



# VistA Blood Establishment Computer Software (VBECS) Version 1.5.2

## Patch Installation Guide

June 2011

Department of Veterans Affairs  
Product Development

This page intentionally left blank.



*Unauthorized access or misuse of this system and/or its data is a federal crime. Use of all data must be in accordance with VA security and privacy policies.*



*The U.S. Food and Drug Administration classifies this software as a medical device. Unauthorized modifications will render this device an adulterated medical device under Section 501 of the Medical Device Amendments to the Federal Food, Drug, and Cosmetic Act. Acquiring and implementing this software through the Freedom of Information Act requires the implementer to assume total responsibility for the software and become a registered manufacturer of a medical device, subject to FDA regulations. Adding to or updating VBECS software without permission is prohibited.*

This page intentionally left blank.

## Revision History

Date	Revision	Description	Author
09-08-10	1.0	<p>Modified VistA Blood Establishment Computer Software (VBECS) Version 1.5.1, Version 2.0:</p> <p>Global: Replaced "August 2010" with "September 2010" in the footer.</p> <p>Global: Replaced "1.5.1" with "1.5.2".</p> <p>Global: Replaced "2.0" with "1.0" in the footer.</p> <p>Global: Replaced "...060910" with "...090210".</p> <p>Global: Changed 1.5.1.1 to 1.5.2.1.</p> <p>Global: Changed "200,811,979" to "199,854,323".</p> <p>Changed 1.5.0.4 to 1.5.1.1 where applicable.</p> <p>Replaced Figures: 1, 6, 7, 8, 9, 10, 11, 13, 14, 15, 16, 17, 19, 21, 30, 31, 33, 34, 35, 37, 38, 39, 40, 41, 43 and 45.</p> <p>VBECS Versions section: Changed "In future releases, the VBECS version" to "The VBECS version".</p> <p>Delete Patch Files section (Test and Production), Step 2 second bullet item: Added "mmddyy represents the current date".</p> <p>Appendix A: Changed "1504" to "1534" in both examples.</p> <p>Appendix B, VBECS Admin AD Group table column: Changed "TBD" to the actual group name for the Manchester, Providence and Clarksburg facilities.</p> <p>Appendix B: Removed the extra "s" from the last column of the first row of Table 1.</p> <p>Appendix B: Removed the blank row from Row 8 of Table 1.</p> <p>Appendix B: Updated the Server Administrative Group and VBECS Admin AD Group names for Facility# 618, Minneapolis.</p> <p>Removed Appendix H and all references to Appendix H.</p>	BBM team
01-05-11	2.0	<p>Modified VistA Blood Establishment Computer Software (VBECS) Version 1.5.2, Version 1.0:</p> <p>Title page: Changed "Office of Enterprise Development" to "Product Development".</p> <p>Global: Replaced "September 2010" with "January 2011" in the footer.</p> <p>Global: Replaced "1.0" with "2.0" in the footer.</p> <p>Global: Replaced 1.5.2.1 with 1.5.2.2.</p> <p>Global: Replaced "...090210" with "...010311".</p> <p>Global: Changed "199,854,323" to "200,054,059".</p> <p>Replaced Figures: 1, 8, 9, 10, 11, 12, 13, 15, 16, 17, 18, 19, 21, 23, 34, 35, 36, 37, 38, 39, 41, 42, 43, 44, 45, 47 and 49.</p> <p>VBECS Version Numbers section: Split into two paragraphs and rewrote 1<sup>st</sup> sentence of second paragraph.</p> <p>Execute VBECS Patch Scripts against the Cluster (Test and Production): Step 10: Revised warning box.</p> <p>Download the VBECS 1.5.2.2 Patch File section (Test and Prod):</p> <ul style="list-style-type: none"> <li>- Reordered the steps by moving Step 3 to Step 1.</li> <li>- Added Steps 2 through 6 to verify if temp folder exists on the active and passive nodes (DR 3948)</li> <li>- Step 12 changed "VHAMASTER" to "YOUR_DOMAIN" in example</li> </ul> <p>Prerequisite for Installation (Test): Revised Steps 1 and 3.</p> <p>Prerequisite for Installation (Production): Revised Steps 2 and 4.</p> <p>Appendix B – Server Administrative Group and VBECS Admin AD Group table columns: Updated the columns and changed "TBD" to the actual group name for VISNs 1 through 5.</p>	BBM team

Date	Revision	Description	Author
03-01-11	3.0	<p>Modified VistA Blood Establishment Computer Software (VBECS) Version 1.5.2, Version 2.0:</p> <p>Global: Replaced “January 2011” with “March 2011” in the footer.</p> <p>Global: Replaced “2.0” with “3.0” in the footer.</p> <p>Global: Changed “nnn- represents ‘vha’ or ‘region name’ (e.g. RO1)” to “nnn – represents the top-level domain (e.g. ‘vha’, or ‘r01’)”.</p> <p>Download and Verify the Contents of the VBECS Patch (Test and Production Installation):</p> <ul style="list-style-type: none"> <li>- Section 1: Download the VBECS 1.5.2.2 Patch File - Reworded Step 1b (DR 4012).</li> <li>- Section 2: Verify the Contents of the VBECS 1.5.2.2 Patch File - Revised Steps 8 through 16 (DR 4012).</li> </ul> <p>Section 5: Delete Patch Files (Test and Production Installation):</p> <ul style="list-style-type: none"> <li>- Revised Step 2 and replaced Figures 24 and 47 (DR 4012).</li> <li>- Revised warning text message after Step 7 (DR 4012).</li> </ul> <p>Updated Appendices E and F, Section 2: Verify the contents of the VBECS 1.5.2.2 Patch File (DR 4012).</p> <p>Execute VBECS Patch Test Scripts against the Cluster (Test and Prod): Updated second Warning boxes to read “emails” instead of “messages”.</p> <p>Execute VBECS Patch Test Scripts against the Cluster (Test and Prod): Updated the Warning boxes in Steps 14 to direct the user to Appendix G for a possible resolution before filing a Remedy ticket.</p> <p>Verify the Contents of the VBECS 1.5.2.2 Patch File (Prod):</p> <p>Changed “Appendix E” to “Appendix F” in Steps 9 and 11.</p>	BBM team
05-10-11	4.0	<p>Modified VistA Blood Establishment Computer Software (VBECS) Version 1.5.2, Version 3.0:</p> <p>Global: Replaced “March 2011” with “June 2011” in the footer.</p> <p>Global: Replaced “3.0” with “4.0” in the footer.</p> <p>Section 1: Download the VBECS 1.5.2.2 Patch File (Test and Prod)</p> <ul style="list-style-type: none"> <li>- Replaced Steps 7 through 19 with new Steps 7 through 10 (DR 4030).</li> </ul> <p>Replaced Figures 12 and 34 with updated screen captures. (DR 4030).</p> <p>Verify the Contents of the VBECS 1.5.2.2 Patch File (Test and Prod):</p> <ul style="list-style-type: none"> <li>• Changed “Contains is 397 Files, 45 Folders” to “Contains 396 Files, 45 Folders” in Step 8.</li> <li>• Moved Step 12 to after Step 9, making it the new Step 10 and renumbering the subsequent steps.</li> <li>• Added “Click OK” to the beginning of Step 13.</li> </ul> <p>Updated Appendices E and F: Section 1: Download the VBECS 1.5.2.2 Patch File (DR 4030)</p>	BBM team
		<p>Modified VistA Blood Establishment Computer Software (VBECS) Version 1.5.2, Version 4.0:</p> <p>Global: Replaced “4.0” with “5.0” in the footer.</p> <p>Installation Procedure for the Test and Production Environments:</p> <p>Added message “Server name representations in the document: For Region 1 sites; R01YYYNODXXX01, YYY represents the Data Center location (SCR or DVR) and XXX represents the Site Code.</p> <p>For all other sites; VHAXXXNODZ1, XXX represents the Site</p>	

Date	Revision	Description	Author
06-15-11	5.0	<p>Code.” (DR 4144)</p> <p>Download the VBECS 1.5.2.2 Patch File (Test and Prod):</p> <p>Step 9: Changed “double-click the file” to “click and save the file”.</p> <p>After Step 9, added a warning box message to refer to Appendix H if download errors are encountered. (DR 4144)</p> <p>Execute VBECS Patch Scripts against the Cluster (Test and Prod):</p> <p>Deleted Step 8 to verify if Vista patches were applied, since there are no Vista patches for this release and updated Section 4 in Appendices E and F. (DR 4144)</p> <p>Appendix G (Troubleshooting): Added VBECS FTP Download Security Alert.</p> <p>Added Appendix H: Adding VBECS FTP Site to the Trusted Sites in Internet Explorer. (DR 4144)</p>	BBM team

This page intentionally left blank.



# Table of Contents

REVISION HISTORY.....	III
TABLE OF CONTENTS.....	VII
INTRODUCTION .....	1
VBECS VERSION NUMBERS.....	1
RELATED MANUALS AND REFERENCE MATERIALS .....	2
ORIENTATION .....	3
HOW THIS INSTALLATION GUIDE IS ORGANIZED.....	3
WARNINGS.....	3
SCREEN SHOTS.....	3
PRODUCT SUPPORT.....	3
Problems? .....	3
INSTALLATION PROCEDURE FOR THE TEST ENVIRONMENT.....	5
DOWNLOAD AND VERIFY THE CONTENTS OF THE VBECS PATCH .....	5
1 Download the VBECS 1.5.2.2 Patch File.....	5
2 Verify the Contents of the VBECS 1.5.2.2 Patch File.....	8
3 Prerequisites for Installation .....	12
4 Execute VBECS Patch Scripts against the Cluster.....	13
5 Delete Patch Files .....	18
INSTALLATION PROCEDURE FOR THE PRODUCTION ENVIRONMENT .....	19
DOWNLOAD AND VERIFY THE CONTENTS OF THE VBECS PATCH .....	19
1 Download the VBECS 1.5.2.2 Patch File.....	19
2 Verify the Contents of the VBECS 1.5.2.2 Patch File.....	22
3 Prerequisites for Installation .....	26
4 Execute VBECS Patch Scripts against the Cluster.....	27
5 Delete Patch Files .....	32
GLOSSARY .....	33
APPENDICES .....	35
APPENDIX A: INSTALLATION LOGS .....	35
APPENDIX B: ACTIVE DIRECTORY SERVER ADMINISTRATOR GROUPS .....	37
APPENDIX C: INSTRUCTIONS FOR CAPTURING SCREEN SHOTS FOR INSTALLATION RECORDS .....	41
APPENDIX D: SETUP DETAILED FOLDERS VIEW .....	43
APPENDIX E: VBECS PATCH INSTALLATION RECORD FORM FOR THE TEST ENVIRONMENT .....	45
INSTALLATION PROCEDURE FOR THE TEST ENVIRONMENT .....	45
1 Download the VBECS 1.5.2.2 Patch File.....	45
2 Verify the Contents of the VBECS 1.5.2.2 Patch File.....	45
3 Prerequisites for Installation .....	45
4 Execute VBECS Patch Scripts against the Cluster.....	45
5 Delete the Patch Files .....	45

APPENDIX F: VBECS PATCH INSTALLATION RECORD FORM FOR THE PRODUCTION ENVIRONMENT ..	47
INSTALLATION PROCEDURE FOR THE PRODUCTION ENVIRONMENT .....	47
1    Download the VBECS 1.5.2.2 Patch File.....	47
2    Verify the Contents of the VBECS 1.5.2.2 Patch File.....	47
3    Prerequisites for Installation .....	47
4    Execute VBECS Patch Scripts against the Cluster.....	47
5    Delete Patch Files .....	47
APPENDIX G: TROUBLESHOOTING MESSAGES .....	49
APPENDIX H: ADDING VBECS FTP SITE TO THE TRUSTED SITES IN INTERNET EXPLORER .....	53
NOTES.....	58
INDEX .....	60

# Introduction

The VistA Blood Establishment Computer Software (VBECS) system replaces the previous blood bank software (VistA Blood Bank v5.2) at the Department of Veterans Affairs (VA). The main purpose of VBECS is to automate the daily processing of blood inventory and patient transfusions in a hospital transfusion service.

VBECS is an improved Blood Bank application that facilitates ongoing compliance with Food and Drug Administration (FDA) standards for medical devices and enhances the VA Veterans Health Administration's (VHA's) ability to produce high-quality blood products and services to veterans. The system follows blood bank standards, standards of national accrediting agencies, FDA regulations, and VA policies.



*Unauthorized access or misuse of this system and/or its data is a federal crime. Use of all data must be in accordance with VA security and privacy policies.*



*The U.S. Food and Drug Administration classifies this software as a medical device. Unauthorized modifications will render this device an adulterated medical device under Section 501 of the Medical Device Amendments to the Federal Food, Drug, and Cosmetic Act. Acquiring and implementing this software through the Freedom of Information Act requires the implementer to assume total responsibility for the software and become a registered manufacturer of a medical device, subject to FDA regulations. Adding to or updating VBECS software without permission is prohibited.*

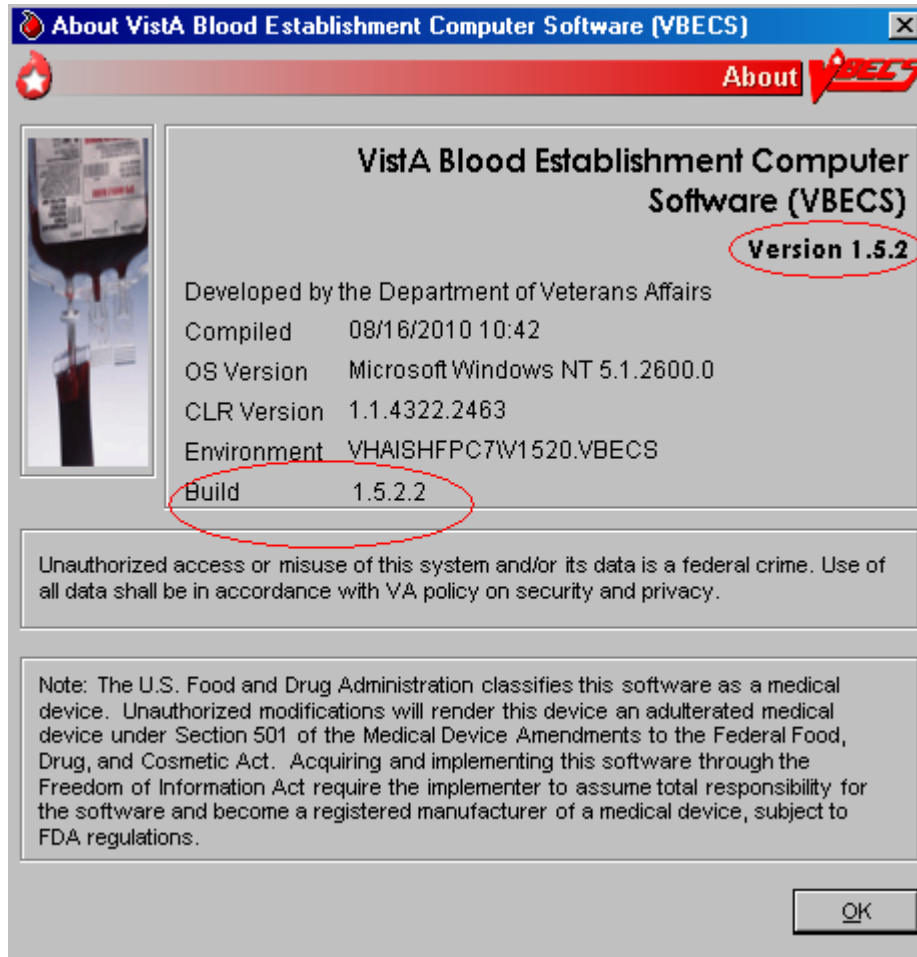
This document describes how server support staff members [Information Resource Management (IRM) or data center personnel] install VBECS. It describes the scripts that must be executed and the arguments that must be supplied. It specifies how to read script output and the actions that must be performed as a result of the output.

## **VBECS Version Numbers**

The VBECS 1.5.2 patch release represents a change in how the application version will be displayed to you, the customer. In previous VBECS patch releases, the user documentation referred to the VBECS version in a 4-digit format (e.g., 1.5.0.4 – where 1.5.0 represents the patch version and 4 is the patch build number). The build number is used by VBECS support for diagnostic and troubleshooting purposes.

In this and future releases, the VBECS version will be represented with only the first 3 digits (e.g., 1.5.2) and will appear that way in all user documentation to simplify readability. The full 4-digit version can still be found under the **Help, About** window in VBECS (Figure 1) and will appear in patch installation guides where build specific files are referenced.

**Figure 1: Example of Help, About VBECS**



## ***Related Manuals and Reference Materials***

None

# Orientation

## ***How This Installation Guide Is Organized***



*Maintain the order of the steps for successful installation.*

This guide is organized as follows:

See the Installation Procedure for the Test Environment section for installing the test environment.

See the Installation Procedure for the Production Environment section for installing the production environment.

See Appendix A: Installation Logs for the location of logs that may be useful in troubleshooting.

See Appendix G: Troubleshooting Messages for examples of troubleshooting messages.

A section for notes is included at the end of the document.

## ***Warnings***

Outlined text with a caution icon is used throughout the guide to highlight warnings, limitations, and cautions:




*Warnings, limitations, cautions*

Read and follow these caution statements and warnings.

## ***Screen Shots***

Because VBECS is a medical device, screen shots must be captured at verification points throughout the installation to meet regulatory requirements for objective evidence and documentation.

A  (camera) at the beginning of each step that requires a screen capture will identify these points. For more information, see Appendix C: Instructions for Capturing Screen Shots for Installation Records.



*Screen shots included in this guide are examples only and may not display actual data.*

## ***Product Support***

### **Problems?**

Contact your Information Resource Management (IRM) or Laboratory Automated Data Processing Application Coordinator (ADPAC) if you encounter problems and for training support.

### **VA Service Desk Primary Contact**

For Information Technology (IT) support, call the VA Service Desk (VASD), 888-596-HELP (4357) (toll free), 24 hours per day, 7 days per week. [Users with access to the VASD-supported request tool (e.g., Remedy) may file a ticket in lieu of calling the VASD.]

## **VA Service Desk Alternate Contacts**

- During business hours: As an alternate to the toll-free number, call 205-554-4710 (or 205-554-4711 through 205-554-4725), Monday through Friday (excluding holidays), 8:00 a.m. to 7:30 p.m. (Eastern Time).
- Outside business hours: Call 205-554-3459 (or 205-554-3460 through 205-554-3465, 205-554-3472, 205-554-3475, or 205-554-3482 through 205-554-3485).
- Web site: [http://vaww.itsupportservices.va.gov/vasd\\_home.asp](http://vaww.itsupportservices.va.gov/vasd_home.asp) [VA Service Desk (VASD)]
- Email: [vhacionhd@va.gov](mailto:vhacionhd@va.gov)

# Installation Procedure for the Test Environment



*Do not deviate from the instructions in this guide.*



*No users are permitted on the system during the patch installation. Any users on the system at the start of the patch process will be disconnected.*



*Coordinate the patch installation with the blood bank supervisor. Notify the supervisor that the patch installation requires one to two hours of downtime without interruption.*



*Server name representations in the document:*

*For Region 1 sites; R01YYYNODXXX01, YYY represents the Data Center location (SCR or DVR) and XXX represents the Site Code.*

*For all other sites; VHAXXXNODZI, XXX represents the Site Code.*

Use the Microsoft Word .doc format of the document when copying and pasting sections of the document.

## **Download and Verify the Contents of the VBECS Patch**

### **1 Download the VBECS 1.5.2.2 Patch File**

Prerequisites for VBECS FTP Download:

- The installer must be a server administrator in accordance with Appendix B: Active Directory Server Administrator Groups.
- The installer must be a member of the VBECS Admin AD Group in accordance with Appendix B: Active Directory Server Administrator Groups.

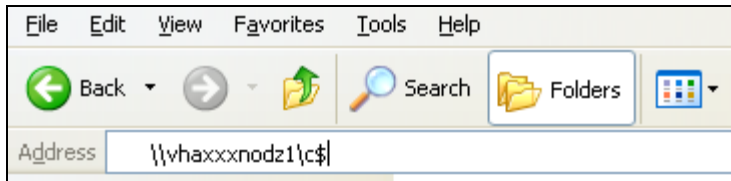
To download the VBECS 1.5.2.2 patch file from the VBECS FTP Site:

- 1) Complete Sub-steps a through d to save a copy of Appendix E: VBECS Patch Installation Record Form for the Test Environment to the local workstation. Any reference to Appendix E after the document is initially saved will be referring to the saved copy.
  - a) Open *VistA Blood Establishment Computer Software (VBECS) 1.5.2 Patch Installation Guide*.
  - b) Using the .doc format of this document, select the contents of Appendix E: VBECS Patch Installation Record Form for the Test Environment and copy and paste into a new Word document.
  - c) Add a header to the document as “**VBECS Patch Installation Record <Cluster\_name> 1.5.2 Test <mmdyy>**” and a footer containing “**Page X of Y**”.
  - d) Save Appendix E: VBECS Patch Installation Record Form for the Test Environment as “**VBECS Patch Installation Record <Cluster\_name> 1.5.2 Test <mmdyy>**”

(e.g., VBECS Patch Installation Record VHAXXXCLUZ1 1.5.2 Test 070809 or VBECS Patch Installation Record R01YYXCLUXXX01 1.5.2 Test 070809); where <mmddyy> represents the current date.

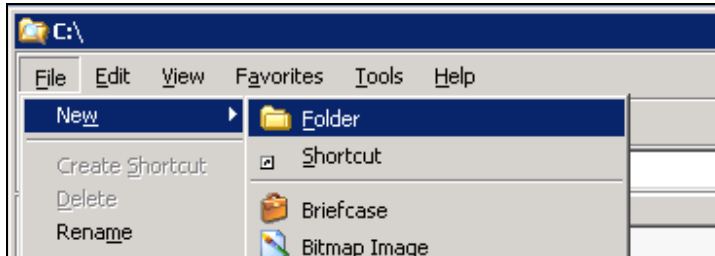
- 2) Open a remote desktop connection to the cluster being patched.
- 3) Open Windows Explorer, and type \\VHAXXXNODZ1\C\$ or \\R01YYXNODXXX01\C\$ and press **Enter** (Figure 2).

**Figure 2: Verify Temp folder on NODZ1**



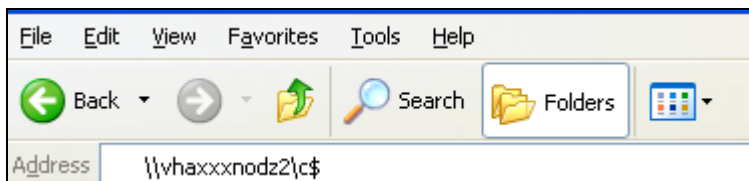
- 4) If a folder named “temp” does not exist, click **File, New, Folder**. Name this folder “temp” (Figure 3).

**Figure 3: Creating the Temp Folder**



- 5) In the Windows Explorer window already opened, type \\VHAXXXNODZ2\C\$ or \\R01YYXNODXXX02\C\$ and press **Enter** (Figure 4).

**Figure 4: Verify Temp folder on NODZ2**

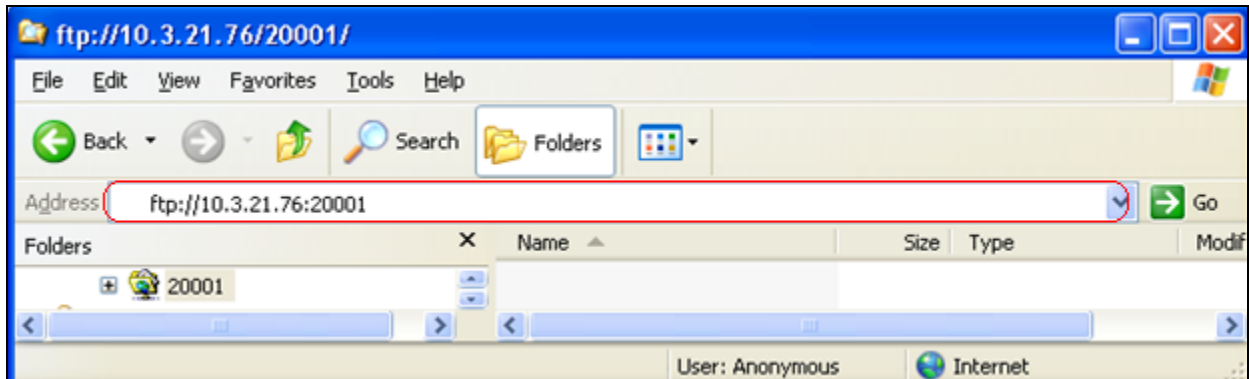


- 6) If a folder named “temp” does not exist, click **File, New, Folder**. Name this folder “temp” (Figure 3).



- 7) Right-click **Start, Explorer**. In the address field, type **ftp://10.3.21.76:20001** (Figure 5) and press **Enter**.


**Figure 5: ftp://10.3.21.76:20001**



- 8) At the **User name** prompt of the Log On As dialog, type **your\_domain and your\_user\_name** (e.g. YOUR\_DOMAIN\YOUR\_USER\_NAME) and at the **Password** prompt, type your password (Figure 6).

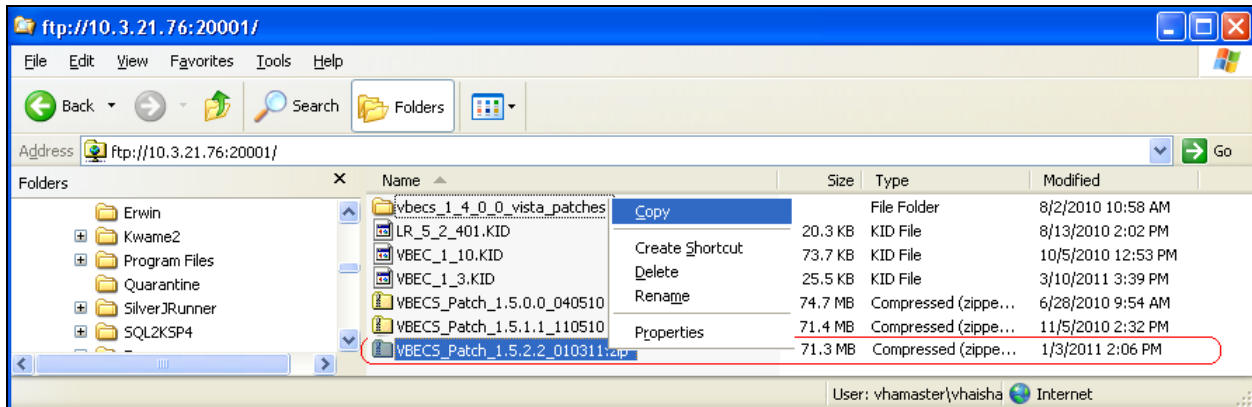
**Figure 6: Log On As**




 If access problems are encountered, please file a Remedy ticket. Do not proceed until the ticket is resolved.

- 9) Click the **Log On** button. Right-click the **VBECS\_Patch\_1.5.2.2\_010311.zip** and select **copy** (Figure 7). (\*\* if the **VBECS\_Patch\_1.5.2.2\_010311.zip** appears as a link, click and save the file in the targeted location specified in Step 10).

**Figure 7: VBECS\_Patch\_1.5.2.2\_010311.zip File**



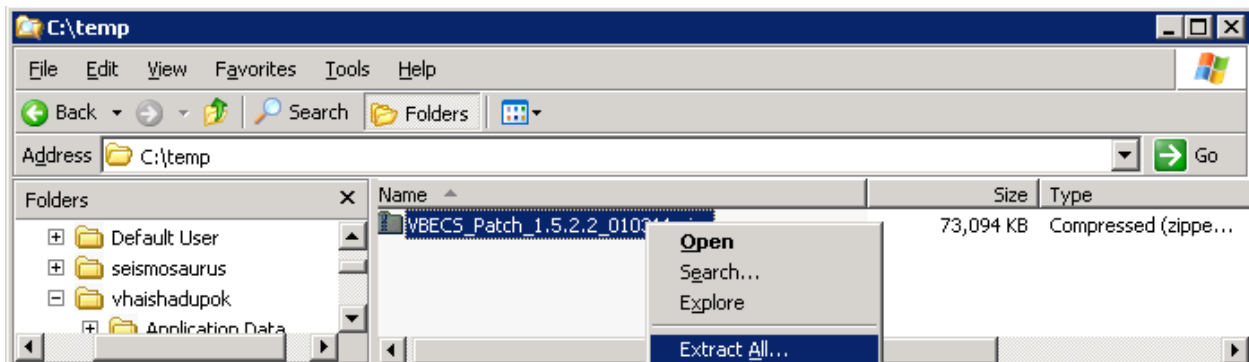
 If you encounter the 'Your current settings do not allow you do download files from this location' error, see Appendix H: Adding VBECS FTP Site to the Trusted Sites in Internet Explorer for instructions on how to resolve the problem.

- 10) Using Windows Explorer, navigate to the **C:\Temp** folder. Right-click and select **Paste**. The **VBECS\_Patch\_1.5.2.2\_010311.zip** will be copied to this location.

## 2 Verify the Contents of the VBECS 1.5.2.2 Patch File

- 1) On the remote desktop connection to the cluster already open, use Windows Explorer to navigate to the **c:\temp** folder.
- 2) Right-click on the **VBECS\_Patch\_1.5.2.2\_010311.zip** file and select **Extract All** (Figure 8).

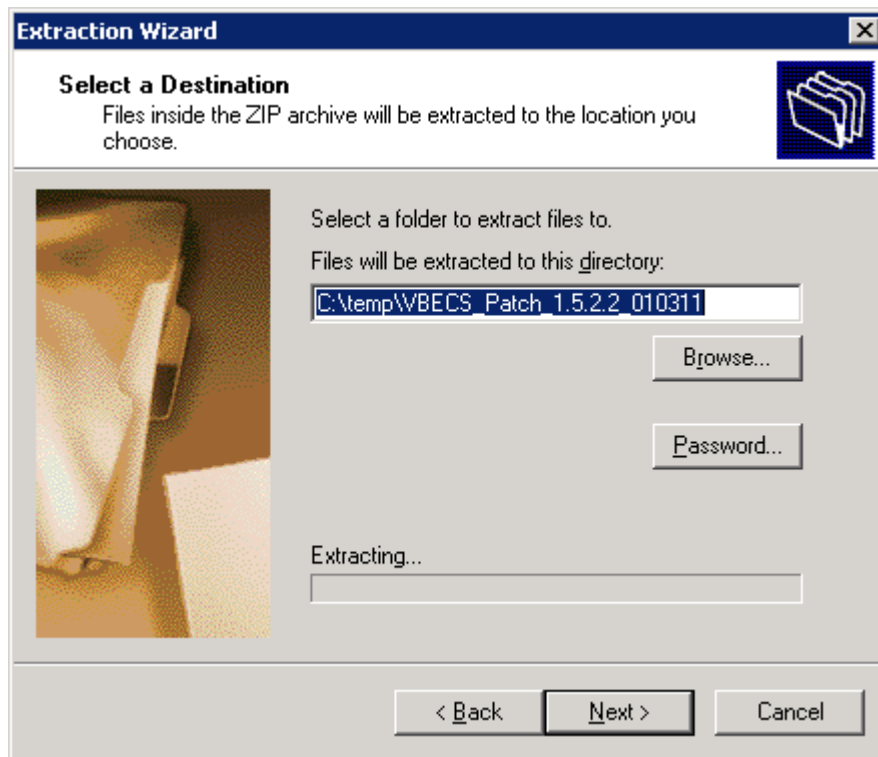
**Figure 8: Example of Extracting Patch Contents**



- 3) After the Extraction Wizard opens, click **Next**.

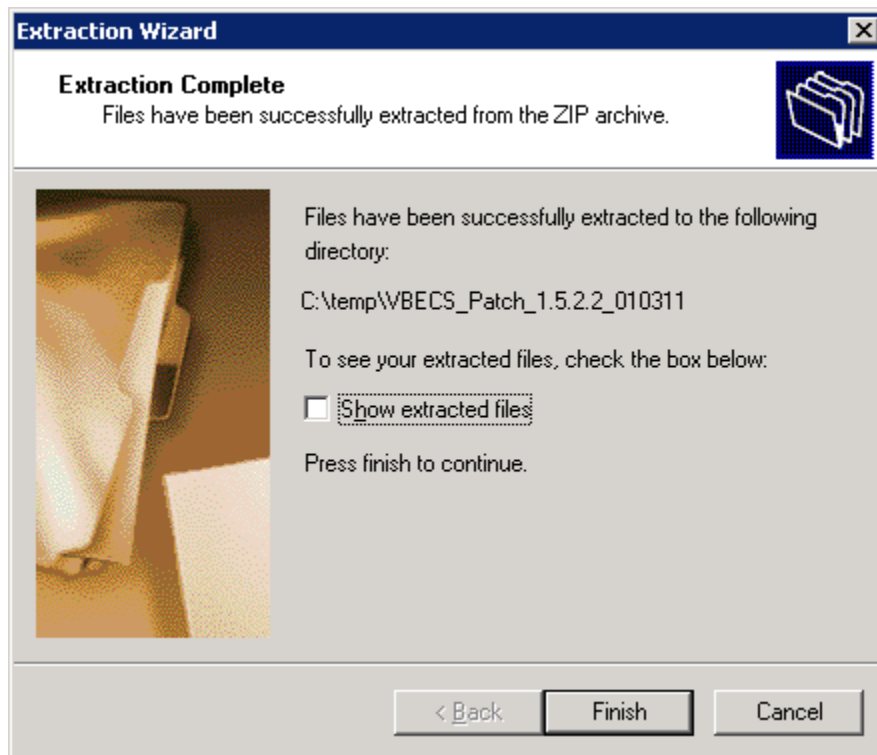
- 4) Click **Next** to extract the contents of the patch zip file to the temp directory (Figure 9).

**Figure 9: Extraction Wizard**



- 5) After the extraction completes, uncheck **Show extracted files** and click **Finish** (Figure 10).

**Figure 10: Extraction Complete**



- 6) Verify that the extraction completes and a **C:\temp\VBECS\_Patch\_1.5.2.2\_010311** folder is created.
- 7) Using Windows Explorer, right-click on the **VBECS\_Patch\_1.5.2.2\_010311** folder and select **Properties** (Figure 11).


**Figure 11: Example of Folder Properties**



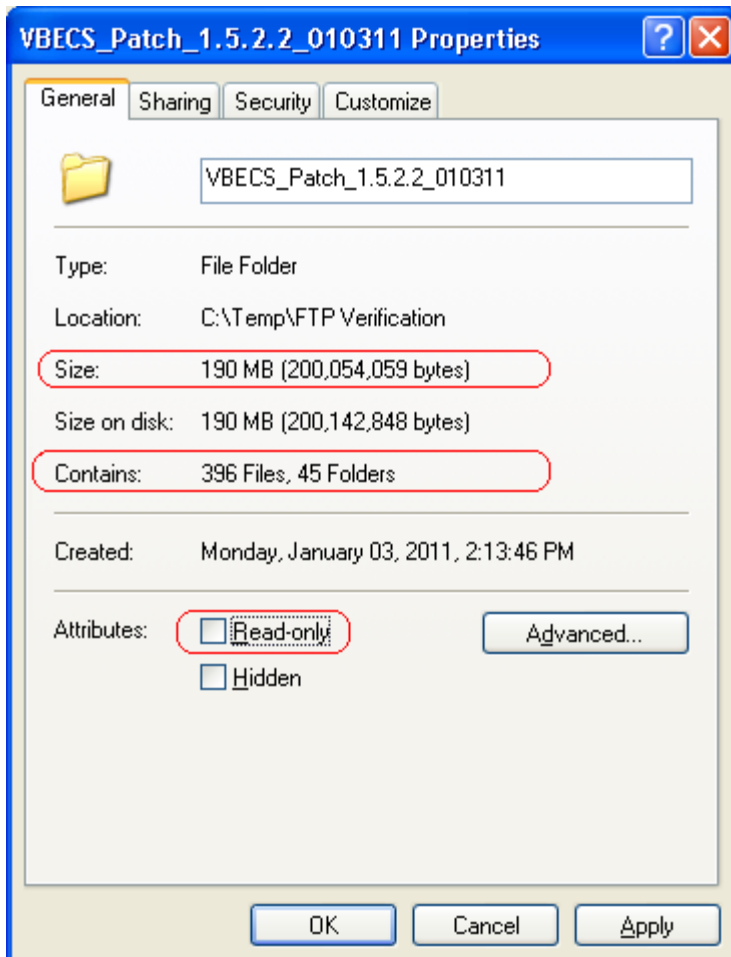
- 8) In the VBECS\_Patch\_1.5.2.2\_010311 Properties window (Figure 12), verify:
- **Size is 190 MB (200, 054, 059 bytes)**
  - **Contains 396 Files, 45 Folders**



*If the number of files and number of bytes do not match, stop and file a Remedy ticket. Do not proceed until the ticket is resolved.*

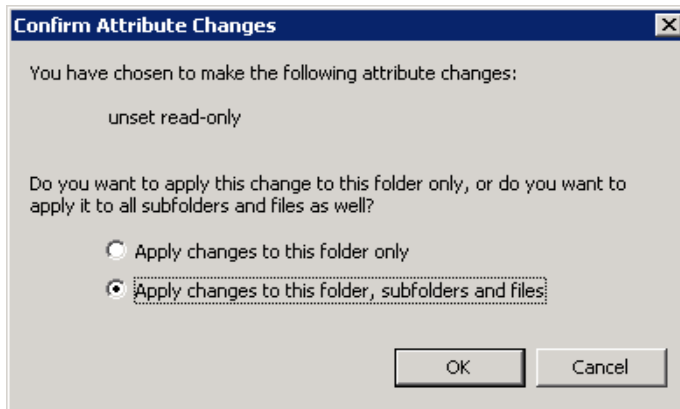
- 9) After verifying that the contents of the VBECS\_Patch\_1.5.2.2\_010311 file match, check the box in Appendix E: VBECS Patch Installation Record Form for the Test Environment.
- 10) In the Attributes section, uncheck the **Read-only** check box (Figure 12).
- 11)  Capture a screen shot of the VBECS\_Patch\_1.5.2.2\_010311 Properties window.
- 12) Insert the screen shot in Appendix E: VBECS Patch Installation Record Form for the Test Environment.

**Figure 12: VBECS Patch folder Properties**



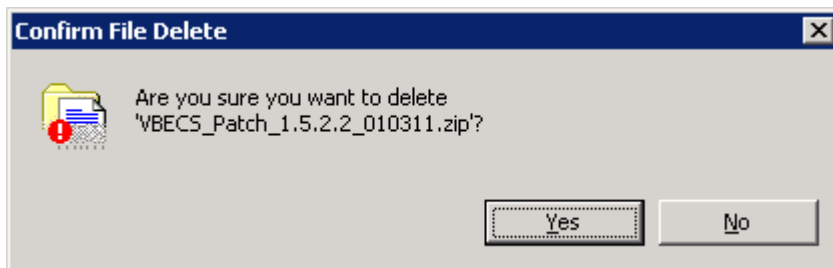
- 13) Click **OK**. In the Confirm Attribute Changes window, select the **Apply Changes to this folder, subfolders and files** option if it is not selected, and click **OK** (Figure 13).

**Figure 13: Confirm Attribute Changes**



- 14) Using Windows Explorer, navigate to the **c:\temp** folder.
- 15) Select the **VBECS\_Patch\_1.5.2.2\_010311.zip** file.
- 16) While holding the **Shift** key, press the **Delete** key. Click **Yes** to confirm file deletion (Figure 14).


**Figure 14: Delete Zip File**





### 3 Prerequisites for Installation

- 1) VBECS 1.5.1.1 is installed and validated.
- 2) Verify VistA Test account is up to date with all released patches.
- 3) Verify that there are no active user sessions on the servers.
- 4) Refer to the latest approved version of the *VistA Blood Establishment Computer Software (VBECS) Installation Guide*, Appendices titled Server Configuration and Password List for details on Server Names, IP addresses, passwords, etc.
- 5) On the remote desktop connection to the cluster already open, execute the steps in Appendix D: Setup Detailed Folders View to show file extensions on the installation workstation.

## 4 Execute VBECS Patch Scripts against the Cluster

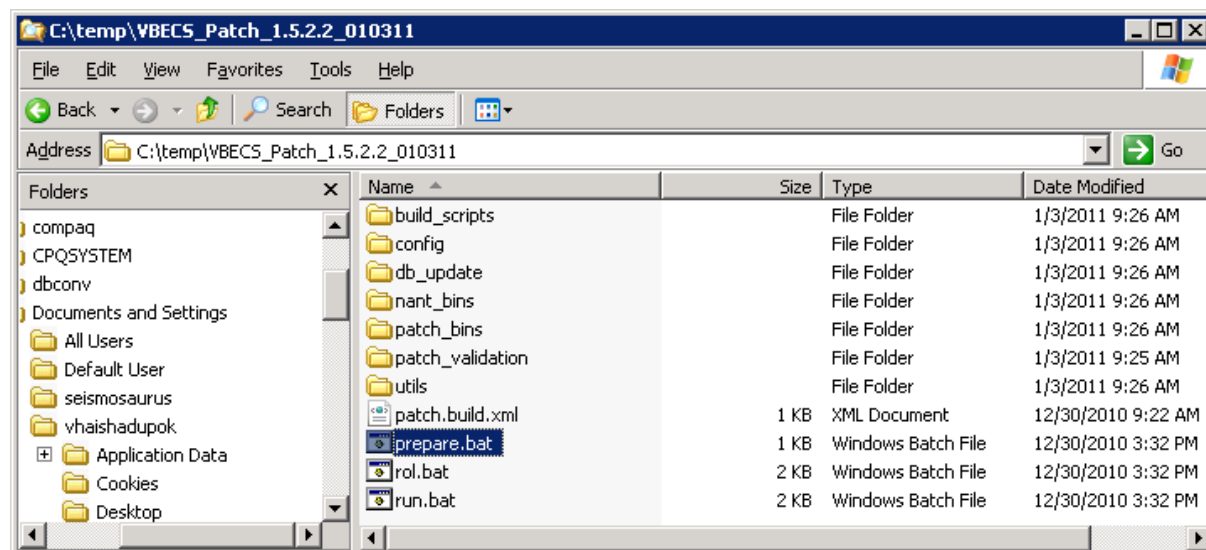
 Patching the servers will require a reboot. Plan to execute the VBECS patch scripts when no active users are on the servers. The system warns active users that they will be disconnected during the configured timeout period.

 After the upgrade, warning emails with the subject 'Operations Manager Critical Error Alert' are normal and should be ignored. They are merely noting that changes have been made to the various VBECS files which is expected during a software upgrade.

 Do not run any additional applications on the server while the patch is executing.

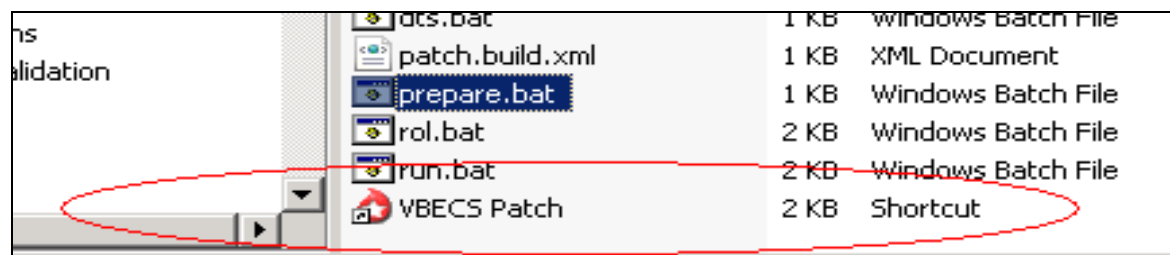
- 1) On the remote desktop connection to the cluster already open, use Windows Explorer to navigate to the **c:\temp\VBECS\_Patch\_1.5.2.2\_010311** folder and double-click the **prepare.bat** file (Figure 15).

**Figure 15: VBECS Patch Folder**



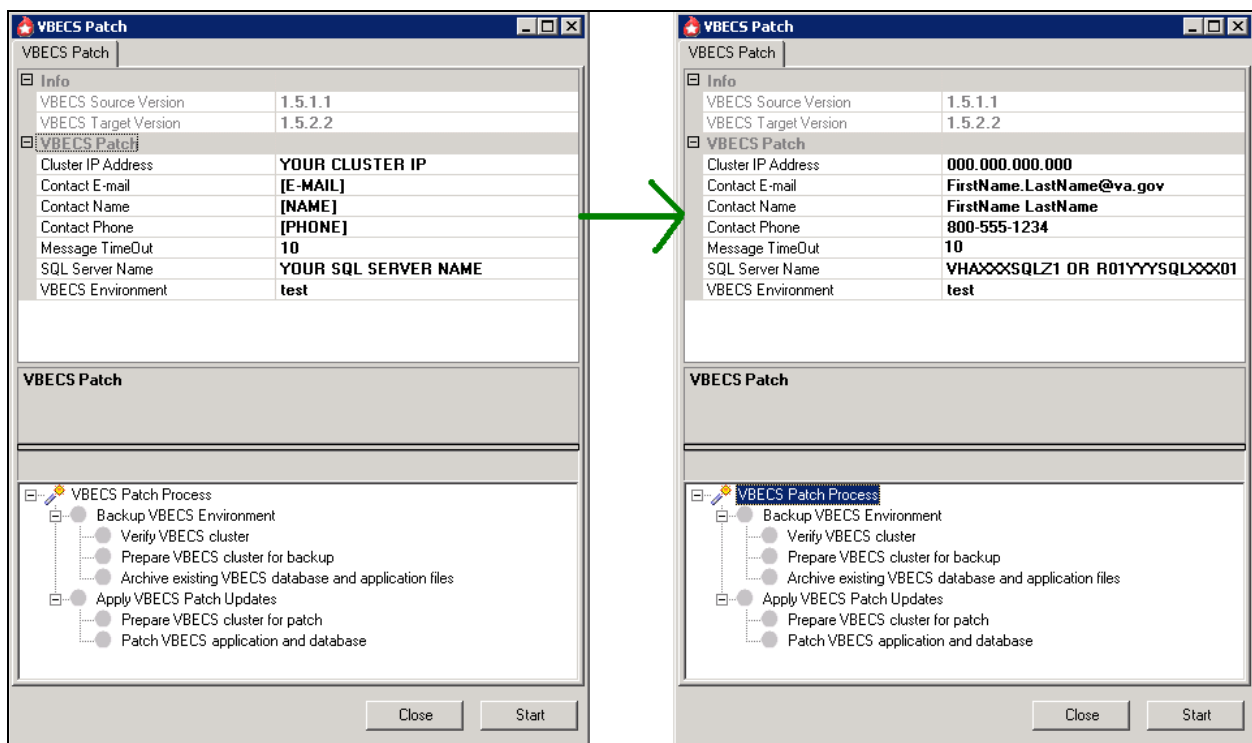
- 2) A VBECS Patch shortcut is created (Figure 16).

**Figure 16: VBECS Patch Shortcut**



- 3) Double-click on the **VBECS Patch** shortcut to initiate the VBECS patch configuration.
- 4) A VBECS Patch form will open.
- 5) Enter the following for the required fields (Figure 17).
  - **Cluster IP Address** – This is the IP address of the VBECS cluster [initially noted for installation on the Server Configuration Checklist in the *VistA Blood Establishment Computer Software (VBECS) Installation Guide*]. Verify this information with a system administrator. It will be used to identify the clustered servers on which the patch will be installed.
  - **Contact E-mail** – This is the email address of the contact person or group.
  - **Contact Name** – This is the full name (usually the patch installer) displayed in the patch installation shutdown message. Users will contact this person if the patch installation interferes with their work.
  - **Contact Phone** – This is the telephone number of the contact person.
  - **Message TimeOut** – This is the number of minutes current VBECS users will be warned they have to complete activities before patching disconnects their session. . If there are no users on the system override the default 10 minute value by entering **-1**. Users will not be warned if this value is **-1**.
  - **SQL Server Name** – This is the name of the VBECS SQL server [initially noted for installation on the Configuration Checklist in the *VistA Blood Establishment Computer Software (VBECS) Installation Guide*]. Verify this information with a system administrator. It will be used to identify the database to be patched.
  - **VBECS Environment** – This is the VBECS environment. Select **test** to patch VBECS Test environment.

**Figure 17: Example of VBECS Patch Form**

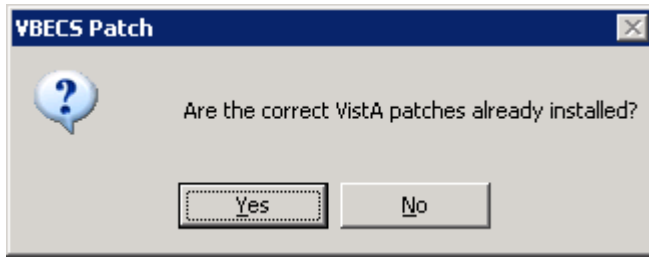





- 6) Click **Start**.



7) A prompt to verify that all correct VistA patches are installed appears (Figure 18).

**Figure 18: Required VistA Patches Dialog**



- 8) Click **Yes** to proceed on required VistA patches dialog. The VBECS Patch process starts. The patch will complete within 30 minutes.
- 9) Refer to Figure 19 for the following:
  - A green “patch is working” animation () in the bottom left of the VBECS Patch form will be in motion while the patching is in progress.
  - The blue progress bar in the middle of form () will increment based on the overall patch progress.
  - VBECS Patch Process checkpoints are displayed in the lower portion of the form. A green check mark  indicates that the VBECS Patch process step completed successfully.



*If the patch takes longer than 5 minutes to complete the first 3 checks, file a Remedy ticket immediately. Do not release VBECS for use until the ticket is resolved.*

*If a Patch fails to successfully complete within 30 minutes, file a Remedy ticket immediately. Do not stop the patch process and do not release VBECS for use until the ticket is resolved.*

**Figure 19: Example of VBECS Patch Process Form**

**VBECS Patch**

VBECS Patch

**Info**

VBECS Source Version	1.5.1.1
VBECS Target Version	1.5.2.2

**VBECS Patch**

Cluster IP Address	000.000.000.000
Contact E-mail	FirstName.LastName@va.gov
Contact Name	FirstName LastName
Contact Phone	800-555-1234
Message TimeOut	10
SQL Server Name	VHA\SQLZ1 OR R01YYSQLX01
VBECS Environment	test

**Message TimeOut**

Number of minutes current VBECS users will be warned they have to complete activities before patching disconnects their session. Users will not be warned if ...

**VBECS Patch Process**

- Backup VBECS Environment
  - Verify VBECS cluster
  - Prepare VBECS cluster for backup
  - Archive existing VBECS database and application files
- Apply VBECS Patch Updates
  - Prepare VBECS cluster for patch
  - Patch VBECS application and database

Close Start

- 10) Active users (users connected to the system through remote desktop) will receive a message indicating the number of minutes they have to complete their work and log out (Message TimeOut argument entered in Step 5). The patch will not make any system changes during this timeout period (Figure 20).

**Figure 20: Example of Messenger Service**

**Messenger Service**

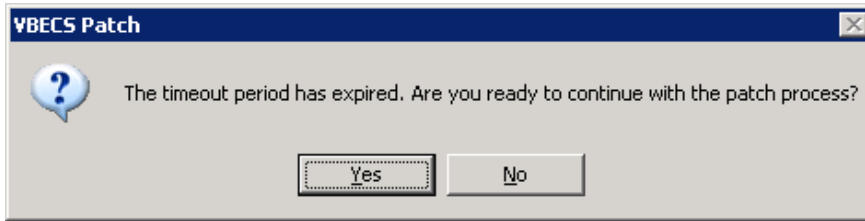
Message from VHAISHMUL21 to VHAISHMUL21 on 1/15/2009 1:03:10 PM

The VBECS Patch process is scheduled to begin in 2 minutes.  
Please complete your activities and log-off the VBECS server.  
If you have any questions or conflicts, contact the VBECS administrator:  
test  
test@va.gov  
000-000-0000

OK

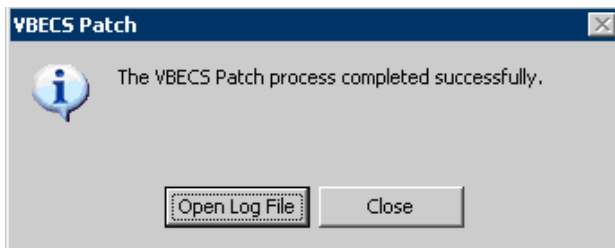
- 11) Click **OK**, after the timeout period had expired, a message signifying the final opportunity to abort the patch installation is displayed (Figure 21).


**Figure 21: VBECS Patch: Continue Patch Message**





- 12) Click **Yes** to continue with the patch installation. **IMPORTANT:** If active users exist, their sessions on the VBECS server will be automatically terminated. Click **No** to abort the current patching attempt and restart the patch process at a later time.
- 13) When the patch script finishes successfully a “**VBECS Patch process completed successfully**” message will be received (Figure 22).

**Figure 22: VBECS Patch Process Complete Message**



 *If a Patch Failure message is displayed, go to Appendix G: Troubleshooting Messages. If no solution to the failure message is found, please file a Remedy ticket immediately. Do not proceed or release VBECS for use until the ticket is resolved.*

- 14)  Capture a screen shot of VBECS Patch process completed successfully.
- 15) Insert the screen shot in Appendix E: VBECS Patch Installation Record Form for the Test Environment.
- 16) A log file will be created in the **L:\VBECS\_Archive\VBECSRecords\VBECS\_<mddyy>\_1.5.1.1\_to\_1.5.2.2\test** directory, with **<cluster>.<nnn.med.va.gov>\_VBECS\_1.5.2.2\_test\_<hhmm>.log** as the file name, where:
  - <mddyy> represents the current date.
  - <hhmm> represents the hour and minute the patch began execution.
  - <nnn> represents top-level domain (e.g. 'vha' or 'r01').For example, vha~~xxx~~cluz1.vha.med.va.gov\_VBECS\_1.5.2.2\_test\_0928.log.

 *By design, there may be non-fatal errors and warnings within the log file output. Ignore warnings and non-fatal errors upon successful completion of the VBECS Patch process.*

- 17) Record the name of the log file in Appendix E: VBECS Patch Installation Record Form for the Test Environment.
- 18) Click **Close** to close the VBECS Patch success message.

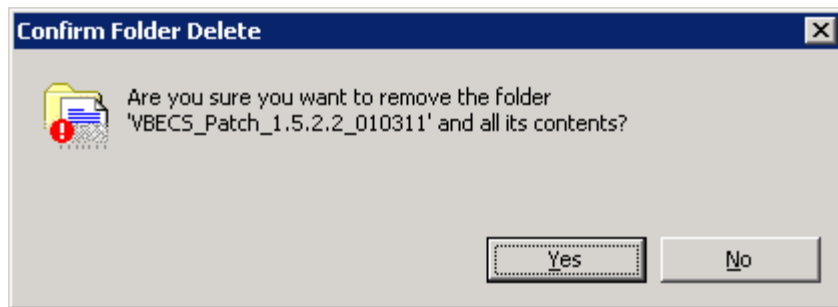
19) Click **Close** on the VBECS Patch main window to exit the patch application.

## 5 Delete Patch Files

To delete the VBECS 1.5.2.2 Patch files:

- 1) Open a remote desktop connection to the cluster, and use Windows Explorer to navigate to the **c:\temp** folder.
- 2) Select the **VBECS\_Patch\_1.5.2.2\_010311** folder.
- 3) While holding down the **Shift** key, press the **Delete** key. Click **Yes** to confirm file deletion (Figure 23).

**Figure 23: Example of Patch Files for Deletion**



- 4) Check the box in Appendix E: VBECS Patch Installation Record Form for the Test Environment.
- 5) Print Appendix E: VBECS Patch Installation Record Form for the Test Environment and initial and date the printed copy. Save this with your records of previous VBECS installations.
- 6) Manually check the box on the printed copy of Appendix E: VBECS Patch Installation Record Form for the Test Environment verifying that the form was printed, initialed and dated.
- 7) Notify the blood bank that the patch has been successfully installed in the Test account and request the blood bank to verify that the Test account can receive orders.

*For new VBECS installations: Begin VistA Database Conversion in accordance with Blood Bank Pre-Implementation Data Validation, Mapping, and Conversion ADPAC Guide if the conversion process has not already been completed.*

# Installation Procedure for the Production Environment



*Do not deviate from the instructions in this guide.*



*No users are permitted on the system during the patch installation. Any users on the system at the start of the patch process will be disconnected.*



*Coordinate the patch installation with the blood bank supervisor. Notify the supervisor that the patch installation requires one to two hours of downtime without interruption.*



*Server name representations in the document:*

*For Region 1 sites; R01YYYNODXXX01, YYY represents the Data Center location (SCR or DVR) and XXX represents the Site Code.*

*For all other sites; VHAXXXNODZI, XXX represents the Site Code.*

Use the Microsoft Word .doc format of the document when copying and pasting sections of the document.

## **Download and Verify the Contents of the VBECS Patch**

### **1 Download the VBECS 1.5.2.2 Patch File**

Prerequisites for VBECS FTP Download:

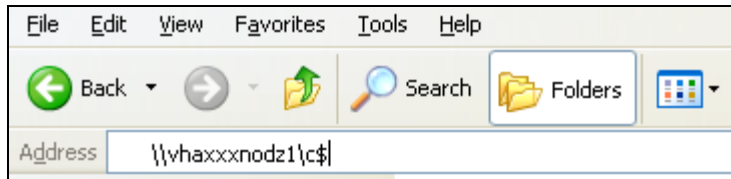
- The installer must be a server administrator in accordance with Appendix B: Active Directory Server Administrative Groups.
- The installer must be a member of the VBECS Admin AD Group in accordance with Appendix B: Active Directory Server Administrative Groups.

To download the VBECS 1.5.2.2 patch file from the VBECS FTP Site:

- 1) Complete Sub-steps a through d to save a copy of Appendix F: VBECS Patch Installation Record Form for the Production Environment to the local workstation. Any reference to Appendix F after the document is initially saved will be referring to the saved copy.
  - a) Open *Vista Blood Establishment Computer Software (VBECS) 1.5.2 Patch Installation Guide*.
  - b) Using the .doc format of this document, select the contents of Appendix F: VBECS Patch Installation Record Form for the Production Environment and copy and paste into a new Word document.
  - c) Add a header to the document as “**VBECS Patch Installation Record <Cluster\_name> 1.5.2 Prod <mmddyy>**” and a footer containing “**Page X of Y**”.
  - d) Save Appendix F: VBECS Patch Installation Record Form for the Production Environment as “**VBECS Patch Installation Record <Cluster\_name> 1.5.2 Prod <mmddyy>**”

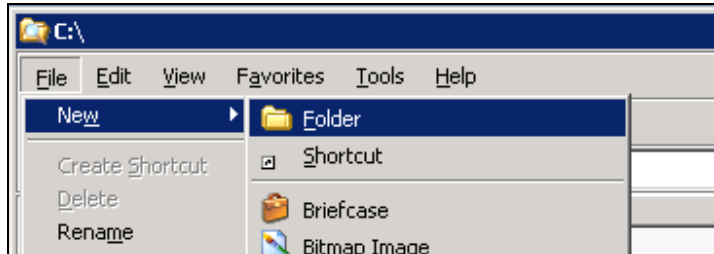
- (e.g., VBECS Patch Installation Record VHXXXCLUZ1 1.5.2 Prod 070809 or VBECS Patch Installation Record R01YYYCLUXXX01 1.5.2 Test 070809); where <mmddyy> represents the current date.
- 2) Open a remote desktop connection to the cluster being patched.
  - 3) Open Windows Explorer, and type \\VHXXXNODZ1\C\$ or \\R01YYYNODXXX01\C\$ and press **Enter** (Figure 24).

**Figure 24: Verify Temp folder on NODZ1**



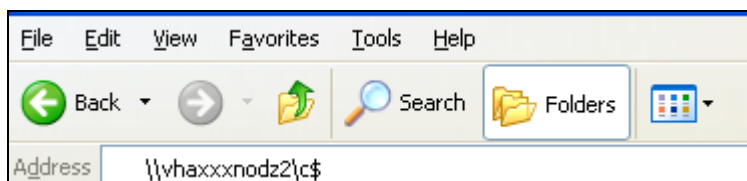
- 4) If a folder named “temp” does not exist, click **File, New, Folder**. Name this folder “temp” (Figure 25).

**Figure 25: Creating the Temp Folder**



- 5) In the Windows Explorer window already opened, type \\VHXXXNODZ2\C\$ or \\R01YYYNODXXX02\C\$ and press **Enter** (Figure 26).

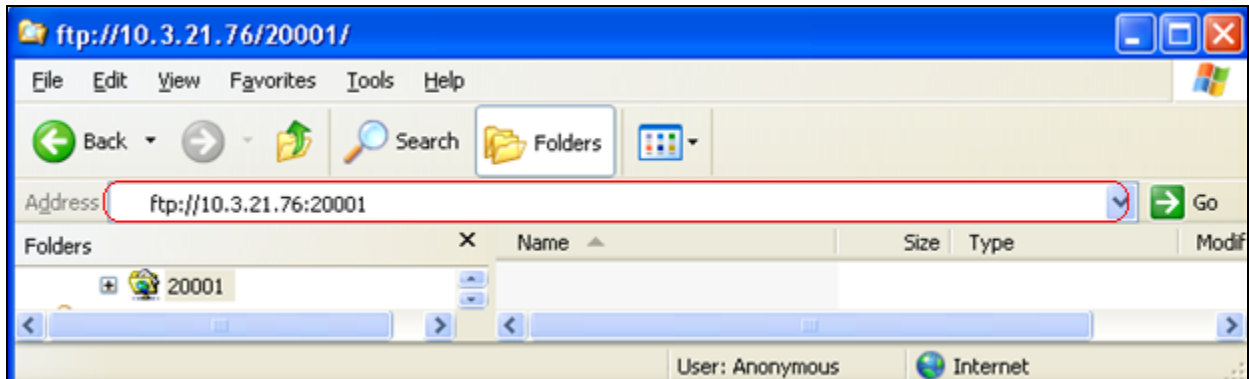
**Figure 26: Verify Temp folder on NODZ2**



- 6) If a folder named “temp” does not exist, click **File, New, Folder**. Name this folder “temp” (Figure 25).

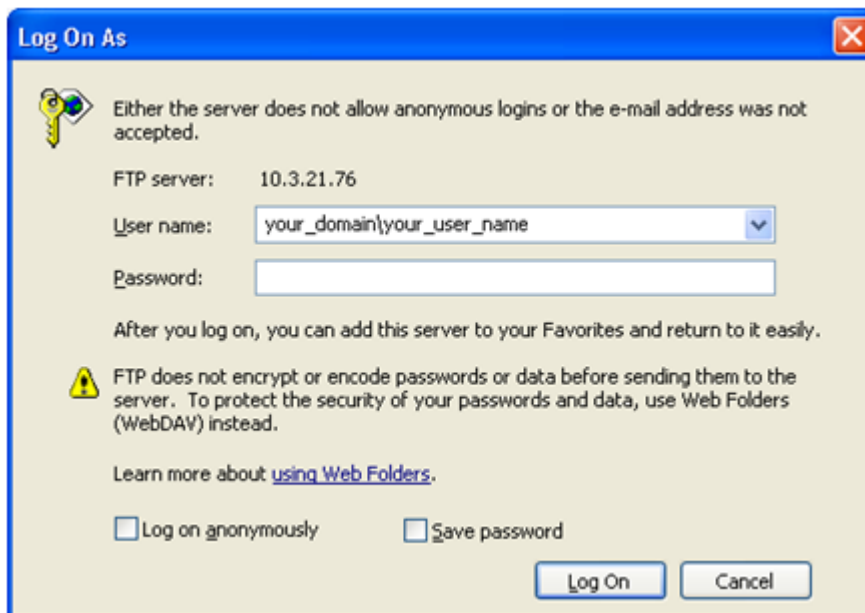
- 7) Right-click **Start, Explorer**. In the address field, type **ftp://10.3.21.76:20001** (Figure 27) and press **Enter**.


**Figure 27: ftp://10.3.21.76:20001**



- 8) At the **User name** prompt On the Log On As dialog, type **your\_domain and your\_user\_name** (e.g. YOUR\_DOMAIN\YOUR\_USER\_NAME) and at the **Password** prompt, type your password (Figure 28).

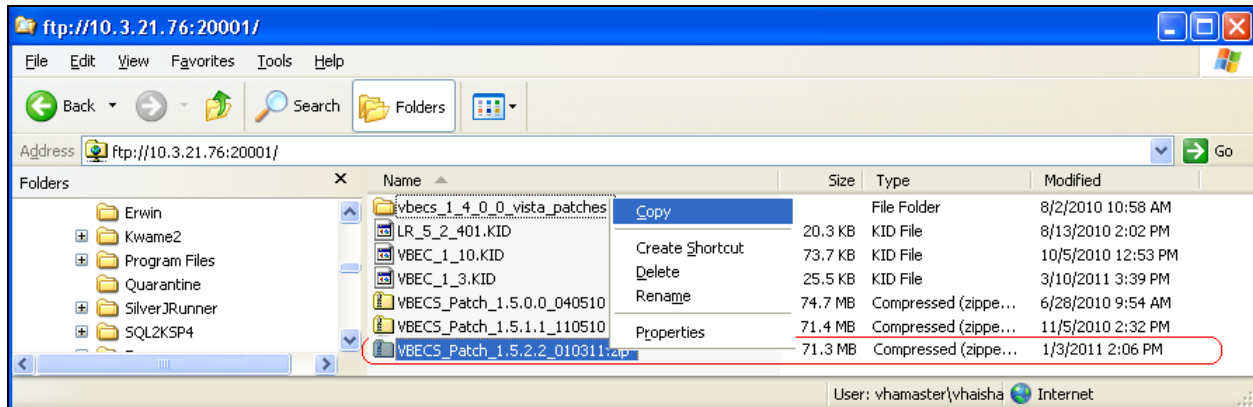
**Figure 28: Log On As**




 If access problems are encountered, please file a Remedy ticket. Do not proceed until the ticket is resolved.

- 9) Click the **Log On** button. Right-click the **VBECS\_Patch\_1.5.2.2\_010311.zip** and select **copy** (Figure 29). (\*\* if the **VBECS\_Patch\_1.5.2.2\_010311.zip** appears as a link, click and save the file in the targeted location specified in Step 10).

**Figure 29: VBECS\_Patch\_1.5.2.2\_010311.zip File**



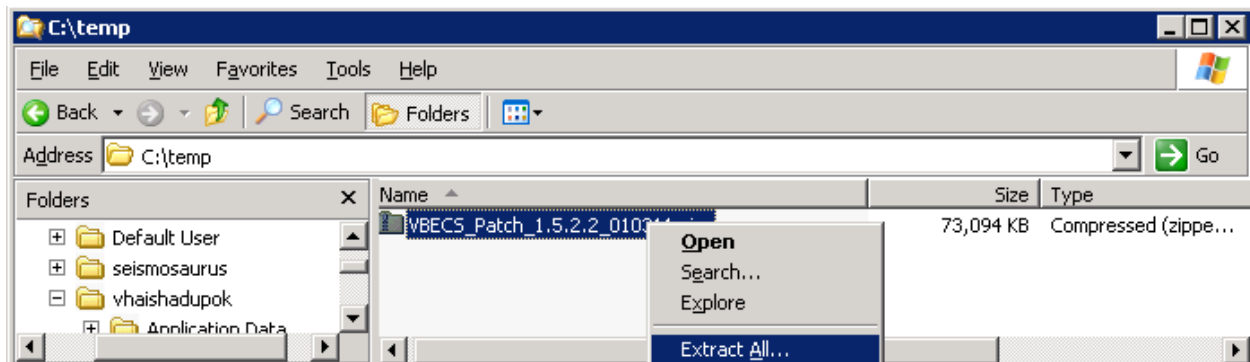
 If you encounter the 'Your current settings do not allow you do download files from this location' error, see Appendix H: Adding VBECS FTP Site to the Trusted Sites in Internet Explorer for instructions on how to resolve the problem.

- 10) Using Windows Explorer, navigate to the **C:\Temp** folder. Right-click and select **Paste**. The **VBECS\_Patch\_1.5.2.2\_010311.zip** will be copied to this location.

## 2 Verify the Contents of the VBECS 1.5.2.2 Patch File

- 1) On the remote desktop connection to the cluster already open, use Windows Explorer to navigate to the **c:\temp** folder.
- 2) Right-click on the **VBECS\_Patch\_1.5.2.2\_010311.zip** file and select **Extract All** (Figure 30).

**Figure 30: Example of Extracting Patch Contents**

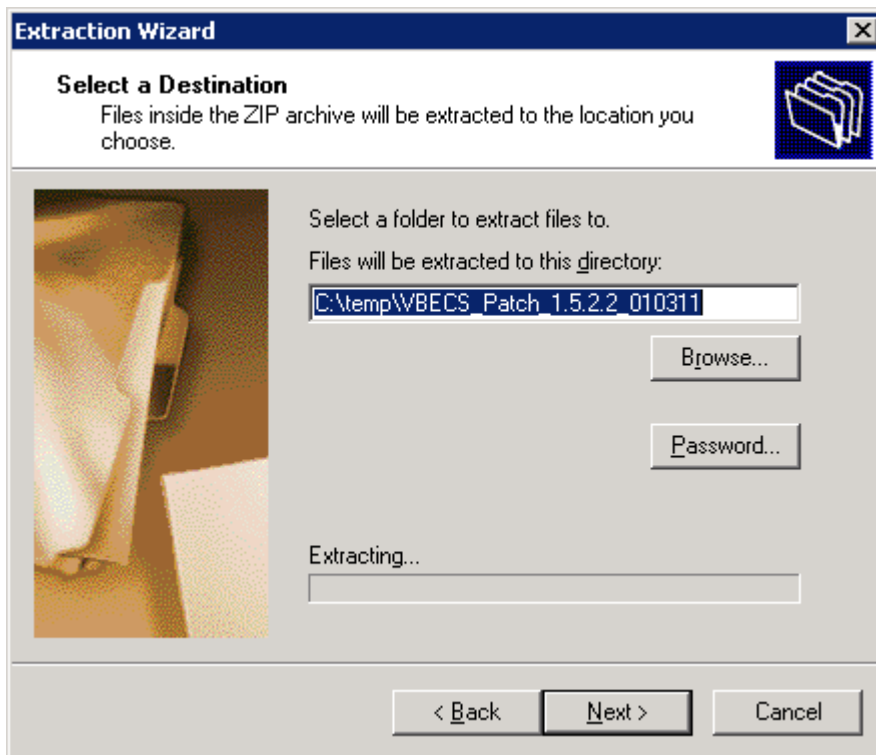


- 3) After the Extraction Wizard opens, click **Next**.



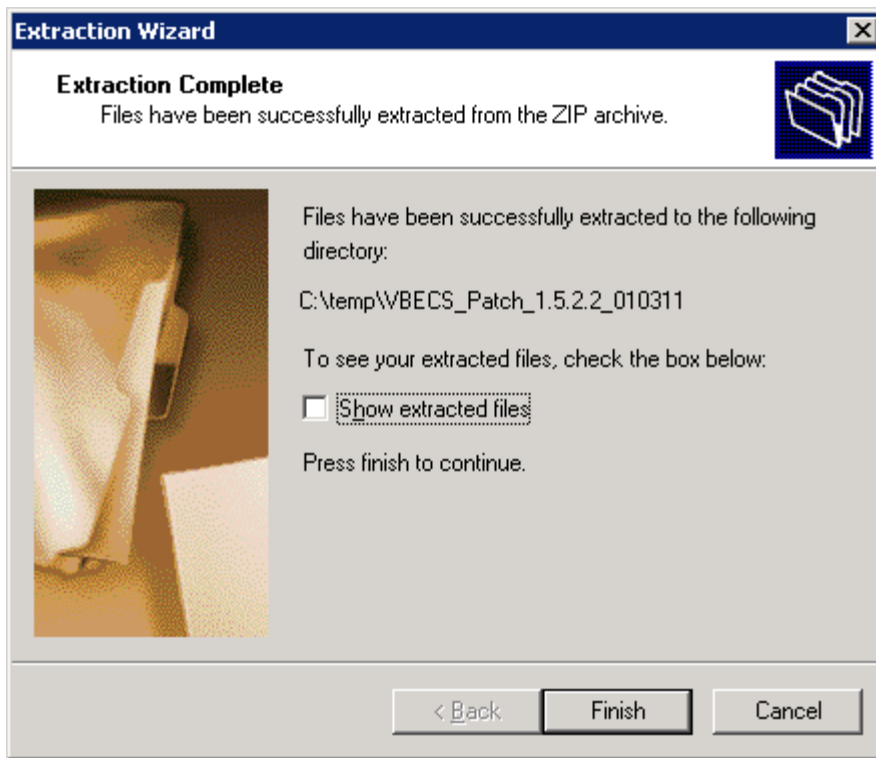
- 4) Click **Next** to extract the contents of the patch zip file to the temp directory (Figure 31).

**Figure 31: Extraction Wizard**



- 5) After the extraction completes, uncheck **Show extracted files** and click **Finish** (Figure 32).

**Figure 32: Extraction Completed**



- 6) Verify that the extraction completes and a **c:\temp\VBECS\_Patch\_1.5.2.2\_010311** folder is created.
- 7) Using Windows Explorer, right-click on the **VBECS\_Patch\_1.5.2.2\_010311** folder and select **Properties** (Figure 33).


**Figure 33: Example of Folder Properties**



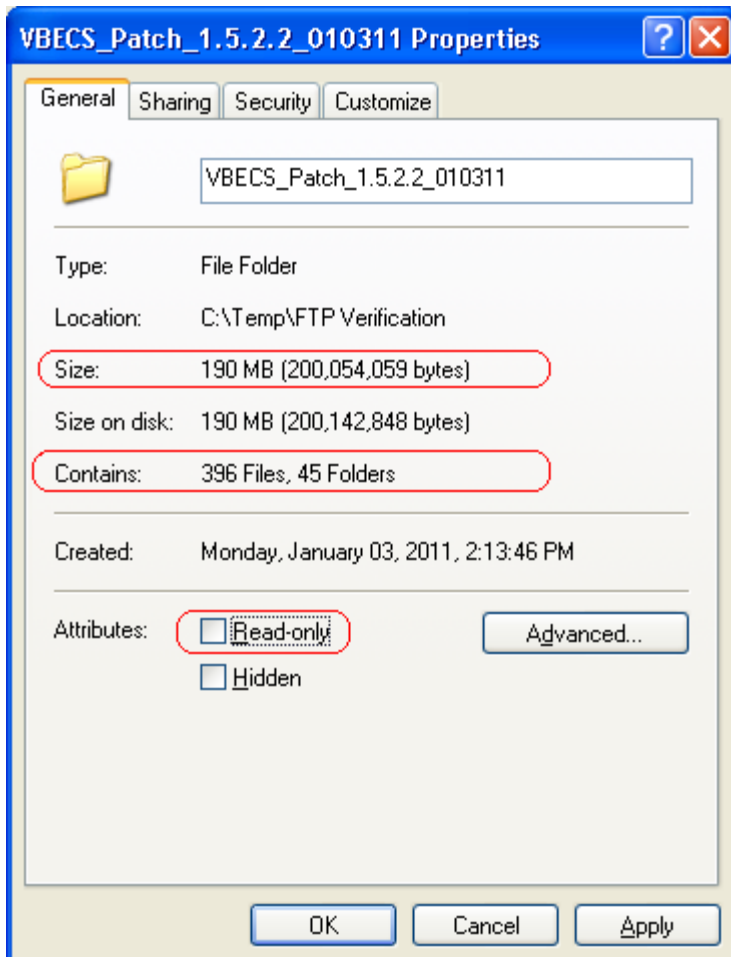
- 8) In the VBECS\_Patch\_1.5.2.2\_010311 Properties window (Figure 34), verify:
- **Size is 190 MB (200, 054, 059 bytes)**
  - **Contains 396 Files, 45 Folders**



*If the number of files and number of bytes do not match, stop and file a Remedy ticket. Do not proceed until the ticket is resolved.*

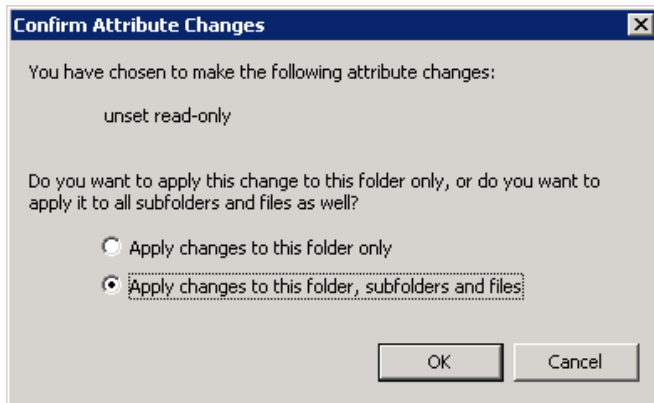
- 9) After verifying that the contents of the VBECS\_Patch\_1.5.2.2\_010311 file match, check the box in Appendix F: VBECS Patch Installation Record Form for the Production Environment.
- 10) In the Attributes section, uncheck the **Read-only** check box (Figure 34).
- 11)  Capture a screen shot of the VBECS\_Patch\_1.5.2.2\_010311 Properties window.
- 12) Insert the screen shot in Appendix F: VBECS Patch Installation Record Form for the Production Environment.

**Figure 34: VBECS Patch folder Properties**



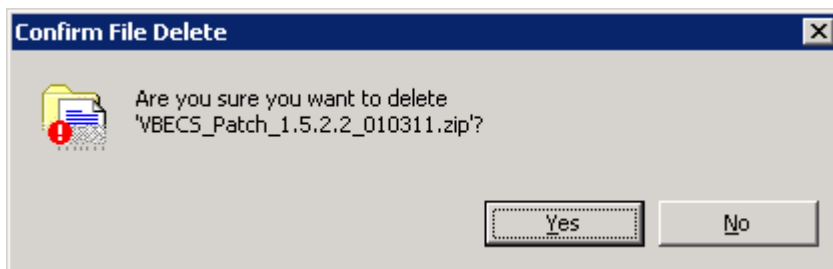
- 13) Click **OK**. In the Confirm Attribute Changes window, select the **Apply Changes to this folder, subfolders and files** option if it is not selected and click **OK** (Figure 35).

**Figure 35: Confirm Attribute Changes**



- 14) Using Windows Explorer, navigate to the **c:\temp** folder.
- 15) Select **VBECS\_Patch\_1.5.2.2\_010311.zip** file.
- 16) While holding the **Shift** key, press the **Delete** key. Click **Yes** to confirm file deletion (Figure 36).


**Figure 36: Delete Zip File**





### **3 Prerequisites for Installation**

- 1) VBECS 1.5.1.1 is installed.
- 2) VBECS 1.5.2.2 is installed and validated in the Test environment.
- 3) Verify VistA Production account is up to date with all released patches.
- 4) Verify that there are no active user sessions on the servers.
- 5) Refer to the latest approved version of the *VistA Blood Establishment Computer Software (VBECS) Installation Guide*, Appendices titled Server Configuration and Password List for details on Server Names, IP addresses, passwords, etc.
- 6) Using the remote desktop connection to the cluster already open, execute the steps in Appendix D: Setup Detailed Folders View to show file extensions on the installation workstation.

## 4 Execute VBECS Patch Scripts against the Cluster

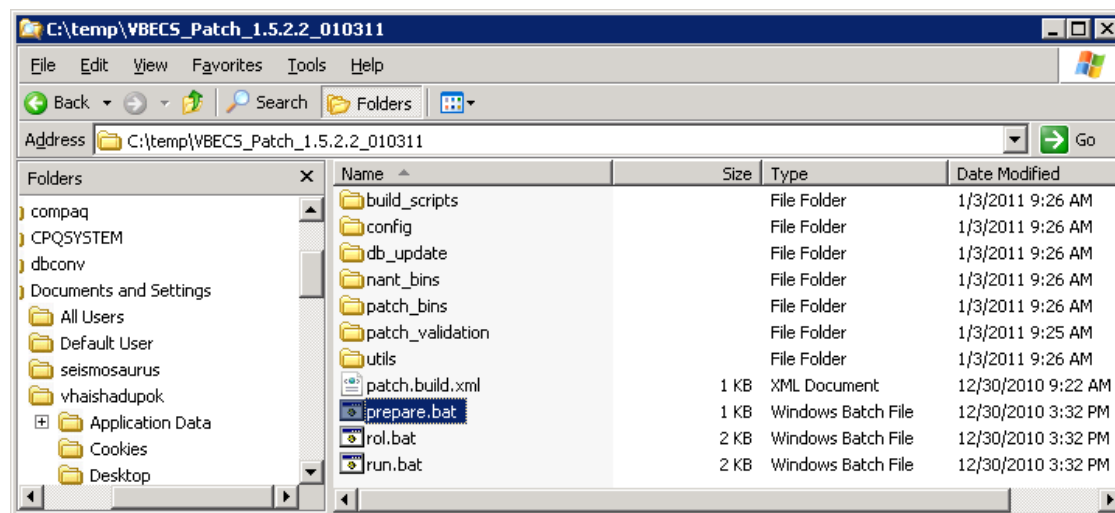
 Patching the servers will require a reboot. Plan to execute the VBECS patch when no active users are on the servers. The system warns active users that they will be disconnected during the configured timeout period.

 After the upgrade, warning emails with the subject 'Operations Manager Critical Error Alert' are normal and should be ignored. They are merely noting that changes have been made to the various VBECS files which is expected during a software upgrade.

 Do not run any additional applications on the server while the patch is executing.

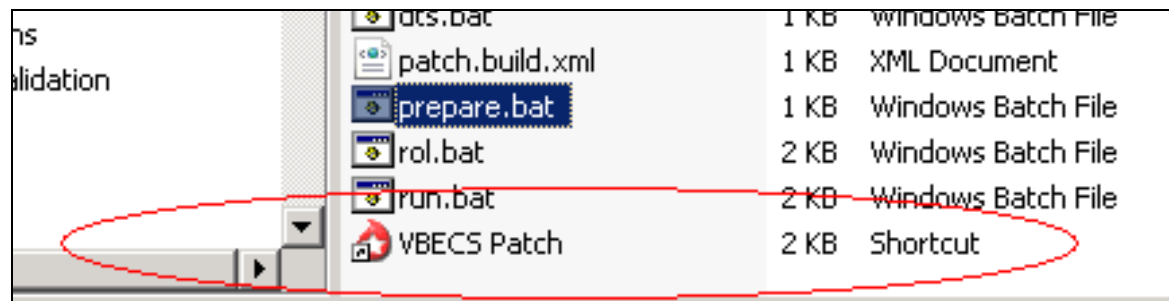
- 1) On the remote desktop connection to the cluster already open, use Windows Explorer to navigate to the **c:\temp\VBECS\_Patch\_1.5.2.2\_010311** folder and double-click the **prepare.bat** file (Figure 37).

**Figure 37: VBECS Patch Folder**



- 2) A VBECS Patch shortcut is created (Figure 38).

**Figure 38: VBECS Patch Shortcut**



- 3) Double-click on the **VBECS Patch** shortcut to initiate the VBECS patch configuration.
- 4) A VBECS Patch form will open.
- 5) Enter the following for the required fields (Figure 39).
  - **Cluster IP Address** – This is the IP address of the VBECS cluster [initially noted for installation on the Server Configuration Checklist in the *VistA Blood Establishment Computer Software (VBECS) Installation*]. Verify this information with a system administrator. It will be used to identify the clustered servers on which the patch will be installed.
  - **Contact E-mail** – This is the email address of the contact person or group.
  - **Contact Name** – This is the full name (usually the patch installer) displayed in the patch installation shutdown message. Users will contact him if the patch installation interferes with their work.
  - **Contact Phone** – This is the telephone number of the contact person.
  - **Message TimeOut** – This is the number of minutes current VBECS users will be warned they have to complete activities before patching disconnects their session. . If there are no users on the system override the default 10 minute value by entering **-1**. Users will not be warned if this value is **-1**.
  - **SQL Server Name** – This is the name of the VBECS SQL server [initially noted for installation on the Configuration Checklist under SQL Server Information in the *VistA Blood Establishment Computer Software (VBECS) Installation*]. Verify this information with a system administrator. It will be used to identify the database to be patched.
  - **VBECS Environment** – This is the VBECS environment. Select **prod** to patch VBECS Production environment.

**Figure 39: Example of VBECS Patch Form**

The figure displays two instances of the VBECS Patch configuration window. The left window shows the form with placeholder text for user input. The right window shows the same form with specific example values entered. A green arrow indicates the transition from the placeholder state to the populated state.

Field	Placeholder Value	Example Value
VBECS Source Version	1.5.1.1	1.5.1.1
VBECS Target Version	1.5.2.2	1.5.2.2
Cluster IP Address	YOUR CLUSTER IP	000.000.000.000
Contact E-mail	[E-MAIL]	FirstName.LastName@va.gov
Contact Name	[NAME]	FirstName LastName
Contact Phone	[PHONE]	800-555-1234
Message TimeOut	10	10
SQL Server Name	YOUR SQL SERVER NAME	VHAXXXSQLZ1 OR R01YYYSQLXX01
VBECS Environment	prod	prod

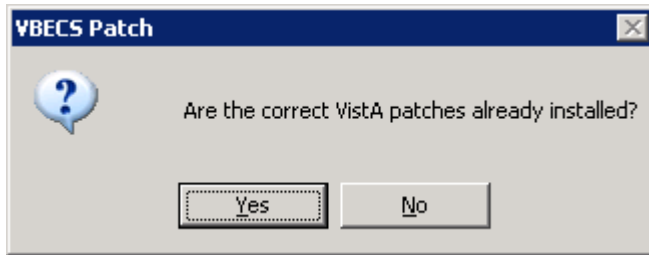
The 'VBECS Patch Process' section lists the following steps:




- Backup VBECS Environment
- Verify VBECS cluster
- Prepare VBECS cluster for backup
- Archive existing VBECS database and application files
- Apply VBECS Patch Updates
- Prepare VBECS cluster for patch
- Patch VBECS application and database


- 6) Click **Start**.

7) A prompt to verify that all correct VistA patches are installed appears (Figure 40).

**Figure 40: Required VistA Patches Prompt**



- 8) Click **Yes** to proceed on required VistA patches dialog. The VBECS Patch process starts. The patch will complete within 30 minutes.
- 9) Refer to Figure 41 for the following:
  - A green “patch is working” animation (  ) in the bottom left of the VBECS Patch form will be in motion while the patching is in progress.
  - The blue progress bar in the middle of form (  ) will increment based on the overall patch progress.
  - VBECS Patch Process checkpoints are displayed in the lower portion of the form. A green check mark  indicates that VBECS Patch process step completed successfully.

 *If the patch takes longer than 5 minutes to complete the first 3 checks, file a Remedy ticket immediately. Do not release VBECS for use until the ticket is resolved.*

*If a Patch fails to successfully complete within 30 minutes, file a Remedy ticket immediately. Do not stop the patch process and do not release VBECS for use until the ticket is resolved.*

**Figure 41: Example of VBECS Patch Process Form**

VBECS Patch	
<b>Info</b>	
VBECS Source Version	1.5.1.1
VBECS Target Version	1.5.2.2
<b>VBECS Patch</b>	
Cluster IP Address	000.000.000.000
Contact E-mail	FirstName.LastName@va.gov
Contact Name	FirstName LastName
Contact Phone	800-555-1234
Message TimeOut	10
SQL Server Name	VHAXXXSQLZ1 OR R01YYYSQLXX01
VBECS Environment	prod
<b>Message TimeOut</b>	
Number of minutes current VBECS users will be warned they have to complete activities before patching disconnects their session. Users will not be warned if ...	
<b>VBECS Patch Process</b>	
<ul style="list-style-type: none"> <li>Backup VBECS Environment <ul style="list-style-type: none"> <li>Verify VBECS cluster</li> <li>Prepare VBECS cluster for backup</li> <li>Archive existing VBECS database and application files</li> </ul> </li> <li>Apply VBECS Patch Updates <ul style="list-style-type: none"> <li>Prepare VBECS cluster for patch</li> <li>Patch VBECS application and database</li> </ul> </li> </ul>	

- 10) Active users (users connected to the system through remote desktop), will receive a message indicating the number of minutes they have to complete their work and log out (Message TimeOut argument entered in Step 5). The patch will not make any system changes during this timeout period (Figure 42).

**Figure 42: Example of Messenger Service**

Message from VHAISHMUL21 to VHAISHMUL21 on 1/15/2009 1:03:10 PM

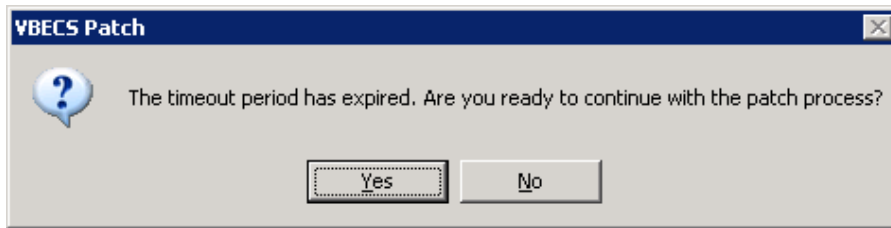
The VBECS Patch process is scheduled to begin in 2 minutes.  
Please complete your activities and log-off the VBECS server.  
If you have any questions or conflicts, contact the VBECS administrator:  
test  
test@va.gov  
000-000-0000

OK



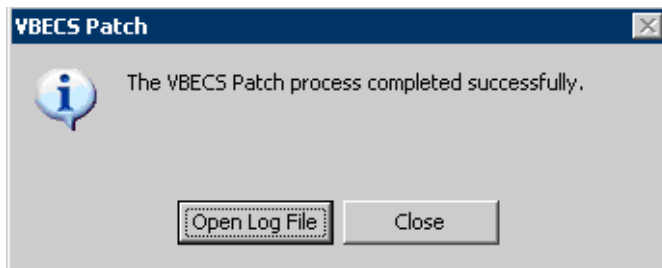
- 11) Click **OK**, after the timeout period had expired, a message signifying the final opportunity to abort the patch installation is displayed (Figure 43).


**Figure 43: VBECS Patch: Continue Patch Message**





- 12) Click **Yes** to continue with the patch installation. **IMPORTANT:** If active users exist, their sessions on the VBECS server will be automatically terminated. Click **No** to abort the current patching attempt and restart the patch process at a later time.
- 13) When the patch script finishes successfully a “**VBECS Patch process completed successfully**” message will be received (Figure 44).

**Figure 44: VBECS Patch Process Complete Message**



 *If a Patch Failure message is displayed, go to Appendix G: Troubleshooting Messages. If no solution to the failure message is found, please file a Remedy ticket immediately. Do not proceed or release VBECS for use until the ticket is resolved.*

- 14)  Capture a screen shot of VBECS Patch process completed successfully.
- 15) Insert the screen shot in Appendix F: VBECS Patch Installation Record Form for the Production Environment.
- 16) A log file will be created in the  
**L:\VBECS\_Archive\VBECSRecords\VBECS\_<mmddyy>\_1.5.1.1\_to\_1.5.2.2\prod**  
directory, with <cluster>.<nnn.med.va.gov>\_VBECS\_1.5.2.2\_prod\_<hhmm>.log as the file  
name, where:
  - <mmddyy> represents the current date.
  - <hhmm> represents the hour and minute the patch began execution.
  - <nnn> represents top-level domain (e.g. ‘vha’ or ‘r01’).For example, vhaxxxcluz1.vha.med.va.gov\_VBECS\_1.5.2.2\_prod\_0928.log.

 *By design, there may be non-fatal errors and warnings within the log file output. Ignore warnings and non-fatal errors upon successful completion of the VBECS Patch process.*

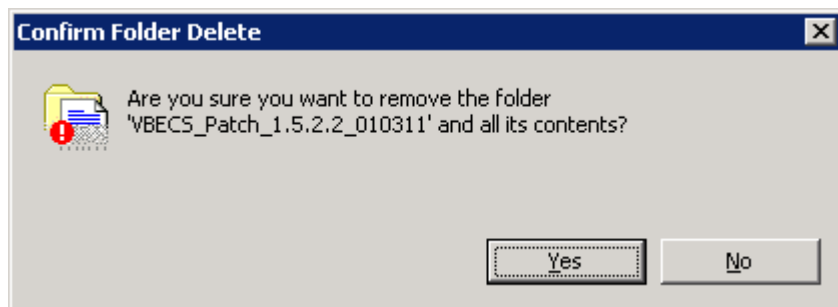
- 17) Record the name of the log file in Appendix F: VBECS Patch Installation Record Form for the Production Environment.
- 18) Click **Close** to close the VBECS Patch success message.
- 19) Click **Close** on the VBECS Patch main window to exit the patch application.

## 5 Delete Patch Files

To delete the VBECS 1.5.2.2 Patch files:

- 1) On the remote desktop connection to the cluster already open, use Windows Explorer to navigate to **c:\temp** folder.
- 2) Select the **VBECS\_Patch\_1.5.2.2\_010311** folder.
- 3) While holding down the Shift key press the **Delete** key. Click **Yes** to confirm file deletion (Figure 45).

**Figure 45: Example of Patch Files for Deletion**



- 4) Check the box in Appendix F: VBECS Patch Installation Record Form for the Production Environment.
- 5) Print Appendix F: VBECS Patch Installation Record Form for the Production Environment and initial and date the printed copy. Save this with your records of previous VBECS installations.
- 6) Manually check the box on the printed copy of Appendix F: VBECS Patch Installation Record Form for the Production Environment verifying that the form was printed, initialed and dated.
- 7) Notify the blood bank that the patch has been successfully installed in the Production account and request the blood bank to verify that the Production account can receive orders.

*For new VBECS installations: Begin VistA Database Conversion in accordance with Blood Bank Pre-Implementation Data Validation, Mapping, and Conversion ADPAC Guide if the conversion process has not already been completed*

# Glossary

Acronym, Term	Definition
<b>.NET</b>	Microsoft's framework for Web services and component software (pronounced "dot net").
<b>CPS (formerly EPS, formerly EVS)</b>	Clinical Product Support.
<b>IRM</b>	Information Resource Management.
<b>Remote Desktop Connection (formerly Terminal Services)</b>	The connectivity tool used to access VBECS on the server.
<b>VBECS</b>	VistA Blood Establishment Computer Software.
<b>Veterans Health Information Systems and Technology Architecture (VistA)</b>	Formerly the Decentralized Hospital Computer Program (DHCP) of the Veterans Health Administration (VHA), Department of Veterans Affairs (VA). VistA software, developed by the VA, is used to support clinical and administrative functions at VA Medical Centers nationwide. It is written in M and, via the Kernel, runs on all major M implementations regardless of vendor. VistA is composed of packages that undergo a verification process to ensure conformity with name spacing and other VistA standards and conventions.

This page intentionally left blank.

# Appendices

## **Appendix A: Installation Logs**

Parts of the installation produce logs, which can help resolve installation issues. The logs and their locations are as follows:

- VBECS Patch Scripts on the cluster.
  - When the patch is executed for the Test environment, a log file will be created in:
    - L:\VBECS\_Archive\VBECSRecords\VBECS\_<mmddyy>\_1.5.1.1\_to\_1.5.2.2\test\<cluster>.<nnn.med.va.gov>\_VBECS\_1.5.2.2\_test\_<hhmm>.log as the file name, where:
      - <mmddyy> represents the date the patch was run.
      - <hhmm> represents the hour and minute the patch began execution.
      - <nnn> represents top-level domain (e.g. 'vha' or 'r01').

For example, vhaxxxcluz1.vha.med.va.gov\_VBECS\_1.5.2.2\_test\_1534.log.

- When the patch is executed for the Prod environment, a log file will be created in:
  - L:\VBECS\_Archive\VBECSRecords\VBECS\_<mmddyy>\_1.5.1.1\_to\_1.5.2.2\prod\<cluster>.<nnn.med.va.gov>\_VBECS\_1.5.2.2\_prod\_<hhmm>.log as the file name, where:
    - <mmddyy> represents the date the patch was run.
    - <hhmm> represents the hour and minute the patch began execution.
    - <nnn> represents top-level domain (e.g. 'vha' or 'r01').

For example, vhaxxxcluz1.vha.med.va.gov\_VBECS\_1.5.2.2\_prod\_1534.log.

This page intentionally left blank.

## Appendix B: Active Directory Server Administrator Groups

Each site has two user groups in Active Directory (VHA.med.va.gov\VBECS\VBECS Users) that support VBECS. Members of the administrative group can access the administrative component of VBECS. Members of the user group can access functional components of VBECS. Multidivisional sites share groups. Table 1 lists all group names.

**Table 1: Group Names**

VISN	Facility #	Facility	Server Administrative Group	VBECS Admin AD Group
1	523	Boston (Boston HCS)	vhaBHS VbecsServerAdmins	vhaBHS Vbecs Administrators
	608	Manchester	vhaMANVbecsServerAdmins	vhaMANVbecsAdministrators
	631	Northampton	vhaNHMVbecsServerAdmins	vhaNHMVbecsAdministrators
	650	Providence	vhaPROVbecsServerAdmins	vhaPROVbecsAdministrators
	402	Togus	vhaTOGVbecsServerAdmins	vhaTOGVbecs Administrators
	689	West Haven (Connecticut HCS)	vhaCONVbecsServerAdmins	vhaCONVbecsAdministrators
	405	White River Junction	vhaWRJVbecsServerAdmins	vhaWRJVbecsAdministrators
2	528A8	Albany (Upstate New York HCN) MC	VhaUNYVbecsServerAdmins	vhaUNYVbecsAdministrators
	528A6	Bath (Upstate New York HCN)		
	528	Buffalo (Upstate New York HCN)		
	528A5	Canandaigua VA Medical Center		
	528A7	Syracuse (Upstate New York HCS)		
3	526	Bronx	vhaBRXVbecsServerAdmins	vhaBRXVbecsAdministrators
	620A4	Castle Point (Hudson Valley HCS)	vhaHVVbecsServerAdmins	vhaHVVbecsAdministrators
	561	East Orange (New Jersey HCS)	vhaNJHVbecsServerAdmins	vhaNJHVbecsAdministrators
	630	New York (New York Harbor HCS) New York	vhaNYHVbecsServerAdmins	vhaNYHVbecsAdministrators
	630A4	New York (New York Harbor HCS) Brooklyn		
	632	Northport	vhaNOPVbecsServerAdmins	vhaNOPVbecsAdministrators
4	503	Altoona	vhaALTVbecsServerAdmins	vhaALTVbecsAdministrators
	529	Butler	vhaBUTVbecsServerAdmins	vhaBUTVbecsAdministrators
	540	Clarksburg	vhaCLAVbecsServerAdmins	vhaCLAVbecsAdministrators
	542	Coatesville	vhaCOAVbecsServerAdmins	vhaCOAVbecsAdministrators
	562	Erie	vhaERIVbecsServerAdmins	vhaERIVbecsAdministrators
	595	Lebanon	vhaLEBVbecsServerAdmins	vhaLEBVbecsAdministrators
	642	Philadelphia	vhaPHIVBECS_ADM	vhaPhiladelphiaBBAdmin
	646	Pittsburgh University Drive (Pittsburgh HCS)	vhaPTHVbecsServerAdmins	vhaPTHVbecsAdministrators
	693	Wilkes-Barre	vhaWBPVbecsServerAdmins	vhaWBPVbecsAdministrators
	460	Wilmington	vhaWIMVbecsServerAdmins	vhaWIMVbecsAdministrators
5	512	Baltimore (Maryland HCS)	vhaBALVbecsServerAdmins	vhaBALVbecsAdministrators
	512A5	Perry Point (Maryland HCS)		
	613	Martinsburg	vhaMWVVbecsServerAdmins	vhaMWVVbecsAdministrators
	688	Washington	vhaWASVbecsServerAdmins	vhaWAS Vbecs Administrators
6	637	Asheville	vhaASHVbecsServerAdmins	vhaASHVbecsAdministrators
	517	Beckley	vhaBECVbecsServerAdmins	vhaBECVbecsAdministrators
	558	Durham	vhaDURAdmin	v06DURVbecsAdministrators

VISN	Facility #	Facility	Server Administrative Group	VBECs Admin AD Group
	565	Fayetteville NC	vhaFNCVbecsServerAdmins	vhaFNCVbecsAdministrators
	590	Hampton	vhaHAMVbecsServerAdmins	vhaHAMVbecsAdministrators
	652	Richmond	vhaRICVbecsServerAdmins	vhaRICVbecsAdministrators
	658	Salem	vhaSAMVbecsServerAdmins	vhaSAMVbecsAdmins
	659	Salisbury (Heffner)	vhaSBYVbecsServerAdmins	vhaSBYVbecsAdministrators
7	508	Atlanta	vhaATGVbecsServerAdmins	vhaATGVbecsAdministrators
	509	Augusta	vhaAUGVbecsServerAdmins	vhaAUGVbecsAdministrators
	521	Birmingham MC	vhaBIRVbecsServerAdmins	vhaBIRVbecsAdministrators
	534	Charleston	vhaHAVbecsServerAdmins	vhaHAVbecsAdministrators
	544	Columbia SC	vhaCMSVbecsServerAdmins	vhaCMSVbecsAdministrators
	557	Dublin	vhaDUBVbecsServerAdmins	vhaDUBVbecsAdministrators
	619	Montgomery (Central Alabama HCS)	vhaCAVVbecsServerAdmins	vhaCAVVbecsAdministrators
	619A4	Tuskegee (Central Alabama HCS)		
8	516	Bay Pines MC	vhaBAYVbecsServerAdmins	vhaBAYVbecsAdministrators
	573	Gainesville (N Florida/S Georgia HCS)	vhaNFLVbecsServerAdmins	vhaNFL VbecsAdministrators
	573A4	Lake City (N Florida/S Georgia HCS)		
	672	San Juan	vhaSAJVbecsServerAdmins	vhaSAJVbecsAdministrators
	546	Miami	vhaMIAVbecsServerAdmins	vhaMIAVbecsAdministrators
	673	Tampa	vhaTAMVbecsServerAdmins	vhaTAMVbecsAdministrators
	548	West Palm Beach	vhaWPBVbecsServerAdmins	vhaWPBVbecsAdministrators
9	581	Huntington	vhaHUNVbecsServerAdmins	vhaHUNVbecsAdministrators
	596	Lexington	vhaLEXVbecsServerAdmins	vhaLEXVbecsAdministrators
	603	Louisville	vhaLOUVbecsServerAdmins	vhaLOUVbecsAdministrators
	614	Memphis	vhaMEMVbecsServerAdmins	vhaMEMVbecsAdministrators
	621	Mountain Home	VhaMOUVbecsServerAdmins	vhaMOUVbecsAdministrators
	626	Nashville (Tennessee Valley HCS)	vhaTVHVbecsServerAdmins	vhaTVHVbecsAdministrators
	626A4	Murfreesboro (Tennessee Valley HCS)		
10	538	Chillicothe	vhaCLLVbecsServerAdmins	vhaCLLVbecsAdministrators
	539	Cincinnati	v10CINAdmin	v10CinVbecsAdministrators
	541	Cleveland Wade Park	v10CLEAdmin	vHACLEVbecsAdministrators
		Columbus	v10COSVbecsServerAdmins	v10COSVbecsAdministrators
	552	Dayton	v10DAYVbecsServerAdmins	vhaDAYVbecsAdministrators
11	506	Ann Arbor	vhaANN_VbecsServerAdmins	vhaANN_VbecsAdministrators
	515	Battle Creek	vhaBACVbecsServerAdmins	vhaBACVbecsAdministrators
	550	Danville (Illiana HCS)	vhaDANVbecsServerAdmins	vhaDANVbecsAdministrators
	553	Detroit Allen Park	vhaDETVbecsServerAdmins	vhaDETVbecsAdministrators
	610	Marion IN (Northern Indiana HCS)	vhaNINVbecsServerAdmins	VhaNinVbecsAdministrators
	610A4	Fort Wayne (Northern Indiana HCS)		
	583	Indianapolis	vhaIND_VBECs_ADMIN	vhalindianapolisBBAdmin
	655	Saginaw	vhaSAGVbecsServerAdmins	vhaSAGVbecsAdmin
12	537	Chicago Westside (Chicago HCS)	v12CHSVbecsServerAdmins	v12CHSVbecsAdministrators
	578	Hines VA Hospital	v12HINVbecsServerAdmins	v12HINVbecsAdministrators
	585	Iron Mountain	vhaIROVbecsServerAdmins	vhaIROVbecsAdministrators
	607	Madison	v12MADVbecsServerAdmins	v12MADVbecsAdministrators
	695	Milwaukee	v12MIWVbecsServerAdmins	v12MIWVbecsAdministrators
	556	North Chicago	v12NCHVbecsServerAdmins	v12NCHVbecsAdministrators




VISN	Facility #	Facility	Server Administrative Group	VBECs Admin AD Group
	676	Tomah	vhaTOMVbecsServerAdmins	vhaTOMVbecsAdministrators
15	589	Kansas City (Heartland West HCS)	v15KANVbecsAdministrator	v15KANVbecsAdministrator
	589A4	Columbia MO (Heartland West HCS)		
	589A5	Topeka (Eastern Kansas HCS)		
	589A6	Leavenworth (Eastern Kansas HCS)		
	589A7	Wichita		
	657	St. Louis (Heartland East HCS)	STL VBECs Server Administration	EasternOrbitVbecsAdmin
	657A4	Poplar Bluff (Heartland East HCS)		
	657A5	Marion IL		
16	502	Alexandria	vhaALXVbecsServerAdmins	vhaALXVbecsAdministrators
	520	Biloxi (VA Gulf coast HCS)	v16BILVbecsServerAdmins	v16BILVbecsAdministrators
	564	Fayetteville AR	v16FAVVbecsServerAdmins	v16FAVVbecsAdministrators
	580	Houston	vhaHOUVbecsServerAdmins	vhaHOUVbecsAdministrators
	586	Jackson	v16JACVbecsServerAdmins	v16JACVbecsAdministrators
	598	Little Rock (Central AR Veterans HCS)	v16LITVbecsServerAdmins	v16LITVbecsAdministrators
	623	Muskogee	vhaMUSVbecsServerAdmins	vhaMUSVbecsAdministrators
	629	New Orleans (SE Louisiana HCS)		
	635	Oklahoma City	v16OKLVbecsServerAdmins	v16OKLVbecsAdministrators
	667	Shreveport	v16SHVVbecsServerAdmins	v16SHVVbecsAdministrators
17	549	Dallas (North Texas HCS)	v17NTXVbecsServerAdmins	v17NTXVbecsAdministrators
	671	San Antonio (South Texas HCS)	v17STXVbecsServerAdmins	v17STXVbecsAdministrators
	671A4	Kerrville (South Texas HCS)		
	674	Temple (Central Texas HCS)	v17CTXVbecsServerAdmins	v17CTXVbecsAdministrators
18	501	Albuquerque (New Mexico HCS)	R01VbecsServerAdmins	R01ABQVbecsAdministrators
	504	Amarillo	R01VbecsServerAdmins	R01AMAVbecsAdministrators
	519	Big Spring (VA W Texas HCS)	R01VbecsServerAdmins	R01BIGVbecsAdministrators
	644	Phoenix	R01VbecsServerAdmins	R01PHOVbecsAdministrators
	649	Prescott (VA Northern Arizona HCS)	R01VbecsServerAdmins	R01PREVbecsAdministrators
	678	Tucson (VA Southern Arizona HCS)	R01VbecsServerAdmins	R01TUCVbecsAdministrators
19	442	Cheyenne	R01VbecsServerAdmins	R01CHYVbecsAdministrators
	554	Denver (Eastern Colorado HCS)	R01VbecsServerAdmins	R01DENVbecsAdministrators
	436	Fort Harrison (Montana HCS)	R01VbecsServerAdmins	R01FHMVbecsAdministrators
	575	Grand Junction	R01VbecsServerAdmins	R01GRJVbecsAdministrators
	660	Salt Lake City	R01VbecsServerAdmins	R01SLCVbecsAdministrators
20	531	Boise	R01VbecsServerAdmins	R01BOIVbecsAdministrators
	648	Portland (/Vancouver)	R01VbecsSServerAdmins	R01PORVbecsAdministrators
	653	Roseburg (VA Roseburg HCS)	R01VbecsServerAdmins	R01ROSVbecsAdministrators
	663	Seattle (Puget Sound HCS)	R01VbecsServerAdmins	R01PugVbecsAdministrators
	663A4	American Lake (Puget Sound HCS)		
	668	Spokane	R01VbecsServerAdmins	R01SPOVbecsAdministrators

<b>VISN</b>	<b>Facility #</b>	<b>Facility</b>	<b>Server Administrative Group</b>	<b>VBECs Admin AD Group</b>
21	570	Fresno (VA Central California HCS)	R01VbecsServerAdmins	R01FREVbecsAdministrators
	640	Palo Alto (Palo Alto HCS )	R01VbecsServerAdmins	R01PALVbecsAdministrators
	640A4	Livermore (Palo Alto HCS)		
	612	Martinez (Northern California HCS)	R01VbecsServerAdmins	R01MACVbecsAdministrators
	612A4	Sacramento (Northern California HCS)		
	654	Reno (VA Sierra Nevada HCS)	R01VbecsServerAdmins	R01RenVbecsAdministrators
	662	San Francisco	R01VbecsServerAdmins	R01SFCVbecsAdministrators
22	605	Loma Linda	R01VbecsServerAdmins	R01LOMVbecsAdministrators
	600	Long Beach	R01VbecsServerAdmins	R01LONVbecsAdministrators
	664	San Diego	R01VbecsServerAdmins	R01SDCVbecsAdministrators
	691	West Los Angeles (Greater Los Angeles HCS)	R01VbecsServerAdmins	R01GLAVbecsAdministrators
	636	Omaha (NWIHS)	v23OMAVbecsServerAdmins	v23OMAVbecsAdministrators
23	636A6	Des Moines (Central Plains Network)		
	636A8	Iowa City		
	437	Fargo	v23FARVbecsServerAdmins	v23FARVbecsAdministrators
	568	Fort Meade(Black Hills HCS)	v23BHHVbecsServerAdmins	v23BHHVbecsAdministrators
	568A4	Hot Springs (Black Hills HCS)		
	618	Minneapolis	v23MINVbecsServerAdmins	v23MINVbecsAdministrators
	438	Sioux Falls	v23SUXVbecsServerAdmins	V23SUXVbecsAdministrators
	656	St. Cloud	v23STCVbecsServerAdmins	V23STCVbecsAdministrators
CPS	NA	Salt Lake City and Albany	R01VbecsServerAdmins	R01SLCVbecsAdministrators

## ***Appendix C: Instructions for Capturing Screen Shots for Installation Records***

Throughout the installation guide, the user is asked to capture screen shots at various points in the installation to confirm that the installation was performed correctly. These points are indicated by the

camera icon:  .

To capture a screen shot:

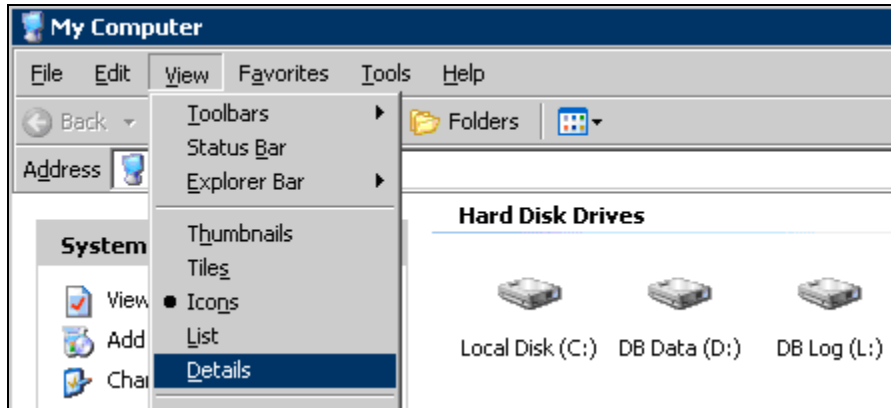
- 1) When the screen you wish to capture is displayed, press **Ctrl + Alt + Print Screen key**.
- 2) In the *VBECS Patch Installation Record Form for the Test (or Production) Environment*, place the cursor where you want to insert the picture.
- 3) Press **Ctrl + V** to paste.

This page intentionally left blank.

## Appendix D: Setup Detailed Folders View

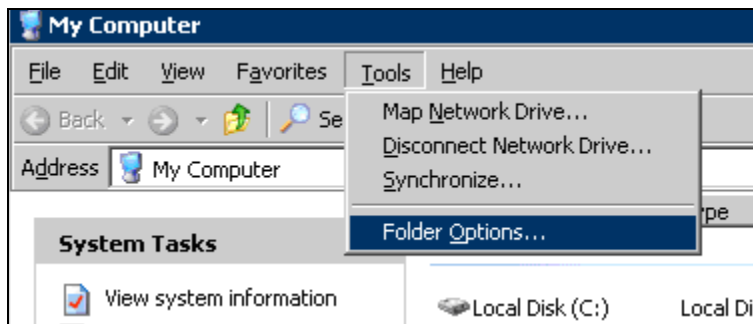
- 1) Click **Start, My Computer**.
- 2) Select **View, Details** (Figure 46).

**Figure 46: Details Menu**



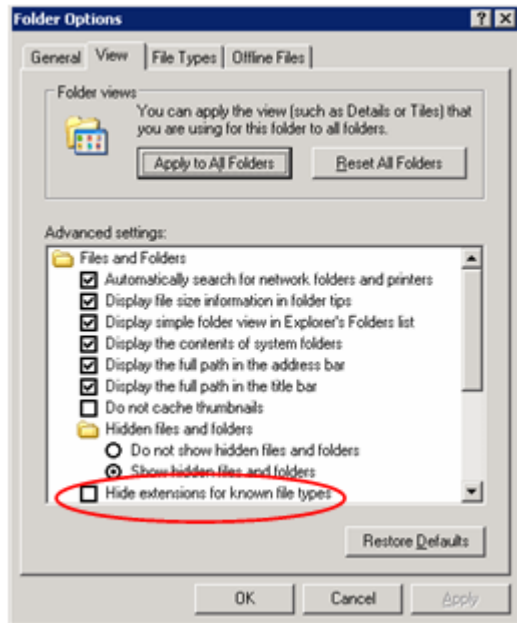
- 3) Select **Tools, Folder Options** (Figure 47).

**Figure 47: Folder Options Menu**



- 4) Select the **View** tab. Make sure the “Hide extensions for known file types” check box is clear (Figure 48).
- 5) Click **Apply to All Folders** (Figure 48).

**Figure 48: Folder Options Dialog**



- 6) At the prompt, click **Yes** to set the folders on your computer to match the current folder's view settings. Click **OK** to close the Properties dialog.

## ***Appendix E: VBECS Patch Installation Record Form for the Test Environment***

### **VBECS Patch Installation Record for the Test Environment**

Complete each section of this installation record as you complete the corresponding installation steps:

- Insert screen shots, as indicated.
- Replace the text in angle brackets and delete the brackets.
- To select a check box, double-click it, and then click the **Checked** radio button under Default value.
- Copy and paste the contents of this appendix into a separate Word document.
- Print, sign and date the completed appendix.
- Add all printed documents related to Appendix E to the package for the Validation Records.

### ***Installation Procedure for the Test Environment***

#### **1 Download the VBECS 1.5.2.2 Patch File**

N/A

#### **2 Verify the Contents of the VBECS 1.5.2.2 Patch File**

**Step 9:** ☐ Verified the VBECS\_Patch\_1.5.2.2\_010311 file contents.

**Step 12:** Screen Shot: VBECS\_Patch\_1.5.2.2\_010311 Properties

<Insert screen shot.>

#### **3 Prerequisites for Installation**

N/A

#### **4 Execute VBECS Patch Scripts against the Cluster**

**Step 15:** Screen shot: VBECS Patch process completed successfully.

<Insert screen shot.>

**Step 17: VBECS Patch Log Output File Name**

**Log File:**

#### **5 Delete the Patch Files**

**Step 4:** ☐ Deleted the VBECS 1.5.2.2 patch files on server.

**Step 6:** ☐ Verified that Appendix E was printed, initialed and dated.

**List problems occurring in the installation process.**

---

Name (Print.)	Title
---------------	-------

---

Signature	Date
-----------	------

**Give this patch installation record for the test environment to the blood bank supervisor, or follow your records retention policy.**



## ***Appendix F: VBECS Patch Installation Record Form for the Production Environment***

### **VBECS Patch Installation Record for the Production Environment**

Complete each section of this installation record as you complete the corresponding installation steps:

- Insert screen shots, as indicated.
- Replace the text in angle brackets and delete the brackets.
- To select a check box, double-click it, and then click the **Checked** radio button under Default value.
- Copy and paste the contents of this appendix into a separate Word document.
- Print, sign and date the completed appendix.
- Add all printed documents related to Appendix F to the package for the Validation Records.

#### ***Installation Procedure for the Production Environment***

##### **1 Download the VBECS 1.5.2.2 Patch File**

N/A

##### **2 Verify the Contents of the VBECS 1.5.2.2 Patch File**

**Step 9:** ☐ Verified the VBECS\_Patch\_1.5.2.2\_010311 file contents.

**Step 12:** Screen Shot: VBECS\_Patch\_1.5.2.2\_010311 Properties.

<Insert screen shot.>

##### **3 Prerequisites for Installation**

N/A

##### **4 Execute VBECS Patch Scripts against the Cluster**

**Step 15: Screen shot:** VBECS Patch process completed successfully.

<Insert screen shot.>

**Step 17: VBECS Patch Log Output File Name**

**Log File:**

##### **5 Delete Patch Files**

**Step 4:** ☐ Deleted the VBECS 1.5.2.2 Patch files on server.

**Step 6:** ☐ Verified that Appendix F was printed, initialed and dated.

**List problems occurring in the installation process.**

---

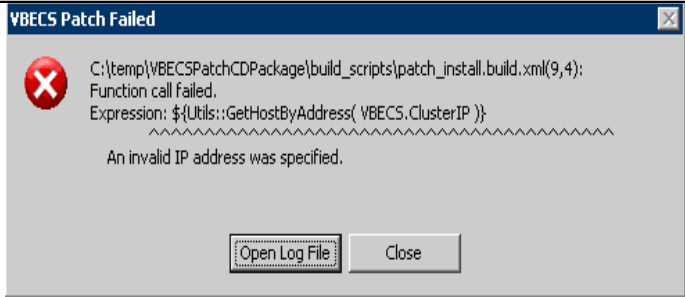
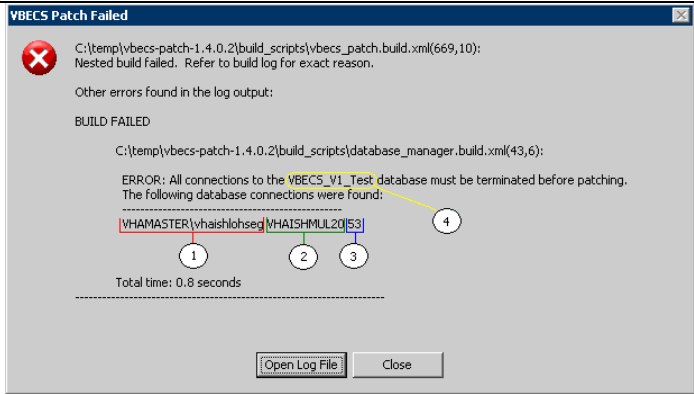
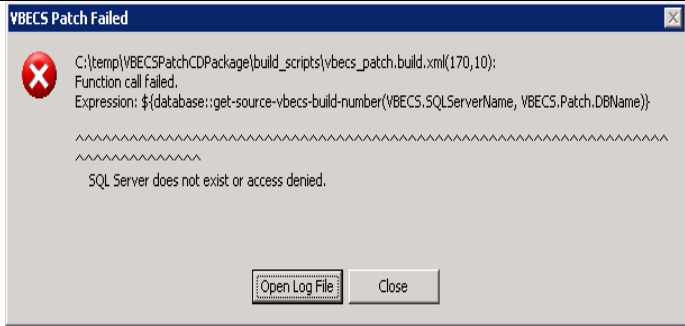
Name (Print.)	Title
---------------	-------

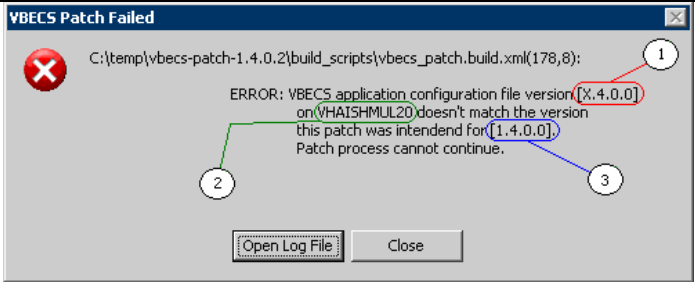
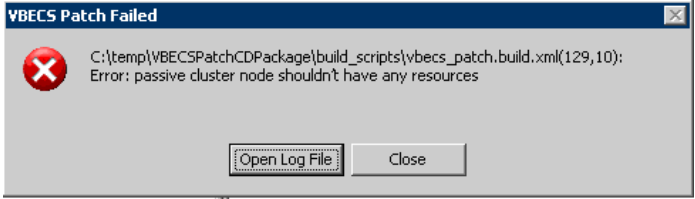
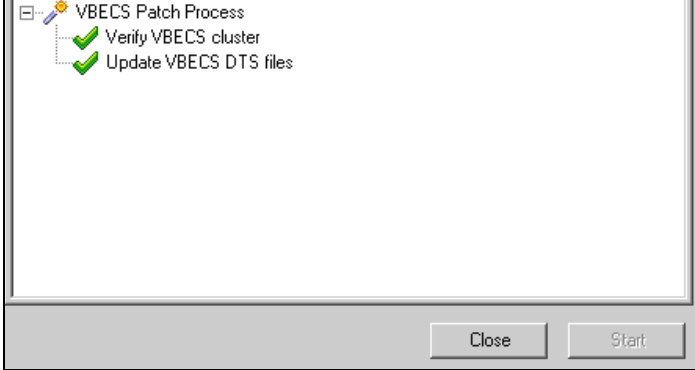

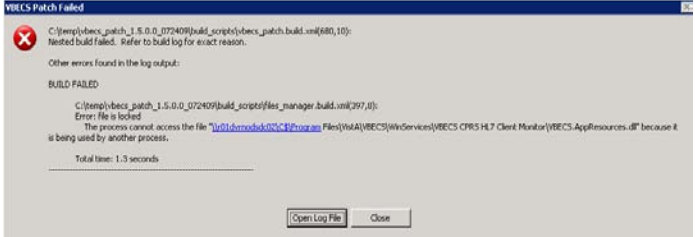
---

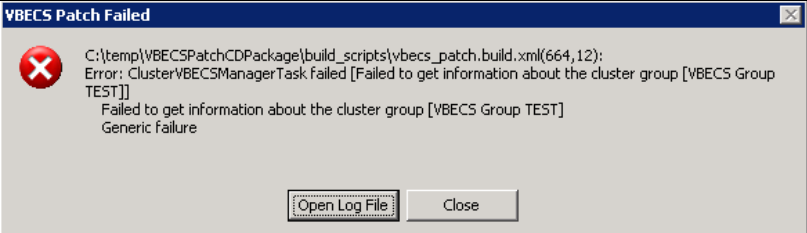
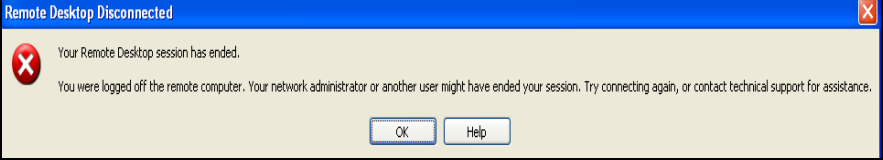
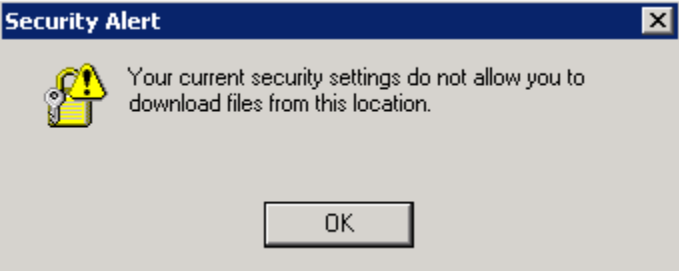
Signature	Date
-----------	------

**Give this patch installation record for the production environment to the blood bank supervisor, or follow your records retention policy.**

## Appendix G: Troubleshooting Messages

Error Message	Example Screen Shot	Solution
An invalid IP address was specified.		<p>An invalid IP was supplied as an input argument.</p> <p>OR</p> <p>The IP address was formatted correctly, but does not point to a VBECS server.</p> <p><a href="#">Provide the correct IP Address.</a></p>
All connections to the <Database Name> database must be terminated before patching.		<p>A user has an active connection to the Database of the target environment.</p> <p>The information listed for each open connection is:</p> <ol style="list-style-type: none"> <li>1. User Login ID</li> <li>2. Computer Name</li> <li>3. SQL Process ID</li> <li>4. Database Name</li> </ol> <p><a href="#">Contact the Database Administrator. Ask the DB Admin to kill all user processes running on the server.</a></p>
The SQL Server does not exist or access denied.		<p>The SQL Server Name supplied does not exist, cannot be accessed or the patcher does not have permission to use it.</p> <p><a href="#">Check the SQL Server Name and Verify patches Database rights with the DB Admin.</a></p>

Error Message	Example Screen Shot	Solution
<p>VBECS application configuration file version [S.S.S.S] on &lt;ACTIVE CLUSTER NODE&gt; doesn't match the version this patch was intended for [T.T.T.T] Patch Process cannot continue.</p> <p>** [S.S.S.S] - Source</p> <p>** [T.T.T.T] - Target</p>		<p>The database version does not match the version the patch was coded to update.</p> <ol style="list-style-type: none"> <li>1. BuildNumber version found in the VBECS.exe.config file.</li> <li>2. Cluster node containing the suspect file.</li> <li>3. Target Patch version.</li> </ol> <p>Contact the VBECS Administrator to resolve build number discrepancies (i.e., this patch may already be installed).</p>
<p>The Passive Cluster node should not have active resources.</p>		<p>The Passive node has active resources.</p> <p>Contact the VBECS Administrator to resolve cluster configuration issues.</p>
<p>The Start button of the VBECS GUI Patch is disabled</p>		<p>Either the patch is running or the patch has completed.</p> <p>Click Close.</p> <p>Open a new VBECS Patch form by double-clicking  VBECS Patch shortcut.</p>
<p>Access denied</p>		<p>The VBECS Services were not stopped or the patch files are Read-only.</p>

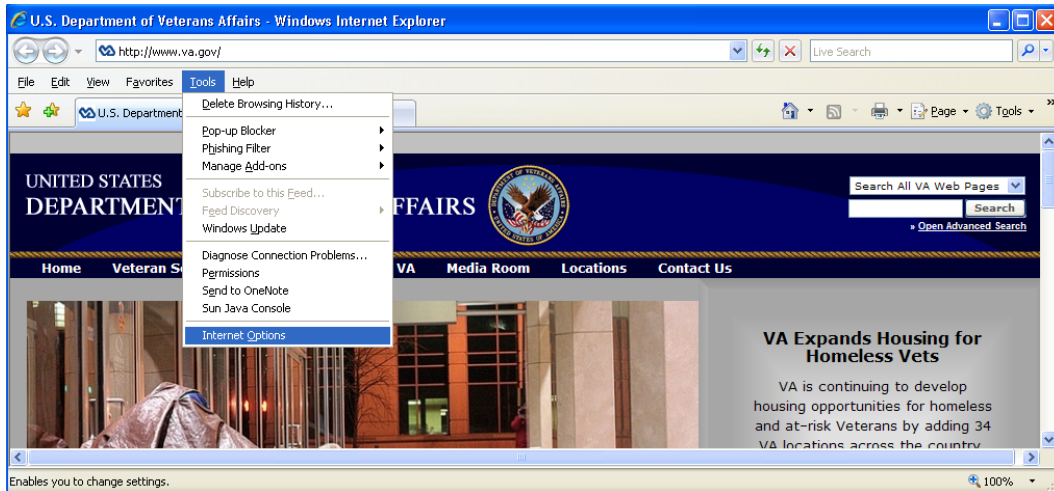
Error Message	Example Screen Shot	Solution
VBECS Patch Failed		<p>The VBECS Group Test (VBECS Test Services) may have been stopped.</p> <p>Right click on VBECS Group Test and select Bring Online.</p>
Remote Desktop Disconnected		<p>The user applying the patch has an active session at the server (KVM) console. Log off the server console and repeat the patch process.</p>
VBECS FTP Download Security Alert		<p>Refer to Appendix H: Adding VBECS FTP Site to the Trusted Sites in Internet Explorer</p>

This page intentionally left blank.

## Appendix H: Adding VBECS FTP Site to the Trusted Sites in Internet Explorer

- 1) Open a remote desktop connection to Cluster Node 1 (e.g. **VHAXXXNODZ1** or **R01YYYYNODXXX01**).
- 2) Open Internet Explorer and select **Tools, Internet Options** (Figure 49).

**Figure 49: Example of Internet Explorer Window**



- 3) Select the **Security** tab (Figure 50).

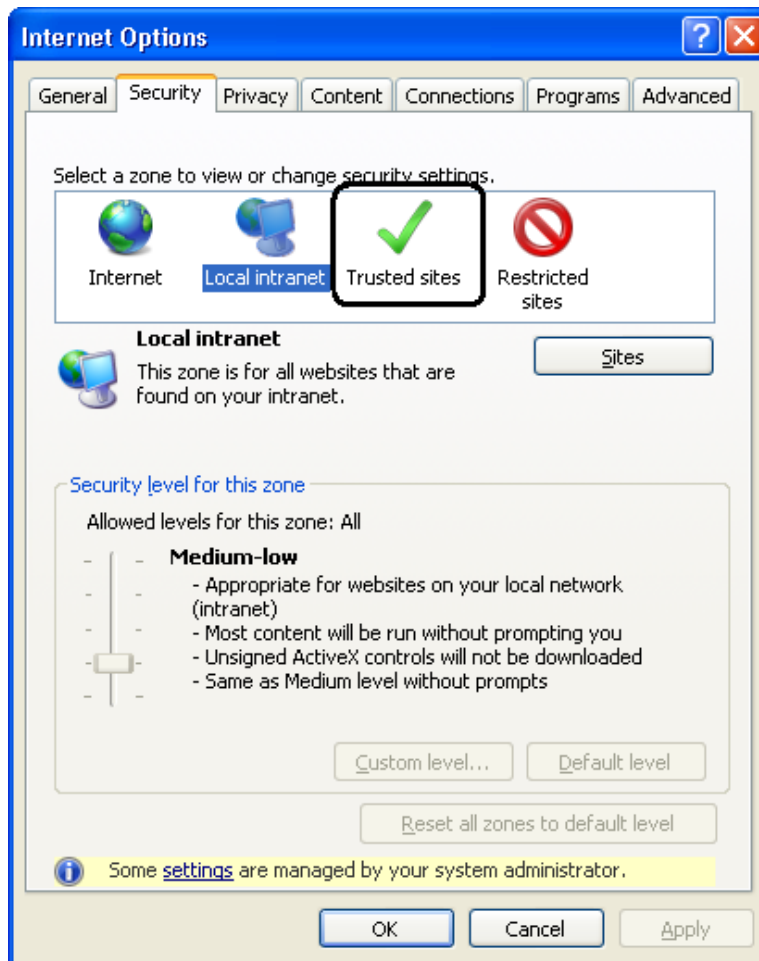
**Figure 50: Example of Internet Explorer Internet Options Security tab**





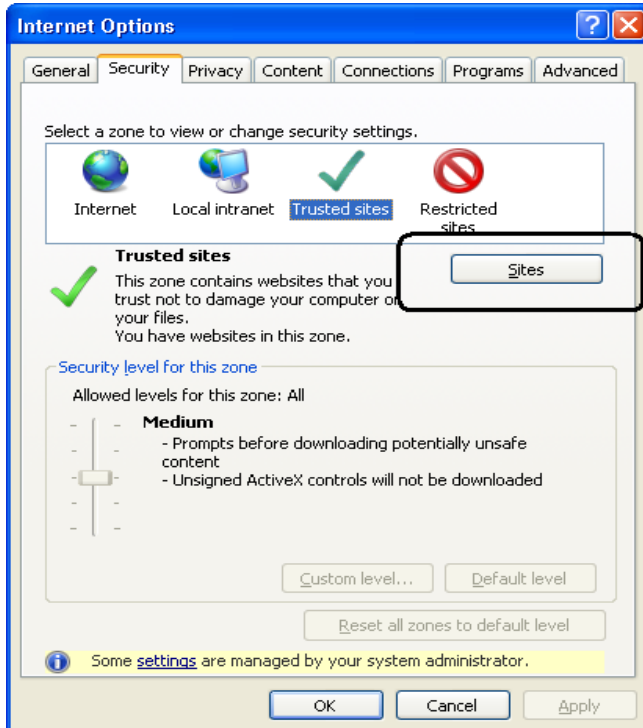
4) Select **Trusted sites** (Figure 51).

**Figure 51: Example of Internet Options Trusted Sites**



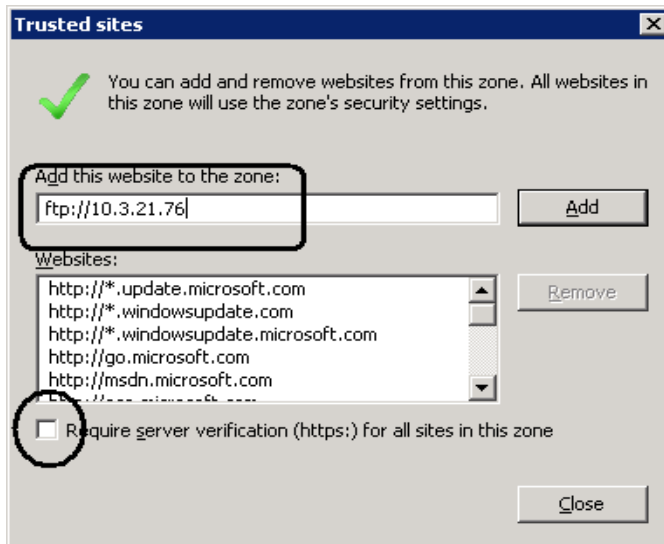
- 5) Click **Sites** (Figure 52).

**Figure 52: Example of Select a Zone to View or Change Security Settings**



- 6) Make sure **Require server verification...** is unchecked. Enter <ftp://10.3.21.76> and click the **Add** button (Figure 53).

**Figure 53: Example of Adding the VBECS FTP to the Trusted Sites**



- 7) Close all windows.
- 8) Log off Cluster Node 1.
- 9) Repeat Steps 1 through 8 for Cluster Node 2 (e.g., **VHAXXXNODZ2** or **R01YYYNODXXX02**).

This page intentionally left blank.

## This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

This page intentionally left blank.

# Index

## D

Delete Patch Files	
Prod .....	32
Test.....	18
Download and Verify the Contents of the VBECS Patch.....	5, 19
Download the VBECS 1.5.2.2 Patch File .....	5
Download the VBECS 1.5.2.2 Patch File .....	19

## E

Execute VBECS Patch Scripts against the Cluster	
Prod .....	27
Test.....	13

## H

How This Installation Guide Is Organized .....	3
--	---

## I

Installation Logs.....	35
Installation Procedure for the Production Environment.....	19
Instructions for Capturing Screen Shots for Installation Records.....	41
Introduction.....	1

## P

Prerequisites for Installation	
Production .....	26
Test.....	12
Problems?.....	3
Product Support .....	3

## R

Related Manuals and Reference Materials.....	2
--	---

## S

Screen Shots.....	3
Set Up Detailed Folders View .....	43

## V

VA Service Desk.....	3
VBECS Patch Installation Record Form for the Production Environment.....	47
VBECS Patch Installation Record Form for the Test Environment .....	45
Verify the Contents of the VBECS 1.5.2.2 Patch File.....	8
Verify the Contents of the VBECS 1.5.2.2 Patch File.....	22

This is the last page of *VistA Blood Establishment Computer Software (VBECS) 1.5.2  
Patch Installation Guide*.