**CPRS v30c (OR\*3\*423)**

Deployment, Installation, Back-Out, and Rollback Guide



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**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 CPRS v30C*,* as well as how to back-out the product and rollback to a previous version.

## Purpose

The purpose of this plan is to provide a single, common document that describes how, when, where, and to whom CPRS v30C 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, a communications plan, and a rollout schedule. Specific instructions for installation, back-out, and rollback are included in this document.

## Dependencies

The CPRS v30C project is for installation on a fully patched VistA system. There is also a Graphical User Interface (GUI) component that should be running on a Windows system. The installation of CPRS v30C is required for the future installations of CPRS GUI releases (such as V31 and V32).

## Constraints

CPRS v30C and associated M patches are expected to be installed on existing VistA platforms. The hardware may reside at local or regional data centers. CPRS v30C utilizes existing, nationally released security controls to control access.

# Roles and Responsibilities

No one single entity is in charge of decision making for deployment, installation, back out and rollback of CPRSv30c. Rather, the Critical Decision Point representatives (commonly referred to as the three in the box) under the Veterans In Process will meet and approve deployment and install from an OI&T perspective. If an issue with the software arises, then the same three in the box members under VIP will meet along with input from Patient Safety and Health Product Support to initiate a back out and rollback decision of the software along with Region and Site leadership. The following table provides CPRSv30c project information.

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

| **ID** | **Team** | **Phase / Role** | **Tasks** | **Project Phase (See Schedule)** |
| --- | --- | --- | --- | --- |
|  | Site personnel in conjunction with IT support – which may be local or regional. | Deployment | Plan and schedule deployment (including orchestration with vendors) | After national release. |
|  | Site personnel in conjunction with IT support – which may be local or regional. | Deployment | Determine and document the roles and responsibilities of those involved in the deployment. | After national release. |
|  | Site personnel. | Deployment | Test for operational readiness | After national release. |
|  | Site personnel in conjunction with IT support – which may be local or regional. The IT support will need to include person(s) to install the KIDS build as well as the personnel to deploy the GUI – which may be done on each machine, a shared network and/or the Citrix access gateway | Deployment | Execute deployment | After national release. |
|  | Site personnel in conjunction with IT support – which may be local or regional. The IT support will need to include person(s) to install the KIDS build as well as the personnel to deploy the GUI – which may be done on each machine, a shared network and/or the Citrix access gateway | Installation | Plan and schedule installation | After national release. |
|  | N/A – will work under the VistA ATO and security protocols. | Installation | Ensure authority to operate and that certificate authority security documentation is in place |  |
|  | N/A – no equipment is being added. | Installation | Validate through facility POC to ensure that IT equipment has been accepted using asset inventory processes |  |
|  | N/A – no new functionality is being introduced. | Installations | Coordinate training |  |
|  | Facility CIO and IT support – which may be local or regional. | Back-out | Confirm availability of back-out instructions and back-out strategy (what are the criteria that trigger a back-out) | After national release. |
|  | Hardware and System support – no changes.  Software support will be the CPRS Development Team during the compliance period. At the end of the compliance period, support will be transitioned to VistA Maintenance. | Post Deployment | Hardware, Software and System Support | After national release. |

# Deployment

The deployment is planned as a standard VistA National Patch Module patch rollout. Once approval has been given to nationally release, the patch OR\*3\*423 will be released from the National Patch Module. At this point, it will be available for installation and deployment at all sites.

Scheduling of test/mirror installs, testing and deployment to production will be at the site’s discretion. It is anticipated there will be a 30 day compliance period.

## Timeline

There is no timeline specifically for deployment. This is considered a maintenance release and installation will be at the site’s discretion, within the constraints of the compliance period for the release.

## Site Readiness Assessment

This section discusses the locations that will receive the CPRS v30C deployment.

### Deployment Topology (Targeted Architecture)

CPRS v30C will be deployed to each VistA instance. That will include local sites as well as regional data processing centers. The executable will also be deployed to the Citrix Access Gateway. There are also instances, such as the Meds by Mail personnel who may not have a VistA instance, but will have the executable deployed.

### Site Information (Locations, Deployment Recipients)

The initial deployment will be to IOC sites for verification of functionality. Once that testing is completed and approval is given for national release, CPRS v30C (OR\*3\*423) will be deployed to all VistA systems.

The Production (IOC) testing sites are:

Salem VAMC, Central Plains HCS, Visn2 Upstate New York HCS and Hines VAMC.

### Site Preparation

There is no special preparation required for CPRS v30C. A fully patched VistA system is the only requirement.

## Resources

### Facility Specifics N/A

### Hardware

N/A

### Software

N/A

### Communications

Service Delivery and Engineering (SDE) Field Implementation Services will be sending out an SDE Bulletin prior to the release of CPRS v30C advising them of the upcoming release.

CPRS v30C will be deployed using the standard method of patch release from the National Patch Module rather than a phased deployment. When patch OR\*3\*423 is released, the National Patch Module will send a notification to all the personnel who have subscribed to those notifications.

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

The deployment and installation will be performed by site support personnel once it is nationally released.

# Installation

## Pre-installation and System Requirements

CPRS v30C assumes a fully-patched VistA system.

## Platform Installation and Preparation

Please check your system to verify that the following, previously released national patches are installed:

* OR\*3\*269
* OR\*3\*348
* OR\*3\*350
* OR\*3\*389

This patch (VistA KIDS Build) should take less than 5 minutes to install. The time for the post-install rebuild of the cross-references as well as the move of the supply quick orders will depend upon the size of the ORDER file (#100) and the number of supply quick orders, respectively.

The time to deploy the GUI will depend on which method the site utilizes for running the executable (network share, Citrix, individual workstation install, etc.).

It is recommended that the installation be done during non-peak hours. If at all possible, the users should not be in CPRS when the KIDS installation is being performed.

The GMRCOR CONSULT entry in the ORDER DIALOG (#101.41) file will be overwritten. Please review and save your entry in the event you have custom/site modifications that will need to be reapplied after installation. The changes will have to be applied manually so that the new GMRCOR CONSULT dialog retains the defect repair being done in OR\*3\*423.

## Download and Extract Files

CPRS v30C is being released as two host files.

The preferred method is to retrieve files from download.vista.domain.ext.

This transmits the files from the first available server. Sites may also elect to retrieve files directly from a specific server.

Sites may retrieve the software and/or documentation directly using Secure File Transfer Protocol (SFTP) from the ANONYMOUS.SOFTWARE directory at the following

OI Field Offices:

Albany: ftpserver.domain.ext

Hines: ftpserve.domain.ext

Salt Lake City: ftpsrv.domain.ext

Documentation can also be found on the VA Software Documentation Library at:

<http://www4.domain/vdl/>

CPRS v30C files

| CPRS v30 files to be downloaded | File Contents | Download Format |
| --- | --- | --- |
| OR\_30\_423.KID | M changes for CPRS v30C | ASCII |
| OR\_30\_423.ZIP | CPRS executable | Binary |

## Database Creation

N/A

## Installation Scripts

N/A

## Cron Scripts

N/A

## Access Requirements and Skills Needed for the Installation

Installation of CPRS v30C requires the following to install:

* Programmer access to VistA instance and ability to install KIDS build.
* Citrix Access Gateway (CAG) installs – access/ability to upload to the CAG.
* Network Share installs – access/ability to upload executable to the network share location.
* Individual work-station installs – access/ability to push executable to required work stations.
* Loader installs – access/ability to upload new executable to the GOLD directory.

## Installation Procedure

### OR\*3\*423 KIDS Installation

This patch should be loaded during non-peak hours to minimize disruption to users. Installation will take less than 5 minutes. Users may remain on the system.

1. From the Kernel Installation and Distribution System Menu, select the Installation menu.
2. Next, select ‘Load a Distribution’. When prompted “Enter a Host File: “, enter <directory>OR\_30\_423.KID (where directory represents the location where you stored the KIDS file).
3. When prompted: Build OR\*3.0\*423 has an Environmental Check Routine, Want to RUN the Environment Check Routine? YES//”, respond YES.
4. When prompted: GMRCOR CONSULT in ORDER DIALOG (#101.41) will be overwritten. Continue? NO//” respond YES, ensure you have followed the pre-installation instructions regarding saving off the dialog in the event you have site modifications.
5. From the Kernel Installation and Distribution System Menu, select the Installation menu.

6. From this menu, you may elect to use the following options

a. Backup a Transport Global

b. Compare Transport Global to Current System

c. Verify Checksums in Transport Global

7. Use the Install Package(s) options and select the package OR\*30\*423.

8. When prompted for “GMRCOR CONSULT in ORDER DIALOG (#101.41) will be overwritten. Continue? NO//”, Respond YES.

9. When prompted “Want KIDS to Rebuild Menu Trees Upon Completion of Install?”, respond NO.

10. When prompted 'Want KIDS to INHIBIT LOGONs during the install? NO//'

respond NO.

11. When prompted ‘Want to DISABLE Scheduled Options, Menu Options, and Protocols? NO//’, respond NO.

After the installation is complete, the installer will receive two different messages.

The first one is related to some updates that required changes to the order check expert system and should be received immediately:

Subj: Order Check Compiler Status  [#79192] 07/22/16@11:27  14 lines

From: POSTMASTER  In 'OR' basket.   Page 1

-------------------------------------------------------------------------------

  The Order Check routine compiler has completed normally

      on JUL 22,2016 at 11:27 by [12098]  PATCH,INSTALLER

       ORDER CHECK EXPERT version 1.01 released OCT 29,1998

                   Elapsed time: 0 minutes 4 seconds

                                 Automatic Mode

           Execution Trace Mode: OFF

      Elapsed time Logging Mode:

          Raw Data Logging Mode: OFF

        Lines of code generated: No longer tracked

Enter message action (in OR basket): Ignore//

The second message is related to the C and D cross-references being rebuilt. That message will only be sent when that rebuild is completed. Depending upon the size of your ORDER file (#100), that rebuild may take quite a bit of time:

Subj: PATCH OR\*3.0\*423 ORDER INDEX CORRECTION STATUS  [#79193] 07/22/16@11:27 1 line

From: POSTMASTER  In 'OR' basket.   Page 1

-------------------------------------------------------------------------------

The file #100 index correction from OR\*3.0\*423 was successfully completed.

Enter message action (in OR basket): Ignore//

### CPRS v30C GUI Installation

The ZIP file contains the CPRS GUI executable. Download the ZIP file and extract all the files.

#### CPRS GUI Methods of Installation

Some changes to the usual methods of installation of CPRS are necessary due to the roll-out of Windows 7 as a desktop Operating System. In the past, sites have used primarily four methods to distribute the application

* **Network (shared) installation:**  
  Where the executable is placed on a network drive, with a shortcut on users’ desktops. The executable is replaced when no users are accessing the GUI program.  
  There are no changes necessary to this method of installation—local policies and procedures should be followed.
* **Citrix installation:**  
  Where the executable is run on a remote workstation and the user views the screen remotely.  
  There are no changes necessary to this method of installation—local policies and procedures should be followed.
* **Gold Path installation:**

Where the new executable is placed in a common shared location (called a gold path), and updated when the CPRS GUI is first accessed from the local workstation.

* **Manual install:**

This method is used primarily for advanced users and at testing locations.  
This method is somewhat changed from that used previously for Windows XP workstations.

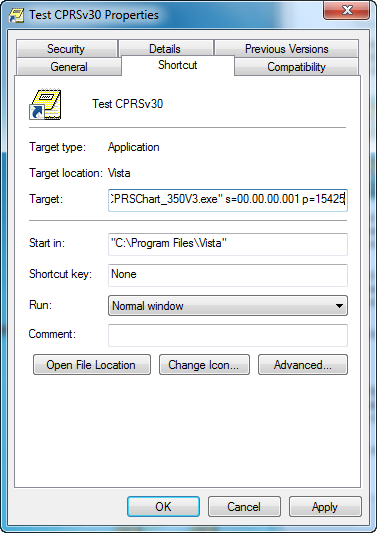
1. Locate the OR\_30\_423.ZIP and unzip the file.
2. Copy the CPRSChart.exe to a test directory, for example, C:\cprstest. You may need to create this new directory.

**Note:** You may need to have a user with Administrator rights complete this step.

1. Create a Shortcut and name it “Test CPRSv30”. This is to give the user another visual cue that this is not the normal CPRS icon.

This shows a CPRS icon named test cprsv30.

1. Copy the borlandmm.dll file into the same directory as cprschart.exe (for example, c:\cprstest). This file should be in the same directory as the CPRSChart.exe for CPRS v30C.
2. Determine the DNS server name or IP address for the appropriate VistA server.
3. Determine the Broker RPC port for the VistA account.
4. Enter IP and RPC port in the Target field of the Shortcut properties (or use ServerList.exe).



Example of what the shortcut properties dialog might look like.

The server and port number shown above are not real and are for example only.

## Installation Verification Procedure

1. Launch the CPRS GUI and verify the splash screen now announces that you are running version 30.75.
2. Execute the provided test scripts and verify that all tests pass.

## System Configuration

N/A

## Database Tuning

N/A

# Back-Out Procedure

## Back-Out Strategy

A patch has been created (OR\*3\*432) that will revert the OE/RR components to their pre-v30C state. This includes everything transported in the OR\*3\*423 (CPRS v30C) build.

To revert the CPRS GUI, the 30.72 (CPRS v30B) GUI would have to be redistributed.

## Back-Out Considerations

### Load Testing

No load testing was performed on v30C. This was a maintenance release to correct defects discovered in v30B. There was no additional functionality included.

### User Acceptance Testing

**TBD (once testing is complete)**

User acceptance testing was conducted by 4 test sites listed in section 3.2.2.

The sites followed the provided test plan and executed the test cases according to the plan. The sites either passed or failed any item based on testing. The tests were performed by Clinical Application Coordinators at each site who are familiar using the CPRS application. The test cases were then delivered with concurrence by the sites to the CPRS development team. Any items that failed were re-developed and then sent back to the sites for further acceptance testing following the same process

## Back-Out Criteria

Back-out would only be considered if there was a catastrophic failure that cause loss of function for the CPRS application and a significant patient safety issue.

## Back-Out Risks

Backing out CPRS v30C would result in the re-instatement of the two patient safety issues being corrected as well as the issues addressed in CPRS v30C.

In addition, there is a risk that the process, which would be performed only in an emergent situation, would significantly impact patient care due to the interruption.

## Authority for Back-Out

The Facility CIO has the final authority to require the rollback and accept the associated risks.

## Back-Out Procedure

These steps assume that the only reason to consider a back-out for CPRS v30C is in the event of a catastrophic failure.

1. Contact the CPRS v30C implementation team to notify them there has been a catastrophic failure with v30C. Use the mail group: OIT PD CPRS Implementation Team In addition, phone/use Lync to contact:

|  |  |  |
| --- | --- | --- |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

1. If the decision is made to proceed with back-out and rollback, the CPRS development team will send you a copy of the patch OR\*3\*432 as well as give you the instructions on downloading the CPRS v30B executable.
2. Coordinate with the appropriate IT support: local and regional to schedule the time to install OR\*3\*432 and to push out / install the previous GUI executable.
3. Once OR\*3\*432 and CPRS v30B have been installed, verify operations before making available to all staff.

## Back-out Verification Procedure

1. Verify the OPTION file (#19) for OR CPRS GUI CHART is set to CPRSChart version 1.0.30.72.
2. Ensure the v30B executable launches properly.
3. Perform regression testing on Orders, Notes, Consults and Reports.
4. Perform site-specific testing appropriate to the areas where the catastrophic failure was identified.

# Rollback Procedure

## Rollback Considerations

Any rollback that is required will be performed by the back-out patch OR\*3\*432. There are only two database updates in OR\*3\*423 (v30C). The first is to correct the ‘C’ and ‘D’ cross-references. There is no need to rollback these changes.

The second relates to quick orders using the PSO SUPPLY dialog. The movement from this dialog back to PSO OERR is necessary for supply quick orders to function appropriately so this change will not be rolled back.

## Rollback Criteria

N/A

## Rollback Risks

N/A

## Authority for Rollback

The Facility CIO has the final authority to require the rollback and accept the associated risks.

## Rollback Procedure

N/A

## Rollback Verification Procedure

N/A