is to provide a single, common document that describes how, when, where, and to whom the REVAMP application 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.

## Dependencies

REVAMP web application is dependent upon hardware and software found in the Mobile Applications Environment (MAE). Internal VA dependencies: Single Sign-On Internal (SSOi), Single Sign-On External (SSOe), Master Veteran Index (MVI).

## Constraints

REVAMP will be deployed to the VAMF within the MAE.

# Deployment

The software deployment is planned as an iterative rollout.

The clinical deployment to the sites will be a phased rollout, starting with a limited group of sites.

## Timeline

The deployment and installation is scheduled to run for 2 weeks.

## Site Readiness Assessment

* Where is this deployment happening? REVAMP deployment is occurring within the VA Mobile Application Framework Environment.
* What product, site, or object is the physical recipient of this deployment? The VAMF will receive the REVAMP app. The REVAMP application is being deployed as a web app. Clinicians and veterans at this site will access the app via URL. It will be in the Production Server – 009.
* Is it happening at physical locations? The REVAMP App is virtually installed and will be accessible via URL.
* Is it happening to devices? Is it happening to desktops? Is it happening to mainframe systems? No, REVAMP is accessible via URL
* Is there a site readiness checklist available that can be completed prior to installation? N/A

### Deployment Topology (Targeted Architecture)

REVAMP is a web app being deployed to the VAMF.

### Site Information (Locations, Deployment Recipients)

The Clinical sites where REVAMP will be used in this limited Enterprise deployment are: Atlanta, GA; Boston, MA; Cleveland, OH; Gainesville, FL; Omaha, NE; Philadelphia, PA; Portland, OR; San Diego, CA; Seattle, WA; Shreveport, LA. Access will be limited to those users added to the system (general users cannot access the application, only those added by administrators and clinicians.)

The application will be deployed in Terremark Virtual (009 Enclave) Servers (as part of VAMF).

### 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** |
| --- | --- | --- | --- | --- |
| VA (Access VA) | Connection to SSOe | The IAM features needed for this service | IAM protocol for this service | IAM |
| VA (Access VA) | Connection to SSOi | The IAM features needed for this service | IAM protocol for this service | IAM |
| VA (Access VA) | Connection to MVI | The IAM features needed for this service | IAM protocol for this serviceNeed to register security certificate in Data Power System. | IAM |

## Resources

N/A (other than VAMF resources allocated for this project)

### Facility Specifics

There are no 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** |
| --- | --- | --- | --- | --- | --- |
| Virtualized server | N/A | N/A | 2 x86-64 CPUs 4GB RAM 50GB disk | N/A | N/A |
| Virtualized server | N/A | N/A | Shared database server | N/A | 50GB for data files |

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.

The REVAMP schema is deployed to a database server that is shared with other projects.

### 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** |
| --- | --- | --- | --- | --- | --- |
| MS Windows Server | N/A | 2008R2 | N/A | Microsoft | N/A |
| Internet Information Server (IIS) | N/A | 7.5 | N/A | Microsoft | Internet Information Server (IIS) |
| .NET Framework | N/A | 4.5 (or greater approved by TRM) | N/A | Microsoft | .NET Framework |

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.

For more information, refer to the REVAMP System Design Document (SDD) for information on Technologies, Libraries, and Tools Used in the App. The REVAMP SDD can be viewed at:

Veteran SDD: https://wiki.mobilehealth.va.gov/display/REVAMP/REVAMP+Veteran%7F+SDD+Addendum

Provider SDD: https://wiki.mobilehealth.va.gov/display/REVAMP/REVAMP+Provider+SDD+Addendum

### Communications

Program Communications is described in Program Communications within the Program and Project Management homepage for VA Mobile. Any notifications activities, deployment launch, site start and completion, overall deployment completion, and so on, are provided in Atlassian pages and announcements.

The REVAMP project team will be in direct communication with the core team of REVAMP clinicians to facilitate sharing of any information regarding deployment of application.

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

**Table 6: 3.3.4.1 Deployment/Installation/Back-Out Checklist**

|  |  |  |  |
| --- | --- | --- | --- |
| Activity | Day | Time | Individual who completed task |
| Deploy | Not completed yet, deployment will occur after approval to move to Production. |  |  |
| Install | Not completed yet, installation will occur after approval to move to Production. |  |  |
| Back-Out | Not completed yet, Back-out will not occur until in Production and only if necessary. |  |  |

# Installation

## Pre-installation and System Requirements

The REVAMP application requires a Microsoft Internet Information Services (IIS) version 7 for Windows® Server 2008 R2, . NET framework 4.5 and common VAMF Shared Services.

Note that hardware and software configurations are dependent upon the load and suspected usage of the application and may need to be upgraded to match the environment in which they will run.

## Download and Extract Files

Download the following files from Oracle’s support website:

* Oracle Database Client for Windows (64 bit): p13390677\_002040\_MSWIN-x86-64\_4of7.zip
* Oracle OPatch: p6880880\_112000\_MSWIN-x86-64.zip
* Latest Oracle DB Bundle Patch for Windows; as of 5/17/2017 this is: p25632525\_112040\_MSWIN-x86-64.zip

*Note: REVAMP utilizes a minimal client-only installation and the April 2017 DB Bundle patch is the latest patch set that provides client only updates. Future patch sets that do not have client only components that need to be patched will not be needed.*

The following files should be obtained from the MIS team

* cwallet.sso
* ewallet

Download Software Source Code:

REVAMP Veterans, Staff, API and ResMed/Philips Services Applications

Installing Git

See [Installing Git](https://wiki.mobilehealth.va.gov/display/AAP/Installing%2BGit).

## Database Creation

An existing database is required for the setup of REVAMP’s database component.

A database user account that has the DBA role is required to perform changes to the REVAMP database schema (alter tables, update packages, create new objects, etc.)

Changes to the database structure and/or updates will be included in one of REVAMP's main projects repository (e.g., REVAMPStaffApp) when a new release or patch is committed to the VA Stash server.

**Initial Setup**:

*Pre-Deployment*

A build script creates the REVAMP application schema in the target database and is delivered in zip file format.  When the zip file is uncompressed, the database build files unzip beneath a directory named “revamp”.  The master file db\_build.sql calls other SQL scripts in subdirectories to create the application schema and objects.  The execution order of these scripts is:

Create tablespaces (one for table data and one for indexes)

Create application profile role

Create application schema (user)

Types

Tables

Load data into lookup tables

Load lookup table LOB data (using Oracle's Import utility)

Indexes

Constraints

Referential Constraints

Views

Sequences

Functions

Procedures

Packages

Package Bodies

Jobs

Network ACL

The deployment team must review several parameters before executing the build script.  The “Parameter definitions” section is located immediately following the header section of the script db\_build.sql, which defines these parameters and detailed in the following table.

|  |  |
| --- | --- |
| **Parameter Name** | **Purpose** |
| app\_schema | Name of application schema, default is REVAMPDM |
| app\_schema\_pw | Password to use with application schema |
| app\_schema\_profile | Profile to assign to application schema, default is revamp\_app\_profile |
| pw\_vfy\_fn | Name of database password verify function, default is revamp\_verify\_function |

The value of the app\_schema parameter should remain as REVAMPDM for this release.  The value used for app\_schema\_pw must be coordinated with the team deploying the web application, as it is required for the web deployment.

Parameter app\_schema\_profile identifies which database profile should be assigned to the application schema.  The build script creates a profile named REVAMP\_APP\_PROFILE and this is the default value for app\_schema\_profile.  If a suitable profile already exists for application schemas, the deployment team can change this parameter to the name of the profile to use.  Then, comment the call to create REVAMP\_APP\_PROFILE in the db\_build.sql file by modifying the line below making it a comment so that SQL\*Plus skips the command:

@SCHEMAS/revamp\_app\_profile.sql &&pw\_vfy\_fn

to:

-- @SCHEMAS/app\_profile.sql &&pw\_vfy\_fn

The final parameter is pw\_vfy\_fn and specifies the name of the database password verify function.  This is parameter is used by the script that creates the profile REVAMP\_APP\_PROFILE and must be set to the name of a valid function acting as the database’s password verification routine.  When skipping the execution of the REVAMP\_APP\_PROFILE script this parameter’s value is irrelevant, however the script to create the default password verification function included with this script must be commented out as well.  I.e., in the db\_build.sql script change the line:

@SCHEMAS/revamp\_verify\_function.sql

to:

-- @SCHEMAS/revamp\_verify\_function.sql

**Deployment**

Run the script from either a Linux shell prompt or Windows command prompt:

cd <unzipped\_build\_directory>/revamp

sqlplus "sys/<sys\_pw>@<dbname> as sysdba" @db\_build

The script will prompt the user for the name of the directory where the data file should be created.  The full path name of all data files can be obtained with the following query:

SELECT file\_name FROM dba\_data\_files;

When entering the data file path a trailing slash (/) should not be included.  E.g.,  /u01/app/oracle/oradata/harepo

The script will also prompt for the SYSTEM user's password.  It will then call Oracle's import utility to load the lookup tables that contain LOB data.

Next the script will execute the steps to create the database structure.  When the script completes successfully the following will be displayed on screen and in the log file:

================

\*\*\* End of build

================

**Review log files generated for any errors.  The build script will terminate at the occurrence of any SQL or OS error with the exception of when running Oracle Import.  When re-running the script the entire build deployment can be back out by following the instructions in the Un-install section below.  Alternatively, the file db\_build.sql calls scripts in the order identified at the beginning of the Pre-Deployment section above and their execution can be skipped if desired by commenting them so that the build deployment can resume from the failed point instead of backing it out completely and starting from the beginning.  Note that if a script fails part of the way through, such as a data load script some additional work may have to be performed in order to resume the deployment in this fashion.**

**Periodic Updates**:

Modifications to the DB due to new feature releases or fixed bugs will be performed by running the corresponding release/patch SQL script to alter just the DB objects structures but keep existing data intact.

## Installation Scripts

Included in package.

## Cron Scripts

N/A

## Access Requirements and Skills Needed for the Installation

Application: Elevated privileges are required to perform installation.

Database: MIS account access is required to perform the installation.

## Installation Procedure

**REVAMP Veterans, Staff, API and ResMed/Philips Services Applications**

Installing Git

See [Installing Git](https://wiki.mobilehealth.va.gov/display/AAP/Installing%2BGit).

Building and deploy of the ASP.NET Applications

The building of the REVAMP apps rely on the use of Microsoft Build (MSBuild) and Microsoft Web Deploy (MSDeploy) to compile and deploy the ASP.NET source code.

The MSBuild engine provides an XML schema for a project file that controls how the build platform processes and builds software

The source code directory contains an MSBuild project script (Revamp.sln – for veterans’ app; RevampStaff.sln – for staff app; RevampAPI – for the PAP data exchange app) for building the application from the source code.

NOTE: The build and deploy process needs to be performed on each REVAMP’s App server (Staff, Veterans, Data Stage server).

Run the windows command prompt as administrator.

Navigate to the source code directory:

**cd C:\<path-to-source-code>**

Backup Current Application:

Create a backup folder for Back-out:

**mkdir C:\BK\_RevampStaff**

**mkdir C:\BK\_Revamp**

**mkdir C:\BK\_RevampAPI**

 If backup folder already exists, clean content:

 **del /f /q C:\BK\_RevampStaff\\*.\***

 **del /f /q C:\BK\_Revamp\\*.\***

 **del /f /q C:\BK\_RevampAPI\\*.\***

 Create Backup:

 **xcopy /s "C:\RevampStaff” "C:\BK\_RevampStaff "**

 **xcopy /s "C:\Revamp” "C:\BK\_Revamp "**

 **xcopy /s "C:\RevampAPI” "C:\BK\_RevampAPI"**

Build Application:

Run, from the command prompt, the MS Build to compile and build the application:

**msbuild.exe C:\<path-to-source-code>\RevampPractitioner.sln /p:OutputPath=C:\RevampStaff**

**msbuild.exe C:\<path-to-source-code>\Revamp.sln /p:OutputPath=C:\Revamp**

**msbuild.exe C:\<path-to-source-code> /p:DeployOnBuild=true /p:PublishProfile=va\_revamp\_api\_publish RevampApi.sln**

This will generate a precompiled app and copy the output to the IIS server application’s folder:

* **Staff – C:\RevampStaff**
* **Veterans – C:\Revamp**
* **RevampAPI – C:\RevampAPI**

**Revamp ResMed Service**

 **To install the first time:**

1. **Run Command-Line as Admin (cmd) and navigate to source code**
2. **To build, deploy, install and start the service:**
	1. **C:\< path-to-source-code >\revamp\_service /i**

**To upgrade or install a new version of the service were a previous version is already installed:**

1. **First do a backup of the service:**
	1. **C:\< path-to-source-code >\revamp\_service /bkp**
2. **Then stop the service:**
	1. **C:\< path-to-source-code >\revamp\_service /stop**
3. **Uninstall the service:**
	1. **C:\< path-to-source-code >\revamp\_service /u**
4. **Install new service (build, deploy, install, and start:**
	1. **C:\< path-to-source-code >\revamp\_service /i**

**Revamp Philips Service**

 **To install the first time:**

1. **Run Command-Line as Admin (cmd) and navigate to source code**
2. **To build, deploy, install and start the service:**
	1. **C:\< path-to-source-code >\revamp\_service /i**

**To upgrade or install a new version of the service were a previous version is already installed:**

1. **First do a backup of the service:**
	1. **C:\< path-to-source-code >\revamp\_service /bkp**
2. **Then stop the service:**
	1. **C:\< path-to-source-code >\revamp\_service /stop**
3. **Uninstall the service:**
	1. **C:\< path-to-source-code >\revamp\_service /u**
4. **Install new service (build, deploy, install, and startl):**
	1. **C:\< path-to-source-code >\revamp\_service /i**

**MS Build & MS Deploy Reference**

Using MS Build: <https://msdn.microsoft.com/en-us/library/dd393574.aspx>

Using MS Deploy: <http://www.iis.net/downloads/microsoft/web-deploy>

**Modifying the “web.config” file**

The **web.config** file for the Staff, Veterans, API & ResMed/Philips Services applications must be modified according to the target environment. Revamp app connects to different VA services (SSOe, MVI) with different endpoints depending on the environment.

**Veterans Application’s configuration file adjustments for target environment**

The following directive’s value must be changed to reflect the target environment (**web.config**)::

**<add key="APP\_TARGET\_ENV" value="DEVINT" />**

                For **DEV-INT** environment, the value must be set to **"DEVINT".**

                For **SQA** environment, the value must be set to **"SQA".**

                For **PRE-PROD** environment, the value must be set to **"PREPROD".**

               For **PROD** environment, the value must be set to **"PROD".**

There must be an entry defining the SSOe login widget endpoint for each environment:

<add key="APP\_SSO\_LOGIN\_URL\_DEVINT" value="Get URL from IAM Team" />

<add key="APP\_SSO\_LOGIN\_URL\_SQA" value=" Get URL from IAM Team" />

<add key="APP\_SSO\_LOGIN\_URL\_PREPROD" value="Get URL from IAM Team" />

<add key="APP\_SSO\_LOGIN\_URL\_PROD" value=" Get URL from IAM Team" />

Also, an entry per environment is required to define the SSOe logout behavior:

<add key="APP\_SSO\_LOGOFF\_URL\_DEVINT" value="1" />

<add key="APP\_SSO\_LOGOFF\_URL\_SQA" value="2" />

<add key="APP\_SSO\_LOGOFF\_URL\_PREPROD" value="3" />

<add key="APP\_SSO\_LOGOFF\_URL\_PROD" value="4" />

Get Log Off URLs from IAM Team and include these values in this file (App\_Code/AppModel/CLogOffOpts.cs) in the Veterans facing application.

**Staff Application’s configuration file adjustments for target environment**

The following directive’s value must be changed to reflect the target environment (**web.config**):

**<add key="APP\_TARGET\_ENV" value="DEVINT" />**

                For **DEV-INT** environment, the value must be set to **"DEVINT".**

                For **SQA** environment, the value must be set to **"SQA".**

                For **PRE-PROD** environment, the value must be set to **"PREPROD".**

For **PROD** environment, the value must be set to**"PROD".**

These directives must be defined for each environment:

* <add key="APP\_MVI\_URL\_DEVINT" value="<https://int.services.eauth.va.gov:9193/psim_webservice/dev/IdMWebService>" />
* <add key="APP\_MVI\_URL\_SQA" value="<https://int.services.eauth.va.gov:9193/psim_webservice/stage1a/IdMWebService>" />
* <add key="APP\_MVI\_URL\_PREPROD" value="<https://int.services.eauth.va.gov:9193/psim_webservice/stage1a/IdMWebService>" />
* <add key="APP\_MVI\_URL\_PROD" value="<https://services.eauth.va.gov:9193/psim_webservice/IdMWebService>" />
* <add key="APP\_MVI\_USE\_CERT\_DEVINT" value="1" />
* <add key="APP\_MVI\_USE\_CERT\_SQA" value="1" />
* <add key="APP\_MVI\_USE\_CERT\_PREPROD" value="1" />
* <add key="APP\_MVI\_USE\_CERT\_PROD" value="1" />

* <add key="APP\_MVI\_CERT\_DEVINT" value="SpecifyPFXCertificatePathHere" />
* <add key="APP\_MVI\_CERT\_SQA" value=" SpecifyPFXCertificatePathHere " />
* <add key="APP\_MVI\_CERT\_PREPROD" value=" SpecifyPFXCertificatePathHere " />
* <add key="APP\_MVI\_CERT\_PROD" value=" SpecifyPFXCertificatePathHere " />

* <add key="APP\_MVI\_CERT\_PWD\_DEVINT" value="EnterCertificatePasswordHere" />
* <add key="APP\_MVI\_CERT\_PWD\_SQA" value=" EnterCertificatePasswordHere " />
* <add key="APP\_MVI\_CERT\_PWD\_PREPROD" value=" EnterCertificatePasswordHere " />
* <add key="APP\_MVI\_CERT\_PWD\_PROD" value=" EnterCertificatePasswordHere " />

 **RevampAPI Application’s configurations file adjustments for target environment**

The following directive’s value must be changed to reflect the target environment (**web.config**):

**<add key="APP\_TARGET\_ENV" value="DEVINT" />**

                For **DEV-INT** environment, the value must be set to **"DEVINT".**

                For **SQA** environment, the value must be set to **"SQA".**

                For **PRE-PROD** environment, the value must be set to **"PREPROD".**

                For **PRODUCTION** environment, the value must be set to **"PROD".**

**Revamp ResMed Service Application’s configurations file adjustments for target environment**

The following directive’s value must be changed to reflect the target environment (**RevampResmedService.exe.config**):

**<add key="APP\_TARGET\_ENV" value="DEVINT" />**

                For **DEV-INT** environment, the value must be set to **"DEVINT".**

                For **SQA** environment, the value must be set to **"SQA".**

                For **PRE-PROD** environment, the value must be set to **"PREPROD".**

For **PRODUCTION** environment, the value must be set to**"PROD".**

**Revamp Philips Service Application’s configurations file adjustments for target environment**

The following directive’s value must be changed to reflect the target environment (**RevampPhilipService.exe.config**):

**<add key="APP\_TARGET\_ENV" value="DEVINT" />**

                For **DEV-INT** environment, the value must be set to **"DEVINT".**

                For **SQA** environment, the value must be set to **"SQA".**

                For **PRE-PROD** environment, the value must be set to **"PREPROD".**

For **PRODUCTION** environment, the value must be set to**"PROD".**

## Installation Verification Procedure

In order for the team to verify that the database installation was successful, MIS team would need to send REVAMP Team log database log files for review.

To verify that the system installation was successful, ensure application comes up in deployed environment. Landing page content for both applications is a database record so having these pages rendering correctly confirms app server and database server connection.

Veteran (accessible in or outside VA network)

Staff Application (Only accessible from within VA Network)

**Revamp ResMed Service** (Only in the Staging Server)

Run the following command-line as Admin to view information about the service:

sc query "RevampResmedService"

The State of the service should be RUNNING

**Revamp Philips Service** (Only in the Staging Server)

Run the following command-line as Admin to view information about the service:

sc query "RevampPhilipsService"

The State of the service should be RUNNING

## System Configuration

Verify that software required by application (see Table 5, Section 3.3.3) is installed in server.

## Database Tuning

The REVAMP application queries use SQL tuning techniques including indexes and dedicate data/index table spaces to separate I/O among different data files. REVAMP does not require specific initialization parameter adjustments for proper operation.

# Back-Out Procedure

## Back-Out Strategy

During the build and deploy process, a backup application build directory is created in the file system with the previous build files as “C:\BK\_Revamp” or “C:\BK\_RevampStaff” for back-out purposes.

In a situation when a back-out is needed, the contents of the actual deployment directory (C:\Revamp, C:\RevampStaff, or C:\RevampAPI) should be replaced with the backup build directory (C:\BK\_Revamp, C:\BK\_RevampStaff, or C:\BK\_RevampAPI).

For Revamp ResMed Service

To restore from backup:

1. Stop the service:
	1. C:\< path-to-source-code >\revamp\_service /stop
2. Uninstall service:
	1. C:\< path-to-source-code >\revamp\_service /u
3. Restore from backup:
	1. C:\< path-to-source-code >\revamp\_service /r
4. Start the service after restore:
	1. C:\< path-to-source-code >\revamp\_service /start

To completely remove the service:

1. To stop the service, uninstall it, remove service forlder and remove backup folder:
	1. C:\<path-to-source-code>\revamp\_service /rollout

For Revamp Philips Service

To restore from backup:

1. Stop the service:
	1. C:\< path-to-source-code >\revamp\_service /stop
2. Uninstall service:
	1. C:\< path-to-source-code >\revamp\_service /u
3. Restore from backup:
	1. C:\< path-to-source-code >\revamp\_service /r
4. Start the service after restore:
	1. C:\< path-to-source-code >\revamp\_service /start

To completely remove the service:

1. To stop the service, uninstall it, remove service forlder and remove backup folder:
	1. C:\<path-to-source-code>\revamp\_service /rollout

## Back-Out Considerations

### Load Testing

The VAMF is being sized to support all applications including the REVAMP app within the Terremark environment. Veteran and Staff applications are in different VLANs within the environment and on separate resources. The performance of each VLAN is evaluated separately.

It must be noted that the REVAMP app includes a veteran facing platform along with a clinician facing platform.

The initial release will be a limited release only available to 10 sites with a limited number of Clinicians and Veterans. In order for a user to access the application they must be previously added by another user and thus only the limited group of people will have the ability to access the application.

### User Acceptance Testing

Link to User Acceptance Testing Results: https://wiki.mobilehealth.va.gov/pages/viewpage.action?pageId=59835898

## Back-Out Criteria

Determined based on user feedback.

## Back-Out Risks

Risks involved are associated User Experience.

## Back-Out Procedure

**Web Server Back Out**

To uninstall the REVAMP Web Application simply remove the IIS Application from the IIS Manager.  Remove the application folder(s) from the file system also (C:\Revamp, C:\RevampStaff, C:\RevampAPI).

**Database Back Out**

If the system has been operational for a period of time and data has been saved, follow required VA data retention policies.

**IMPORTANT:  Before executing the database commands below ensure that all data has been backed up in accordance with all VA guidelines and policies.  The commands below will remove ALL data stored in that database for REVAMP.**

The database portion of this deployment is un-installed by executing the following commands from SQL\*Plus connected to the database as user SYS, bold font indicates text typed by the user:

**sqlplus "sys/<sys\_pw>@<dbname> as sysdba"**

SQL> **drop user revampdm cascade;**

User dropped.

SQL> **exec dbms\_network\_acl\_admin.drop\_acl ('/sys/acls/revamp\_acl\_for\_mail.xml');**

PL/SQL procedure successfully completed.

SQL> **drop tablespace revampdm including contents;**

Tablespace dropped.

SQL> **drop tablespace revampdm\_idx including contents;**

Tablespace dropped.

SQL> **drop role role\_revamp\_app;**

Role dropped.

SQL> **drop profile revamp\_app\_profile;**

Profile dropped.

The command drop profile revamp\_app\_profile; above may return an error:

drop profile revamp\_app\_profile

\*

ERROR at line 1:

ORA-02380: profile REVAMP\_APP\_PROFILE does not exist

This indicates that the script to create REVAMP\_APP\_PROFILE may have been skipped (commented) in file db\_build.sql.  In this case the error can be ignored.

SQL> **drop function revamp\_verify\_function;**

Function dropped.

The command drop revamp\_verify\_function; above may return an error:

drop function revamp\_verify\_function

\*

ERROR at line 1:

ORA-04043: object REVAMP\_VERIFY\_FUNCTION does not exist

Revamp ResMed Service Application:

 net stop RevampResmedService

 installutil.exe /u C:\RevampServices\RevampResmedService.exe

Delete folder C:\RevampServices\RevampResmedService

Revamp Philips Service Application:

 net stop RevampPhilipsService

 installutil.exe /u C:\RevampServices\RevampPhilipsService.exe

Delete folder C:\RevampServices\RevampResmedService

If both services were Back-Out:

 Delete folder C:\RevampServices

## Back-out Verification Procedure

The SQL\*Plus query below will not return any rows if the REVAMP schema has successfully been backed out:

select username from dba\_users where username = 'REVAMPDM';

no rows selected

# Rollback Procedure

## Rollback Considerations

During the build and deploy process, a backup application build directory is created in the file system with the previous build files as “C:\BK\_Revamp” or “C:\BK\_RevampStaff” for rollback purposes.

In a situation when a rollback is needed, the contents of the actual deployment directory (C:\Revamp, C:\RevampStaff, or C:\RevampAPI) should be replaced with the backup build directory (C:\BK\_Revamp, C:\BK\_RevampStaff, or C:\BK\_RevampAPI).

For Revamp ResMed Service

To restore from backup:

1. Stop the service:
	1. C:\< path-to-source-code >\revamp\_service /stop
2. Uninstall service:
	1. C:\< path-to-source-code >\revamp\_service /u
3. Restore from backup:
	1. C:\< path-to-source-code >\revamp\_service /r
4. Start the service after restore:
	1. C:\< path-to-source-code >\revamp\_service /start

To completely remove the service:

1. To stop the service, uninstall it, remove service forlder and remove backup folder:
	1. C:\<path-to-source-code>\revamp\_service /rollout

For Revamp Philips Service

To restore from backup:

1. Stop the service:
	1. C:\< path-to-source-code >\revamp\_service /stop
2. Uninstall service:
	1. C:\< path-to-source-code >\revamp\_service /u
3. Restore from backup:
	1. C:\< path-to-source-code >\revamp\_service /r
4. Start the service after restore:
	1. C:\< path-to-source-code >\revamp\_service /start

To completely remove the service:

1. To stop the service, uninstall it, remove service forlder and remove backup folder:
	1. C:\<path-to-source-code>\revamp\_service /rollout

## Rollback Criteria

Determined based on user feedback.

## Rollback Risks

Risks involved are associated User Experience.

## Rollback Procedure

**Web Server Rollback**

To uninstall the REVAMP Web Application simply remove the IIS Application from the IIS Manager.  Remove the application folder(s) from the file system also (C:\Revamp, C:\RevampStaff, C:\RevampAPI).

**Database Rollback**

If the system has been operational for a period of time and data has been saved, follow required VA data retention policies.

**IMPORTANT:  Before executing the database commands below ensure that all data has been backed up in accordance with all VA guidelines and policies.  The commands below will remove ALL data stored in that database for REVAMP.**

The database portion of this deployment is un-installed by executing the following commands from SQL\*Plus connected to the database as user SYS, bold font indicates text typed by the user:

**sqlplus "sys/<sys\_pw>@<dbname> as sysdba"**

SQL> **drop user revampdm cascade;**

User dropped.

SQL> **exec dbms\_network\_acl\_admin.drop\_acl ('/sys/acls/revamp\_acl\_for\_mail.xml');**

PL/SQL procedure successfully completed.

SQL> **drop tablespace revampdm including contents;**

Tablespace dropped.

SQL> **drop tablespace revampdm\_idx including contents;**

Tablespace dropped.

SQL> **drop role role\_revampdm\_app;**

Role dropped.

SQL> **drop profile revamp\_app\_profile;**

Profile dropped.

The command drop profile revamp\_app\_profile; above may return an error:

drop profile revamp\_app\_profile

\*

ERROR at line 1:

ORA-02380: profile REVAMP\_APP\_PROFILE does not exist

This indicates that the script to create REVAMP\_APP\_PROFILE may have been skipped (commented) in file db\_build.sql.  In this case the error can be ignored.

SQL> **drop function revamp\_verify\_function;**

Function dropped.

The command drop revamp\_verify\_function; above may return an error:

drop function revamp\_verify\_function

\*

ERROR at line 1:

ORA-04043: object REVAMP\_VERIFY\_FUNCTION does not exist

Revamp ResMed Service Application:

 net stop RevampResmedService

 installutil.exe /u C:\RevampServices\RevampResmedService.exe

Delete folder C:\RevampServices\RevampResmedService

Revamp Philips Service Application:

 net stop RevampPhilipsService

 installutil.exe /u C:\RevampServices\RevampPhilipsService.exe

Delete folder C:\RevampServices\RevampResmedService

If both services were Rollback:

 Delete folder C:\RevampServices

## Rollback Verification Procedure

The SQL\*Plus query below will not return any rows if the REVAMP schema has successfully been backed out:

select username from dba\_users where username = 'REVAMPDM';

no rows selected

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 |