Deployment, Installation, Back-Out, and Rollback Guide

Medical Care Collection Fund (MCCF) Electronic Data Interchange (EDI) Transaction Applications Suite (TAS) Phase 2

eInsurance IB*2.0*664

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Revision History

Date	Version	Description	Author
November 2020	1.3	IOC Exit – updated cover page and footers. Updated document with IOC test sites.	MCCF EDI TAS eInsurance
July 10, 2020	1.2	IOC Entry – updated based on eInsurance eBiz feedback	MCCF EDI TAS eInsurance
Jun. 18, 2020	1.1	IOC Entry - submission	MCCF EDI TAS eInsurance
Mar. 30, 2020	1.0	Version 1.0	MCCF EDI TAS eInsurance
Feb. 5, 2020	Draft	Draft Version	MCCF EDI TAS eInsurance

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 of these activities. Its purpose is to provide clients, stakeholders, and support personnel a smooth transition to the new product or software. This document should be structured to reflect the application of these procedures to either a single site or to multiple sites.

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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1 Introduction

This document describes how to deploy and install the IB*2.0*664 patch and how to back-out the product and rollback to a previous version or data set.

1.1 Purpose

The purpose of this plan is to provide a single, common document that describes how, when, where, and to whom IB*2.0*664 will be deployed and installed, as well as how the patches are 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.

1.2 Dependencies

The following patches must be installed **<u>before</u>** IB*2.0*664:
- IB*2.0*602
- IB*2.0*659

1.3 Constraints

This patch is intended for a fully patched VistA system.

2 Roles and Responsibilities

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

ID	Team	Phase / Role	Tasks	Project Phase (See Schedule)
1	VA OI&T, VA OI&T Health Services Portfolio& PMO	Deployment	Plan and schedule deployment (including orchestration with vendors)	Planning
2	Local VAMC and CPAC processes	Deployment	Determine and document the roles and responsibilities of those involved in the deployment.	Planning
3	Field Testing (Initial Operating Capability (IOC)), Health Services Portfolio Testing & VIP Release Agent Approval	Deployment	Test for operational readiness	Testing
4	Health Services Portfolio and Field Operations	Deployment	Execute deployment	Deployment

ID	Team	Phase / Role	Tasks	Project Phase (See Schedule)
5	Individual Veterans Affairs Medical Centers (VAMCs)	Installation	Plan and schedule installation	Deployment
6	VIP Release Agent	Installation	Ensure authority to operate and that certificate authority security documentation is in place	Deployment
7	N/A for this patch as we are using only the existing VistA system	Installation	Validate through facility POC to ensure that IT equipment has been accepted using asset inventory processes	N/A
8	VA's eBusiness team	Installation	Coordinate training	Deployment
9	VIP release Agent, Health Services Portfolio & the development team	Back-out	Confirm availability of back-out instructions and back-out strategy (what are the criteria that trigger a back-out)	Deployment
10	No changes to current process – we are using the existing VistA system	Post Deployment	Hardware, Software and System Support	Warranty

3 Deployment

The deployment is planned as a national rollout.

This section provides the schedule and milestones for the deployment.

3.1 Timeline

The deployment and installation is scheduled to run for 30 days starting with national release.

3.2 Site Readiness Assessment

This section discusses the locations that will receive the IB*2.0*664 deployment.

3.2.1 Deployment Topology (Targeted Architecture)

This patch IB*2.0*664 is to be nationally released to all VAMCs.

3.2.2 Site Information (Locations, Deployment Recipients)

The test sites for IOC testing are:
- BOSTON HCS
- MINNEAPOLIS, MN
- SHREVEPORT, LA

Upon national release all VAMCs are expected to install this patch within the compliance date.

3.2.3 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
N/A	N/A	N/A	N/A	N/A

3.3 Resources

3.3.1 Facility Specifics

The following table lists 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

3.3.2 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
Existing VistA system	N/A	N/A	N/A	N/A	N/A

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.

3.3.3 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
Fully patched Integrated Billing package within VistA	N/A	2.0	N/A	N/A	N/A
IB*2.0*602	N/A	Nationally released version	N/A	N/A	N/A
IB*2.0*659	N/A	Nationally released version	N/A	N/A	N/A

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.

3.3.4 Communications

The sites that are participating in field testing (IOC) will use the "Patch Tracking" message in Outlook to communicate with the eBusiness eInsurance sub-team, the developers, and product support personnel.

3.3.4.1   Deployment/Installation/Back-Out Checklist

The Release Management team will deploy the patch IB*2.0*664, which is tracked in the National Patch Module (NPM) in Forum, nationally to all VAMCs. Forum automatically tracks the patches as they are installed in the different VAMC production systems. One can run a report in Forum to identify when and by whom 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 systems. Therefore, this information does not need to be manually tracked in the chart below.

Table 6: Deployment/Installation/Back-Out Checklist

Activity	Day	Time	Individual who completed task
Deploy	N/A	N/A	N/A
Install	N/A	N/A	N/A
Back-Out	N/A	N/A	N/A

4 Installation

4.1 Pre-installation and System Requirements

IB*2.0*664, a patch to the existing VistA Integrated Billing 2.0 package, is installable on a fully patched M(UMPS) VistA system and operates on top of the VistA environment provided by the VistA infrastructure packages. The latter provides utilities which communicate with the underlying operating system and hardware, providing Integrated Billing independence from variations in hardware and operating system.

4.2 Platform Installation and Preparation

Refer to the IB*2.0*664 documentation on the National Patch Module (NPM) on Forum for the detailed installation instructions. These instructions will include any pre installation steps if applicable.

4.3 Download and Extract Files

Refer to the IB*2.0*664 documentation on the NPM to find the location of related documentation that can be downloaded. IB*2.0*664 will be transmitted via a PackMan message and can be pulled from the NPM. It is not a host file, and therefore does not need to be downloaded separately.

4.4 Database Creation

This patch does NOT introduce a new database. It uses the existing VistA database.

4.5 Installation Scripts

No installation scripts are needed for IB*2.0*664 installation.

4.6 Cron Scripts

No Cron scripts are needed for IB*2.0*664 installation.

4.7 Access Requirements and Skills Needed for the Installation

The following staff need access to the PackMan message containing the IB*2.0*664 patch or Forum's NPM in order to download the nationally released IB*2.0*664 patch. The software is to be installed by the sites or regions designated: VA OI&T IT OPERATIONS SERVICE, Enterprise Service Lines, and/or VistA Applications Division[1].

4.8 Installation Procedure

Refer to the IB*2.0*664 documentation on the NPM for the detailed installation instructions.

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[1] "Enterprise service lines, VAD" for short. Formerly known as the IRM (Information Resources Management) or IT support.

4.9 Installation Verification Procedure

Refer to the IB*2.0*664 documentation on the NPM for detailed installation instructions. These instructions include any post installation steps if applicable.

4.10 System Configuration

No system configuration changes are required for this patch.

4.11 Database Tuning

No reconfiguration of the VistA database, memory allocations or other resources is necessary.

5 Back-Out Procedure

Back-Out pertains to a return to the last known valid instance of operational software and platform settings.

5.1 Back-Out Strategy

Although it is unlikely, due to care in collecting, elaborating, and designing approved user stories, followed by multiple testing stages (Developer Unit Testing, Component Integration Testing, SQA Testing, and User Acceptance Testing), a back-out decision due to major issues with this patch could occur during site Mirror Testing, Site Production Testing or after National Release to the field (VAMCs). The best strategy is dependent on the stage during which the decision is made.

If during Mirror testing or Site Production Testing, a new version of a defect correcting test patch is produced, retested and successfully passes development team testing, it would be resubmitted to the site for testing. If the patch produced catastrophic problems, a new version of the patch can be used to restore the build components to their pre-patch condition.

If the defect(s) were not discovered until after national release but during the designated support period, a new patch will be entered into the National Patch Module on Forum and go through all the necessary milestone reviews etc., as a patch for a patch. It is up to VA OI&T and product support whether this new patch would be defined as an emergency patch or not. This new patch could be used to address specific issues pertaining to the original patch or could be used to restore the build components to their original pre-patch condition.

After the support period, the VistA Maintenance Program would produce the new patch, either to correct the defective components or to back-out the patch.

5.2 Back-Out Considerations

It is necessary to determine if a wholesale back-out of the patch IB*2.0*664 is needed or if a better course of action is to correct through a new version of the patch (if prior to national release) or through a subsequent patch aimed at specific areas modified or affected by the original patch (after national release). A wholesale back-out of the patch will still require a new

version (if prior to national release) or a subsequent patch (after national release). If the back-out is post-release of this patch IB*2.0*664, this patch should be assigned status of "Entered in Error" in Forum's NPM.

5.2.1 Load Testing

N/A. The back-out process if necessary is executed at normal, rather than raised job priority, and is expected to have no significant effect on total system performance. Subsequent to the reversion, the performance demands on the system would be unchanged.

5.2.2 User Acceptance Testing

1. VistA has been modified so that when viewing a policy under the Patient Insurance Info View/Edit [IBCN PATIENT INSURANCE] option, any action that updates or adds the EFFECTIVE DATE OF POLICY (#2.312,8) and the INSURANCE EXPIRATION DATE (#2.312,3) fields on a policy will require the user to enter a precise date (i.e., mm/dd/yyyy).

2. VistA has been modified so that the "CV" Add/Edit Coverage action when viewing a policy under the Patient Insurance Entry/Edit [IBCN PATIENT INSURANCE] option, will only allow precise dates (i.e., mm/dd/yyyy) for new dates when prompted for the EFFECTIVE DATE. An imprecise date is only allowed to access a pre-existing Effective Date for a Plan's Coverage Limitation.

3. VistA has been modified so that the Expire Group Plan [IBCN EXPIRE GROUP SUBSCRIBERS] option, will only allow precise dates (i.e., mm/dd/yyyy) at the ENTER EXPIRATION DATE (APPLIED TO ALL SUBSCRIBERS IN THIS PLAN) prompt.

4. VistA has been modified to include a new eIV Payer Date of Death Report [IBCNE EIV PAYER DOD REPORT] which has been added to the Insurance Reports [IBCN INS RPTS] menu. This report enables the user to generate a report of insurance carriers reporting patient deaths so that Insurance Verifiers can forward information to the VA registration offices for research.

5. VistA has been modified so that the auto-update count, which is sent to the Financial Services Center (FSC) via eIV's HL7 Registration Message, is split into two separate amounts. These two amounts are the total number of Non-Medicare eIV responses and the total number of Medicare eIV responses.

6. VistA has been modified to include an enhanced Source Of Information Report [IB OUTPUT PRE-REG SOURCE REPT]. This report has been modified to accurately show the claims and payments that meet selected filter criteria based on the source of information. This report has both a summary and detailed version that the user may run.

7. VistA has been modified to include an enhanced Generate Insurance Company Listings [IBCN ID DUP INSURANCE ENTRIES] to include the 9-digit ZIP code portion of the Insurance Company address, in both Report and Excel output formats.

8. VistA has been modified so that the User Edit Report [IBCN USER EDIT RPT] will additionally include the following fields in the INSURANCE COMPANY (#36) and PAYER (#365.12) files:
   - EDI ID NUMBER - PROF (#36, 3.02)
   - EDI ID NUMBER - INST (#36, 3.04)
   - LOCAL ACTIVE (#365.121, .03)

9. VistA has been modified to remove obsolete ePharmacy code from the eInsurance software which receives/processes eIV incoming HL7 messages including eIV related table updates.

10. This patch corrects the display of the source of information within the Process Insurance Buffer option [IBCN INSURANCE BUFFER PROCESS]. When the source of information for a record is "Community Care Network" the letter "U" is now displayed under the "S" column rather than leaving that column empty.

11. VistA has been modified to include a new entry in the Source Of Information file (#355.12). This new entry is "Electronic Health Record" with an acronym of "EHR". When the source of information for a record is "Electronic Health Record" the letter "W" is now displayed under the "S" column.

12. VistA has been modified to provide the end user with the ability to select which policies will be saved to the buffer (INSURANCE VERIFICATION PROCESSOR (#355.33) file) via the Remote Insurance Query [IBCN REMOTE INSURANCE QUERY] option. The end user is now able to select a single policy, a range of policies, or multiple policies to be saved to the buffer.

13. VistA has been modified to include comments in the technical description on those fields the eInsurance team owns within the Integrated Billing data files which trigger Enrollment System (ES) Z07 registration update messages. The purpose of these new comments is to direct developers to provide the ES team advance notice if a patch will potentially impact ES by triggering an increased number of Z07 messages. This will allow the ES team to prepare for the potential increase in Z07 messages that will occur or potentially occur upon installing the future patch in Production.

14. VistA has been modified to correct an issue that was introduced with the installation of patch IB*2.0*659. The issue that was introduced caused the eInsurance Rapid Response team to receive some invalid messages stating that the "IIV EC" HL7 logical link needed to be turned back on. The invalid messages that were being received were due to the fact that it can take longer to transmit HL7 messages than had been initially anticipated. The solution to this issue was to modify the software to wait up to 6 hours before determining that the "IIV EC" HL7 logical link needed to be turned back on.

5.3   Back-Out Criteria

Back-Out Criteria (any of the following):
- The project is canceled
- The requested changes implemented by IB*2.0*664 are no longer desired by VA OI&T and the eBusiness eInsurance sub-team
- The patch produces catastrophic problems

5.4   Back-Out Risks

Since the eInsurance software is tightly integrated with external systems, any attempt at a back-out should include close consultation with the external trading partners such as the Financial Services Center (FSC) and the Health Care Clearing House (HCCH) to determine risk.

5.5   Authority for Back-Out

Any back-out decision should be a joint decision of the Business Owner (or their representative) and the Program Manager with input from the Health Services Portfolio (HSP) Application Coordinator, developers (both project and Tier 3 HSP), and if appropriate, external trading partners such as the VA Financial Service Center (FSC) or Health Care Clearing House.

eInsurance is tightly integrated with these external partners and a back-out of the patch should not be a standalone decision.

5.6   Back-Out Procedure

The back-out plan for VistA applications is complex and not a "one size fits all" solution. The general strategy for a VistA back-out is to repair the code with a follow-up patch. The development team recommends that sites log a ticket if it is a nationally released patch.

Back-Out Procedure prior to National Release. If it is prior to national release, the site will be already working directly with the development team daily and should contact that team. The development team members will have been identified in the Initial Operating Capability (IOC) Memorandum of Understanding (MOU). As discussed in section 5.2, it is likely that the development team can quickly address via a new software version. If the site is unsure who to contact, they may log a ticket to contact Health Services Portfolio - Management Systems Team.

The IB*2.0*664 patch contains the following build components.
- Data Dictionary
- Enhancements
- Options
- Protocols
- Routines

While the VistA installation procedure of the KIDS build allows the installer to back up the modified routines using the 'Backup a Transport Global' action, due to the complexity of this

patch, it is not recommended for back-out, and a restore from a backup of the Transport Global should not be attempted. In the event that a site decides to back out this patch, the site should contact the Enterprise Service Desk (ESD) to submit a help desk ticket. The development team will need to issue a follow-on patch in order to comprehensively back-out this patch and/or to clean up corrupted data/remove data dictionary changes, if needed and restore the system to a functioning state.

Please contact the EPMD team for assistance since this installed patch contains components in addition to routines.

5.7 Back-out Verification Procedure

Successful back-out is confirmed by verification that the back-out patch was successfully implemented. This includes successful installation and testing that the back-out acted as expected, as defined together with the team the site contacted in section 5.5.

6 Rollback Procedure

Rollback pertains to data. The only data changes in this patch are specific to the operational software and platform settings and they are covered in the Back-out procedures detailed elsewhere in this document.

6.1 Rollback Considerations

Not applicable.

6.2 Rollback Criteria

Not applicable.

6.3 Rollback Risks

Not applicable.

6.4 Authority for Rollback

Not applicable.

6.5 Rollback Procedure

Not applicable.

6.6 Rollback Verification Procedure

Not applicable.

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