# **Event Capture System 2.0 Graphical User Interface**

# Deployment, Installation, Back-out, and Rollback Guide



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#### **Revision History**

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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 Guide* (DIBRG) 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.

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#### 1. Introduction

This document describes how to deploy and install the Event Capture (EC) EC\*2.0\*161 patch, 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.

The entry for Patch EC\*2.0\*161 in the National Patch Module (NPM) on FORUM provides detailed instructions for the installation of this patch. A copy of these instructions is distributed to sites in the PackMan e-mail message along with the software. This current document details the criteria for determining if a back-out is necessary, the authority for making that decision, the order in which installed components will be backed out, the risks and criteria for a rollback, and authority for acceptance or rejection of the risks.

## 1.1 Purpose

The purpose of this plan is to provide a single, common document that describes how, when, where, and to whom the Event Capture System (ECS) Fiscal Year 22 (FY22) Patch EC\*2.0\*161 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.

The intended audience includes Technical Services, National Veterans Health Information Systems and Technology Architecture (VistA) Support and Software Quality Assurance (SQA).

## 1.2 Dependencies

There are no new dependencies beyond those covered under separate topics within this document that are being introduced in this version of the ECS application.

#### 1.3 Constraints

ECS FY22 has the following constraint:

• Data is available from other packages

# 2. Roles and Responsibilities

Table 1 identifies, at a high level, the parties responsible for supporting VistA patches.

Table 1 DIBRG Roles and Responsibilities

| Team  | Phase /<br>Role    | Tasks  | Project Phase |
|---|--------------------|--|---------------|
| VA Office of Information<br>and Technology (OIT), VA<br>OIT Health Product<br>Support & Project<br>Management Office (PMO)    | Deployment         | Plan and schedule deployment (including orchestration with vendors)  | Planning      |
| Local Individual Veterans<br>Administration Medical<br>Center (VAMC)  | Deployment         | Determine and document the roles and responsibilities of those involved in the deployment.   | Planning      |
| Field Testing (Initial<br>Operating Capability –<br>(IOC)), Health Product<br>Support Testing & VIP<br>Release Agent Approval | Deployment         | Test for operational readiness   | Testing       |
| Health Product Support<br>(HPS) and Field<br>Operations   | Deployment         | Execute deployment   | Deployment    |
| VIP Release Agent   | Installation       | Plan and schedule installation. Obtain authority to operate and confirm that certificate authority security documentation is in place. | Deployment    |
| Managerial Cost<br>Accounting Office (MCAO)<br>ECS Team   | Installations      | Coordinate knowledge transfer with the team responsible for user training.   | Deployment    |
| VIP Release Agent, Health<br>Product Support, and the<br>ECS development team   | Back-out           | Confirm availability of back-out instructions and back-out strategy (what are the criteria that trigger a back-out)                    | Deployment    |
| ECS Team  | Post<br>Deployment | Hardware, Software and System Support  | Warranty      |

## 3. Deployment

Site deployment is divided into three distinct phases:

- 1. Pre-Installation/Initial Site Setup
- 2. Pre-Production/Test Environment Installation
- 3. Production Environment Installation

Section 4 details the required steps each Initial Operating Capability (IOC) site must perform in order to successfully install Patch EC\*2.0\*161.

#### 3.1 Timeline

Patch EC\*2.0\*161 is scheduled to be installed and deployed in the IOC site production environments. During this time, the testers will perform production testing and the Enterprise Service Line (ESL) Patch Installer will verify the installation to ensure there are no errors.

#### 3.2 Site Readiness Assessment

Per the Veteran-Focused Integration Process (VIP) guidelines, a Critical Decision (CD) 2 event will be conducted to review the patch and its readiness for release into the IOC production environment. Upon approval from ECS leadership, the patch will proceed to IOC production testing. Upon successful production testing, the patch is ready for National Release.

The Patch will be released by VA HPS and the Patch Development Team will upload all relevant patch documentation to the VA Software Documentation Library (VDL).

The Patch Development Team will provide support to VA HPS.

The software product shall conform to the existing VistA conventions. The reports, options, and screen formats shall conform to the conventions using a Graphical User Interface (GUI). Pilot (Pre-Alpha, Alpha, and Beta) sites will test options processing for usability. This will ensure that all new functionality meets the needs of the Veterans Health Administration (VHA) user.

## 3.2.1 Deployment Topology (Targeted Architecture)

Patch EC\*2.0\*161, a patch to the EC package, is installable on a fully patched Massachusetts General Hospital Utility Multi-Programming System (MUMPS) VistA system and operates on top of the VistA environment provided by the VistA infrastructure packages. The latter provide utilities which communicate with the underlying operating system and hardware, thereby providing ECS independence from variations in hardware and operating system.

## 3.2.2 Site Information (Locations, Deployment Recipients)

ECS FY22 Patch EC\*2.0\*161 will be deployed Enterprise-wide.

## 3.2.3 Site Preparation

No additional site preparation activities are required. ECS FY22 will run under current site configuration.

#### 3.3 Resources

This section describes the relevant hardware, software, facilities, and documentation for ECS FY22 Patch EC\*2.0\*161 deployment.

#### 3.3.1 Hardware

No new hardware or other resources are required.

#### 3.3.2 Software

Table 2 describes the minimum version for VistA infrastructure software applications for installation and normal operation. The following package versions (or higher) must be installed prior to loading this patch of EC:

**Table 2 Software Specifications** 

| Required<br>Software  | Make | Version | Configuration | Manufacturer | Other |
|---|------|---------|---------------|--------------|-------|
| Current Procedural<br>Terminology (CPT) /<br>Healthcare Common<br>Procedure Coding<br>System (HCPCS)<br>Codes | *    | 6.0     | *             | *            | *     |
| Diagnosis Related<br>Group (DRG)<br>Grouper   | *    | 18      | *             | *            | *     |
| Kernel  | *    | 8.0     | *             | *            | *     |
| MailMan   | *    | 8.0     | *             | *            | *     |
| Patient Care<br>Encounter (PCE)   | *    | 1.0     | *             | *            | *     |
| Patient Information<br>Management Service<br>(PIMS)   | *    | 5.3     | *             | *            | *     |
| Registration  | *    | 5.2     | *             | *            | *     |
| Remote Procedure<br>Call (RPC) Broker   | *    | 1.1     | *             | *            | *     |
| ToolKit   | *    | 7.3     | *             | *            | *     |
| FileMan   | *    | 22.2    | *             | *            | *     |

<sup>\*</sup>Information maintained by the VA.

#### 3.3.3 Communications

Communications with test sites continues to be through e-mail, Patch Tracking Message in FORUM and Outlook, and one-on-one telephone calls to individuals involved in testing.

#### 3.3.3.1 Deployment/Installation/Back-out Checklist

The Release Management team will deploy the patch EC\*2.0\*161, which is tracked nationally for all VAMCs in the National Patch Module (NPM) in FORUM.

FORUM automatically tracks the patches as they are installed in the different VAMC production systems. A report can be run in FORUM to identify when the patch was installed in the VistA production at each site. A report can also be run to identify which sites have not currently installed the patch in their VistA production system. Therefore, this information will no longer be manually tracked in this document.

#### 4. Installation

The electronic release package contains a single EXE file and supporting documentation. The executable is generated from a baseline. The electronic production release package media will be labeled with an identification number, descriptive name, and release date.

## 4.1 Pre-Installation and System Requirements

The ECS GUI may run in a test environment before installation, but this is not necessary. EC runs on the standard hardware platforms used by VA Healthcare facilities. These systems consist of Virtual Memory System (VMS)/Cache or Linux/Cache platforms.

To run this Delphi-based application, the following is recommended:

- Intel Core I3 or higher (I5 recommended)
- Microsoft Windows 7 or higher
- Memory: 4GB of RAM or higher
- Hard disk space: 50GB
- Extended Graphics Array (XGA) or higher resolution monitor

Software that is wholly a local development effort (e.g., BA Loader) may not be compatible with EC. Verify compatibility prior to installation.

## 4.2 Platform Installation and Preparation

No new hardware or other resources are required.

#### 4.3 Download and Extract Files

Patch EC\*2.0\*161 is provided to IOC sites as a Kernel Installation and Distribution System (KIDS) build via FORUM. Refer to the EC\*2.0\*161 patch documentation in the NPM.

#### 4.4 Database Creation

The patch is applied to an existing MUMPS VistA database.

## 4.5 Installation Scripts

Installation scripts are not needed for software installation. Refer to the EC\*2.0\*161 patch documentation in the National Patch Module (NPM).

## 4.6 Cron Scripts

There are no Cron scripts associated with ECS or its installation.

# 4.7 Access Requirements and Skills Needed for the Installation

Access to the National VA Network, as well as the local network of each site to receive patches, is required to perform the installation, as well as authority to install patches.

Account Access Requirements for Installation:

- Access: Programmer @ sign to ensure all programmer access at the sites
- MailMan access

Skill level requirements for installation:

- Knowledge of GUI navigation and commands to support install
- Knowledge and ability to verify checksums
- Knowledge and ability to back up globally
- Knowledge and ability to check error traps
- Knowledge and ability to troubleshoot installation issues

Instructions on how to perform these installation functions are included in this installation guide, as well as in the formal NPM Patch Description that is sent to site/regional personnel prior to the installation.

#### 4.8 Installation Procedure

The subsections below describe the steps for installing Patch EC\*2.0\*161.

#### 4.8.1 Load Transport Global

Choose the PackMan message containing the EC\*2.0\*161 patch and invoke the INSTALL/CHECK MESSAGE PackMan option.

#### 4.8.2 Server Installation

- 1. Use the INSTALL/CHECK MESSAGE option on the PackMan menu to unload the KIDS distribution included with this message.
- 2. From the KIDS Menu, select the Installation menu.
- 3. The following steps are optional but are recommended. (When prompted for INSTALL NAME, enter EC\*2.0\*161):
  - a) Backup a Transport Global This option will create a backup message of any routines exported with the patch. It will NOT backup any other changes such as Data Dictionaries (DD) or templates.
  - b) Compare Transport Global to Current System This option allows you to view all changes that will be made when this patch is installed. It compares all components of this patch (routines, DD's, templates, etc.).
  - c) Verify Checksums in Transport Global This option allows you to ensure the integrity of the routines that are in the transport global.
  - d) Print Transport Global This option allows you to view the components of the KIDS build.
- 4. Use the Install Package(s) option and select the package **EC\*2.0\*161**.
- 5. If prompted 'Want KIDS to Rebuild Menu Trees Upon Completion of Install? NO//' Answer **NO** unless your system does this in a nightly TaskMan process.
- 6. When prompted 'Want KIDS to INHIBIT LOGONs during the install? NO//' answer NO.
- 7. When prompted 'Want to DISABLE Scheduled Options, Menu Options, and Protocols? NO//' answer YES.
- 8. When prompted 'Enter options you wish to mark as 'Out of Order':' Enter the following options: EC GUI Context version 2.9.0.0

9. When prompted 'Enter protocols you wish to mark as 'Out of Order':' press **<Enter>**.

#### 4.8.3 **KIDS Installation Example**

```
Select Installation <TEST ACCOUNT> Option: 6 Install Package(s)
Select INSTALL NAME: EC*2.0*161
                                   11/7/22@15:35:59
    => EC*2*161 TEST v1
This Distribution was loaded on Nov 07, 2022@15:35:59 with header of
  EC*2*161 TEST v1
  It consisted of the following Install(s): EC*2.0*161
Checking Install for Package EC*2.0*161
Install Questions for EC*2.0*161
Want KIDS to Rebuild Menu Trees Upon Completion of Install? NO//
Want KIDS to INHIBIT LOGONs during the install? NO//
Want to DISABLE Scheduled Options, Menu Options, and Protocols? YES//
Enter options you wish to mark as 'Out Of Order': EC GUI CONTEXT
EC GUI Context version 2.9.0.0
Enter options you wish to mark as 'Out Of Order':
Enter protocols you wish to mark as 'Out Of Order':
Delay Install (Minutes): (0-60): 0//
Enter the Device you want to print the Install messages.
You can queue the install by enter a 'Q' at the device prompt.
Enter a '^' to abort the install.
DEVICE: HOME// ;132;999 UCX/TELNET
Install Started for EC*2.0*161:
             Nov 07, 2022@16:24:59
Build Distribution Date: Nov 03, 2022
Installing Routines:
              Nov 07, 2022@16:24:59
 Installing PACKAGE COMPONENTS:
 Installing OPTION
              Nov 07, 2022@16:24:59
 Updating Routine file...
 Updating KIDS files...
 EC*2.0*161 Installed.
              Nov 07, 2022@16:24:59
Not a production UCI
Install Completed
```

#### 4.8.4 Select Installation Option

When prompted for the INSTALL NAME, enter **EC\*2.0\*161** 

The following steps are optional, but are recommended:

- 1. Backup a Transport Global
  - This option creates a backup message of any routines exported with this patch. It will not backup any other changes such as Data Dictionaries or templates.
- 2. Compare Transport Global to Current System
  - This option allows the installer to view all changes that will be made when this patch is installed. It compares all components of this patch (routines, Data Dictionaries, templates, etc.).
- 3. Verify Checksums in Transport Global
  This option allows the installer to ensure the integrity of the routines that are in the transport global.

#### 4.8.5 Install Package(s)

The following steps start the installation of the KIDS patch:

- 1. Choose the Install Package(s) option to start the patch install. Enter **EC\*2.0\*161** when prompted for a build name.
- 2. When prompted 'Want KIDS to Rebuild Menu Trees Upon Completion of Install? NO//' respond NO.
- 3. When prompted 'Want KIDS to INHIBIT LOGONs during the install? NO//' respond NO.
- 4. When prompted 'Want to DISABLE Scheduled Options, Menu Options, and Protocols? NO//' respond **YES**.
- 5. When prompted 'Enter options you wish to mark as 'Out of Order', enter the following option: EC GUI Context version 2.9.0.0
- 6. When prompted 'Enter protocols you wish to mark as 'Out of Order' press **Enter**>.
- 7. If prompted 'Delay Install (Minutes): (0-60): 0// answer "0" (unless otherwise indicated).

#### 4.9 Installation Verification Procedure

The Application Coordinator is responsible for coordinating the activities for the national release of the product or patch, representing HPS as a member of the project team for the product or patch release. This includes working with the appropriate Sustainment Manager (SM) to ensure a smooth and successful transition of the product from development to sustainment.

Table 3 lists the release deployment Point of Contact (POC) information for ECS FY22.

Table 3 Release Deployment POC Information

| Release Identification | Release Package POC Name    | Release Package POC Email |
|------------------------|-----------------------------|---------------------------|
| EC*2.0*161             | HPS Application Coordinator | REDACTED                  |

The POC for each process will verify that all required inputs are available. Upon completion of each subtask in the execution, the POC will verify that all required outputs have been generated and all the necessary exit criteria have been met.

The master process is not considered complete until all related sub-tasks for the perceived entry criteria have been completed. Verification and validation are performed to ensure that the processes executed meet the needs of the development effort and the execution of this process satisfies the certification requirements of the organization requesting the activity.

## 4.10 System Configuration

No system configuration changes are required.

## 4.11 Database Tuning

No reconfiguration of the VistA database, memory allocation, or other resources is necessary for ECS Patch EC\*2.0\*161.

#### 5. Client Installation

This section provides instructions for the ECS GUI command line parameters, client installation, and accessing ECS GUI via the Computerized Patient Record System (CPRS). Screen images have also been included.

#### 5.1 Command Line Parameters

The necessary command line parameters are entered in the "Target" field of the shortcut properties. Table 4 lists the Command Line Parameters. The parameters may be in any order. Parameters S and P are a set (i.e., they must both be present, or they will be ignored). To take advantage of the Clinical Context Object Workgroup (CCOW) Single Sign-on in Event Capture, add the CCOW parameter to the shortcut. The CCOW parameter should only be added if the Vergence desktop program is installed.

| Parameter | Example (Default) | Description   |
|-----------|-------------------|---|
| S=        | S=BrokerServer    | The name of the ECS GUI BrokerServer as defined in the Host file. The default is 'BrokerServer' |
| P=        | P=nnnn            | The ServerPort used by the ECS GUI BrokerServer.  Example P=9200                                |
| CCOW      | CCOW              | Enable EC to utilize CCOW Single Sign-on functionality.   |

**Table 4 Command Line Parameters** 

#### 5.2 ECS GUI Client Installation

The application file (ECS GUI.exe) is zipped into the file EC\_2\_P161.zip. Sites may retrieve the file EC\_2\_P161.zip directly from the VA Index of Software Documentation webpage.

Note: It is strongly suggested to use Chrome for the download. Internet Explorer and Edge do not save the file with the correct file extension (.zip).

This application file will need to be unzipped and copied to a directory; a shortcut to that file can be created to run the application. These steps are listed below.

Follow these instructions to install the ECS GUI.

- 1. Save the zip file to one of your network or local drives. Do not save it directly to the desktop.
- 2. Double-click on the zip file. The following window will appear (Figure 1).

EC 2 PXXX.zip × Extract Compressed Folder Tools → ↑ Irwin, Lorina L. (Booz Allen Hamilton) → Library → Executable → EC 2 PXXX.zip Search EC\_2\_PXXX.zip Favorites Password p... Size Ratio Type Compressed size Library ECS GULexe 3.977 KB No 10.890 KB 64% 7/22/2022 3:17 PM Application EC 2 PXXX.zip 

Figure 1 Example of Opening the zip File

- 3. Right-click the ECS GUI application file and select Copy.
- 4. Choose an existing folder to install the program or create a new one. (a common location is C:\Program Files\VistA\EC). Paste **ECS GUI.exe** into the target directory.
- 5. The application file will open in the explorer window for that directory (Figure 2).

Figure 2 Example of Application File in Folder



- 6. Now that the application file is in the directory, right-click on it and select **Send to → Desktop** (create shortcut).
- 7. A Shortcut should be created on the desktop (Figure 3).

Figure 3 Example of Desktop Shortcut



- 8. Right-click on the newly created shortcut and select Properties and navigate to the shortcut tab.
- 9. After the file name (listed in Target), add the server (example: s=XXXX) and port (example: p=XXXX), as shown in Figure 4. Ensure there is a single space before the server and port information.
- 10. The server and port can be provided for a particular site. Without this information, EC will not be able to run. To enable EC to use CCOW Single Sign-on, add the text "CCOW" after the port information.
- 11. Click Apply.
- 12. The setup is complete.

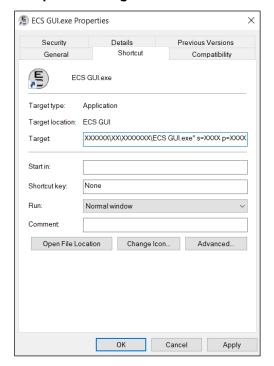


Figure 4 Example of Adding Server and Port to the Target Field

## 5.3 Accessing ECS GUI via CPRS Single Sign-On

ECS user authentication can be achieved via Single Sign On (SSO) through CPRS. This is achieved by selecting the Event Capture Interface in the CPRS Tools Menu which allows the user to enter Event Capture patient procedures. When accessing Event Capture in this way, both user and patient context are maintained. This CPRS feature requires set up by local Technical Support and/or the Clinical Application Coordinator.

#### 5.3.1 Instructions for Setting Up the CPRS Menu

Parentheses denote abbreviations that can be entered instead of entering the full name of the option.

- 1. From the CPRS Configuration Menu for Clinical Coordinators, enter **GUI Parameters** (GP) at the prompt.
- 2. From the list of options given, enter **GUI Tool Menu Items** (TM) at the prompt.
- 3. From the list of options given, enter **Package** (9). Choosing this option gives functionality to all users. Choose User (1) to assign this functionality to a single user.
- 4. The user will receive two messages; one regarding the parameters set for 'Package' and the other for the Setting of the CPRS GUI Tools Menu for Package.
- 5. The user will be asked to select a sequence. Type a question mark (?) to get a list of options.
- 6. Enter a number higher than the last option to add a new option.
- 7. When asked if you are adding a new option, enter **YES**.

- 8. When prompted for a "Name=Command", enter: **Event Capture Interface**= plus the full path to the ECS executable. The specific words "Event Capture Interface" are required to maintain this context preserving functionality between CPRS and ECS. See Example:
  - Event Capture Interface = "c:\program files\vista\ec\ecs gui.exe"
- 9. When asked to select a sequence again, press **Enter**> to get out of the prompt.

#### **Example: Setting Up EC Option in the Tools Menu of CPRS GUI:**

```
Allocate OE/RR Security Keys
  AL
  KK
          Check for Multiple Keys
  DC
          Edit DC Reasons
  GΡ
          GUI Parameters ...
  GA
          GUI Access - Tabs, RPL
  MΙ
          Miscellaneous Parameters
  NO
          Notification Mgmt Menu ...
  OC
          Order Checking Mgmt Menu ...
  MM
          Order Menu Management ...
          Patient List Mgmt Menu ...
  LΙ
  FΡ
          Print Formats
          Print/Report Parameters ...
  PR
          Release/Cancel Delayed Orders
  RE
  US
          Unsigned orders search
          Set Unsigned Orders View on Exit
  EΧ
  NA
          Search orders by Nature or Status
          Care Management Menu ...
  CA
          Event Delayed Orders Menu ...
  DO
          Lapsed Order search
  LO
          Performance Monitor Report
  РM
Select CPRS Configuration (Clin Coord) Option: GP GUI Parameters
  CS
          GUI Cover Sheet Display Parameters ...
          GUI Health Summary Types
  HS
          GUI Tool Menu Items
  ΤМ
          GUI Parameters - Miscellaneous
  MP
  UC
          GUI Clear Size & Position Settings for User
  RE
          GUI Report Parameters ...
  NV
          GUI Non-VA Med Statements/Reasons
  EΧ
          GUI Expired Orders Search Hours
          GUI Remove Button Enabled
  RM
  NON
          GUI Remove Button Enabled for Non-OR Alerts
         GUI Edit Inpatient Clozapine Message
  CLOZ
  COAG
         GUI Anticoagulation Parameters ...
             **> Out of order: On hold
          GUI Mark Allergy Entered in Error
  EIE
Select GUI Parameters Option: TM GUI Tool Menu Items
CPRS GUI Tools Menu may be set for the following:
     1
         User
                       USR
                              [choose from NEW PERSON]
```

```
LOC
    2 Location
                           [choose from HOSPITAL LOCATION]
    2.5 Service
                     SRV [choose from SERVICE/SECTION]
    3 Division
                    DIV [choose from INSTITUTION]
    4 System
                      SYS
                           [PERF.ISC-BAYPINES.VA.GOV]
        Package
                      PKG [ORDER ENTRY/RESULTS REPORTING]
    9
Enter selection: 9 Package ORDER ENTRY/RESULTS REPORTING
Parameters set for 'Package' may be replaced if ORDER ENTRY/RESULTS
     REPORTING is installed in this account.
-- Setting CPRS GUI Tools Menu for Package: ORDER ENTRY/RESULTS REPORTING
Select Sequence: ?
    Sequence
                                     Value
                                     ____
    _____
                                     &Time=Clock.exe
    2
                                     &Calculator=Calc.exe
    3
                                     &Windows Introduction=WinHlp32 Wind
    4
                                     &Notepad=Notepad.exe
Select Sequence: 5
Are you adding 5 as a new Sequence? Yes// YES
Sequence: 5//
Name=Command: &Event Capture Interface="c:\program files\vista\ec\ecs gui.exe"
```

Note: If you desire to launch the full ECS application without maintaining User and Patient context, use a command name other than "Event Capture Interface."

An example of this would be: ECS="c:\program files\vista\ec\ecs gui.exe"

#### 6. Back-Out Procedure

To revert to the previous version of Event Capture, EC\*2.0\*156 RB1, the ESL Patch Installer performs backups on routines prior to patch installation. If for any reason a need arises, the ESL Patch Installer will back out the patch and revert to the previous backup point to restore their respective environments. Any changes that need to be reapplied to the database will be manually applied.

## 6.1 Back-Out Strategy

In the event that the Patch EC\*2.0\*161 package needs to be backed out, the ESL Patch Installers will assist the site with removing the VistA routines as needed.

#### 6.2 Back-Out Considerations

Back-out considerations would include the following:

- Health of site systems
- Ability to recover to a stable environment
- Minimal disruption to a site
- Minimize issues within the VistA host

#### 6.2.1 Load Testing

Load Testing is not applicable. The back-out process for Patch EC\*2.0\*161 would be executed at a normal, rather than raised job priority, and expected to have minimal effect on total system performance. To minimize potential impact on users, implementation of a back-out can be queued to run during hours of reduced user activity. After the reversion, the performance demands on the system would be unchanged.

## 6.2.2 User Acceptance Testing

It is expected that the restoration of the pre-EC\*2.0\*161 version of routines could be confirmed by IT Support quickly using utility CHECK1^XTSUMBLD, which returns the checksum or routine comparison utilities from VA Kernel without any need of User Acceptance Testing (UAT).

#### 6.3 Back-Out Criteria

A back-out of the software should only be performed in response to severe system impairment and there is no other option available.

Booze Allen Hamilton (BAH) will analyze the issue and related system functionality impairment and provide feedback. Based on the severity of the condition, a determination will be made by the Back-out authorities if a back-out of the software is required.

#### 6.4 Back-Out Risks

Risks for a back-out include:

- Further corruption of system
- Inability to completely remove all software code from system
- Loss of system functionality while back-out is in progress
- Loss of data; some records may never be recovered

#### **Authority for Back-Out** 6.5

The order would come from the Portfolio Director, the VA Project Manager, and the Business Owner. Health Product Support (HPS) will work to identify the problem and assist with implementation. This should be done in consultation with the development team and project stakeholders.

#### **Back-Out Procedure** 6.6

If for any reason a need arises, the ESL Patch Installer will back out the patch and revert to the previous backup point to restore their respective environments. Any changes that need to be reapplied to the database will be manually applied. It may be necessary for the developer to be given access to the site to assist with these procedures.

Prior to installing an updated KIDS package, the ESL Patch Installer should have saved a backup of the routines in a mail message, using the Backup a Transport Global [XPD BACKUP] menu option (this is done at the time of install). The message containing the backed-up routines can be loaded with the "Xtract PackMan" function at the Message Action prompt. The PackMan function INSTALL/CHECK MESSAGE is then used to install the backed-up routines onto the VistA system.

Coordinate with the ECS development team to receive a copy of the previous EC\*2.0\*156 RB1 GUI executable and installation instructions.

#### 6.7 **Back-Out Verification Procedure**

It is expected that the restoration of the pre-EC\*2.0\*161 version of routines could be confirmed by IT Support quickly using utility CHECK1<sup>x</sup>XTSUMBLD, which returns the checksum or routine comparison utilities from VA Kernel. Manually check database changes to verify that files are in their previous state.

#### **Rollback Procedure 7**.

The Rollback Procedure pertains to data. ECS does not roll back to the previous state of the data and/or platform settings.

#### **Rollback Considerations** 7.1

N/A

#### 7.2 **Rollback Criteria**

N/A

#### 7.3 **Rollback Risks**

N/A

#### **Authority for Rollback** 7.4

N/A

#### 7.5 **Rollback Procedure**

N/A

#### **Rollback Verification Procedure** 7.6

N/A

## Appendix A Acronyms

Table 5 lists the acronyms utilized throughout the ECS FY22 Deployment, Installation, Back-Out and Rollback Guide.

Table 5 Acronyms

| Acronym | Description   |
|---------|---|
| CCOW    | Clinical Context Object Workgroup                               |
| CD      | Critical Decision   |
| СМ      | Configuration Management  |
| CPRS    | Computerized Patient Record System                              |
| CPT     | Current Procedural Terminology                                  |
| DD      | Data Dictionary   |
| DIBRG   | Deployment, Installation, Back-Out, and Rollback Guide          |
| DRG     | Diagnosis Related Group   |
| EC      | Event Capture   |
| ECS     | Event Capture System  |
| ESL     | Enterprise Service Line   |
| FY      | Fiscal Year   |
| GP      | GUI Parameter   |
| GUI     | Graphical User Interface  |
| HCPCS   | Healthcare Common Procedure Coding System                       |
| HPS     | Health Product Support  |
| HSP     | Health Services Portfolio                                       |
| IOC     | Initial Operating Capability                                    |
| IT      | Information Technology  |
| KIDS    | Kernel Installation and Distribution System                     |
| MCA     | Managerial Cost Accounting                                      |
| MCAO    | Managerial Cost Accounting Office                               |
| MUMPS   | Massachusetts General Hospital Utility Multi-Programming System |
| N/A     | Not Applicable  |
| NPM     | National Patch Module   |
| OIT     | Office of Information and Technology                            |
| PCE     | Patient Care Encounter  |
| POC     | Point of Contact  |
| RPC     | Remote Procedure Call   |
| SM      | Sustainment Manager   |
| SQA     | Software Quality Assurance                                      |
| TM      | Tool Menu   |
| UAT     | User Acceptance Testing   |

| Acronym | Description   |  |
|---------|---|--|
| VA      | Department of Veterans Affairs                                  |  |
| VDL     | VA Software Documentation Library                               |  |
| VHA     | Veterans Health Administration                                  |  |
| VIP     | Veteran-Focused Integration Process                             |  |
| VISN    | Veterans Integrated Service Network                             |  |
| VistA   | Veterans Health Information Systems and Technology Architecture |  |
| VMS     | Virtual Memory System   |  |
| XGA     | Extended Graphics Array   |  |