



# VistA Blood Establishment Computer Software (VBECS) Version 1.5.0.0

## Patch Installation Guide

July 2010

Department of Veterans Affairs  
Office of Enterprise 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
01-24-09	1.0	Initial version	BBM team
		<p>Global: Changed "Server 1 name" and "Server 2 name" references to "Active cluster node" and "Passive cluster node" respectively.</p> <p>Global: Changed "Customer Support" to "Product Support".</p> <p>Section 1: Download the VBECS 1.5.0.0 Patch File, updated Step 7 and added Step 8 for both Test and Production.</p> <p>Section 3: Prerequisites for Installation, Step 5 (Test): Added a new step with sub-steps to determine the active and passive cluster nodes.</p> <p>Section 3: Prerequisites for Installation, Step 6 (Prod): Added a new step with sub-steps to determine the active and passive cluster nodes.</p> <p>Section 4: Execute VBECS Patch Scripts against the Cluster, Step 10 (Test): Added domain name to the log file name.</p> <p>Section 4: Execute the VBECS Patch against the Cluster, Step 10 (Prod): Added domain name to the log file name.</p> <p>Section 4: Execute VBECS Patch Scripts against the Cluster, Step 13 (Test): Added a Messenger Service Screen shot.</p> <p>Section 4: Execute the VBECS Patch against the Cluster, Step 13 (Prod): Added a Messenger Service Screen shot.</p> <p>Section 5: Delete Patch Files, Step 2 (Prod): Changed "ConfigUpdates_mmdyyhmm.txt" to "ConfigUpdates_&lt;date time&gt;.txt".</p> <p>Section 5: Delete Patch Files (Prod): Added Step 6 to verify that Step 5 was performed.</p> <p>Section 7: Delete Patch Files (Test): Added Step 6 to verify that Step 5 was performed.</p> <p>Section 7: Delete Patch Files, Step 2 (Test): Changed "ConfigUpdates_mmdyyhmm.txt" to "ConfigUpdates_&lt;date time&gt;.txt".</p> <p>Section 6: Perform DTS Update (Test): Added this new section to perform DTS updates.</p> <p>Updated Figures 16 and 64 and Appendix I to reflect the current VBECS patch CD contents.</p> <p>Global: Changed "VBECS_Patch_1.5.0.0_012209" to "VBECS_Patch_1.5.0.0_050809".</p>	BBM team
05-08-09	2.0		BBM team
		<p>Section 4 (Execute VBECS Patch Scripts against the Cluster) Step 10 for both the Test and Production environment sections: Moved the description of the log file from Step 10 to make a new Step 18. Moved Step 11 to make a new Step 19. Existing Steps 18 and 19 become new Steps 20 and 21.</p> <p>Section 5 (Patch Service Monitor) Step 6 for the Test environment section: Moved the description of the log file from Step 6 to make a new Step 10. Moved Step 7 to make a new Step 11. Existing Steps 11 and 12 become new Steps 12 and 13.</p> <p>Section 3 (Prerequisites for Installation) in the Production environment section – added a new Step 3 for Service Monitor installation and renumbered the applicable step numbers in Appendix F in the corresponding appendix section.</p> <p>Appendix E: Sections 4 &amp; 5 – Updated the steps to reflect changes made by moving the description of the log file.</p>	BBM team
05-27-09	3.0		BBM team

Date	Revision	Description	Author
		<p>Appendix F: Section 4 – Updated the steps to reflect changes made by moving the description of the log file.</p> <p>Pages 30, 32, 60 and 65: Changed “region name e.g. RO1” to ‘region name’ e.g. RO1.</p> <p>Section 6 (Perform DTS Update): Added Steps 10 and 11 to describe and record the location of the log file.</p> <p>Appendix E: Section 6 – Updated the steps to reflect changes made by adding the description of the log file.</p> <p>Appendix A: Added Description of the location of the DTS update log file.</p> <p>Figures 41, 43 and 87: Added “Example of “ to the figure name in the captions.</p> <p>Figure 58: Changed “Example of Example of Extraction Wizard” to “Example of Extraction Wizard” in the figure caption.</p>	
7-29-09	4.0	<p>Global: Changed “VBECS_Patch_1.5.0.0_050809” to “VBECS_Patch_1.5.0.0_072409”.</p> <p>Global: Changed text that instructed user to contact Product Support to instruct user to file a Remedy ticket.</p> <p>How This Document Is Organized section – Additional information added to better explain how this document is organized.</p> <p>VA Service Desk Alternate Contacts section – updated the web site listed in the third bullet item.</p> <p>Patch Service Monitor section, Step 5: Added a reference to Figure 39.</p> <p>Section 2 (Test): Verify the Contents of the VBECS 1.5.0.0 Patch File section: Updated Step 18 (Total Files Listed) and changed Figure 16.</p> <p>Section 2 (Prod): Verify the Contents of the VBECS 1.5.0.0 Patch File: Updated Step 18 (Total Files Listed) and changed Figure 64.</p> <p>Removed Appendix G: Documents for Retention and renumbered subsequent appendices.</p> <p>Added a reference to the new Appendix G: Troubleshooting Messages.</p> <p>Appendix H – Added the contents of the new CD.</p>	BBM Team
		<p>Introduction section: Removed the 3rd warning box (duplicate).</p> <p>Installation Procedure section for both Test and Production: Added a warning box stating “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.”</p> <p>Download the VBECS 1.5.0.0 Patch File section for both Test and Production in the 1<sup>st</sup> bullet item: Removed “and be defined as a VBECS user”.</p> <p>Download the VBECS 1.5.0.0 Patch File section for both Test and Production, Step 3: Added sub-step c) to add a header and footer to the saved document.</p> <p>Download the VBECS 1.5.0.0 Patch File section, Step 5 for both Test and Production: Added “In the command prompt window”.</p> <p>Verify the Contents of the VBECS 1.5.0.0 Patch File section for both Test and Production: Added Steps 21 through 23 to delete the VBECS_Patch_1.5.0.0_072409.zip file from the Temp folder.</p> <p>Prerequisites for Installation section for both Test and Production: Added Steps 10e, f and g to capture and insert a screen shot of Cluster Awareness Execution and success.</p> <p>Prerequisites for Installation section for both Test and Production, Step 10e: Removed the word “Execution”.</p>	

Date	Revision	Description	Author
3-12-10	5.0	<p>Prerequisites for Installation section for both Test and Production: Added steps for a dependency to install the VBEC*1.0*3 Vista Patch prior to installing VBECS 1.5.0.0.</p> <p>Prerequisites for Installation section for both Test and Production: Moved warning before Download and Verify the Contents of the VBECS Patch (Test &amp; Prod).</p> <p>Prerequisites for Installation section for both Test and Production: Added steps to verify that there are no active console (KVM) sessions on Server #1 and Server #2.</p> <p>Prerequisites for Installation section for Test: Added Step 4 to record the Switch Port Speed to be used in the new NIC Card Configuration section.</p> <p>Prerequisites for Installation section for both Test and Production: Determine the Active and Passive Cluster Nodes: Steps were added to describe the Active Cluster Node and the Passive Cluster Node as Server #1 and Server #2 respectively.</p> <p>Prerequisites for Installation section (Test), Configure Cluster Awareness Step 10w: Added "and Startup Type as Manual" and added the warning box after the figure.</p> <p>Prerequisites for Installation section (Production), Configure Cluster Awareness Step 11s: Added "and Startup Type as Manual" and added the warning box after the figure.</p> <p>Execute VBECS Patch Scripts against the Cluster section for both Test and Production, Step 14: Removed the word "terminal".</p> <p>Execute VBECS Patch Scripts against the Cluster section for both Test and Production, Step 15: Changed the note to a caution box.</p> <p>Execute VBECS Patch Scripts against the Cluster section for both Test and Production, Step 18: Reworded the first part of the sentence.</p> <p>Global: Changed "vhaxxclu..." to "vhaxxxclu...".</p> <p>Added new section (Test): Verify NIC Card Configuration.</p> <p>Delete Patch Files section (Test), Step 1: Added to open the remote desktop.</p> <p>Delete Patch Files section for both Test and Production, Step 2: Removed deleting the VBECS_Patch_1.5.0.0_072409.zip file, and updated Figures 62 and 105 to reflect this change.</p> <p>Added new sections (Production): Performance Improvements, Stopping VBECS Test Services.</p> <p>Appendix B: Changed the heading and deleted the User Group column. Changed "Administrative Group" column header to "Server Administrative Group" and updated the Server Administrative Group information.</p> <p>Appendix B: Added VBECS Admin AD Group column and information.</p> <p>Appendix C: Updated Step 3 to use "Ctrl + V" to paste.</p> <p>Appendix D: Updates screen captures in Figures 109 and 110.</p> <p>Updated Appendix E.</p> <p>Updated Appendix F.</p> <p>Updated Appendix G: Added error message and solution to address if files are read-only.</p> <p>Updated Appendix G: Added error message and solution to address if the Start button is disabled.</p>	BBM Team
		<p>Modified VistA Blood Establishment Computer Software (VBECS) Version 1.5.0.0 Patch Installation Guide, Version 5.0:</p> <p>Global: Replaced "March 2010" with "April 2010" in the footer.</p>	

Date	Revision	Description	Author
4-1-10	6.0	<p>Global: Replaced "5.0" with "6.0" in the footer.</p> <p>Global: Updated applicable figures to show 1.4.0.0 to 1.5.0.4.</p> <p>Global: Replaced 1.5.0.0 with 1.5.0.4 where applicable.</p> <p>Introduction section: Added a sub-section addressing VBECS Version Numbers.</p> <p>Installation Procedure for the Test Environment:</p> <ul style="list-style-type: none"> <li>Replaced Figures 17, 47, 60 and 61.</li> <li>Added new section: Inactivating "Do Not Use" Division.</li> </ul> <p>Installation Procedure for the Production Environment:</p> <ul style="list-style-type: none"> <li>Pre-requisite for Installation: Added "- Build 1.5.0.4" to Step 2.</li> <li>Replaced Figure 79 and 102.</li> <li>Added new section: Inactivating "Do Not Use" Division.</li> </ul> <p>Updated Appendix A: Changed "...1504.log" to "...1104.log".</p> <p>Updated Appendix E: Added Section 6, Inactivating "Do Not Use" Division.</p> <p>Updated Appendix F: Added Section 6, Inactivating "Do Not Use" Division.</p> <p>Updated Appendix G: Added error message and solution to address if VBECS Patch Fails when the VBECS Group Test is Offline.</p> <p>Appendix H: Updated with contents of VBECS 1.5.0.4 Patch Build.</p>	BBM Team
4-6-10	7.0	<p>Modified VistA Blood Establishment Computer Software (VBECS) Version 1.5.0.0 Patch Installation Guide Version 6.0:</p> <p>Global: Replaced "6.0" with "7.0" in the footer.</p> <p>Global: Replaced "...033010" with "...040510".</p> <p>Verified the Contents of the VBECS 1.5.0.0 Patch File (Test and Prod) sections: Updated the number of files and number of bytes listed in Step 18.</p> <p>Replaced Figures 1, 17 and 83.</p> <p>Updated Appendix H – CD contents.</p>	BBM Team
4-21-10	8.0	<p>Modified VistA Blood Establishment Computer Software (VBECS) Version 1.5.0.0 Patch Installation Guide Version 7.0:</p> <p>Global: Replaced "7.0" with "8.0" in the footer.</p> <p>Section 1, Step 3c (Test and Production): Changed "Page X of X" to "Page X of Y".</p> <p>Section 4, first Warning box (Test): Replaced "may" with "will".</p> <p>Section 7 (Test): Added wait time expectancy to Step 22 and reworded Step 23.</p> <p>Section 7 (Test): Reworded Step 25 and added Steps 26 and 27 to restart the servers.</p> <p>Section 8, Step 1 (Test): Added step lead-in "If necessary".</p> <p>Section 5, Step 1 (Production): Added step lead-in "If necessary".</p> <p>Removed Performance Improvements section (Production).</p>	BBM Team
7-14-10	9.0	<p>Modified VistA Blood Establishment Computer Software (VBECS) Version 1.5.0.0 Patch Installation Guide, Version 8.0:</p> <p>Global: Replaced "March 2010" with "July 2010" in the footer.</p> <p>Global: Replaced "8.0" with "9.0" in the footer.</p> <p>Global: Changed "Speed and Duplex" to "Speed &amp; Duplex".</p> <p>Global: Revised applicable warnings stating not to proceed until the Remedy ticket is resolved.</p> <p>Global: Revised applicable warnings stating not to proceed or release VBECS for use until the Remedy ticket is resolved.</p> <p>Replaced Figures 6, 7, 8, 10, 11, 12, 13, 15, 16, 18, 23, 24, 25, 26, 27, 28, 37, 38, 72, 73, 74, 76, 77, 78, 79, 81, 82, 84, 89, 90,</p>	BBM Team



Date	Revision	Description	Author
		<p>91, 92, 93, 94, 101 and 102.</p> <p>Added a statement at the beginning of the Test and Production installation sections to use the .doc format of the document when copying and pasting sections of the document.</p> <p>Prerequisites for Installation (Test): Revised Steps 4 and 6.</p> <p>Prerequisites for Installation (Test): Revised Steps 9d, 9e and 10d.</p> <p>Verify NIC Card Configuration (Test): Revised Steps 1, 7 and 12.</p> <p>Steps 24-30: Reorganized and added steps.</p> <p>Inactivating "Do Not Use" Division (Test and Production): Revised 1<sup>st</sup> paragraph and added Steps 6 and 7.</p> <p>Prerequisites for Installation (Production): Revised Step 3, changed "1.5.0.0" to "1.5.0.4".</p> <p>Download the VBECS 1.5.0.0 Patch File (Test and Production): Revised Step 3b to use the .doc format of the document for copying and pasting the appendix.</p> <p>Prerequisites for Installation (Production): Revised Step 7.</p> <p>Prerequisites for Installation (Production): Revised Steps 10d, 10e and 11d.</p> <p>Updated Appendix B.</p> <p>Appendix F: Removed Section 7: "Stopping VBECS Test Services".</p> <p>Appendix G: Troubleshooting Messages: Added error message and solution to address Remote Desktop disconnection when user applying the patch has an active session at the server (KVM) console.</p>	
7-27-10	10.0	<p>Modified VistA Blood Establishment Computer Software (VBECS) Version 1.5.0.0 Patch Installation Guide, Version 9.0: Global: Replaced "9.0" with "10.0" in the footer.</p> <p>Pre-requisites for Installation (Test): Revised Steps 5 and 10g. (DR 3819)</p> <p>Replaced Figures 53, 55, 60, 61, 62, 65, 67, 104 and 106. (DR 3819)</p> <p>Figures 39, 40, 44, and 45: Revised figure captions.</p> <p>Execute VBECS Patch Scripts against the Cluster (Test and Production): Revised Step 6 Message Time out bullet point. (DR 3819)</p> <p>Inactivating "Do Not Use" Division (Test and Production): Added Step 8. (DR 3819)</p> <p>Moved the Verify NIC Card Configuration section from Section 7 to Section 4. (DR 3819)</p> <p>Prerequisites for Installation (Production): Revised Steps 6 and 11g. (DR 3819)</p> <p>Execute VBECS Patch Scripts against the Cluster (Test and Production): Added a new warning box for 'Operations Manager Critical Error Alerts' generated during the patch installation. (DR 3819)</p> <p>Execute VBECS Patch Scripts against the Cluster (Test and Production): Revised Step 13.</p>	BBM Team
7-29-10	11.0	<p>Execute VBECS Patch Scripts against the Cluster section (Test and Production): Revised Step 10 and added a new warning box stating "If a patch fails to successfully complete within 30 minutes, file a Remedy ticket immediately. Do not release VBECS for use until the ticket is resolved." (DR 3822)</p> <p>Patch Service Monitor section: Revised Step 6 and added a new warning box stating "If a patch fails to successfully complete within 30 minutes, file a Remedy ticket immediately. Do not</p>	BBM Team

Date	Revision	Description	Author
		<p>release VBECS for use until the ticket is resolved.” (DR 3822)</p> <p>Perform DTS Update section: Revised Step 6 and added a new warning box stating “If a patch fails to successfully complete within 30 minutes, file a Remedy ticket immediately. Do not release VBECS for use until the ticket is resolved.” (DR 3822)</p> <p>Execute VBECS Patch Scripts against the Cluster section, Step 18 (Test and Production): Added a new warning box stating “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.” (DR 3822)</p> <p>Patch Service Monitor section, Step 10: Added a new warning box stating “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.” (DR 3822)</p> <p>Perform DTS Update section, Step 10: Added a new warning box stating “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.” (DR 3822)</p>	

# Table of Contents

REVISION HISTORY.....	III
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 1.5.0.0 Patch File.....	5
2    Verify the Contents of the VBECS 1.5.0.0 Patch File.....	8
3    Prerequisites for Installation.....	12
4    Verify NIC Card Configuration.....	25
5    Execute VBECS Patch Scripts against the Cluster.....	33
6    Patch Service Monitor .....	40
7    Perform DTS Update .....	42
8    Delete Patch Files .....	45
9    Inactivating “Do Not Use” Division.....	46
INSTALLATION PROCEDURE FOR THE PRODUCTION ENVIRONMENT .....	48
DOWNLOAD AND VERIFY THE CONTENTS OF THE VBECS PATCH .....	49
1    Download the VBECS 1.5.0.0 Patch File.....	49
2    Verify the Contents of the VBECS 1.5.0.0 Patch File.....	52
3    Prerequisites for Installation .....	56
4    Execute VBECS Patch Scripts against the Cluster.....	66
5    Delete Patch Files .....	73
6    Inactivating “Do Not Use” Division.....	74
GLOSSARY .....	77
APPENDICES .....	79
APPENDIX A: INSTALLATION LOGS .....	79
APPENDIX B: ACTIVE DIRECTORY SERVER ADMINISTRATOR GROUPS .....	81
APPENDIX C: INSTRUCTIONS FOR CAPTURING SCREEN SHOTS FOR INSTALLATION RECORDS .....	85
APPENDIX D: SETUP DETAILED FOLDERS VIEW .....	87
APPENDIX E: VBECS PATCH INSTALLATION RECORD FORM FOR THE TEST ENVIRONMENT .....	89

INSTALLATION PROCEDURE FOR THE TEST ENVIRONMENT .....	89
1    Download the VBECS 1.5.0.0 Patch File.....	89
2    Verify the Contents of the VBECS 1.5.0.0 Patch File.....	89
3    Prerequisites for Installation .....	89
4    Verify NIC Card Configuration.....	90
5    Execute VBECS Patch Scripts against the Cluster.....	90
6    Patch Service Monitor .....	90
7    Perform DTS Update .....	90
8    Delete the Patch Files .....	90
9    Inactivating “Do Not Use” Division.....	90
APPENDIX F: VBECS PATCH INSTALLATION RECORD FORM FOR THE PRODUCTION ENVIRONMENT ..	93
INSTALLATION PROCEDURE FOR THE PRODUCTION ENVIRONMENT.....	93
1    Download the VBECS 1.5.0.0 Patch File.....	93
2    Verify the Contents of the VBECS 1.5.0.0 Patch File.....	93
3    Prerequisites for Installation .....	93
4    Execute VBECS Patch Scripts against the Cluster.....	94
5    Delete Patch Files .....	94
6    Inactivating “Do Not Use” Division.....	94
APPENDIX G: TROUBLESHOOTING MESSAGES .....	95
APPENDIX H: CONTENTS OF VBECS 1.5.0.0 PATCH FILE.....	99
NOTES.....	123
INDEX.....	125

# 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.*



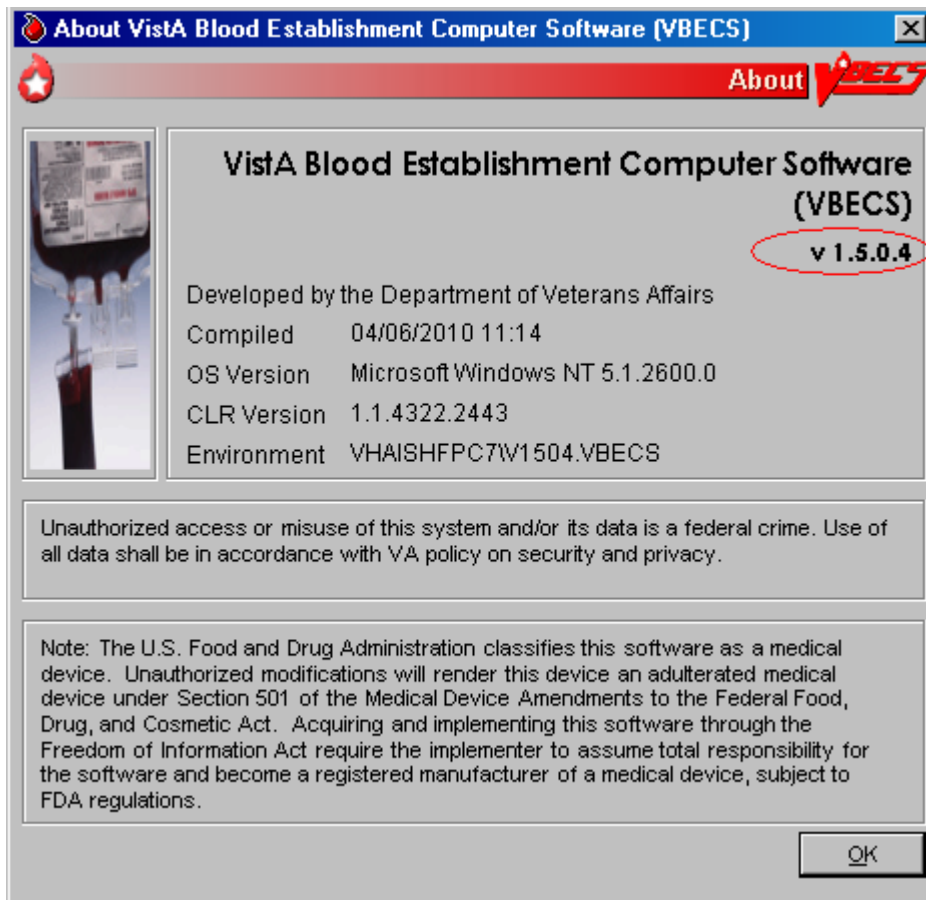
*The U.S. Food and Drug Administration classifies this software as a medical device. Unauthorized modifications will render this device an adulterated medical device under Section 501 of the Medical Device Amendments to the Federal Food, Drug, and Cosmetic Act. Acquiring and implementing this software 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 1.5.0.0 patch represents a change in how the version numbers will be displayed to you, the customer. Prior to this release, clicking on **Help, About VBECS** (Figure 1) within the application would display the version of VBECS as 1.4.0.0. After the VBECS 1.5.0.0 patch is installed, the version in the **Help, About VBECS** will display as VBECS 1.5.0.4 indicating the fourth revision of the VBECS 1.5.0.0 software version. The display of the revision number allows better configuration management of the pre-release software during development and has no effect on the end user. All of the user documents will continue to reflect the version number as 1.5.0.0. The revision number will not be displayed in the guides unless you are verifying the downloaded patch file or the version in the **Help, About VBECS** within the application.

**Figure 1: 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.*

Use the MS 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 1.5.0.0 Patch File**

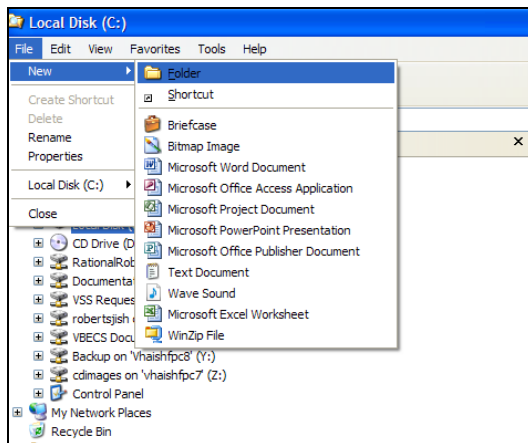
Prerequisites for VBECS FTP Download:

- 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 1.5.0.0 patch file from the VBECS FTP Site:

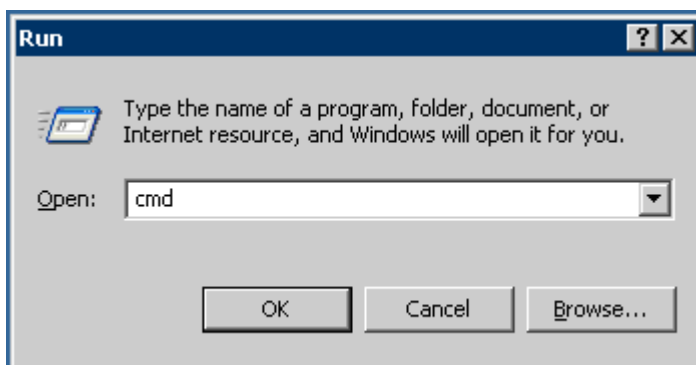
- 1) Open a remote desktop connection to the cluster being patched.
- 2) Using Windows Explorer, click the **C** drive. If a folder named “temp” does not exist, click **File, New, Folder**. Name this folder “temp” (Figure 2).

**Figure 2: Example of Create the Temp Folder**

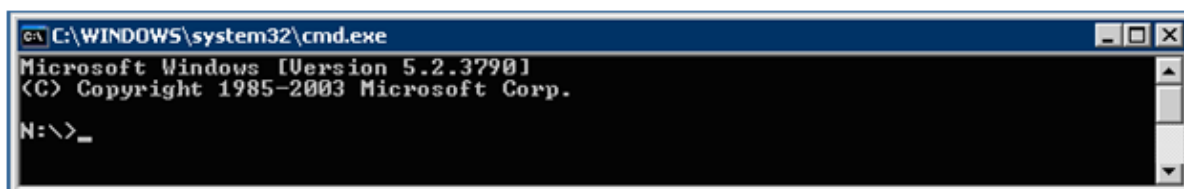


- 3) Complete Sub-steps a, b and c to save a copy of Appendix E: VBECS Patch Installation Record Form for the Test Environment to the local workstation. Any reference to Appendix E after the document is initially saved will be referring to the saved copy.
  - a) Open VistA Blood Establishment Computer Software (VBECS) 1.5.0.0 Patch Installation Guide.
  - b) Using the .doc format of the 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> 1.5.0.0 Test <mmddyy>**” 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> 1.5.0.0 Test <mmddyy>**” (for example, VBECS Patch Installation Record VHAISHCLUZ1 1.5.0.0 Test 070809); <mmddyy> represents the current date.
- 4) Click **Start, Run**. Enter **cmd** and click **OK** (Figure 3). A command prompt (Figure 4) appears.

**Figure 3: Example of Run Window**

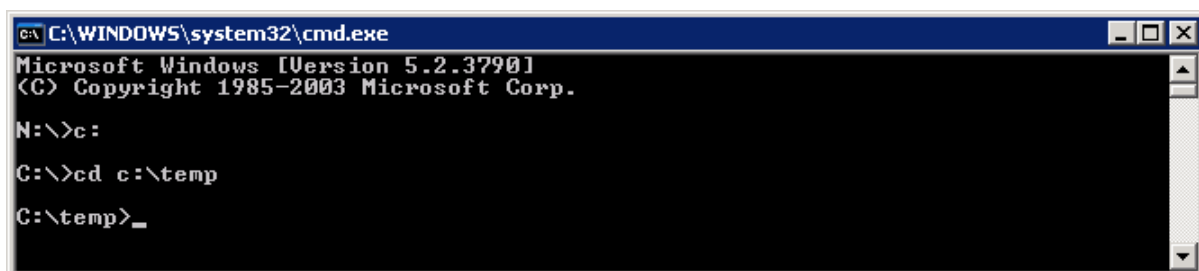


**Figure 4: Example of Command Prompt**



- 5) In the command prompt window, enter **c:** and press **Enter**.
- 6) Type **cd c:\temp** and press **Enter** (Figure 5).

**Figure 5: Example of Temp Folder for Patch Download**



- 7) Type **ftp** and press **Enter** (See Figure 6 for Steps 8, 9 and 10).
- 8) Type **open 10.3.21.76 20001** and press **Enter**.
- 9) At the **User (10.3.21.76:(none))** prompt, enter your domain and Windows login id (e.g., VHAMASTER\YOURNAME).
- 10) At the **Password** prompt, enter your password. (**Note:** For security purposes, the cursor will not advance or display characters as you type your password).



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

**Figure 6: Example of FTP**

```

C:\temp>ftp
ftp>open 10.3.21.76 20001
Connected to 10.3.21.76.
220-Microsoft FTP Service
220 VBECS FTP Site
User (10.3.21.76:(none)): your_domain\your_user_name
331 Password required for your_domain\your_user_name
Password:
230-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
230 User your_domain\your_user_name logged in.
ftp>

```


- 11) At the **ftp>** prompt, type **bin** and press **Enter**. The following message will appear “200 Type set to I” (See Figure 7 for Steps 11 and 12).
- 12) Type **get VBECS\_Patch\_1.5.0.0\_040510.zip** and press **Enter** (it may take several minutes for the download to complete, after which a “Transfer complete” message appears).

**Figure 7: Example of FTP File Transfer**

```

230-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
230 User vhamaster\XXXXXXXXXXXX logged in.
ftp>bin
200 Type set to I.
ftp>get VBECS_Patch_1.5.0.0_040510.zip
200 PORT command successful.
150 Opening BINARY mode data connection for VBECS_Patch_1.5.0.0_040510.zip<78585882 bytes>
226 Transfer complete.
ftp: 78585882 bytes received in 9.73Seconds 8072.51Kbytes/sec.
ftp>

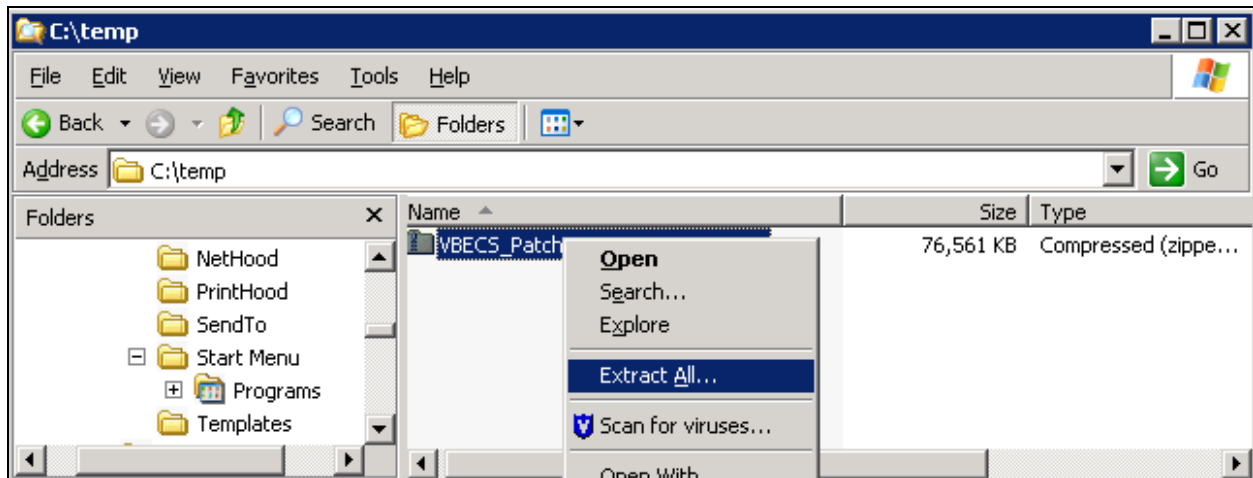
```

- 13)  Capture a screen shot of the transfer completed command prompt.
- 14) Insert the screen shot in Appendix E: VBECS Patch Installation Record Form for the Test Environment.
- 15) Stop the FTP session: At the **ftp>** prompt, type **quit** and press **Enter**.
- 16) Close the command prompt window.

## 2 Verify the Contents of the VBECS 1.5.0.0 Patch File

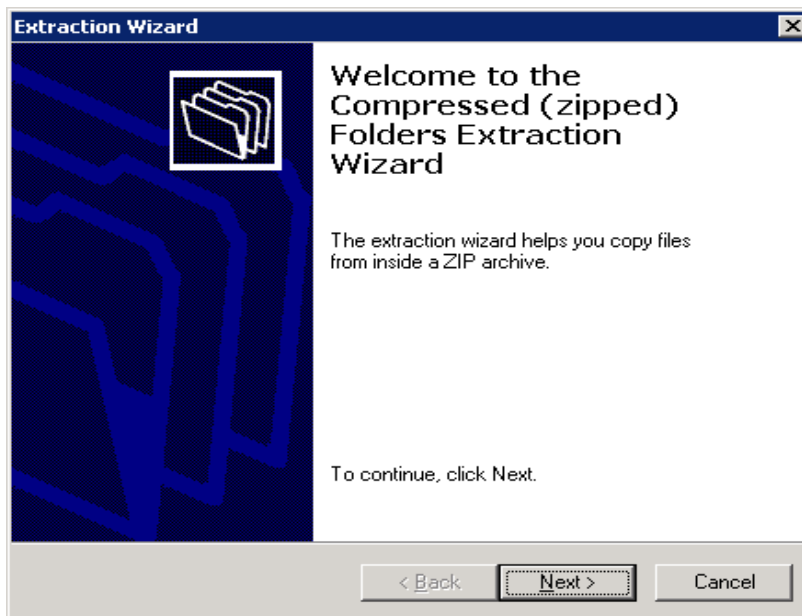
- 1) On the remote desktop connection to the cluster already open, use Windows Explorer to navigate to the **c:\temp** folder.
- 2) Right-click on the **VBECS\_Patch\_1.5.0.0\_040510.zip** file and select **Extract All** (Figure 8).

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



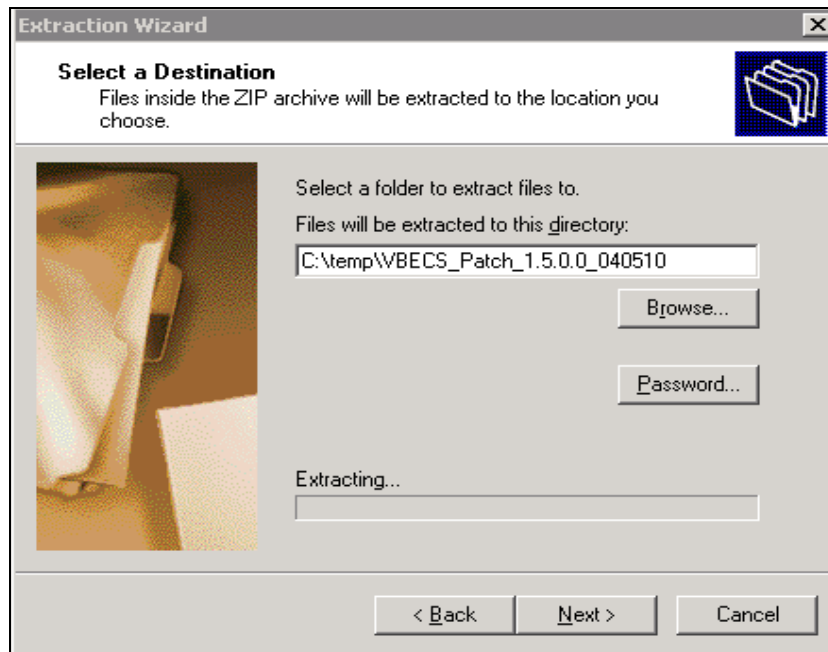
- 3) Click **Next** (Figure 9).

**Figure 9: Example of Extraction Wizard**



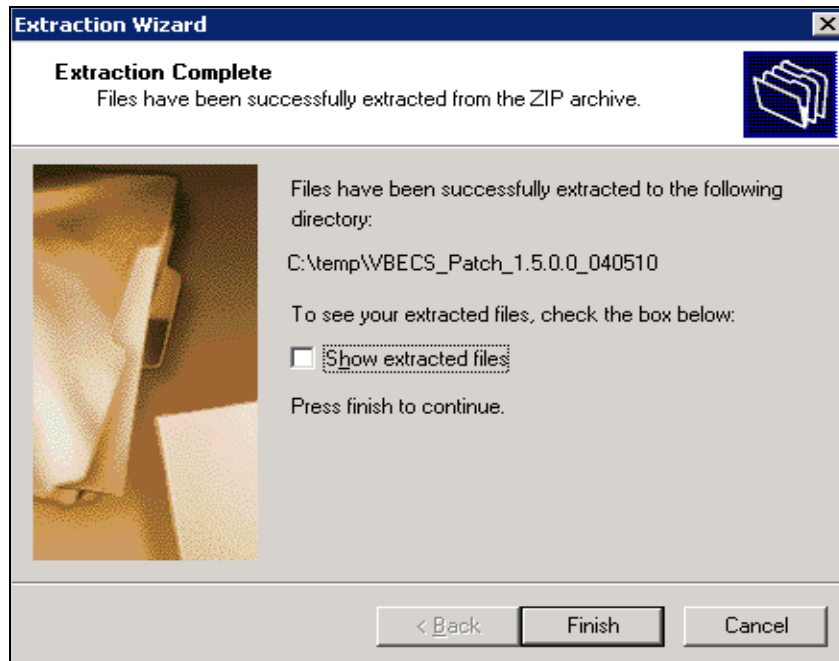
- 4) Click **Next** (Figure 10).

**Figure 10: Example of Extraction Directory**



- 5) Uncheck **Show extracted files** and click **Finish** (Figure 11).

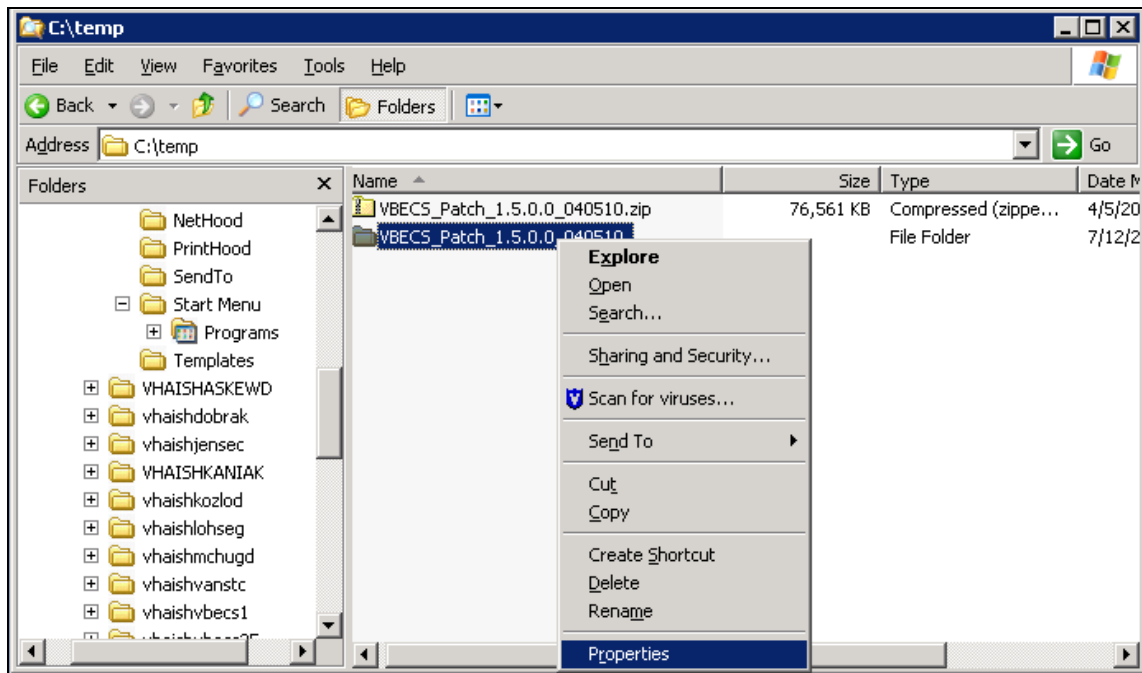
**Figure 11: Example of Extraction Wizard**



- 6) Verify that the extraction completes and a **c:\temp\VBECS\_Patch\_1.5.0.0\_040510** folder is created.

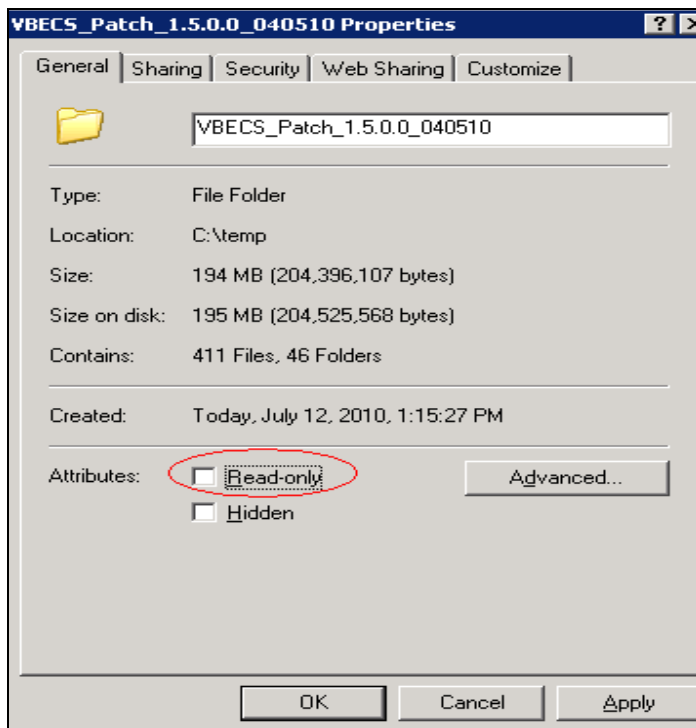
- 7) Right-click on the **VBECS\_Patch\_1.5.0.0\_040510** folder and select **Properties** (Figure 12).

**Figure 12: Example of Folder Properties**



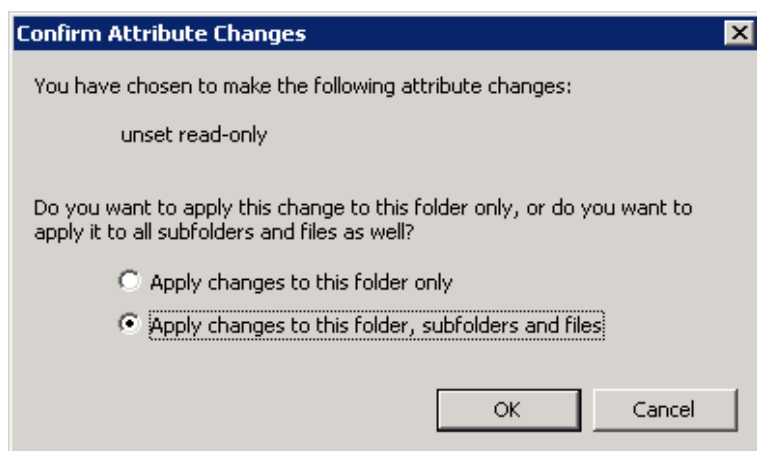
- 8) In the Attributes section, uncheck the **Read-only** check box (Figure 13).

**Figure 13: Example of VBECS Patch folder Properties**



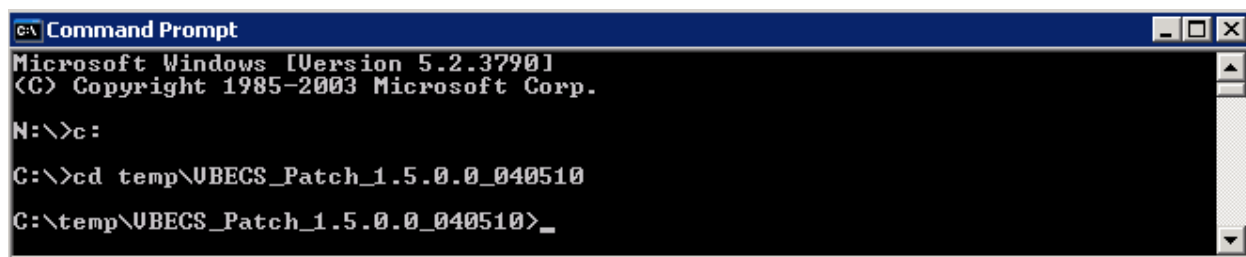
- 9) Click **OK**. In the Confirm Attribute Changes dialog, verify that **Apply Changes to this folder, subfolders and files** is selected (Figure 14).

**Figure 14: Example of Confirm Attribute Changes**



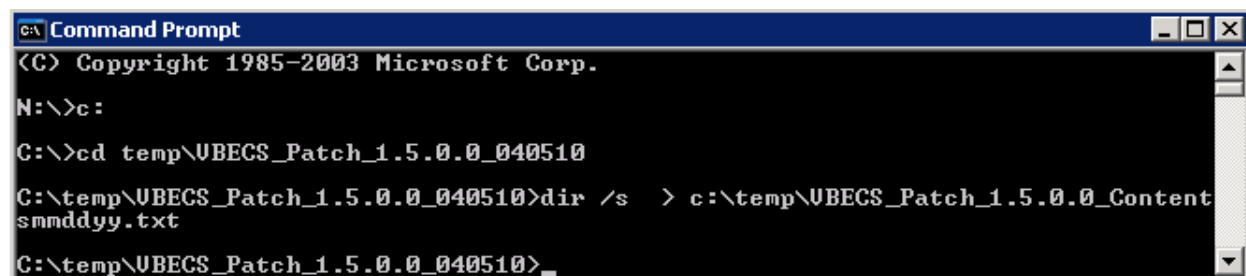
- 10) Click **OK**.
- 11) Click **Start, Run**. Enter **cmd** and click **OK**. A command prompt (See Figure 4) appears.
- 12) Enter **c:** and press **Enter**.
- 13) Enter **cd c:\temp\VBECS\_Patch\_1.5.0.0\_040510** and press **Enter** (Figure 15).

**Figure 15: Example of Patch Folder**



- 14) Enter **dir /s > c:\temp\VBECS\_Patch\_1.5.0.0\_Contentsmmdyy.txt** and press **Enter**; <mmdyy> is the current date (Figure 16).

**Figure 16: Example of Creating VBECS Patch Contents File**



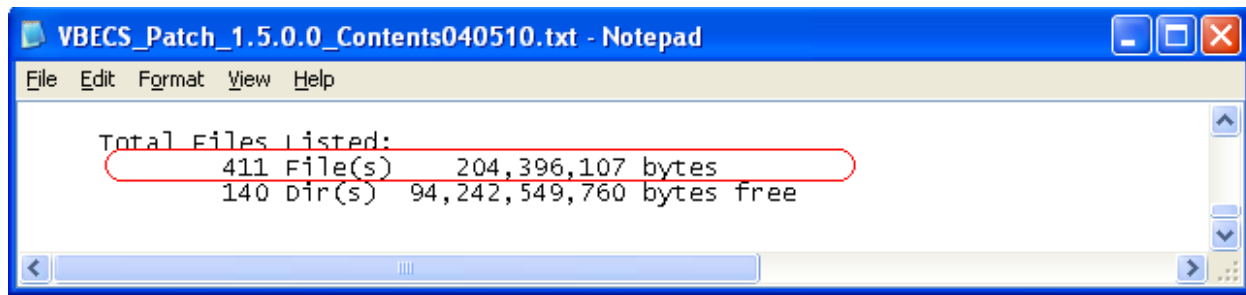
- 15) Close the command prompt window.
- 16) Using Windows Explorer, navigate to the **C:\temp** folder.
- 17) Double-click **VBECS\_Patch\_1.5.0.0\_Contentsmmdyy.txt**.

- 18) Scroll down to the bottom of the file contents. Locate **Total Files Listed** and verify that the **number of files** and **number of bytes** equals (**411 File(s)**    **204, 396, 107 bytes**) (see Figure 17 for what needs to be compared). The complete listing of the individual files is available in Appendix H: Contents of VBECS 1.5.0.0 Patch File.



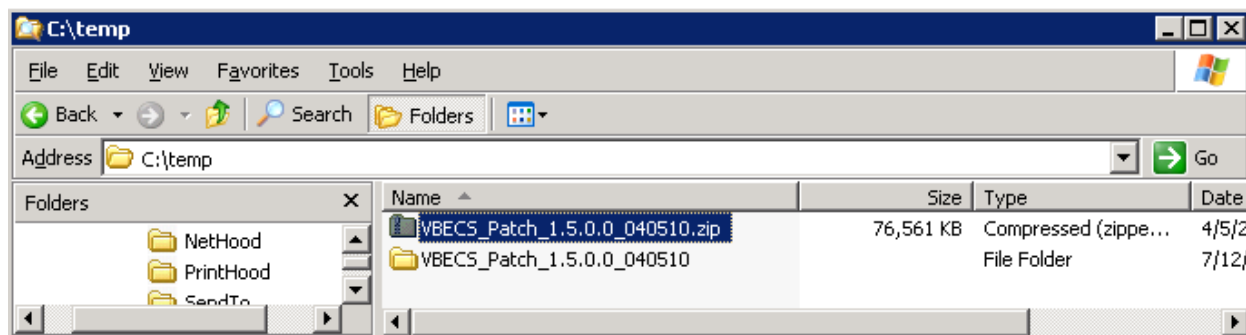
*If the number of files and number of bytes do not match, stop and file a Remedy ticket. Do not proceed until the ticket is resolved.*

**Figure 17: Patch Verification Fields**



- 19) After verifying that the file contents match, check the box in Appendix E: VBECS Patch Installation Record Form for the Test Environment.
- 20) Print the file for the validation records and check the box in Appendix E: VBECS Patch Installation Record Form for the Test Environment. Record this page and step number on the printed copy and initial and date.
- 21) Use Windows Explorer to navigate to the **c:\temp** folder.
- 22) Select **VBECS\_Patch\_1.5.0.0\_040510.zip** file (Figure 18).

**Figure 18: Example of Delete Zip File**



- 23) While holding the **Shift** key, press the **Delete** key. Click **Yes** to confirm file deletion.

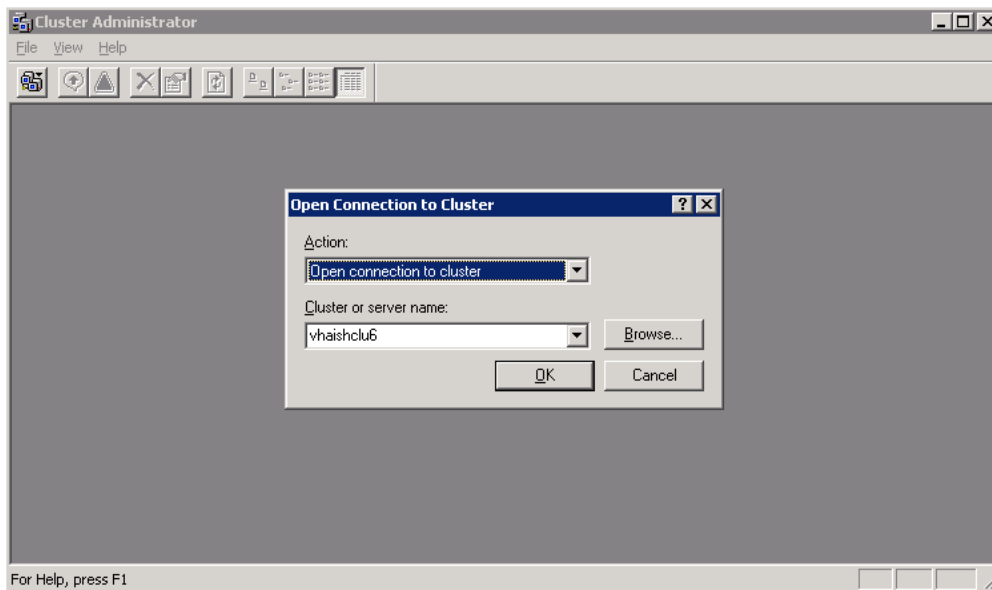
### 3 Prerequisites for Installation

- 1) VBECS 1.4.0.0 was installed.
- 2) Verify Vista Test account is up to date with all released patches.
- 3) Verify that VBEC\*1.0\*3 Vista Patch is installed.
- 4) Contact your local Network Administrator in charge of routers and switches to obtain the **Switch Port Speed** settings for the VBECS servers. Record this value in Appendix E: VBECS Patch Installation Record Form for the Test Environment; this value will be used later to adjust the VBECS servers NIC Speed & Duplex setting.



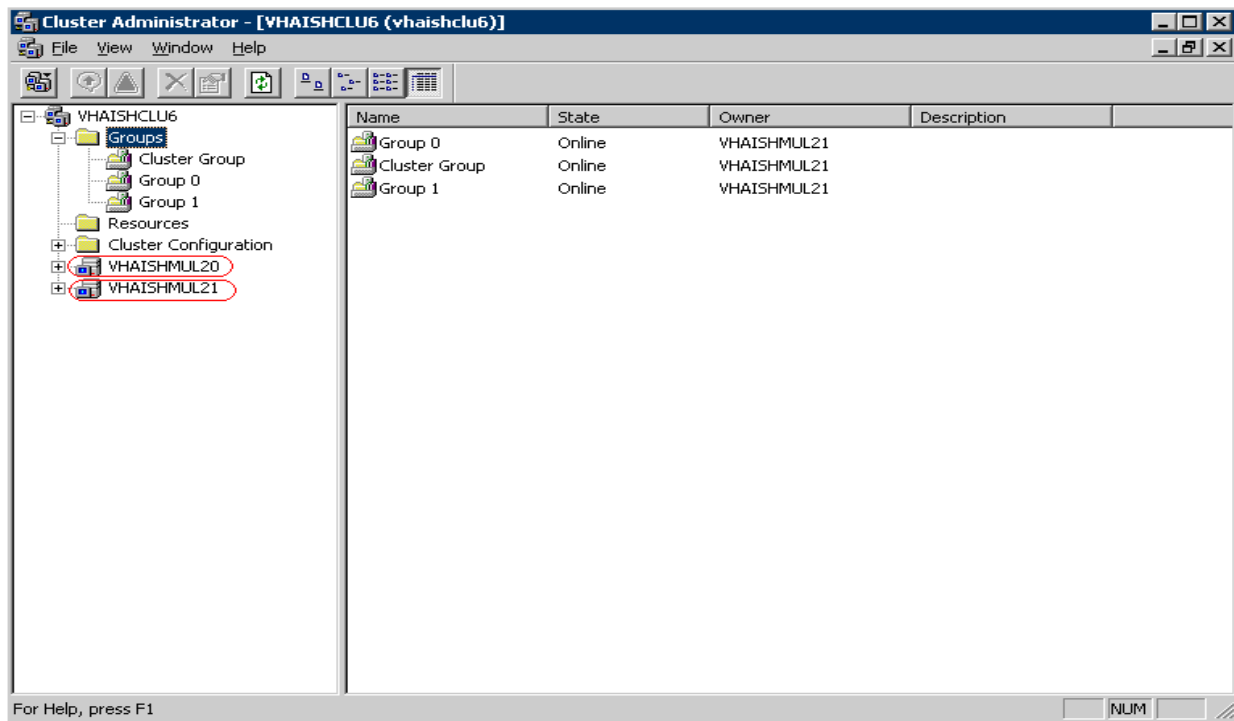
- 5) Refer to the latest approved version of the VistA Blood Establishment Computer Software (VBECS) Installation Guide, Appendices titled Server Configuration and Password List for details on Server Names, IP addresses, passwords, etc.
- 6) On the remote desktop connection to the cluster already open, execute the steps in Appendix D: Setup Detailed Folders View to show file extensions on the installation workstation.
- 7) Determine the Active and Passive Cluster Nodes:
  - a) On the remote desktop connection to the cluster already open, click **Start, Administrative Tools, Cluster Administrator**.
  - b) If **Open Connection to Cluster** window does not appear, click **File, Open Connection**.
  - c) Type <CLUSTER\_NAME> in the **Cluster or server name** field and click **OK** (see example in Figure 19).

**Figure 19: Example of Open Connection to Cluster**



- d) The two bottom nodes listed in the Cluster Administration window opened are the cluster nodes (see example in Figure 20).

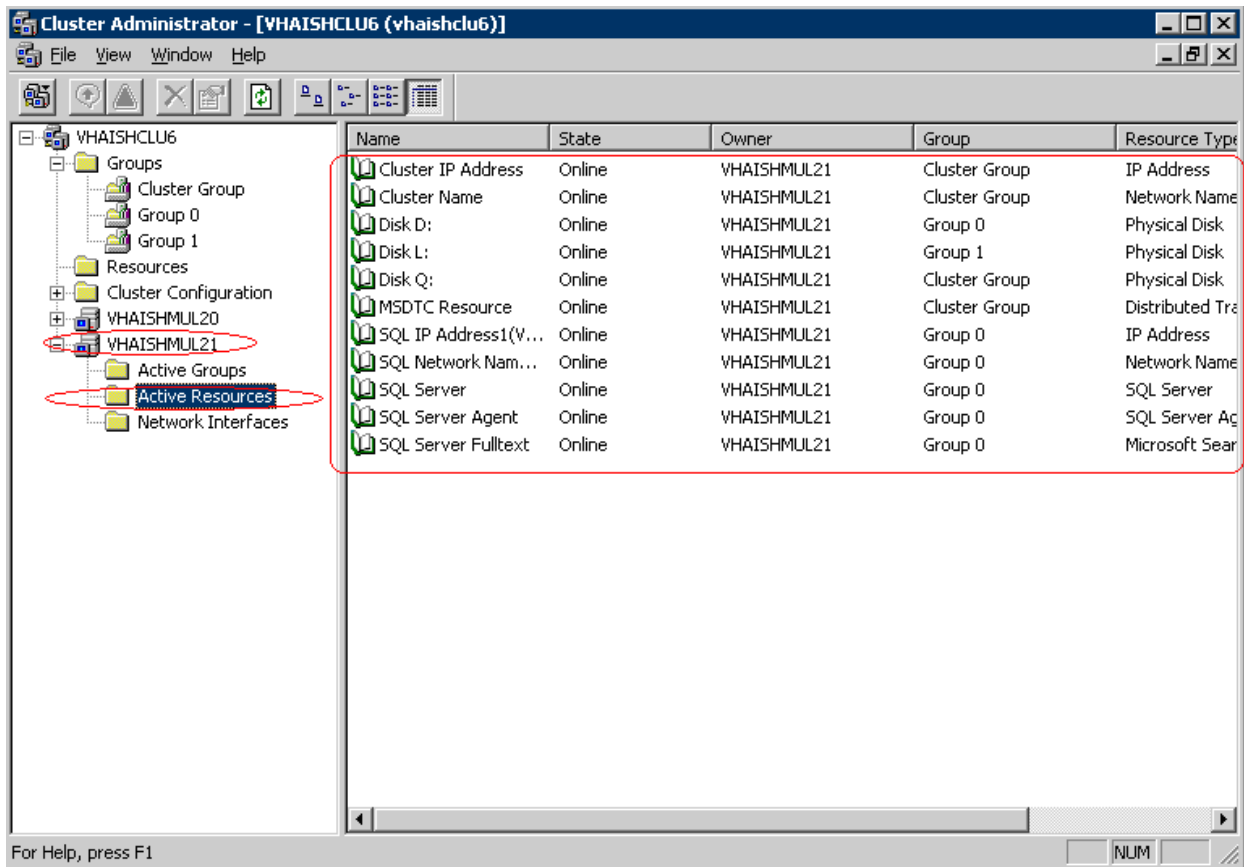
**Figure 20: Example of Cluster Administrator**



- e) Expand the cluster node folders and double-click on the Active Resources folder inside each Cluster node folder.

- f) The Active cluster node will have active resources. See Figure 21 for an example of the active cluster node.

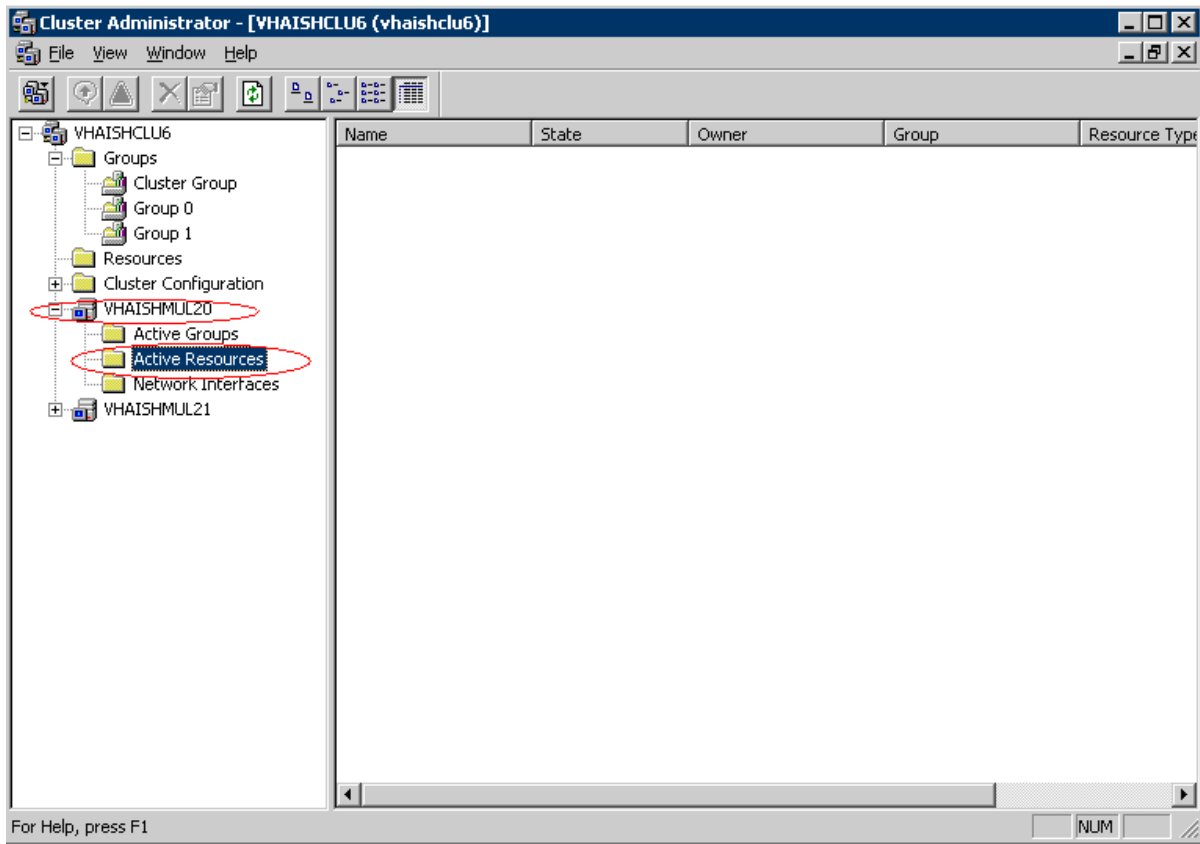
**Figure 21: Example of the Active Cluster Node**



- g) Record the <Active cluster node> as Server #1 in Appendix E: VBECS Patch Installation Record Form for the Test Environment (e.g., VHAISHMUL21).

- h) The Passive cluster node will not have active resources. See Figure 22 for an example of the passive cluster node.

**Figure 22: Example of the Passive Cluster Node**



- i) Record the **<Passive cluster node>** as Server #2 in Appendix E: VBECS Patch Installation Record Form for the Test Environment (e.g., VHAISHMUL20).

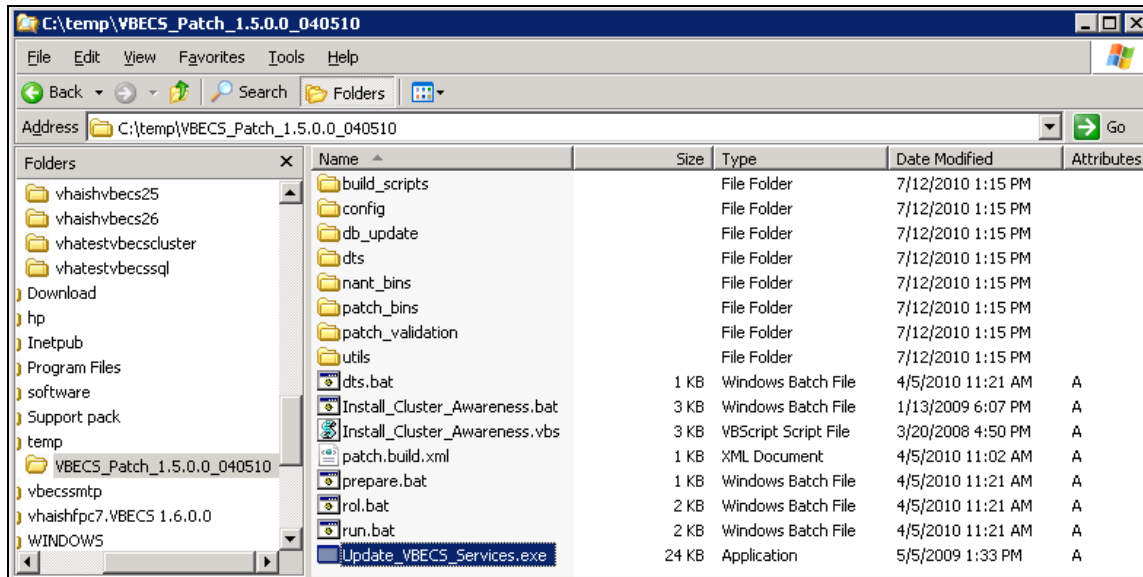


*If both cluster nodes contain Active resources, stop and file a Remedy ticket. Do not proceed or release VBECS for use until the ticket is resolved.*

- 8) Verify that there are no active console (KVM) sessions on Server #1 and Server #2.
- 9) Update the VBECS Test Services:
  - a) Using the existing remote desktop connection to the cluster, use Windows Explorer and navigate to the **c:\temp\VBECS\_Patch\_1.5.0.0\_040510** folder.

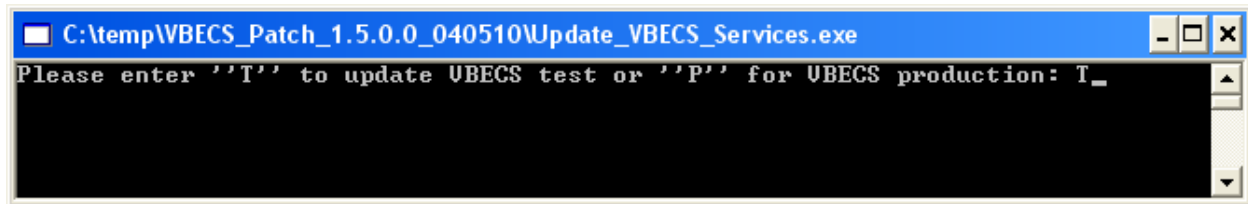
- b) Double-click **Update\_VBECS\_Services.exe** (Figure 23).

**Figure 23: Example of Update\_VBECS\_Services**



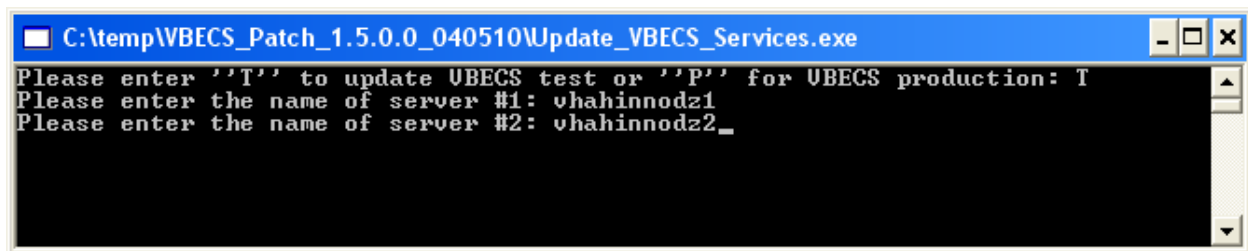
- c) At the command prompt, enter “**T**” for the Test environment and press **Enter** (Figure 24).

**Figure 24: Example of Update VBECS Services Prompt**



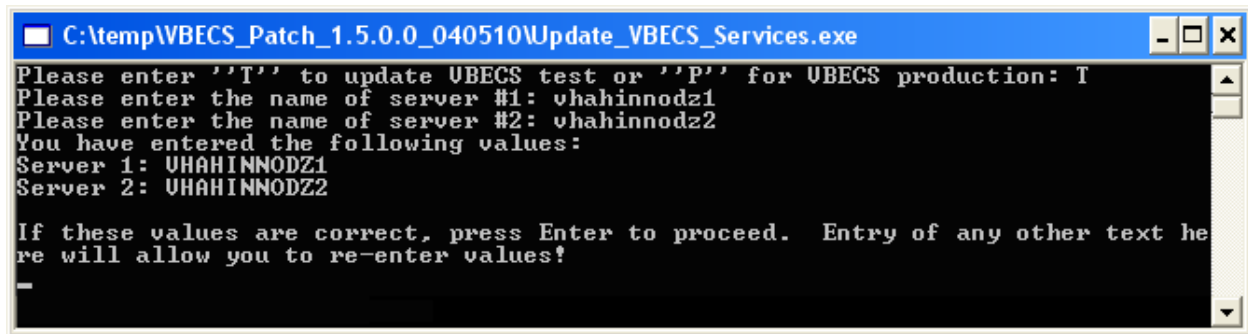
- d) For the Server #1 prompt, enter *<Active cluster node>* recorded in Appendix E and press **Enter**.
- e) For the Server #2 prompt, enter *<Passive cluster node>* recorded in Appendix E and press **Enter** (Figure 25).

**Figure 25: Example of Enter Cluster Nodes**



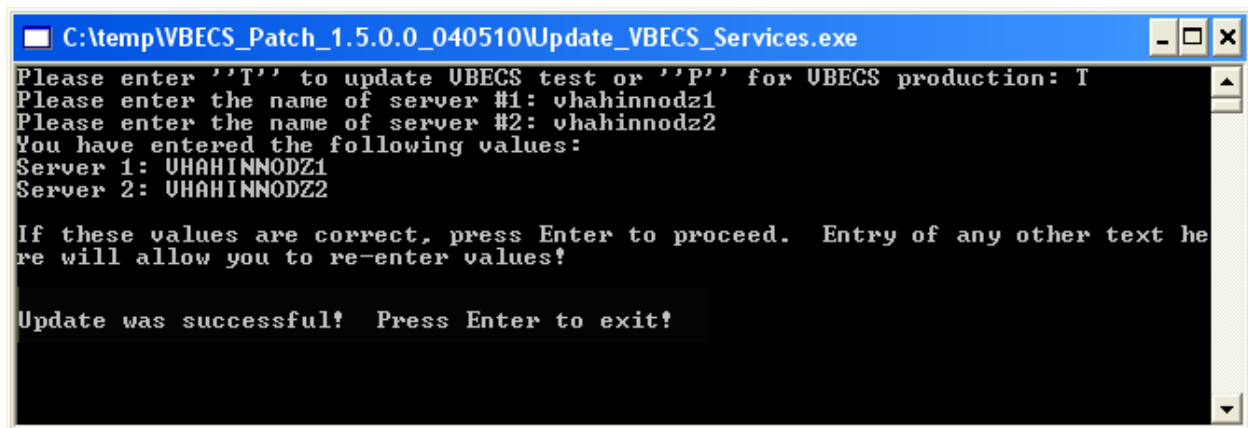
- f) At this time, you will be asked to verify the servers you have entered. If they are entered correctly, press **Enter** again. If not, type **X** and press **Enter** to abort the update. If you do the latter, you will be prompted to re-enter the information (Figure 26).


**Figure 26: Example of Verify Cluster Nodes**



- g) Upon completion, the system will notify you that the update was successful (Figure 27).

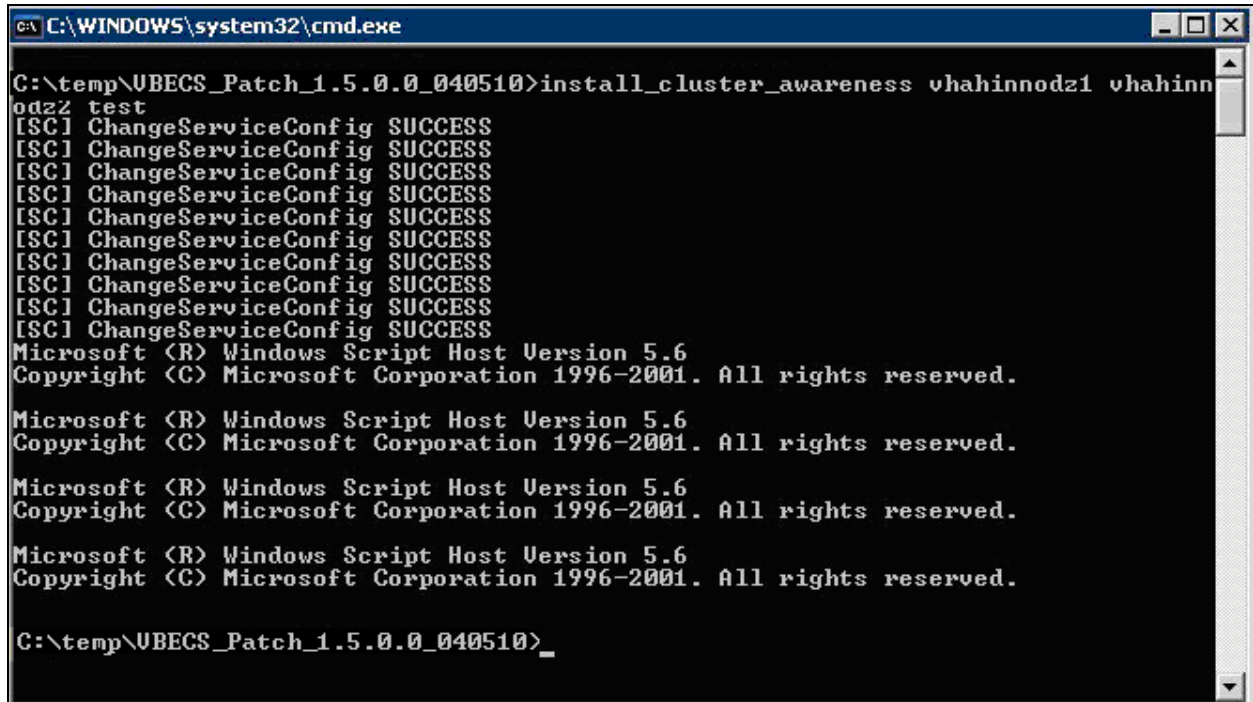
**Figure 27: Example of VBECS Services Successfully Updated**



- h)  Capture a screen shot showing that the update was successful.
- i) Insert the screen shot in Appendix E: VBECS Patch Installation Record Form for the Test Environment.
- j) Press **Enter** to exit.
- 10) Configure Cluster Awareness:
- On the remote desktop connection to the cluster already open, click **Start, Run**. Enter **cmd** and click **OK** (Figure 3). A command prompt (Figure 4) appears.
  - Enter **c:** and press **Enter**.
  - Enter **cd c:\temp\VBECS\_Patch\_1.5.0.0\_040510** and press **Enter**.

- d) Enter **install\_cluster\_awareness** <Active cluster node> <Passive cluster node> **test** and press **Enter** (Figure 28). <Active cluster node> <Passive cluster node> were recorded in Appendix E.

**Figure 28: Example of Install\_Cluster\_Awareness Execution**




```
C:\WINDOWS\system32\cmd.exe
C:\temp\VBECs_Patch_1.5.0.0_040510>install_cluster_awareness vhahinnod21 vhahinnod22 test
[SC] ChangeServiceConfig SUCCESS
[SC] ChangeServiceConfig SUCCESS
[SC] ChangeServiceConfig SUCCESS
[SC] ChangeServiceConfig SUCCESS
[SC] ChangeServiceConfig SUCCESS
[SC] ChangeServiceConfig SUCCESS
[SC] ChangeServiceConfig SUCCESS
[SC] ChangeServiceConfig SUCCESS
[SC] ChangeServiceConfig SUCCESS
[SC] ChangeServiceConfig SUCCESS
Microsoft (R) Windows Script Host Version 5.6
Copyright (C) Microsoft Corporation 1996-2001. All rights reserved.


Microsoft (R) Windows Script Host Version 5.6
Copyright (C) Microsoft Corporation 1996-2001. All rights reserved.

Microsoft (R) Windows Script Host Version 5.6
Copyright (C) Microsoft Corporation 1996-2001. All rights reserved.

Microsoft (R) Windows Script Host Version 5.6
Copyright (C) Microsoft Corporation 1996-2001. All rights reserved.

C:\temp\VBECs_Patch_1.5.0.0_040510>_
```

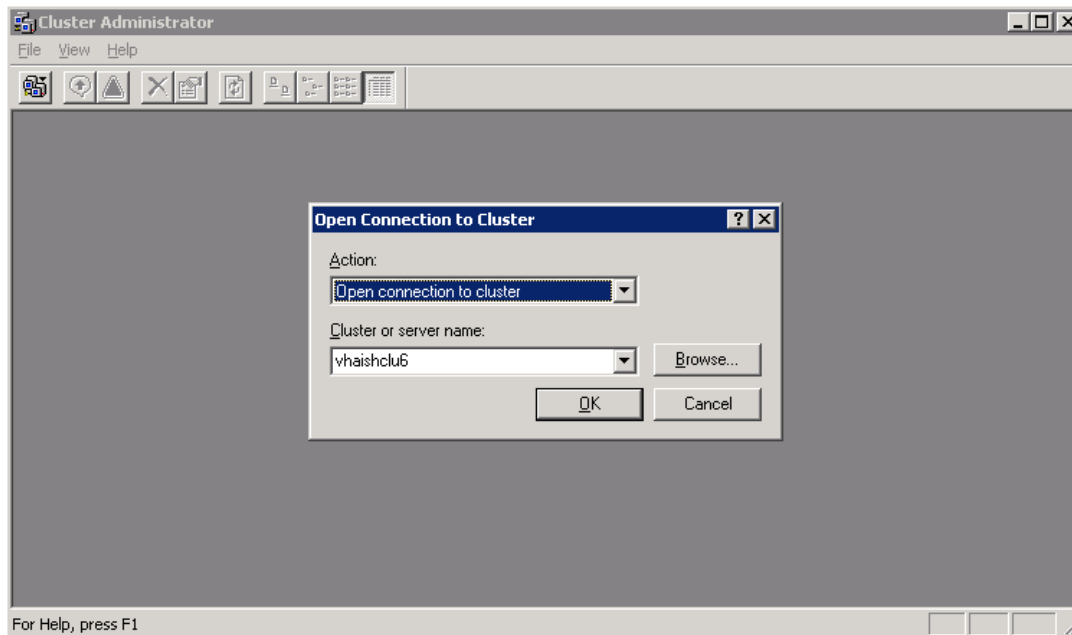
- e)  Capture a screen shot showing that the install of Cluster Awareness executed successfully.
- f) Insert the screen shot in Appendix E: VBECS Patch Installation Record Form for the Test Environment.
- g) Verify that there are 10 **[SC] ChangeServiceConfig SUCCESS** messages, and check the box in Appendix E: VBECS Patch Installation Record Form for the Test Environment to confirm.

 *If any of the [SC] ChangeServiceConfig fails, stop and file a Remedy ticket. Do not proceed or release VBECS for use until the ticket is resolved.*

- h) Click **Start, Administrative Tools, Cluster Administrator**.
- i) If Open Connection to Cluster window does not appear, click **File, Open Connection**.

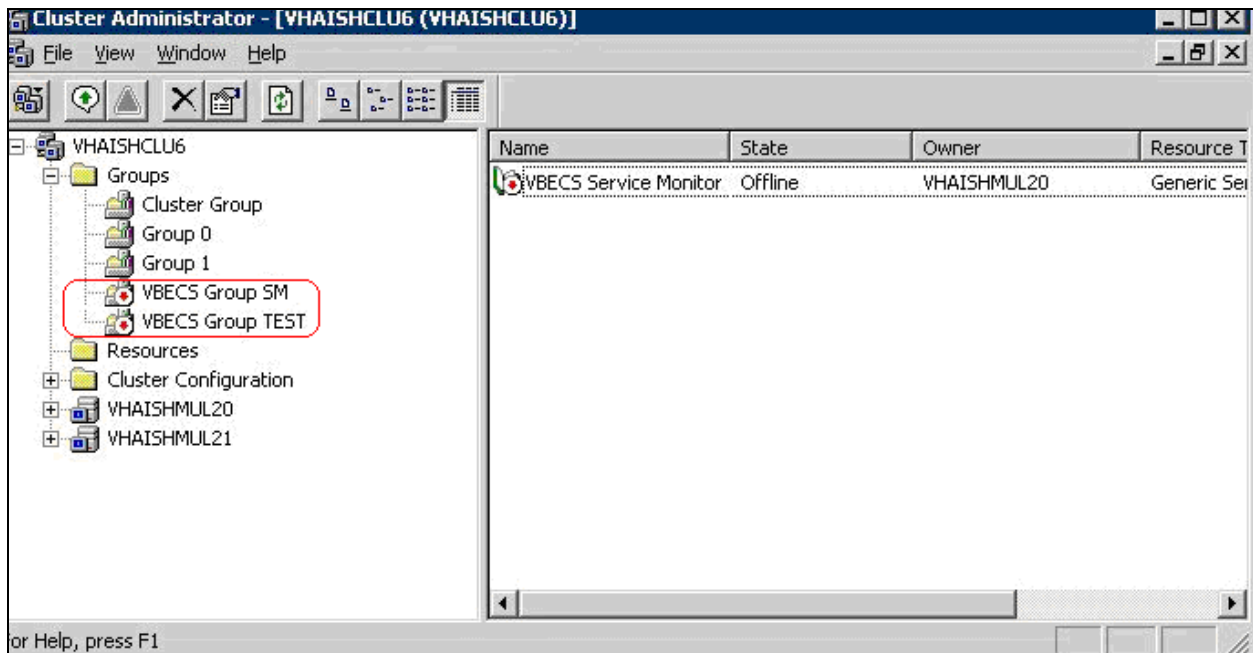
- j) Type **<CLUSTER\_NAME>** in the **Cluster or server name** field and click **OK** (Figure 29).

**Figure 29: Example of Open Connection to Cluster**



- k) The Cluster Administrator window populates. Expand the Groups folder, and verify that **VBECS Group SM** and **VBECS Group TEST** exist as shown in (Figure 30).

**Figure 30: Example of VBECS Group TEST and VBECS Group SM**

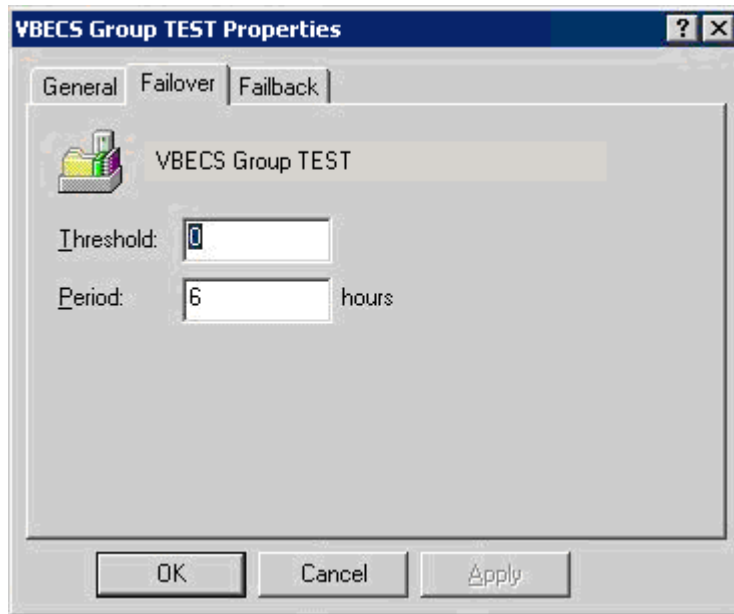


- l) Right-click on **VBECS Group TEST** and select **Properties**.



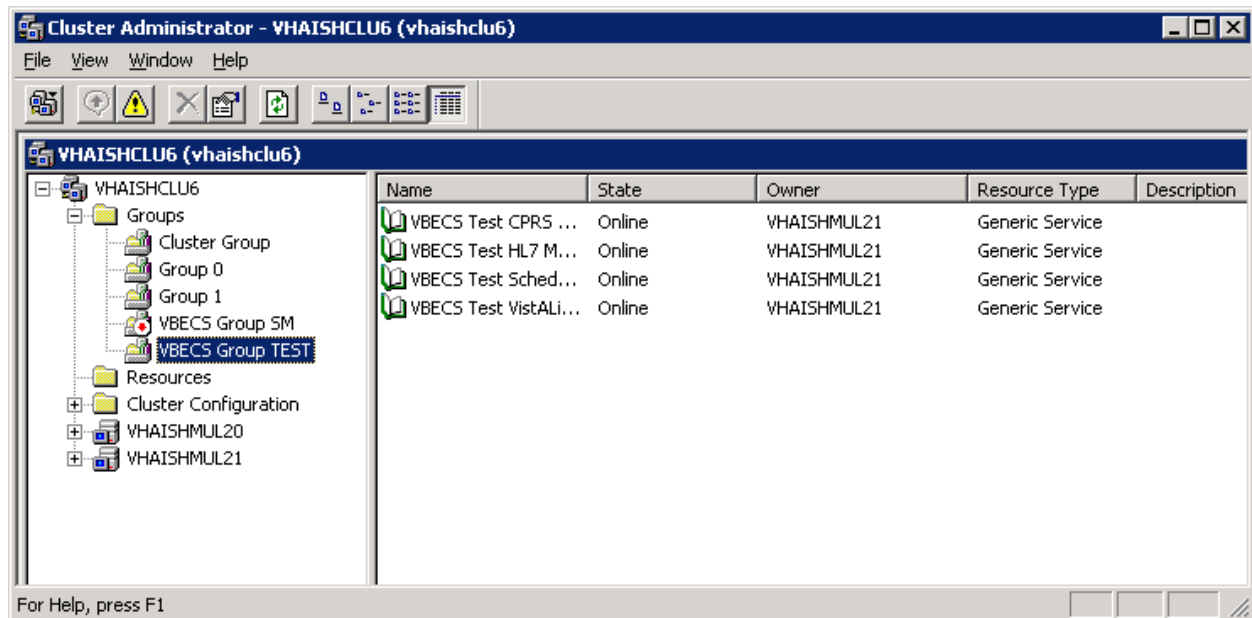
- m) Click on the **Failover** tab and set **Threshold** to **0** and click **OK** (Figure 31).

**Figure 31: Example of Test Failover Threshold Properties**



- n) Right-click on **VBECS Group TEST** and select **Bring Online** and verify that **State** changes to **Online** for all resources as shown in (Figure 32).

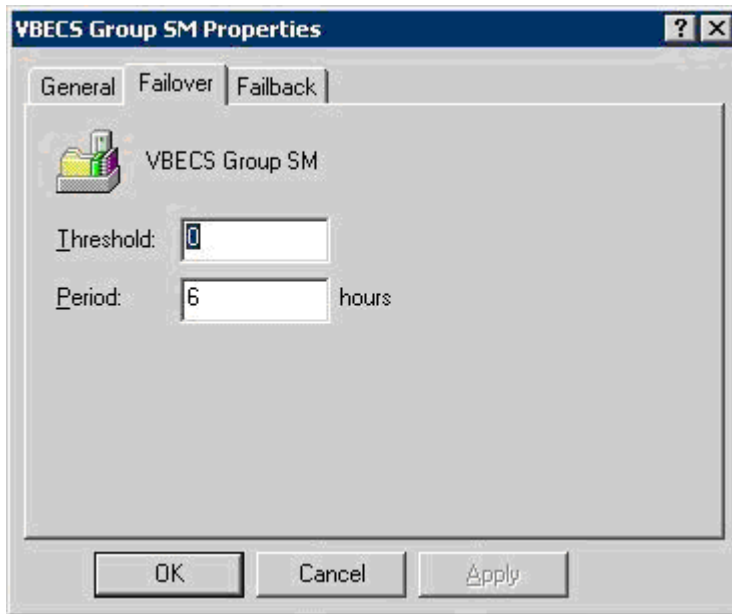
**Figure 32: Example of VBECS Group TEST Online**



- o) Check the box in Appendix E: VBECS Patch Installation Record Form for the Test Environment.
- p) Right-click on **VBECS Group SM** and select **Properties**.

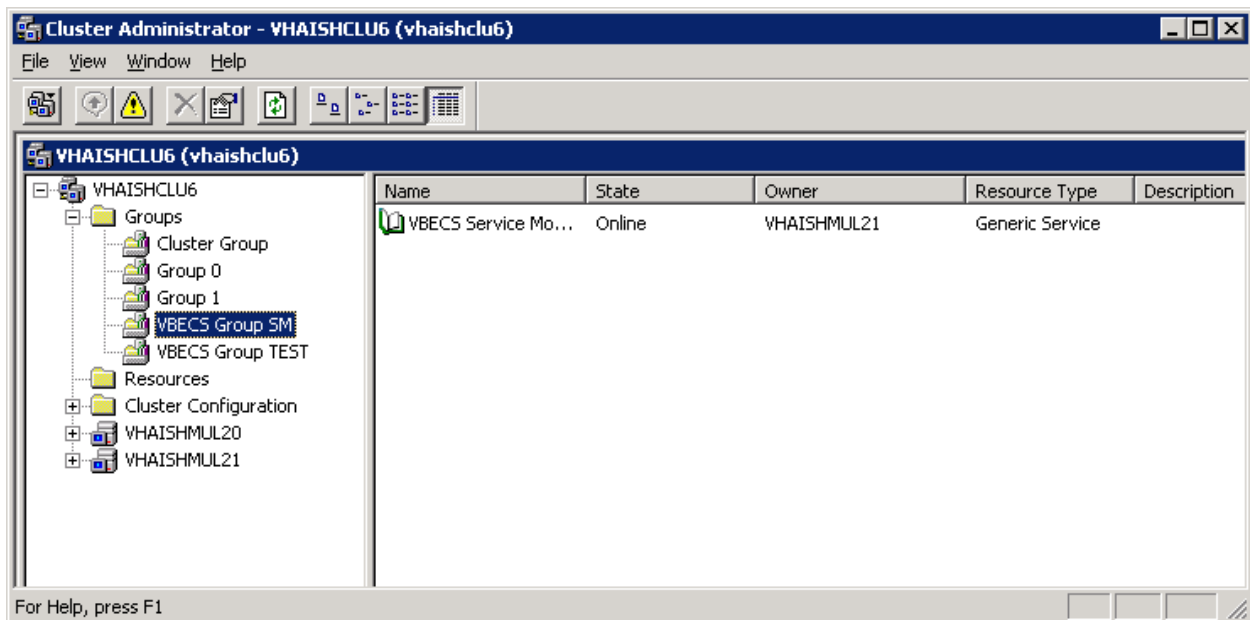
- q) Select the **Failover** tab, and set the **Threshold** field to **0** and click **OK** (Figure 33).

**Figure 33: Example of Service Monitor Failover Threshold Properties**



- r) Right-click on **VBECS Group SM** and select **Bring Online** and verify that **State** changes to **Online** for all resources as shown in (Figure 34).

**Figure 34: Example of VBECS Group SM Online**



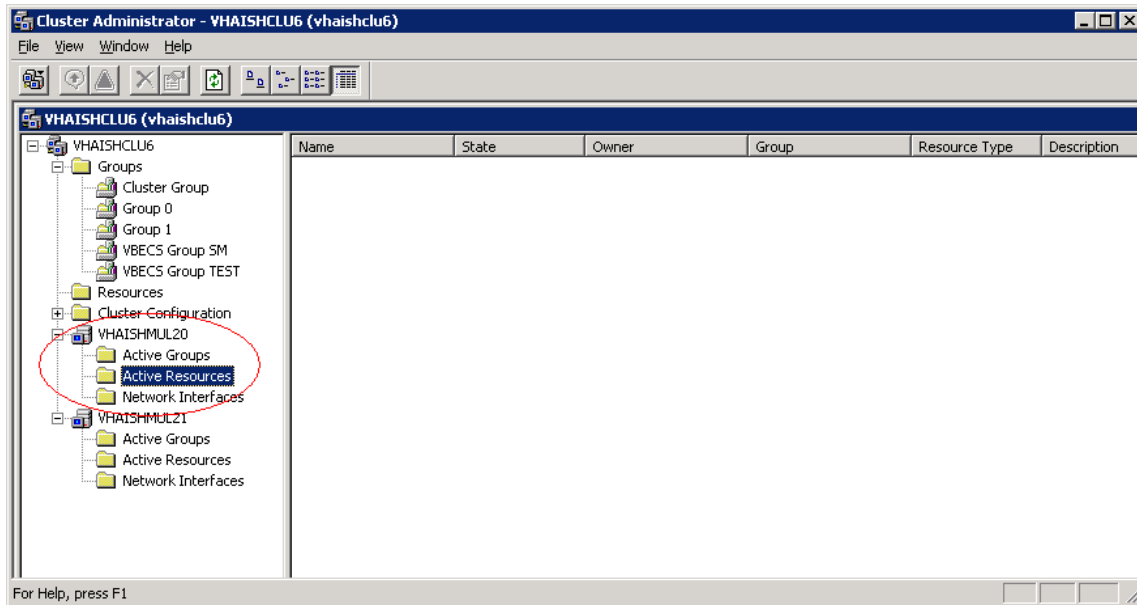
- s) Check the box in Appendix E: VBECS Patch Installation Record Form for the Test Environment.

- t) In the Cluster Administrator window, locate and expand the <**Passive Cluster Node**> and double-click on the **Active Resources** folder. The passive cluster node must not have any active resources. See Figure 35 for an example of the passive cluster node.



*If any Active resources are present, stop and file a Remedy ticket. Do not proceed or release VBECS for use until the ticket is resolved.*

**Figure 35: Example of the Passive Cluster Node**

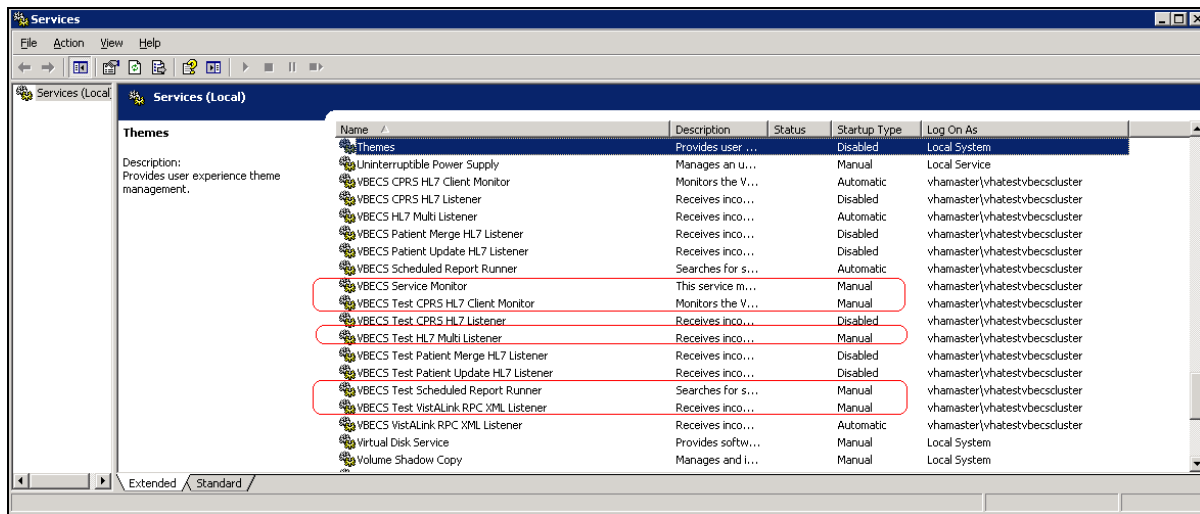



- u) Open a remote desktop connection to the passive cluster node; click **Start, Administrative Tools, Services**. The Services window opens.
- v) In the Services window, scroll down and locate the following services:
- VBECS Service Monitor
  - VBECS Test CPRS HL7 Client Monitor
  - VBECS Test HL7 Multi Listener
  - VBECS Test Scheduled Report Runner
  - VBECS Test VistALink RPC XML Listener

For each service that has status as **Started**, right-click it and select **Stop**.

- w) All located services should have their Status as blank and Startup Type as Manual (see example in Figure 36).

**Figure 36: Example of Services Window**



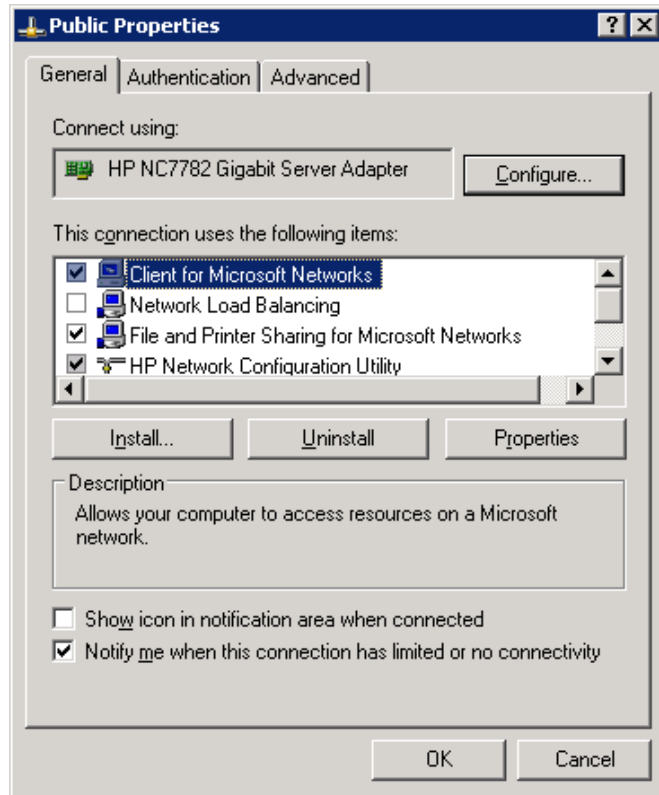
 **If Status is not blank and the Startup Type is not Manual, stop and file a Remedy ticket. Do not proceed or release VBECS for use until the ticket is resolved.**

- x) Log off the passive cluster node. The remote desktop connection to the passive cluster node closes.
- y) Return to the remote desktop connection to the cluster that is already open. On the Cluster Administrator window, click **File, Exit** to close the Cluster Administrator.
- z) Log off the cluster. The remote desktop connection to the cluster closes.

## 4 Verify NIC Card Configuration

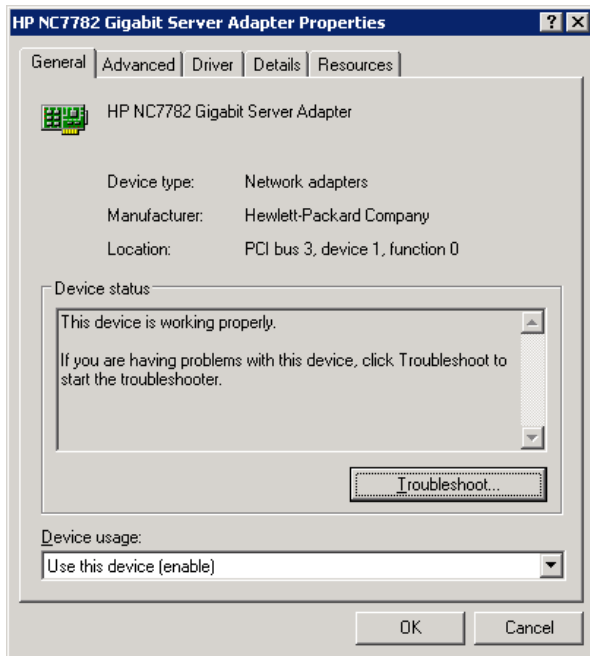
- 1) Using remote desktop connection, log into Server #1.
- 2) Click **Start, Control Panel, Network Connections, Public**. Click **Properties**.
- 3) Click **Configure** (Figure 37).

**Figure 37: Example of Public Properties**



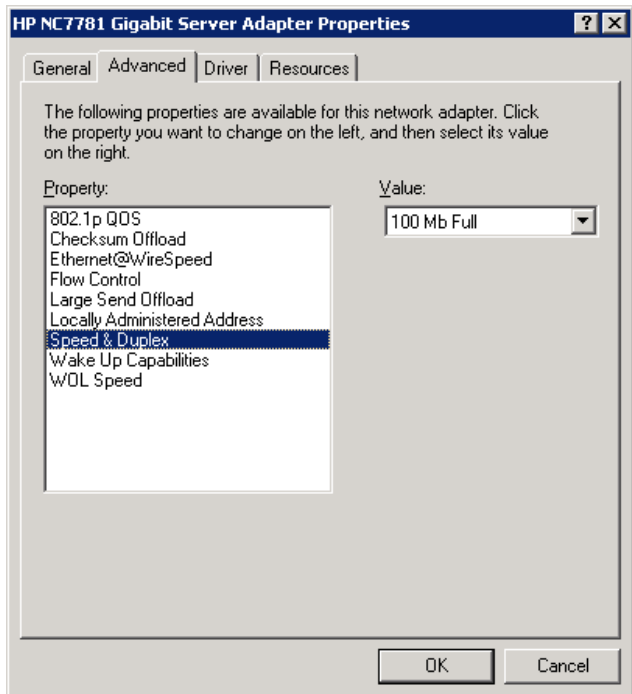
- 4) Click on the **Advanced** tab (Figure 38).

**Figure 38: Example of NIC Properties**



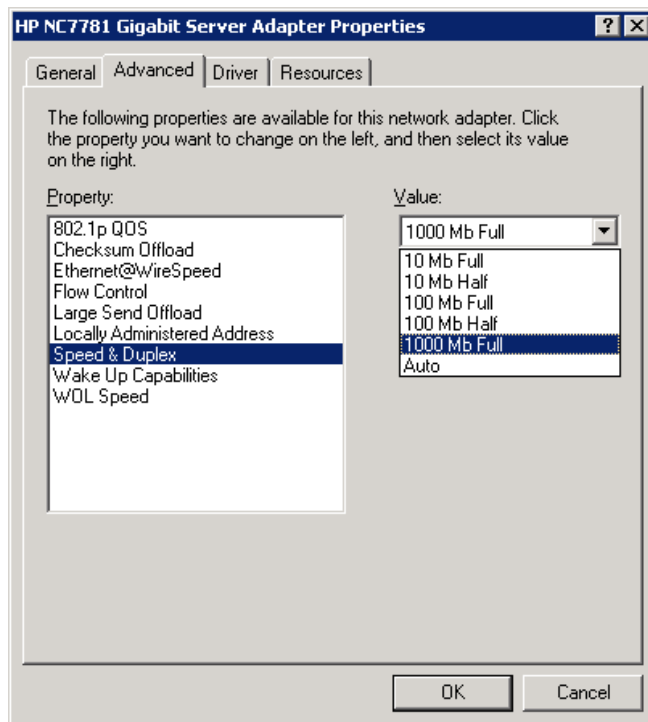
- 5) Click **Speed & Duplex** (Figure 39) and record this value in Appendix E: VBECS Patch Installation Record Form for the Test Environment (e.g., 100Mb Full).

**Figure 39: Example of HP NC... Gigabit Server Adapter Properties**



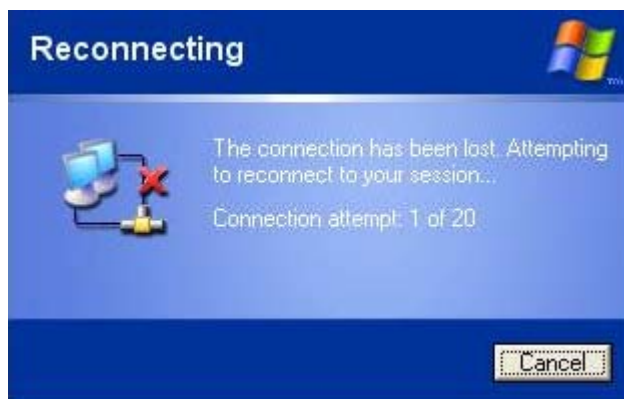
- 6) Compare the value recorded in Step 5 Appendix E: VBECS Patch Installation Record Form for the Test Environment, Verify NIC Card Configuration section with the Switch Port Speed recorded in Step 4 Appendix E: VBECS Patch Installation Record Form for the Test Environment, Prerequisites for Installation section.
- 7) If both values are the same, click **Cancel** and proceed to Step 12 of this section for Server #2.
- 8) If the values are different, select the value recorded in Step 4 Appendix E: VBECS Patch Installation Record Form for the Test Environment, Prerequisites for Installation section from the drop down menu (Figure 40).

**Figure 40: Example of Updated HP NC... Gigabit Server Adapter Properties**



- 9) Click **OK**.
- 10) The remote desktop reconnection message popup will be received (Figure 41).

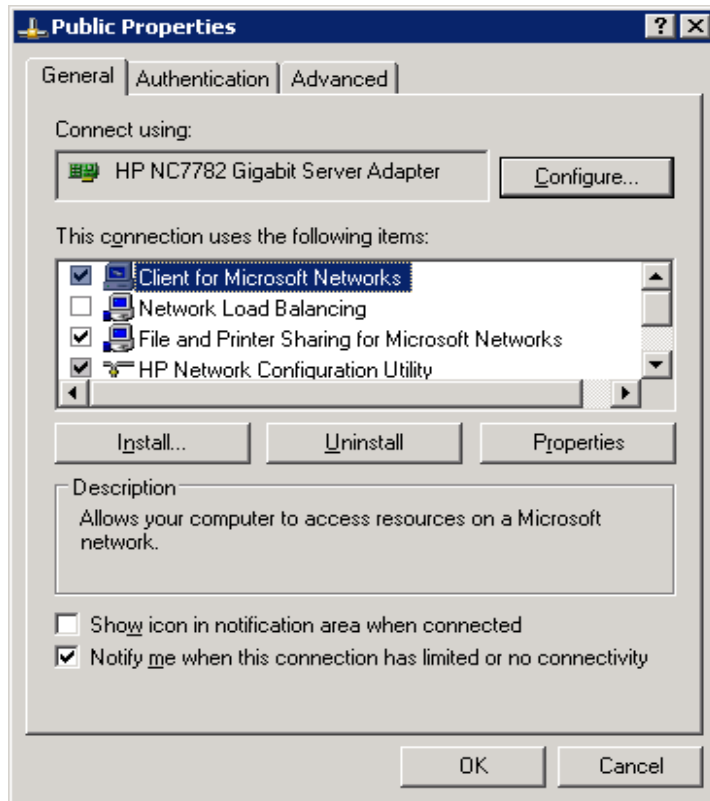
**Figure 41: Example of Reconnecting Message**



- 11) Log off Server #1 when the remote session is restored.

- 12) Using remote desktop connection, log into Server #2.
- 13) Click **Start, Control Panel, Network Connections, Public**. Click **Properties**.
- 14) Click **Configure** (Figure 42).

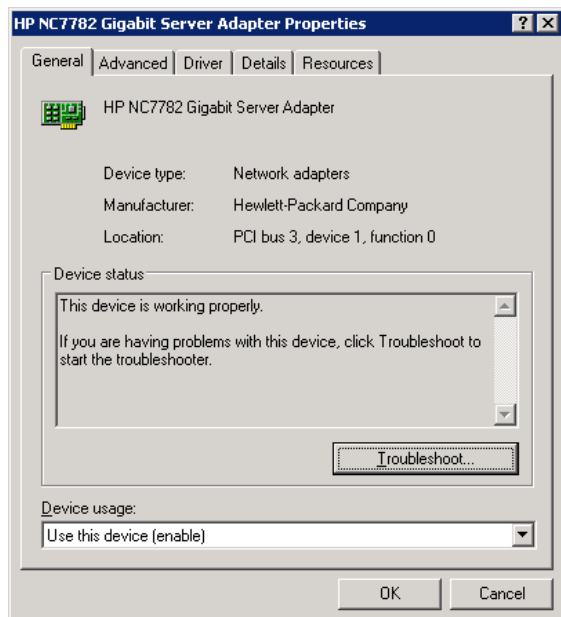
**Figure 42: Example of Public Properties**





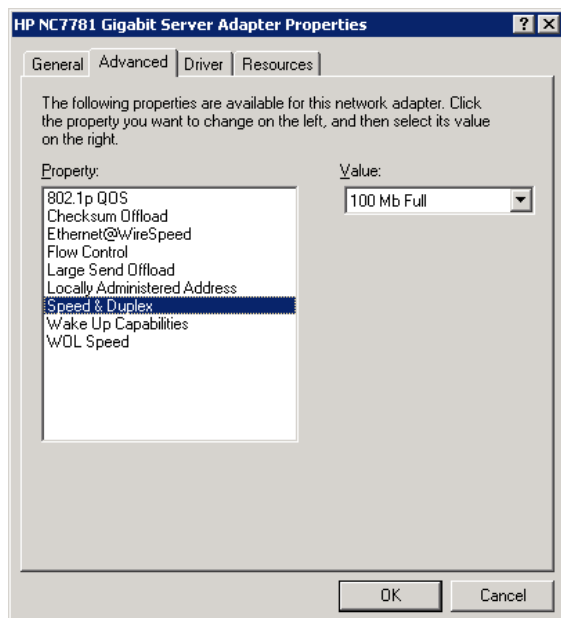
15) Click on the **Advanced** tab (Figure 43).

**Figure 43: Example of NIC properties**



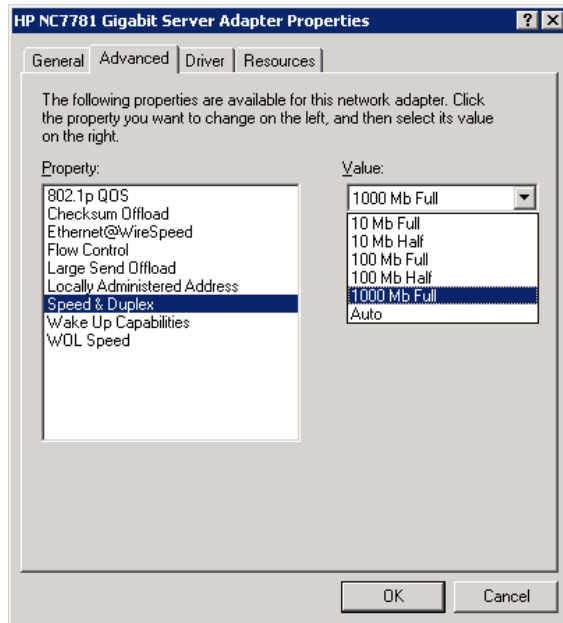
16) Click **Speed & Duplex** (Figure 44) and record this value in Appendix E: VBECS Patch Installation Record Form for the Test Environment (e.g., 100Mb Full).

**Figure 44: Example of HP NC... Gigabit Server Adapter Properties**



- 17) Compare the value recorded in Step 16 Appendix E: VBECS Patch Installation Record Form for the Test Environment, Verify NIC Card Configuration section with the Switch Port Speed recorded in Step 4 Appendix E: VBECS Patch Installation Record Form for the Test Environment, Prerequisites for Installation section.
- 18) If both values are the same, click **Cancel** and proceed to Section 5, Execute VBECS Patch Scripts against the Cluster.
- 19) If the values are different, select the value recorded in Step 4 Appendix E: VBECS Patch Installation Record Form for the Test Environment, Prerequisites for Installation section from the drop down menu (Figure 45).

**Figure 45: Example of Update HP NC... Gigabit Server Adapter Properties**





- 20) Click **OK**.
- 21) The remote desktop reconnection message popup will be received (Figure 46).

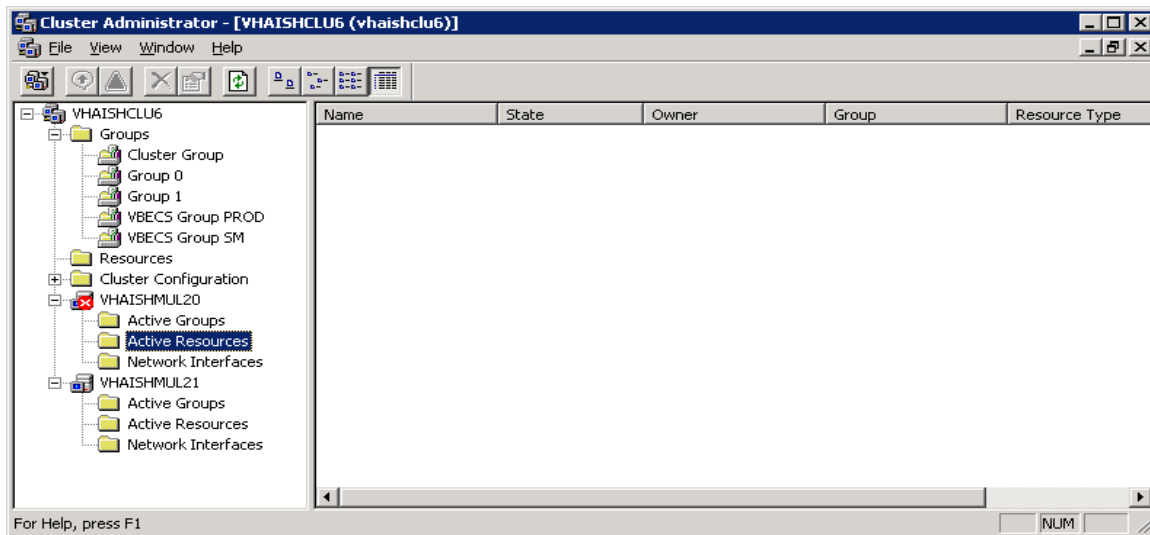
**Figure 46: Example of Reconnecting Message**



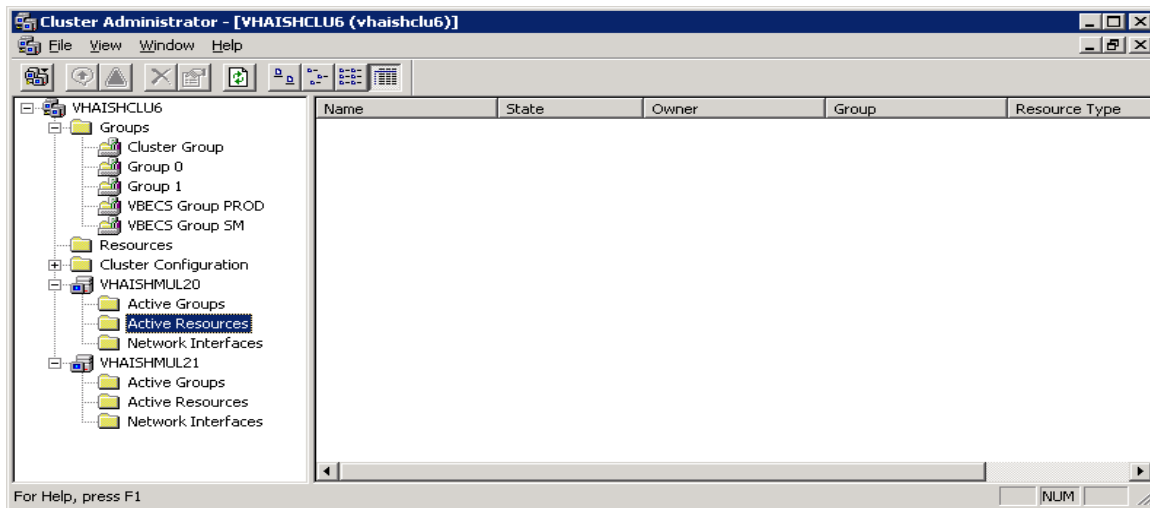
- 22) After the remote session is restored, click **Start, Administrative Tools, Cluster Administrator** (it may take several minutes for the Cluster Administrator utility to completely load).

- 23) If the Passive Cluster Node (Server #2) has an inactive icon,  (Figure 47), wait until the node comes back online  (Figure 48.)

**Figure 47: Example of the Passive Cluster Node Offline**



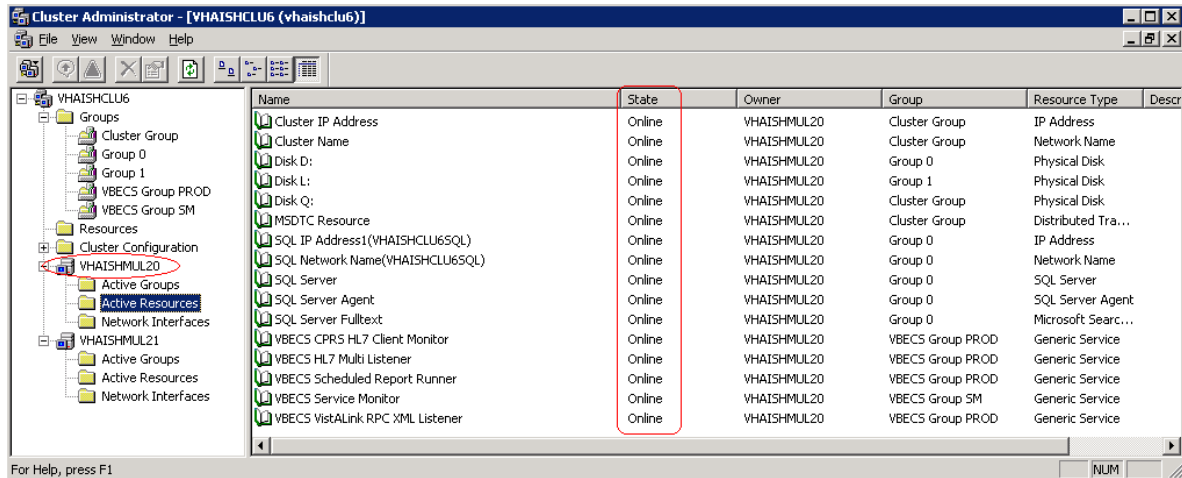
**Figure 48: Example of the Passive Cluster Node Online**



- 24) Log off the Remote Desktop Connection.  
 25) Restart (reboot) the Active node (Server #1).  
 26) After Server #1 has been restarted, restart (reboot) Server #2.  
 27) Open a remote desktop connection to the cluster; click **Start, Administrative Tools, Cluster Administrator**.  
 28) If **Open Connection to Cluster** window does not appear, click **File, Open Connection**.  
 29) Type **<CLUSTER\_NAME>** in the **Cluster or server name** field and click **OK**.

30) Verify that all Active Resources of the Active Cluster Node (Server #1) have State marked Online (Figure 49).

**Figure 49: Example of the Active Cluster Node Resources Online**



*If resource(s) state remains offline, file a Remedy ticket immediately. Do not proceed or release VBECs for use until the ticket is resolved.*

## 5 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.*



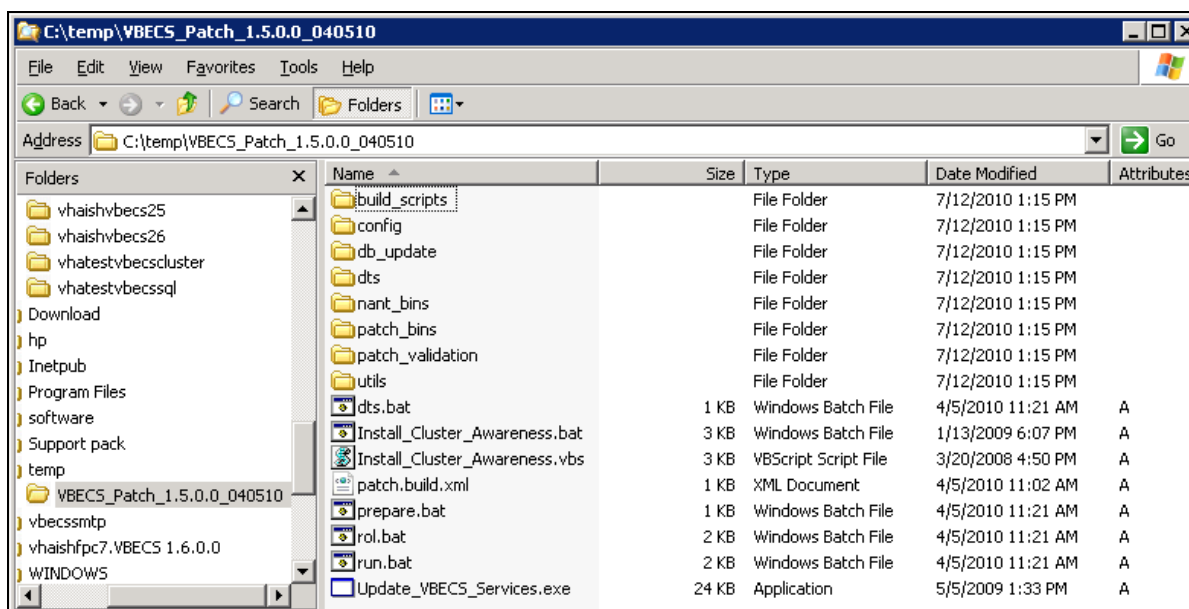
*After the upgrade, warning messages with the subject 'Operations Manager Critical Error Alert' are normal and should be ignored. They are merely noting that changes have been made to the various VBECS files which is expected during a software upgrade.*



*Do not run VBECS Administrator 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\_1.5.0.0\_040510** folder (Figure 50).

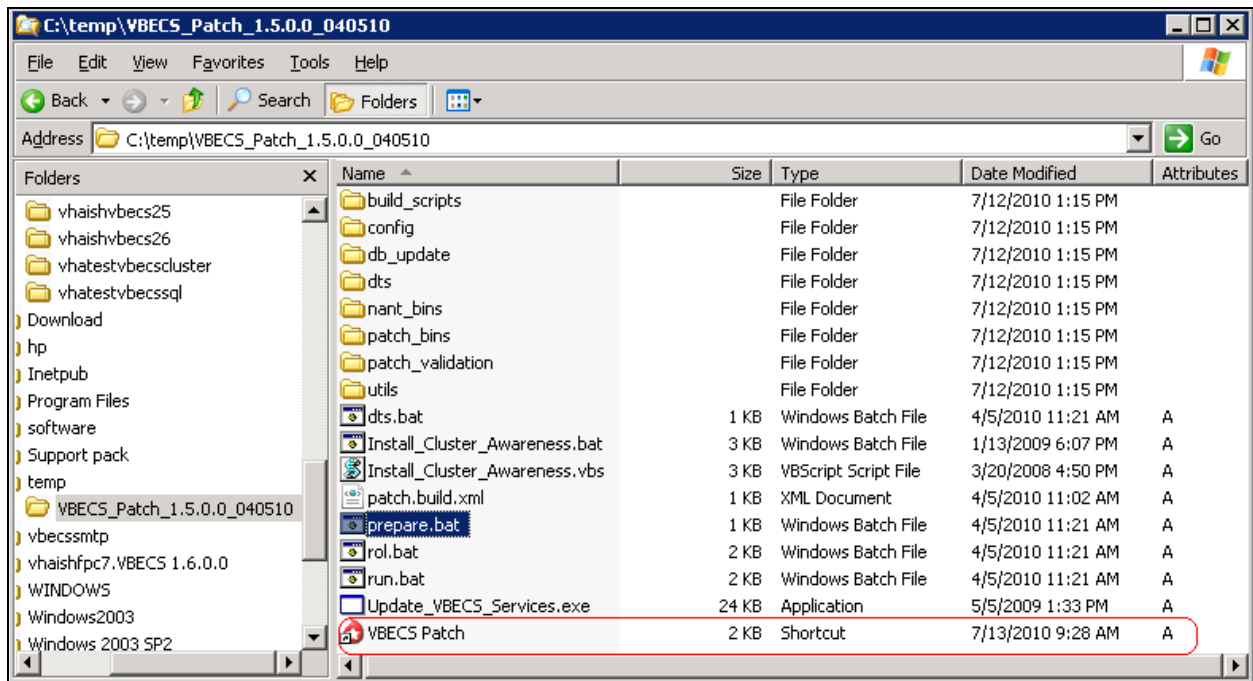
**Figure 50: Example of VBECS Patch Folder**



- 2) Double-click on **prepare.bat**.

3) A **VBECS Patch** shortcut is created (Figure 51).

**Figure 51: Example of VBECS Patch Shortcut**



4) Double-click on the **VBECS Patch** shortcut.

5) A VBECS Patch form will open (Figure 52).

**Figure 52: Example of VBECS Patch Form**

**VBECS Patch**

VBECS Patch

**Info**

VBECS Source Version	1.4.0.0
VBECS Target Version	1.5.0.4

**VBECS Patch**

Cluster IP Address	[X.X.X.X]
Contact E-mail	[E-MAIL]
Contact Name	[NAME]
Contact Phone	[PHONE]
Message TimeOut	10
SQL Server Name	[SERVER_NAME]
VBECS Environment	[environment]

**VBECS Patch**

**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

6) Enter the following for the required fields.

- **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 (Figure 53).
- **Contact E-mail** – This is the email address of the contact person or group (Figure 53).

- **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 (Figure 53).
- **Contact Phone** – This is the telephone number of the contact person (Figure 53).
- **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** (Figure 53). 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 (Figure 53).
- **VBECS Environment** – This is the VBECS environment. Select **Test** to patch VBECS Test environment (Figure 53).

**Figure 53: Example of VBECS Patch Form**

The screenshot shows the 'VBECS Patch' application window. It has two tabs: 'VBECS Patch' (selected) and 'DTS Update'. The 'VBECS Patch' tab contains several sections:

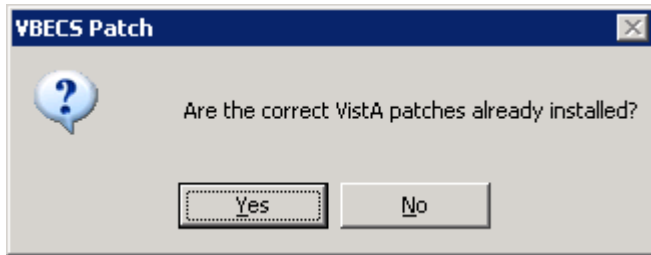
- Info**: A table with 'VBECS Source Version' (1.4.0.0) and 'VBECS Target Version' (1.5.0.4).
- VBECS Patch**: A table with fields for 'Cluster IP Address' (000.000.000.000), 'Contact E-mail' (FirstName.LastName@va.gov), 'Contact Name' (FirstName LastName), 'Contact Phone' (800-555-1234), 'Message TimeOut' (10), 'SQL Server Name' (VHAXXXSQLZ1 OR R01XXSQLXX01), and 'VBECS Environment' (test, selected from a dropdown).
- VBECS Environment**: A section stating 'VBECS environment to be patched.'
- VBECS Patch Process**: A tree view showing the sequence of operations:
  - 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

At the bottom of the window are 'Close' and 'Start' buttons.




- 7) Click **Start**.
- 8) A prompt to verify that all correct VistA patches are installed appears (Figure 54).




**Figure 54: Example of Required VistA Patches Dialog**



- 9) After verifying that all required VistA patches are installed, check the box in Appendix E: VBECS Patch Installation Record Form for the Test Environment.
- 10) Click **Yes** to proceed on required VistA patches dialog. The VBECS Patch process starts. The patch will complete within 30 minutes.

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

- 11) Refer to Figure 55 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.

**Figure 55: Example of VBECS Patch Process Form**

The screenshot shows the 'VBECS Patch' application window. It has a title bar with a red star icon and the text 'VBECS Patch'. Below the title bar are two tabs: 'VBECS Patch' (selected) and 'DTS Update'. The main area is divided into sections. The 'Info' section contains a table with the following data:

VBECS Source Version	1.4.0.0
VBECS Target Version	1.5.0.4

The 'VBECS Patch' section contains a table with the following data:

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	VHAXXSQLZ1 OR R01XXSQLXX01
VBECS Environment	test

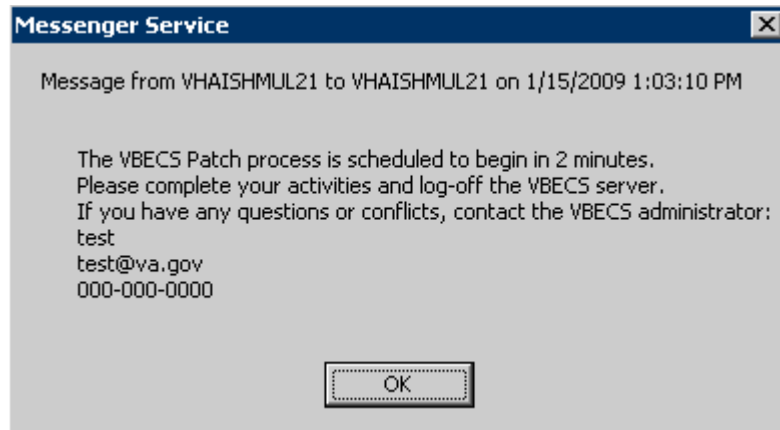
Below the tables is a section titled 'VBECS Environment' with the text 'VBECS environment to be patched.' and a progress bar with 10 blue segments. Below that is a tree view titled 'VBECS Patch Process' with the following structure:

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

At the bottom of the window is a progress bar with 10 green segments and two buttons: 'Close' and 'Start'.

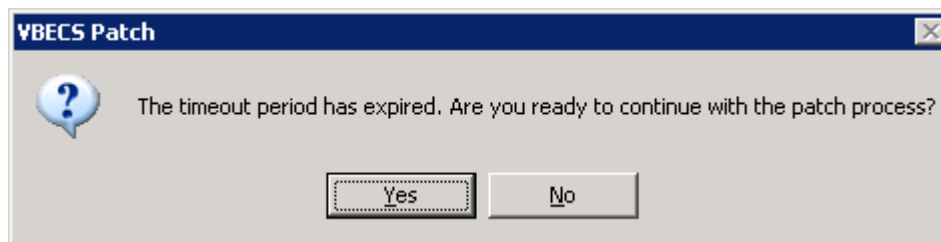
- 12) Active users (users connected to the system through remote desktop) will receive a message indicating the number of minutes they have to complete their work and log out (Message TimeOut argument entered in Step 6). The system will not make any system changes during this timeout period (Figure 56).

**Figure 56: Example of Messenger Service**



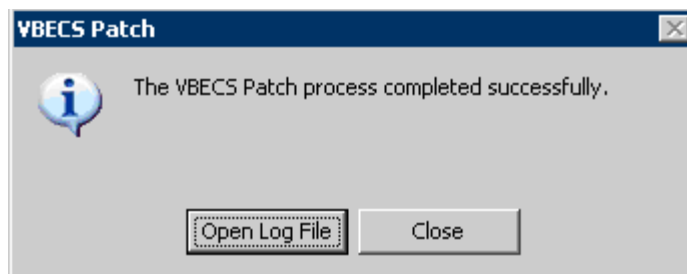
- 13) Click **OK**, after the timeout period had expired, a message signifying the final opportunity to abort the patch installation is displayed (Figure 57).

**Figure 57: Example of VBECS Patch: Continue Patch Message**




- 14) 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.
- 15) When the patch script finishes successfully a “**VBECS Patch process completed successfully**” message will be received (Figure 58).

**Figure 58: Example of VBECS Patch Process Complete Message**





*If a Patch Failure message is displayed, file a Remedy ticket immediately. Do not proceed or release VBECS for use until the ticket is resolved.*

- 16)  Capture a screen shot of VBECS Patch process completed successfully.
- 17) Insert the screen shot in Appendix E: VBECS Patch Installation Record Form for the Test Environment.
- 18) A log file will be created in the  
**L:\VBECS\_Archive\VBECSRecords\VBECS\_<mmddyy>\_1.4.0.0\_to\_1.5.0.4\test** directory,  
 with <cluster>.<nnn.med.va.gov>\_VBECS\_1.5.0.4\_test\_<hhmm>.log as the file name,  
 where:
  - <mmddyy> represents the current date.
  - <hhmm> represents the hour and minute the patch began execution.
  - <nnn> represents 'vha' or 'region name' (e.g., RO1).
 For example, vhaxxxcluz1.vha.med.va.gov\_VBECS\_1.5.0.4\_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.*

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

## 6 Patch Service Monitor

- 1) On the remote desktop connection to the cluster already open, use Windows Explorer to navigate to the **c:\temp\VBECS\_Patch\_1.5.0.0\_040510** folder. Double-click on the **VBECS Patch** shortcut.
- 2) A VBECS Patch form will open (Figure 59).

**Figure 59: Example of VBECS Patch Form**

**VBECS Patch**

**Info**

VBECS Source Version	1.4.0.0
VBECS Target Version	1.5.0.4

**VBECS Patch**

Cluster IP Address	[X.X.X.X]
Contact E-mail	[E-MAIL]
Contact Name	[NAME]
Contact Phone	[PHONE]
Message TimeOut	10
SQL Server Name	[SERVER_NAME]
VBECS Environment	[environment]

**VBECS Patch**

**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

3) Enter the following for the required fields:

- **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 (Figure 60).
- **Contact E-mail** – This is the email address of the contact person or group (Figure 60).
- **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 (Figure 60).
- **Contact Phone** – This is the telephone number of the contact person (Figure 60).
- **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** (Figure 60). 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 Server Configuration Checklist under SQL Server Information 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 (Figure 60).
- **VBECS Environment** – This is the VBECS environment. Select **servicemonitor** to patch VBECS Service Monitor (Figure 60).

**Figure 60: Example of VBECS Patch Form**

The screenshot shows the 'VBECS Patch' window with two tabs: 'VBECS Patch' and 'DTS Update'. The 'VBECS Patch' tab is active, displaying a form with the following fields:

Info	
VBECS Source Version	1.4.0.0
VBECS Target Version	1.5.0.4

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	VHAXXXSQLZ1 OR R01XXSQLXX01
VBECS Environment	servicemonitor

**VBECS Environment**  
VBECS environment to be patched.

**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

At the bottom of the window are 'Close' and 'Start' buttons.

- 4) Click **Start**.
- 5) A prompt to verify that all correct Vista patches are installed appears (Figure 54).
- 6) Click **Yes** to proceed. The patch will complete within 30 minutes.




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

- 7) When the patch script finishes successfully a “**VBECS Patch process completed successfully**” message will be received (Figure 58).



*If a Patch Failure message is displayed, file a Remedy ticket immediately. Do not proceed or release VBECS for use until the ticket is resolved.*

- 8)  **Capture** a screen shot of VBECS Patch process completed successfully.
- 9) Insert the screen shot in Appendix E: VBECS Patch Installation Record Form for the Test Environment.
- 10) A log file will be created in the  
**L:\VBECS\_Archive\VBECSRecords\**  
**VBECS\_<mmddyy>\_1.4.0.0\_to\_1.5.0.4\servicemonitor** directory with  
**<cluster>.<nnn.med.va.gov>\_VBECS\_1.5.0.4\_servicemonitor\_<hhmm>.log** as the file name, where:
  - <mmddyy> represents the current date.
  - <hhmm> represents the hour and minute the patch began execution.
  - <nnn> represents ‘vha’ or ‘region name’ (e.g., RO1).
 For example, vhaxxxcluz1.vha.med.va.gov\_VBECS\_1.5.0.4\_servicemonitor\_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.*

- 11) Record the name of the log file in Appendix E: VBECS Patch Installation Record Form for the Test Environment.
- 12) Click **Close** to close the VBECS Patch success message.
- 13) Click **Close** on the VBECS Patch main window to exit the patch application.

## 7 Perform DTS Update

- 1) On the remote desktop connection to the cluster already opened, use Windows Explorer to navigate to the **c:\temp\VBECS\_Patch\_1.5.0.0\_040510** folder.
- 2) Double-click on the **VBECS Patch** shortcut.
- 3) A VBECS Patch form will open.

- 4) Click on the **DTS Update** tab (Figure 61).

**Figure 61: Example of DTS Update Form**

The screenshot shows a window titled "VBECS Patch" with two tabs: "VBECS Patch" and "DTS Update". The "DTS Update" tab is active. Inside the tab, there is a section titled "VBECS Patch" with a sub-section "Cluster IP Address" containing a text box with the value "000.000.000.000". Below this, there is a section titled "Cluster IP Address" with a description: "IP address of the VBECS cluster to update. Verify this value with a system administrator." At the bottom of the window, there are two buttons: "Close" and "Start".

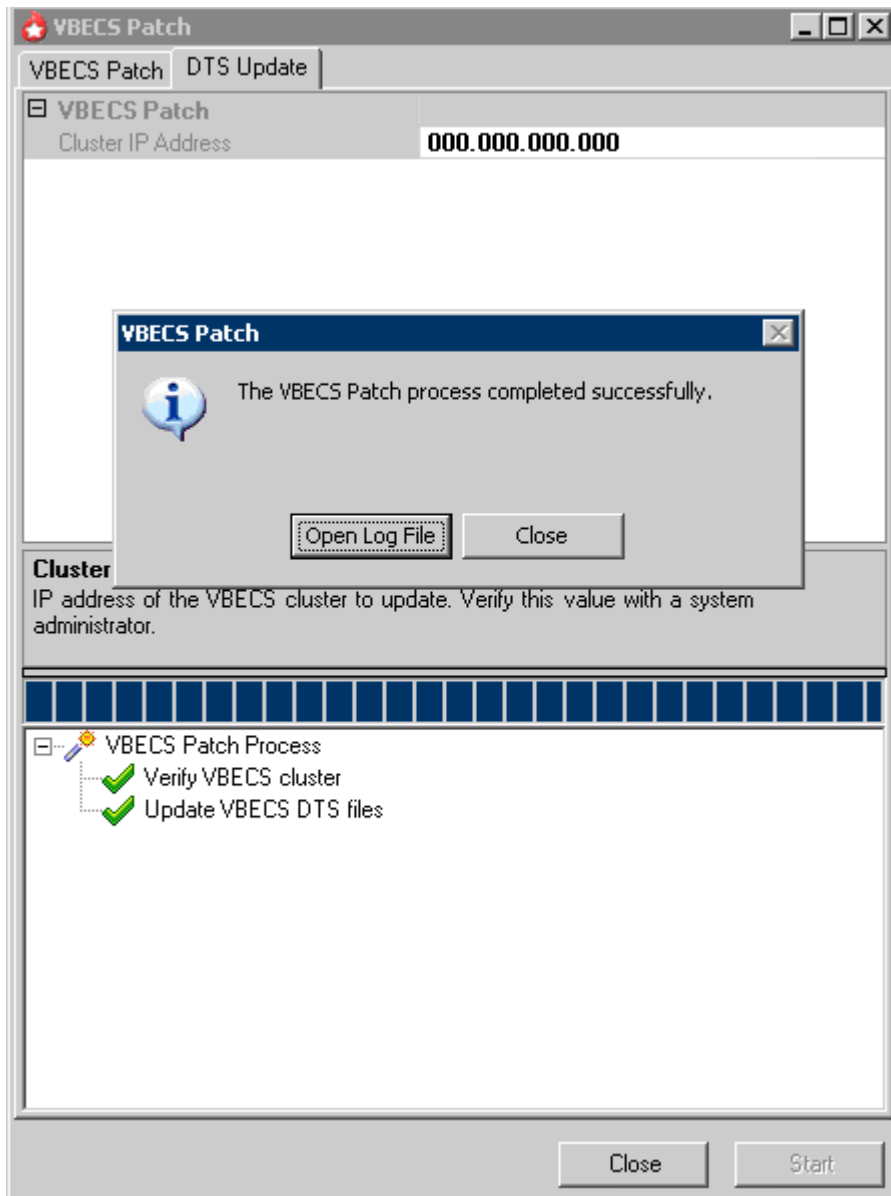
- 5) Enter the **Cluster IP Address** – This is the IP address of the VBECS cluster [initially noted for installation on the Server Configuration Checklist in the *VistA Blood Establishment Computer Software (VBECS) Installation Guide*]. Verify this information with a system administrator. It will be used to identify the clustered servers on which the patch will be installed.
- 6) Click **Start**. The patch will complete within 30 minutes.




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

- 7) When the patch script finishes successfully a “**VBECs Patch process completed successfully**” message will be received (Figure 62).

**Figure 62: Example of DTS Update**



*If a Patch Failure message is displayed, file a Remedy ticket immediately. Do not proceed or release VBECs for use until the ticket is resolved.*

- 8)  Capture a screen shot of the VBECs Patch process completed successfully.
- 9) Insert the screen shot in Appendix E: VBECs Patch Installation Record Form for the Test Environment.



10) A log file will be created in the

**L:\VBECS\_Archive\VBECSRecords\dts\<cluster>.<nnn.med.va.gov>\_VBECS\_DTS\_<hhmm>.log** directory.

- <hhmm> represents the hour and minute the patch began execution.
- <nnn> represents 'vha' or 'region name' (e.g., RO1).

For example, vhaxxxcluz1.vha.med.va.gov\_VBECS\_DTS\_1359.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.*

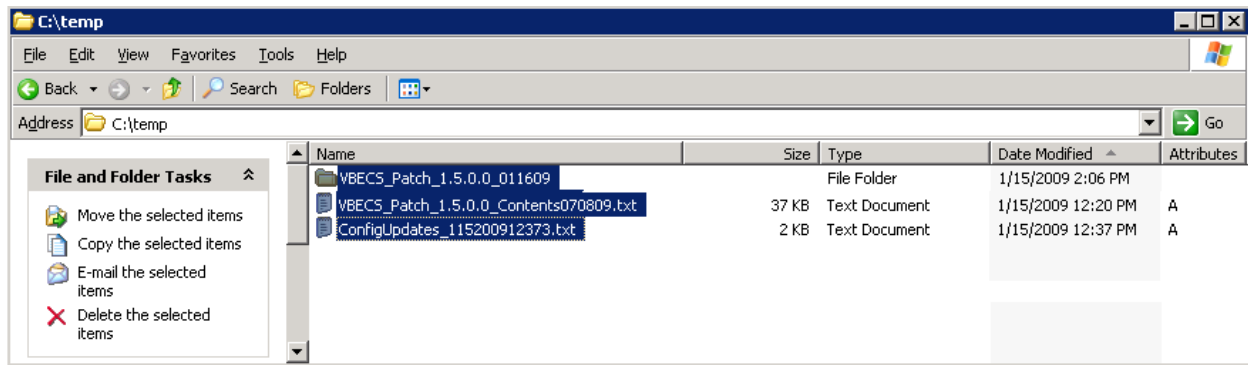
- 11) Record the name of the log file in Appendix E: VBECS Patch Installation Record Form for the Test Environment.
- 12) Click **Close** to close the VBECS Patch success message.
- 13) Click **Close** on the VBECS Patch main window to exit the patch application.

## 8 Delete Patch Files

To delete the VBECS 1.5.0.0 Patch files:

- 1) If necessary, open a remote desktop connection to the cluster, and use Windows Explorer to navigate to the **c:\temp** folder.
- 2) Select the following **3** objects (Figure 63):
  - **VBECS\_Patch\_1.5.0.0\_040510** folder
  - **VBECS\_Patch\_1.5.0.0\_Contentsmmddyy.txt** file
  - **ConfigUpdates\_<date time>.txt** file (this is the log file created by running the Update\_VBECS\_Services.exe file).

**Figure 63: Example of Patch Files for Deletion**



- 3) While holding down the **Shift** key, press the **Delete** key. Click **Yes** to confirm file 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.

## 9 Inactivating “Do Not Use” Division

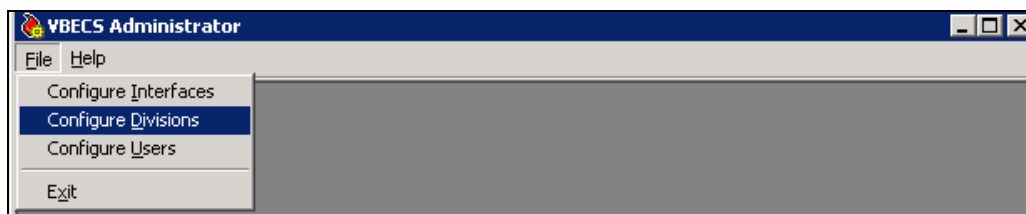
This section does not apply to single division installations of VBECS. Single division sites proceed to Step 6.

This section is performed at a multi-division site that has used VBECS 1.4.0.0 with a workaround for Remedy ticket HD 268596 that allowed printed reports to print on-site. Removing the “Do Not Use” division workaround will allow testing of the correction in VBECS 1.5.0.0.

This section must be performed by a VBECS Administrator.

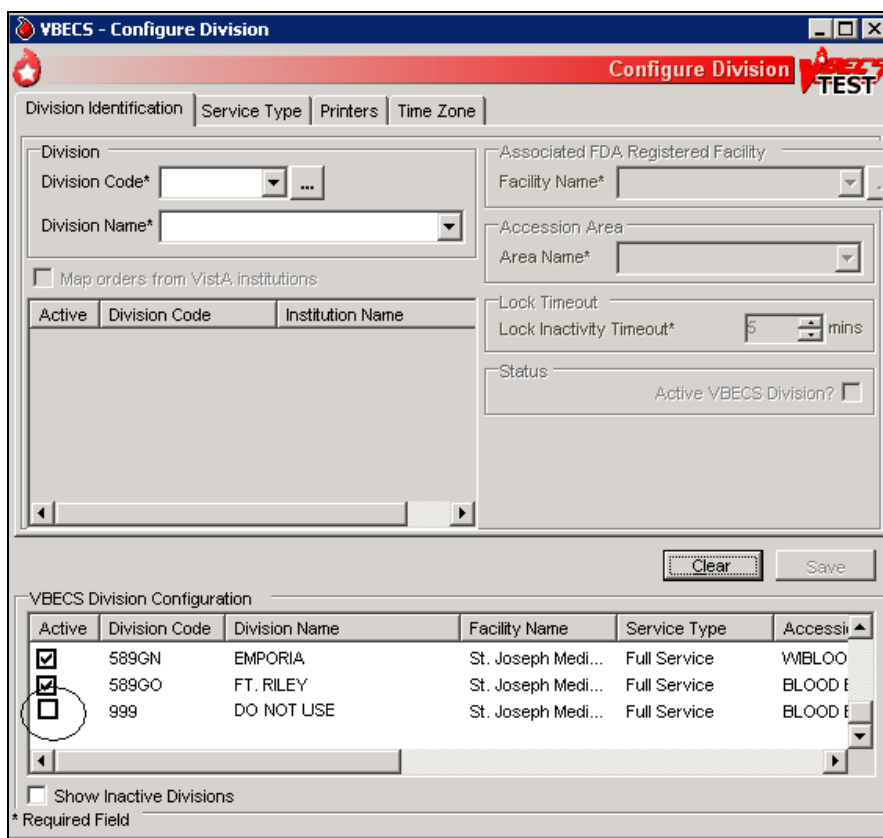
- 1) Log into **VBECS Administrator**.
- 2) Click **File, Configure Divisions** (Figure 64).

**Figure 64: VBECS Administrator**



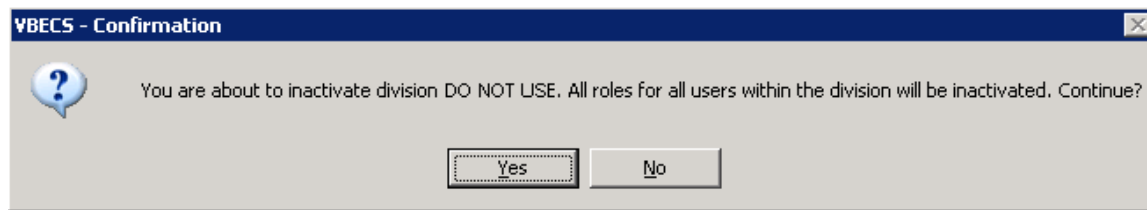
- 3) In the VBECS Division Configuration section, uncheck the Active checkbox for the **999** division (Figure 65).

**Figure 65: VBECS -Configure Division**



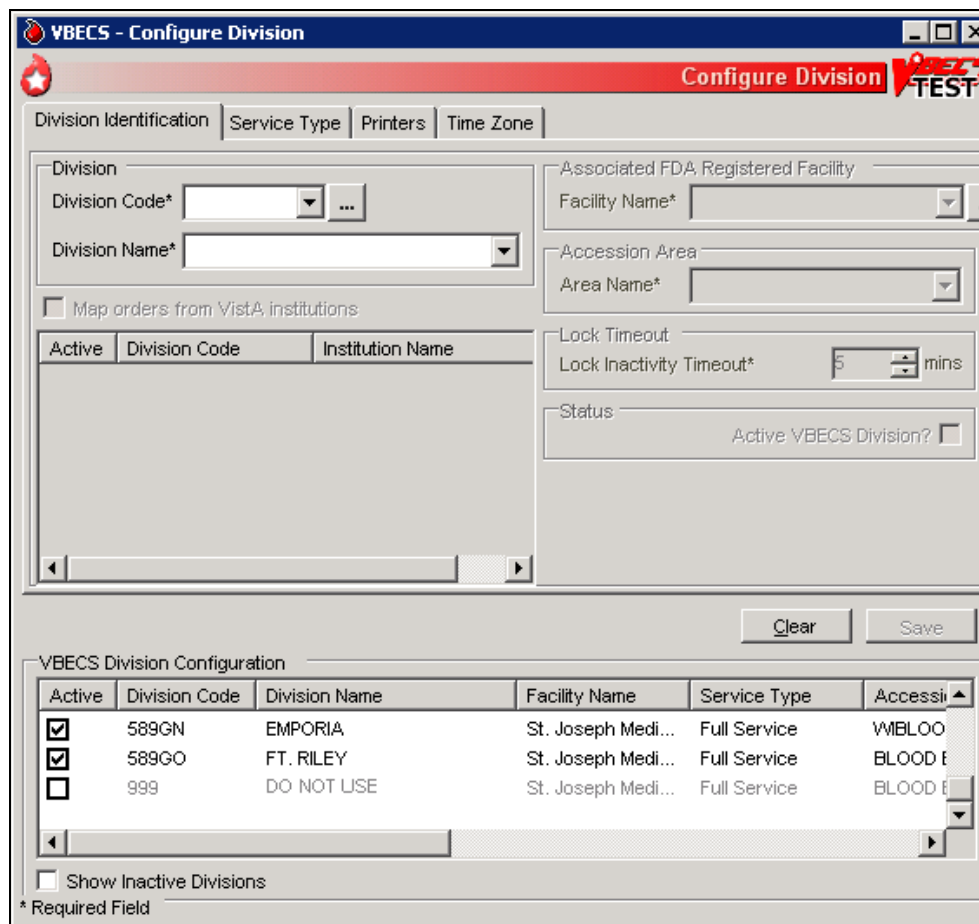
- 4) Click **Yes** to continue when the VBECS – Confirmation message appears (Figure 66).

**Figure 66: VBECS - Confirmation**



- 5) The “Do Not Use” Division is now inactivated. Users of the VBECS system will no longer be presented that division as an option to log into when launching VBECS (Figure 67).

**Figure 67: Inactivated “Do Not Use” Division**



- 6) Close all open applications.
- 7) Close remote desktop.
- 8) 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.

*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.*

This page intentionally left blank.

# 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.*

Use the MS 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 1.5.0.0 Patch File**

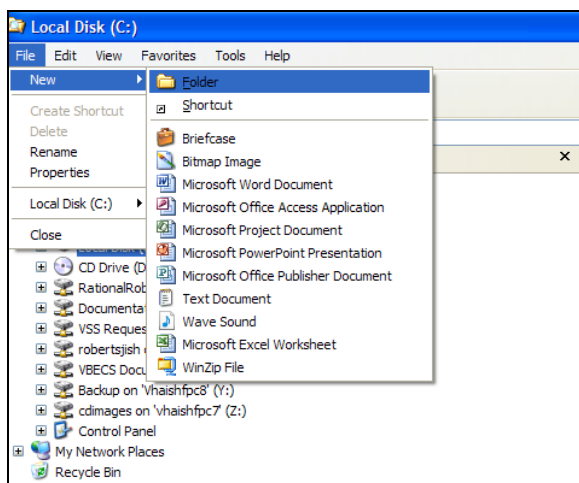
Prerequisites for VBECS FTP Download:

- 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 1.5.0.0 patch file from the VBECS FTP Site:

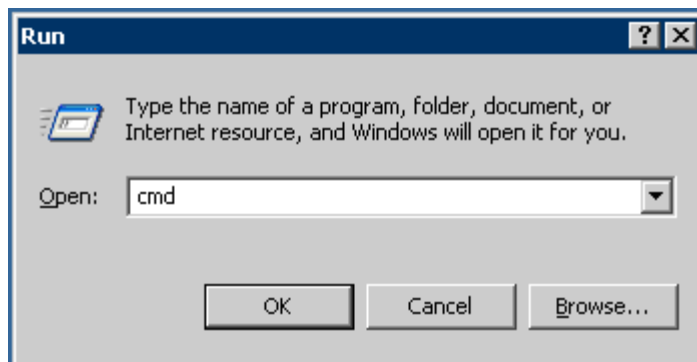
- 1) Open a remote desktop connection to the cluster being patched.
- 2) Using Windows Explorer, click the **C** drive. If a folder named “temp” does not exist, click **File, New, Folder**. Name this folder “temp” (Figure 68).

**Figure 68: Example of Create the Temp Folder**

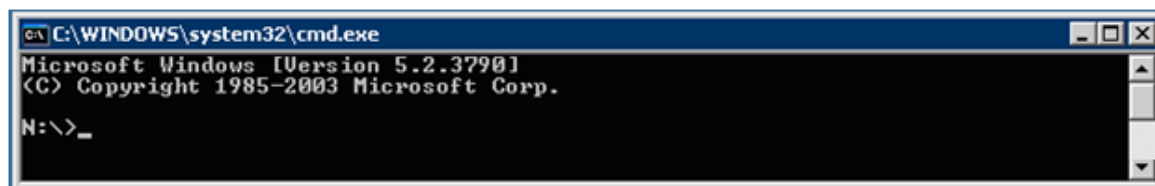


- 3) Complete Sub-steps a, b and c to save a copy of Appendix F: VBECS Patch Installation Record Form for the Production Environment to the local workstation. Any reference to Appendix F after the document is initially saved will be referring to the saved copy.
  - a) Open VistA Blood Establishment Computer Software (VBECS) 1.5.0.0 Patch Installation Guide.
  - b) Using the .doc format of the 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> 1.5.0.0 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> 1.5.0.0 Prod <mmddyy>**” (for example, VBECS Patch Installation Record VHAISHCLUZ1 1.5.0.0 Prod 070809); <mmddyy> represents the current date.
- 4) Click **Start, Run**. Enter **cmd** and click **OK** (Figure 69). A command prompt (Figure 70) appears.

**Figure 69: Example of Run Window**

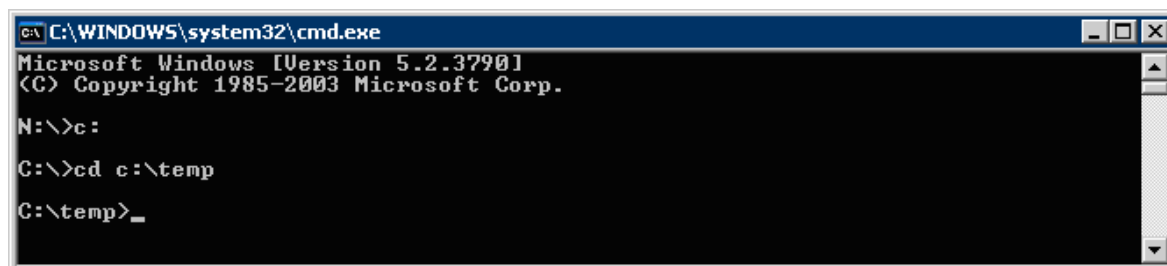


**Figure 70: Example of Command Prompt**



- 5) In the command prompt window, enter **c:** and press **Enter**.
- 6) Type **cd c:\temp** and press **Enter** (Figure 71).

**Figure 71: Example of Temp Folder for Patch Download**



- 7) Type **ftp** and press **Enter** (See Figure 72 for Steps 8, 9 and 10).
- 8) Type **open 10.3.21.76 20001** and press **Enter**.
- 9) At the **User (10.3.21.76:(none))** prompt, enter your domain and Windows login id (e.g., VHAMASTER\YOURNAME).
- 10) At the **Password** prompt, enter your password. (**Note:** For security purposes, the cursor will not advance or display characters as you type your password.)



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

**Figure 72: Example of FTP**

```

C:\temp>ftp
ftp>open 10.3.21.76 20001
Connected to 10.3.21.76.
220-Microsoft FTP Service
220 VBECS FTP Site
User (10.3.21.76:(none)): your_domain\your_user_name
331 Password required for your_domain\your_user_name
Password:
230-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
230 User your_domain\your_user_name logged in.
ftp>

```


- 11) At the **ftp>** prompt, type **bin** and press **Enter**. The following message will appear “200 Type set to I” (See Figure 73 for Steps 11 and 12).
- 12) Type **get VBECS\_Patch\_1.5.0.0\_040510.zip** and press **Enter** (it may take several minutes for the download to complete, after which a “Transfer complete” message appears).

**Figure 73: Example of FTP File Transfer**

```

230-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
230 User vhamaster\XXXXXXXXXXXX logged in.
ftp>bin
200 Type set to I.
ftp>get VBECS_Patch_1.5.0.0_040510.zip
200 PORT command successful.
150 Opening BINARY mode data connection for VBECS_Patch_1.5.0.0_040510.zip(78585882 bytes).
226 Transfer complete.
ftp: 78585882 bytes received in 9.73Seconds 8072.51Kbytes/sec.
ftp>

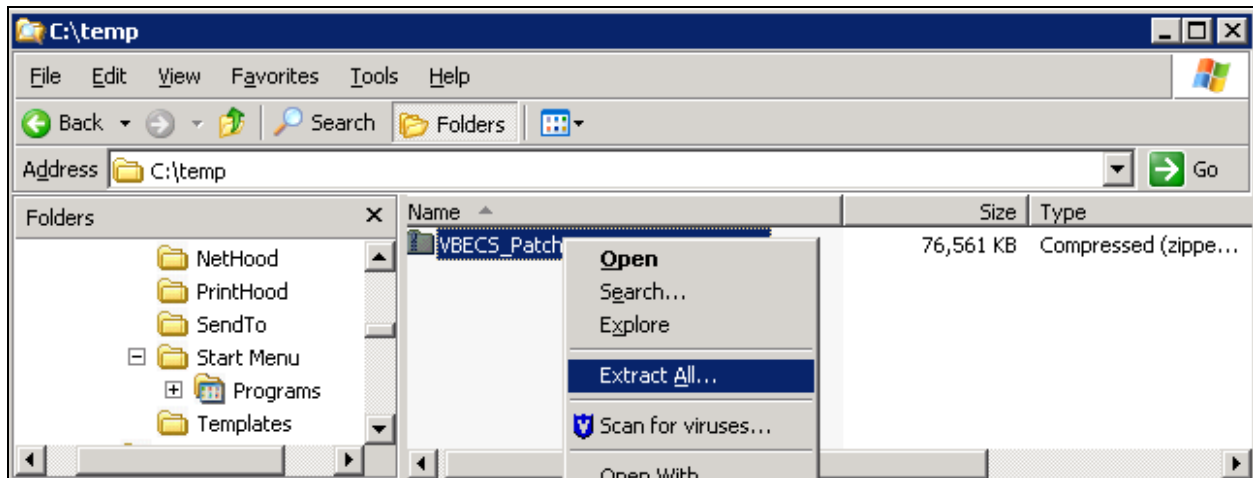
```

- 13)  Capture a screen shot of the transfer completed command prompt.
- 14) Insert the screen shot in Appendix F: VBECS Patch Installation Record Form for the Production Environment.
- 15) Stop the FTP session: At the **ftp>** prompt, type **quit** and press **Enter**.
- 16) Close the command prompt window.

## 2 Verify the Contents of the VBECS 1.5.0.0 Patch File

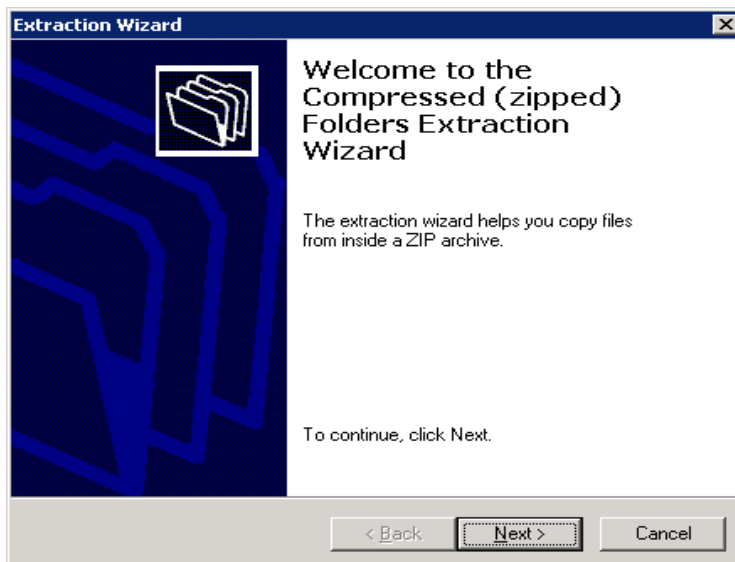
- 1) On the remote desktop connection to the cluster already open, use Windows Explorer to navigate to the **c:\temp** folder.
- 2) Right-click on the **VBECS\_Patch\_1.5.0.0\_040510.zip** file and select **Extract All** (Figure 74).

**Figure 74: Example of Extracting Patch Contents**



- 3) Click **Next** (Figure 75).

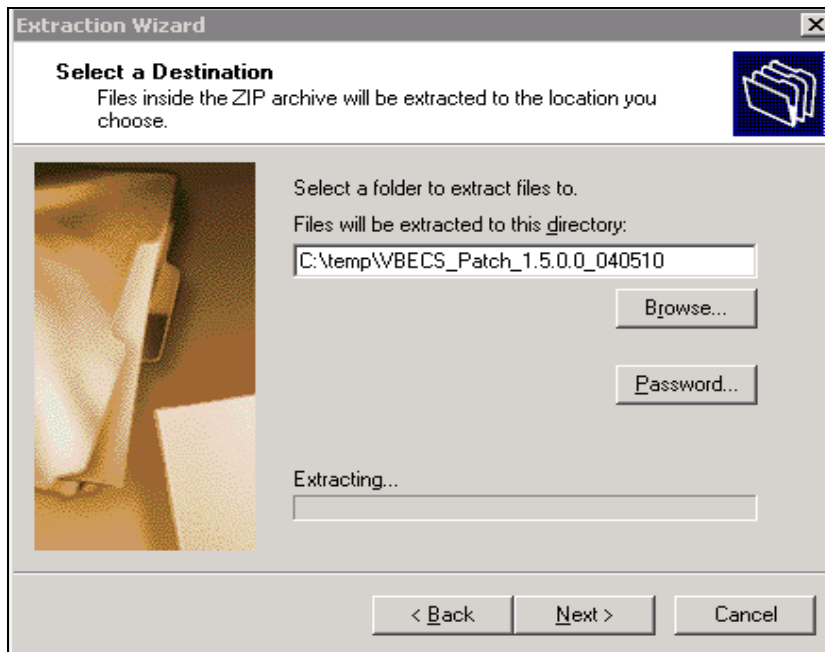
**Figure 75: Example of Extraction Wizard**





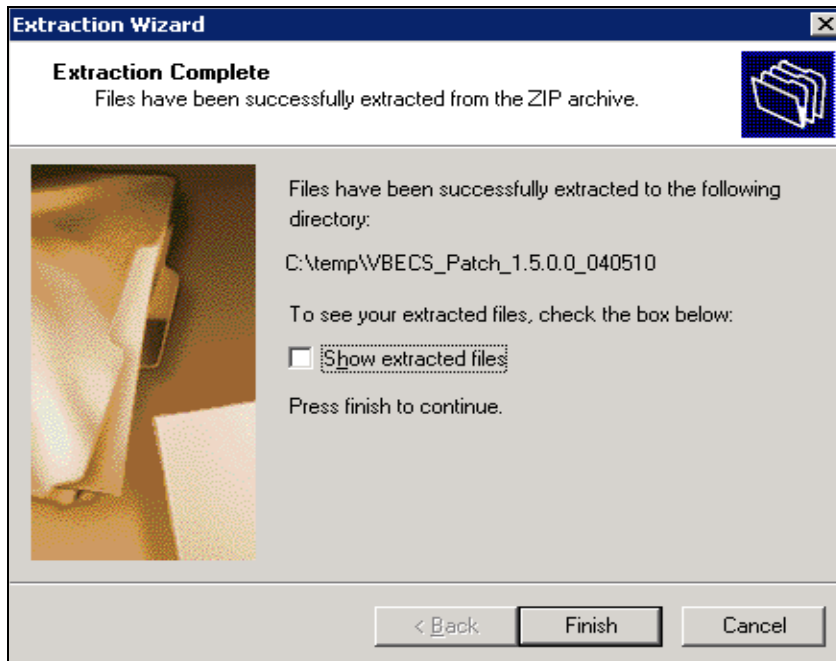
- 4) Click **Next** (Figure 76).

**Figure 76: Example of Extraction Directory**



- 5) Uncheck **Show extracted files** and click **Finish** (Figure 77).

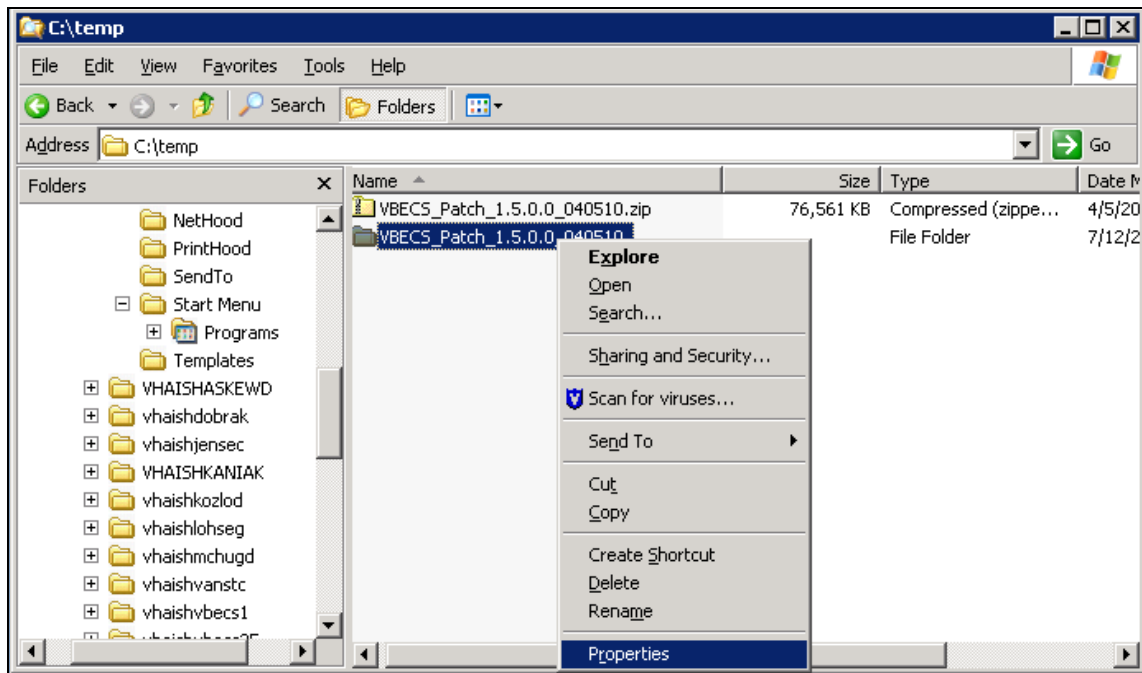
**Figure 77: Example of Extraction Wizard**



- 6) Verify that the extraction completes and a **c:\temp\VBECS\_Patch\_1.5.0.0\_040510** folder is created.

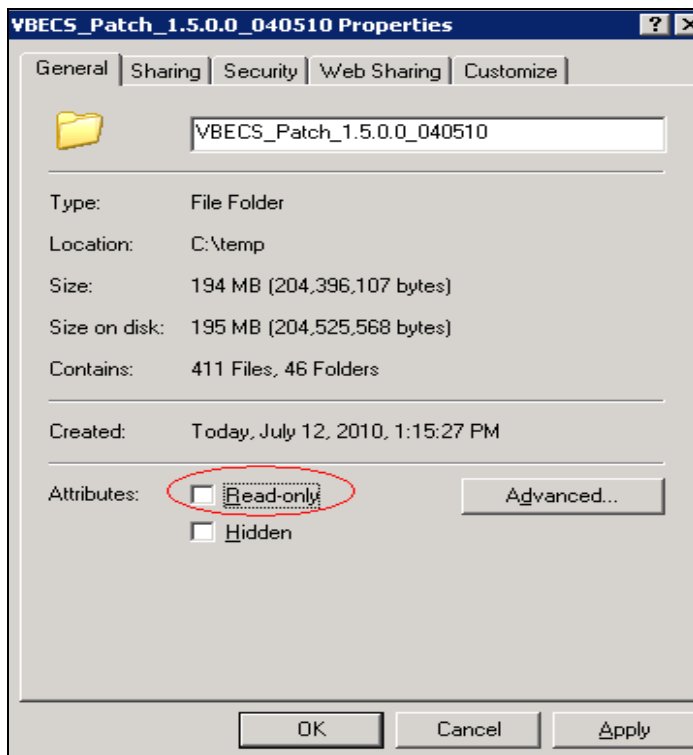
- 7) Right-click on the **VBECS\_Patch\_1.5.0.0\_040510** folder and select **Properties** (Figure 78).

**Figure 78: Example of Folder Properties**



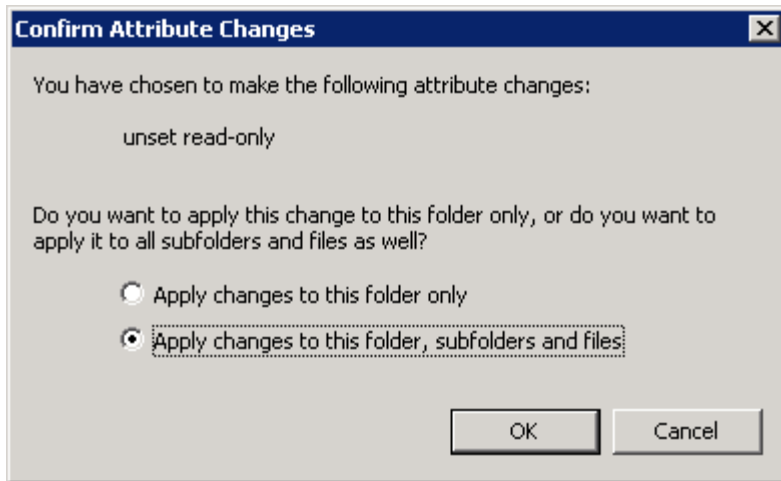
- 8) In the Attributes section, uncheck the **Read-only** check box (Figure 79).

**Figure 79: Example of VBECS Patch Folder Properties**



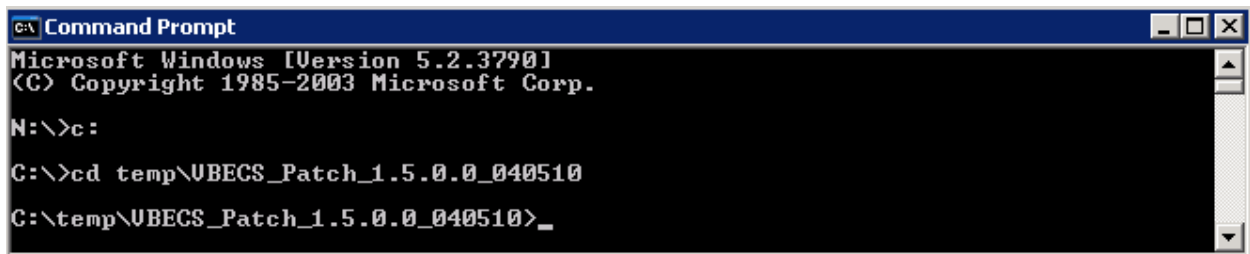
- 9) Click **OK**. In the Confirm Attribute Changes dialog, verify that **Apply Changes to this folder, subfolders and files** is selected (Figure 80).

**Figure 80: Example of Confirm Attribute Changes**



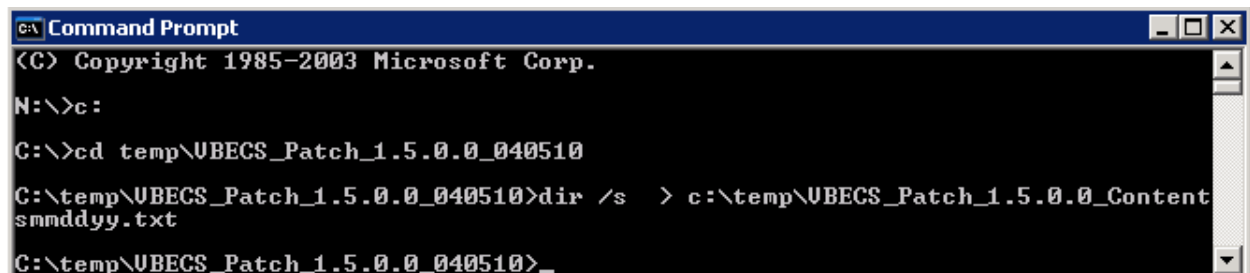
- 10) Click **OK**.
- 11) Click **Start, Run**. Enter **cmd** and click **OK** (Figure 69). A command prompt (Figure 70) appears.
- 12) Enter **c:** and press **Enter**.
- 13) Enter **cd c:\temp\VBECS\_Patch\_1.5.0.0\_040510** and press **Enter** (Figure 81).

**Figure 81: Example of Patch Folder**



- 14) Enter **dir /s > c:\temp\VBECS\_Patch\_1.5.0.0\_Contentsmmdyy.txt** and press **Enter** (Figure 82).

**Figure 82: Example of Creating VBECS Patch Contents File**



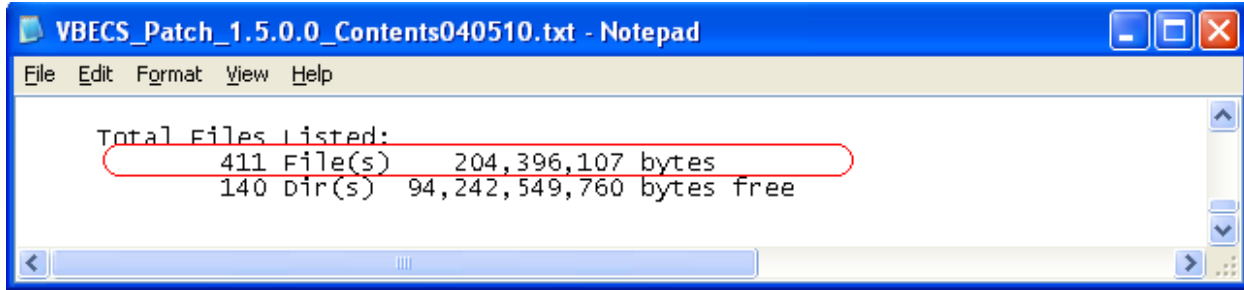
- 15) Close the command prompt.
- 16) Using Windows Explorer, navigate to the **c:\temp** folder.

- 17) Double-click **VBECS\_Patch\_1.5.0.0\_Contentsmmdyy.txt**.
- 18) Scroll down to the bottom of the file contents. Locate **Total Files Listed** and verify that the **number of files** and **number of bytes** equals (**411 Files 204,396,107 bytes**) (see Figure 83 for what needs to be compared). The complete listing of the individual files is available in Appendix H: Contents of VBECS 1.5.0.0 Patch File.



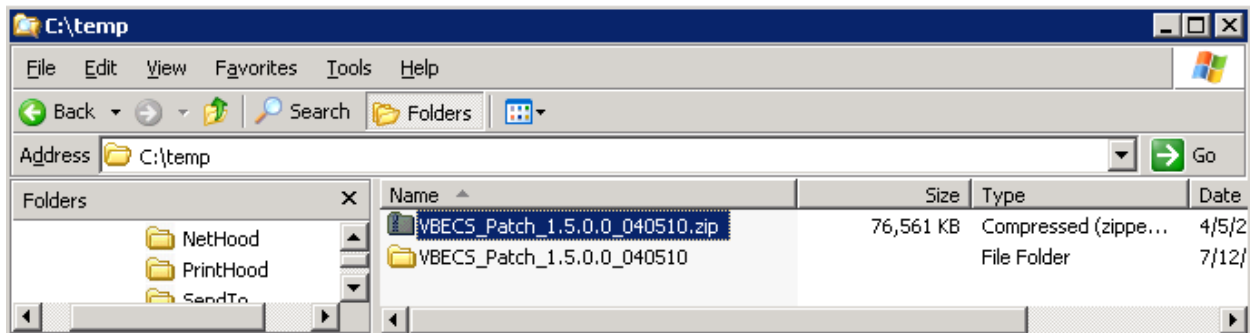
*If the number of files and number of bytes do not match, stop and file a Remedy ticket. Do not proceed until the ticket is resolved.*

**Figure 83: Patch Verification Fields**



- 19) Check the box in Appendix F: VBECS Patch Installation Record Form for the Production Environment.
- 20) Print the file for the validation records and check the box in Appendix F: VBECS Patch Installation Record Form for the Production Environment. Record this page and step number on the printed copy and initial and date.
- 21) Use Windows Explorer to navigate to the **c:\temp** folder.
- 22) Select **VBECS\_Patch\_1.5.0.0\_040510.zip** file (Figure 84).

**Figure 84: Example of Delete Zip File**



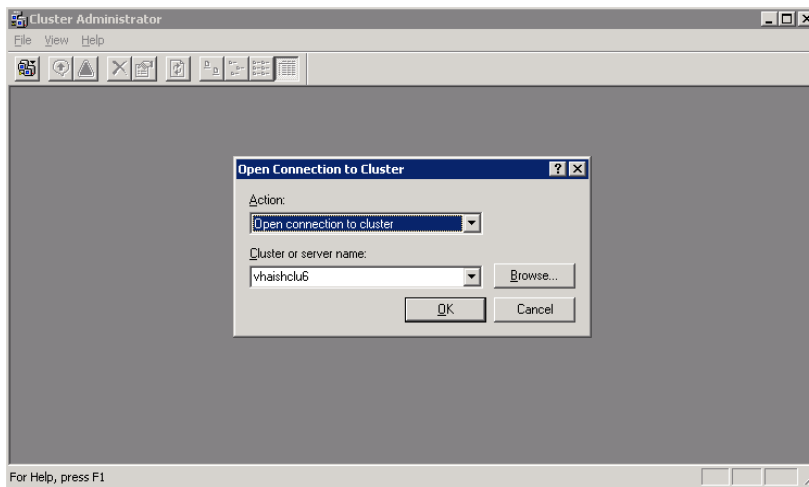
- 23) While holding the **Shift** key, press the **Delete** key. Click **Yes** to confirm file deletion.

### 3 Prerequisites for Installation

- 1) VBECS 1.4.0.0 was installed.
- 2) VBECS 1.5.0.0 - Build 1.5.0.4 was installed in the Test Environment.
- 3) VBECS Service Monitor was patched to 1.5.0.4.
- 4) Verify that VBEC\*1.0\*3 Vista Patch is installed.
- 5) Verify Vista Production account is up to date with all released patches.

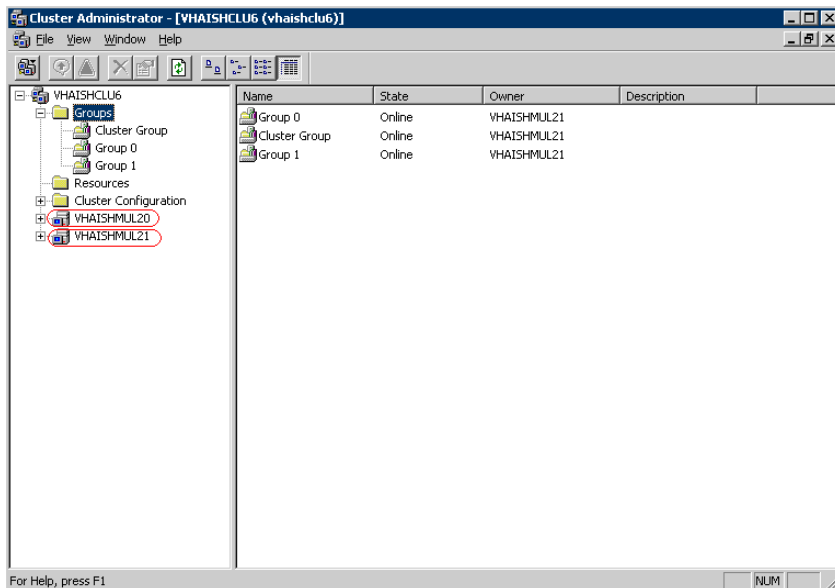
- 6) Refer to the latest approved version of the VistA Blood Establishment Computer Software (VBECS) Installation Guide, Appendices titled Server Configuration and Password List for details on Server Names, IP addresses, passwords, etc.
- 7) Using the remote desktop connection to the cluster already open, execute the steps in Appendix D: Setup Detailed Folders View to show file extensions on the installation workstation.
- 8) Determine the Active and Passive Cluster Nodes:
  - a) On the remote desktop connection to the cluster already open, click **Start, Administrative Tools, Cluster Administrator**.
  - b) If **Open Connection to Cluster** window does not appear, click **File, Open Connection**.
  - c) Type <CLUSTER\_NAME> in the **Cluster or server name** field and click **OK** (see example in Figure 85).

**Figure 85: Example of Open Connection to Cluster**



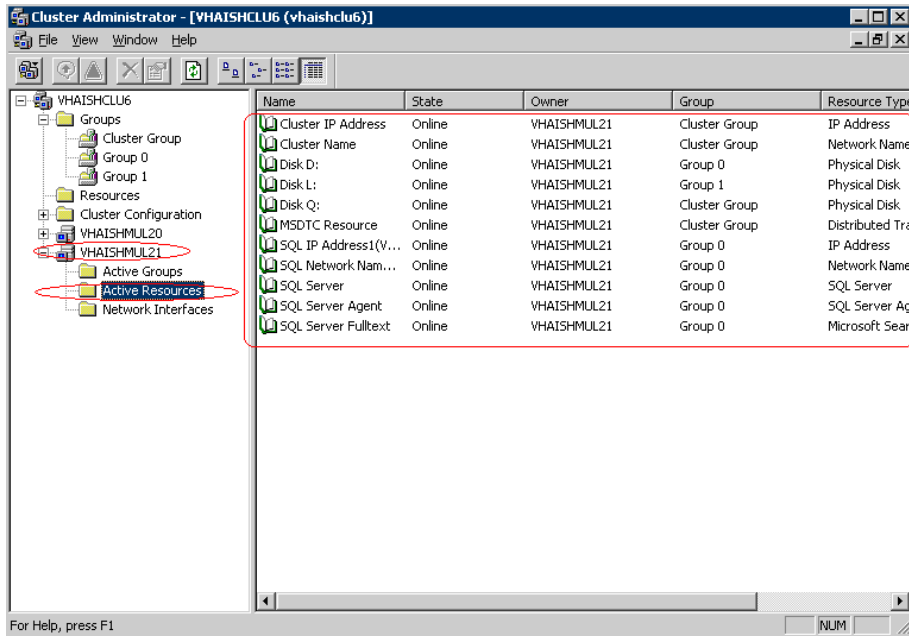
- d) The two bottom nodes listed in the Cluster Administration window opened are the cluster nodes (see example in Figure 86).

**Figure 86: Example of Cluster Administrator**



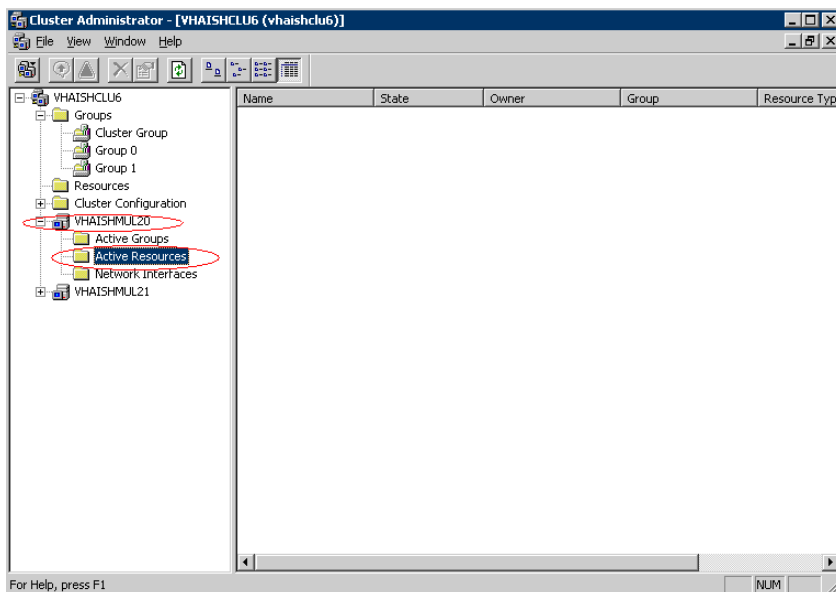
- e) Expand the cluster node folders and double-click on the Active Resources folder inside each Cluster node folder.
- f) The Active cluster node will have active resources. See Figure 87 for an example of the active cluster node.

**Figure 87: Example of the Active Cluster Node**



- g) Record the <Active cluster node> as Server #1 in Appendix F: VBECS Patch Installation Record Form for the Production Environment (e.g., VHAISHMUL21).
- h) The Passive cluster node will not have active resources. See Figure 88 for an example of the passive cluster node.

**Figure 88: Example of the Passive Cluster Node**



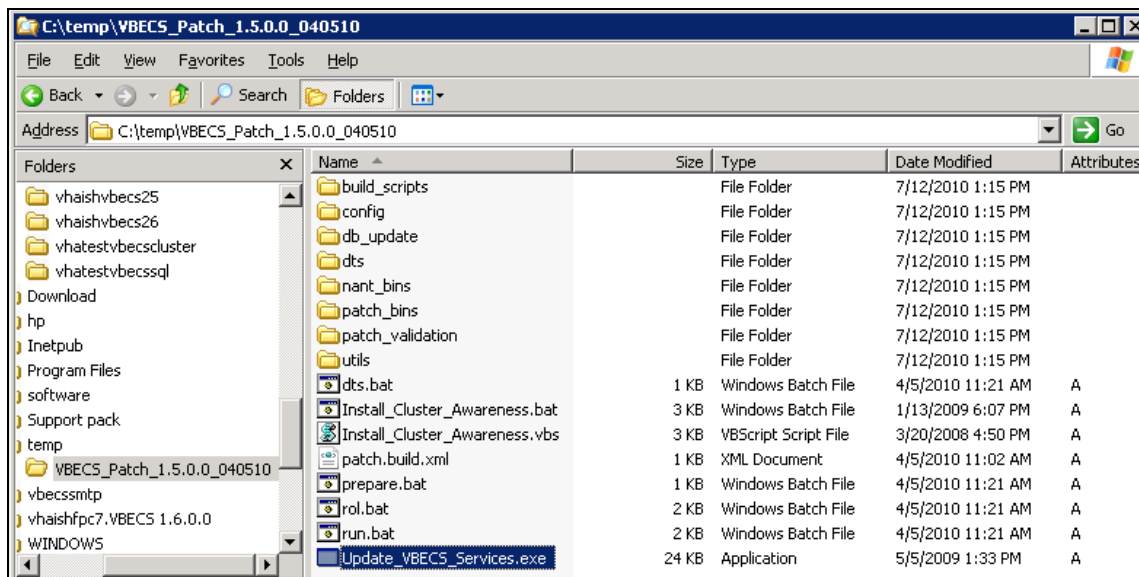
- i) Record the *<Passive cluster node>* as Server #2 in Appendix F: VBECS Patch Installation Record Form for the Production Environment (e.g., VHAISHMUL20).



*If both cluster nodes contain Active resources, stop and file a Remedy ticket. Do not proceed or release VBECS for use until the ticket is resolved.*

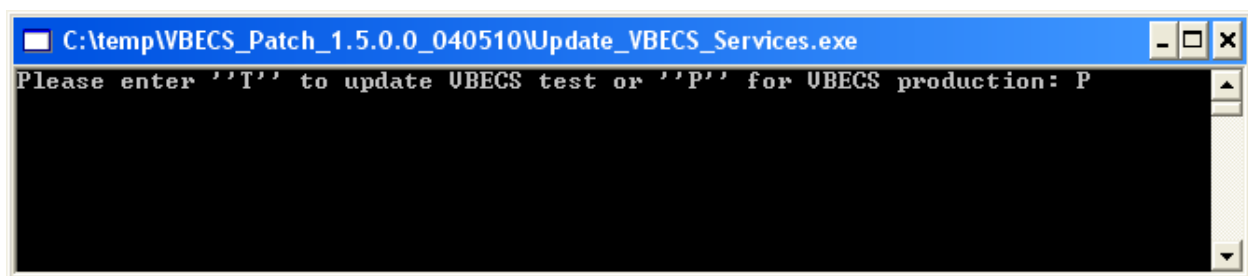
- 9) Verify that there are no active console (KVM) sessions on Server #1 and Server #2.
- 10) Update the VBECS Prod Services:
  - a) Using the existing remote desktop connection to the cluster, use Windows Explorer and navigate to the **c:\temp\VBECS\_Patch\_1.5.0.0\_040510** folder.
  - b) Double-click **Update\_VBECS\_Services.exe** (Figure 89).

**Figure 89: Example of Update VBECS Services**



- c) At the command prompt, enter **"P"** for the Production environment and press **Enter** (Figure 90).

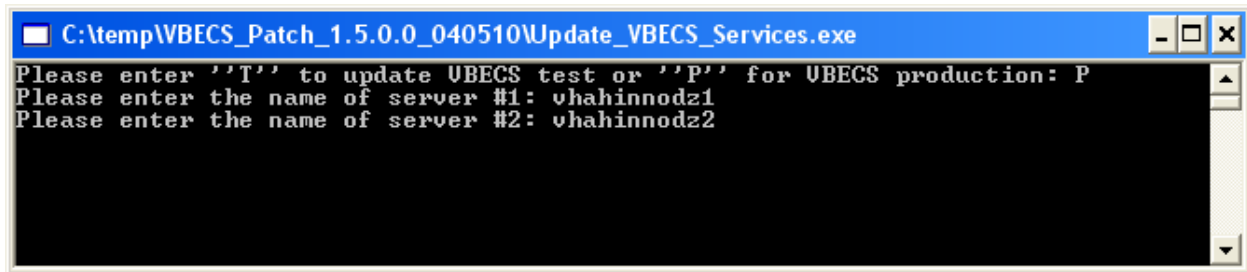
**Figure 90: Example of Update of VBECS Services Prompt**



- d) For the Server #1 prompt, enter *<Active Cluster Node>* recorded in Appendix F and press **Enter**.

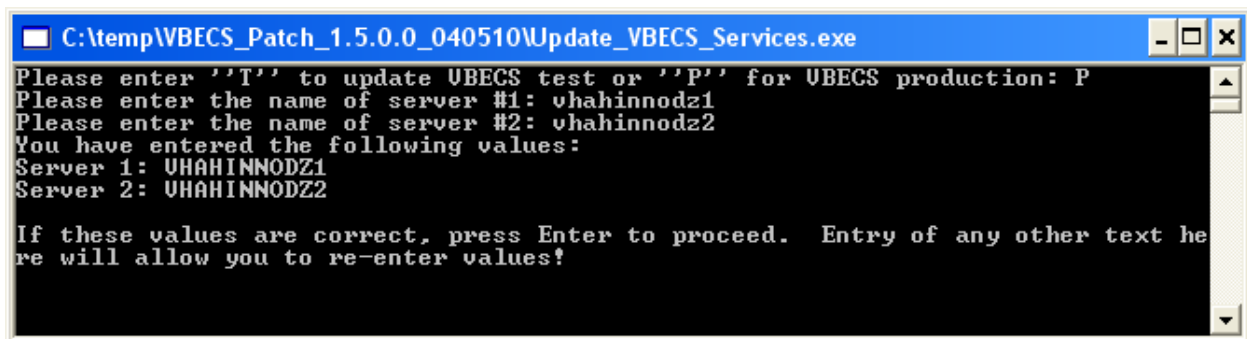
- e) For the Server #2 prompt, enter <Passive Cluster Node> recorded in Appendix F and press **Enter** (Figure 91).

**Figure 91: Example of Enter Cluster Nodes**



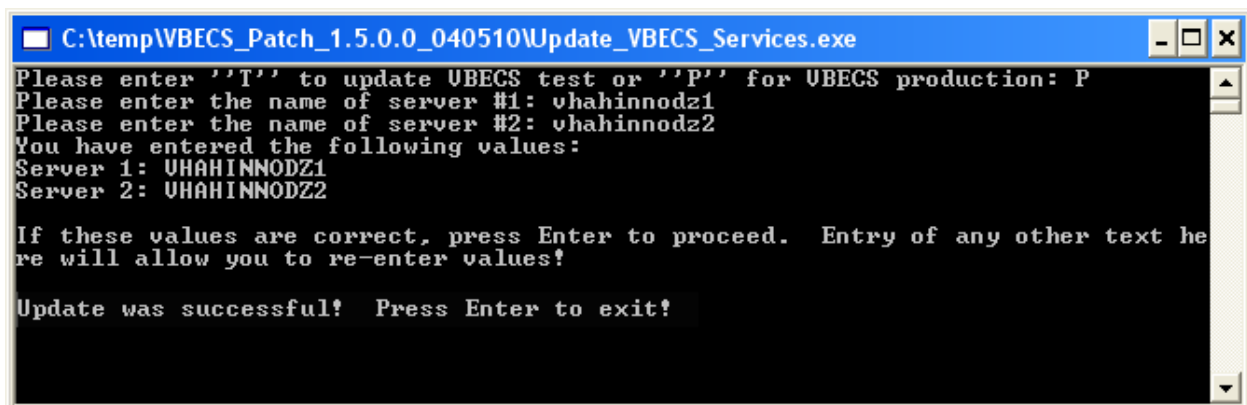
- f) At this time, you will be asked to verify the servers you have entered. If they are entered correctly, press **Enter** again. If not, type **X** and press **Enter** to abort the update. If you do the latter, you will be prompted to re-enter the information (Figure 92).


**Figure 92: Example of Verify Cluster Nodes**



- g) Upon completion, the system will notify you that the update was successful (Figure 93).

**Figure 93: Example of VBECS Services Successfully Updated**



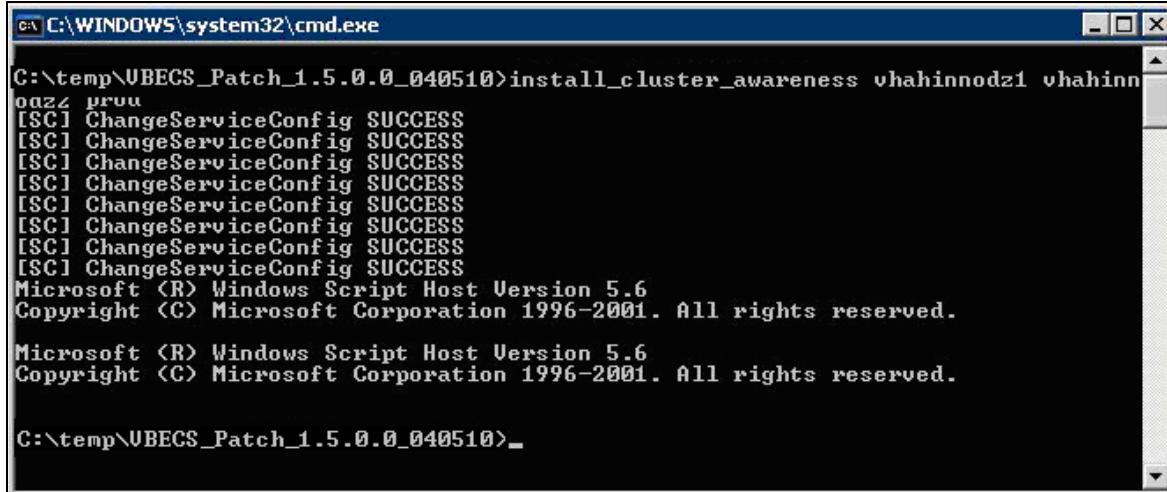
- h)  Capture a screen shot showing that the update was successful.
- i) Insert the screen shot in Appendix F: VBECS Patch Installation Record Form for the Production Environment.
- j) Press **Enter** to exit.




11) Configure Cluster Awareness:


- a) On the remote desktop connection to the cluster already open, click **Start, Run**. Enter **cmd** and click **OK**.
- b) Enter **c:** and press **Enter**.
- c) Enter **cd c:\temp\ VBECS\_Patch\_1.5.0.0\_040510** and press **Enter**.
- d) Enter **install\_cluster\_awareness <Active Cluster Node> <Passive Cluster Node> prod** and press **Enter** (Figure 94). <Active cluster node> <Passive cluster node> were recorded in Appendix F.

**Figure 94: Example of Install\_Cluster\_Awareness Execution**



```
C:\WINDOWS\system32\cmd.exe
C:\temp\VBECS_Patch_1.5.0.0_040510>install_cluster_awareness vhahinnodzl vhahinnodzl prod
[SC] ChangeServiceConfig SUCCESS
[SC] ChangeServiceConfig SUCCESS
[SC] ChangeServiceConfig SUCCESS
[SC] ChangeServiceConfig SUCCESS
[SC] ChangeServiceConfig SUCCESS
[SC] ChangeServiceConfig SUCCESS
[SC] ChangeServiceConfig SUCCESS
[SC] ChangeServiceConfig SUCCESS
Microsoft (R) Windows Script Host Version 5.6
Copyright (C) Microsoft Corporation 1996-2001. All rights reserved.
Microsoft (R) Windows Script Host Version 5.6
Copyright (C) Microsoft Corporation 1996-2001. All rights reserved.
C:\temp\VBECS_Patch_1.5.0.0_040510>_
```

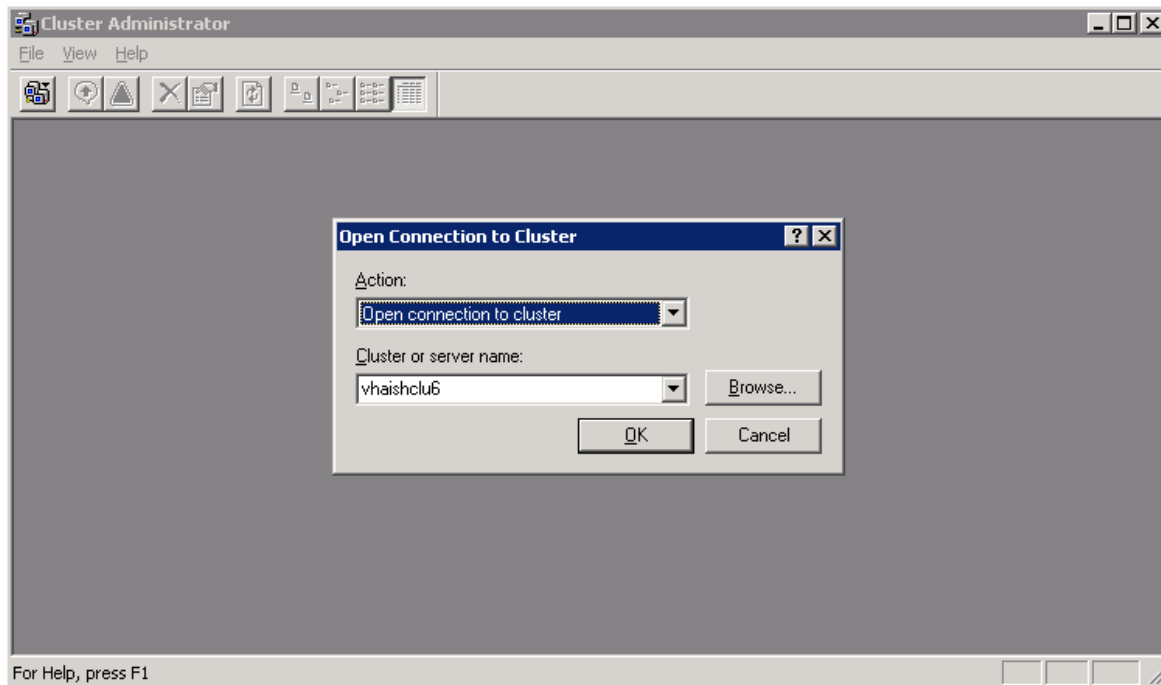
- e)  Capture a screen shot showing that the install of Cluster Awareness executed successfully.
- f) Insert the screen shot in Appendix F: VBECS Patch Installation Record Form for the Production Environment.
- g) Verify that there are 8 [SC] **ChangeServiceConfig SUCCESS** messages, and check the box in Appendix F: VBECS Patch Installation Record Form for the Production Environment to confirm.

 *If any of the [SC] ChangeServiceConfig fails, stop and file a Remedy ticket. Do not proceed or release VBECS for use until the ticket is resolved.*

- h) Click **Start, Administrative Tools, Cluster Administrator**.

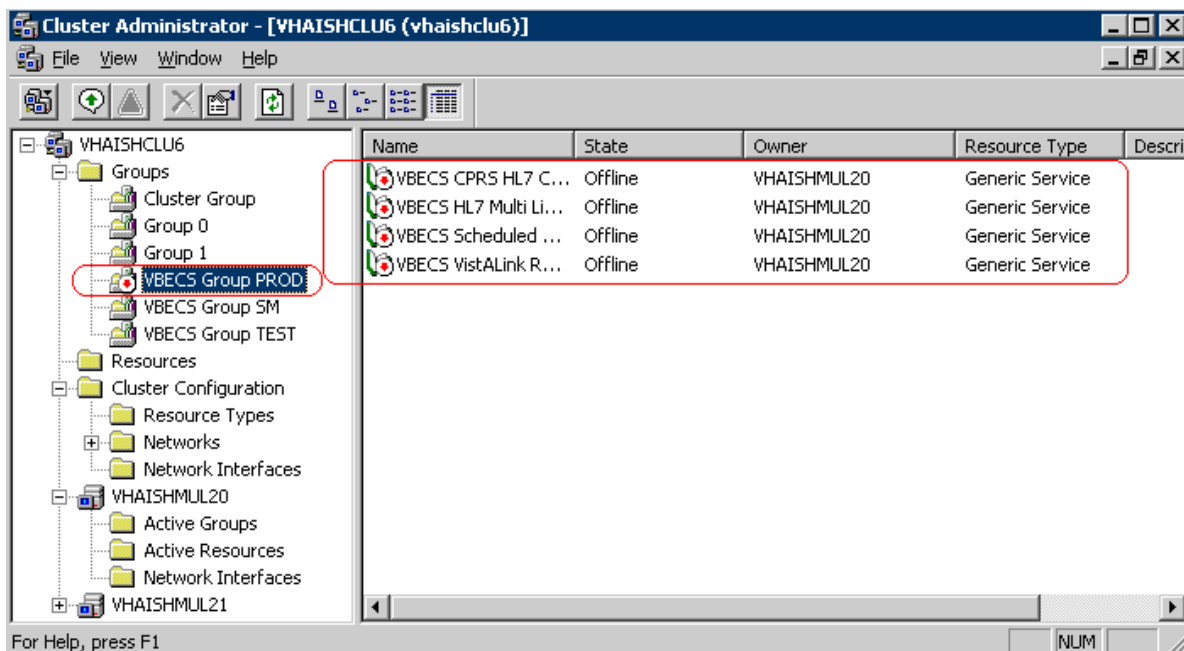
- i) If Open Connection to Cluster window does not appear, click **File, Open Connection** (Figure 95).
- j) Type <CLUSTER\_NAME> in the **Cluster or server name** field and click **OK** (Figure 95).

**Figure 95: Example of Open Connection to Cluster**



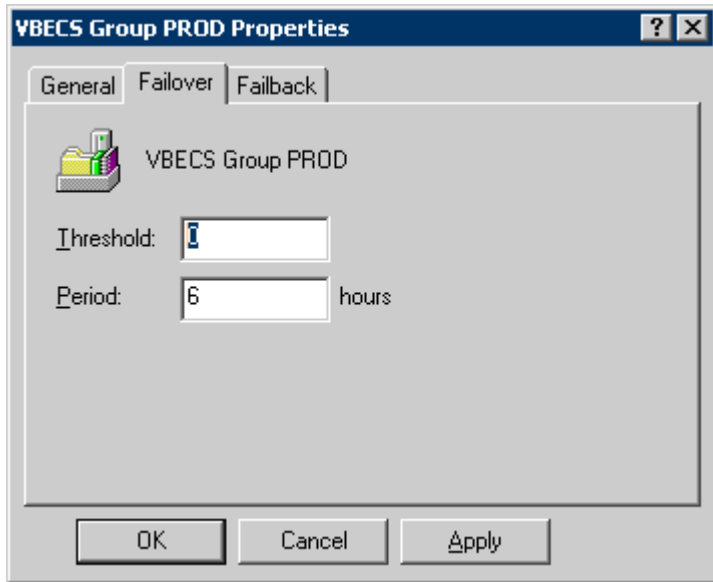
- k) The Cluster Administrator window populates. Expand the Groups folder, and verify that **VBECs Group PROD** exists as shown in (Figure 96).

**Figure 96: Example of Cluster Administrator – Services Group**



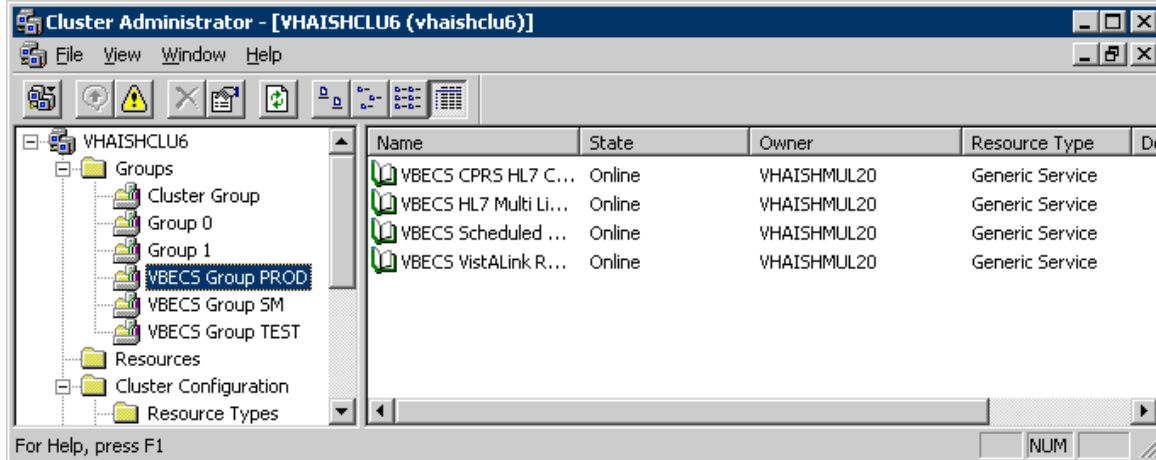
- l) Right-click on **VBECs Group PROD** and select **Properties**.
- m) Select the **Failover** tab, and set the **Threshold** field to **0** and click **OK** (Figure 97).

**Figure 97: Example of VBECs Group PROD Failover Properties**



- n) Right-click on **VBECs Group PROD** and select **Bring Online** and verify that **State** changes to **Online** for all resources as shown in (Figure 98).

**Figure 98: Example of VBECs Group PROD Online**



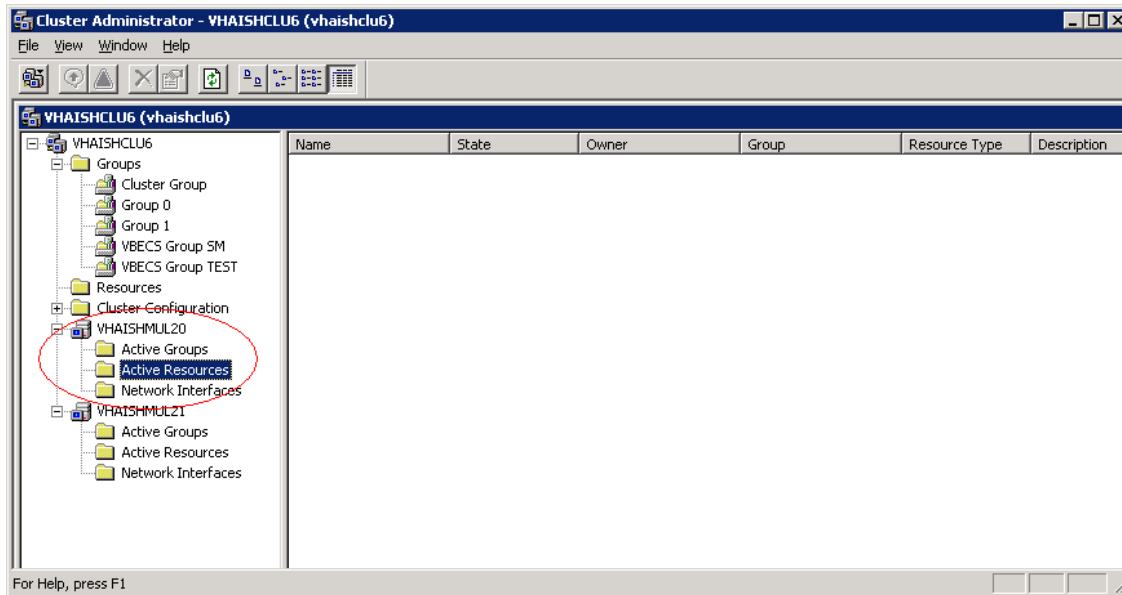
- o) Check the box in Appendix F: VBECs Patch Installation Record Form for the Production Environment.

- p) In the Cluster Administrator window, locate and expand the <**Passive Cluster Node**> and double-click on the **Active Resources** folder. The passive cluster node must not have any active resources. See Figure 99 for an example of the passive cluster node.



*If any Active resources are present, stop and file a Remedy ticket. Do not proceed or release VBECS for use until the ticket is resolved.*

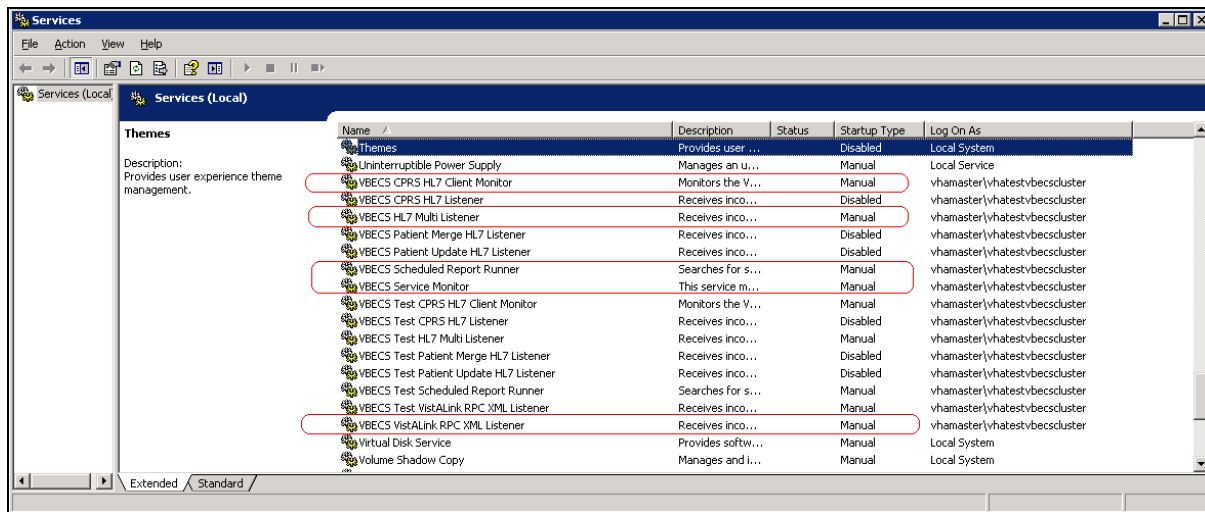
**Figure 99: Example of the Passive Cluster Node**




- q) Open a remote desktop connection to the passive cluster node; click **Start, Administrative Tools, Services**. The **Services** window opens.
- r) In the Service window scroll down and locate following services:
- VBECS CPRS HL7 Client Monitor
  - VBECS HL7 Multi Listener
  - VBECS Scheduled Report Runner
  - VBECS VistALink RPC XML Listener
- For each service, if it has a status of **Started** right-click it and select **Stop**.

- s) All located services should have their Status as blank and Startup Type as Manual (see example in Figure 100).

**Figure 100: Example of Services Window**



 *If Status is not blank and the Startup Type is not Manual, stop and file a Remedy ticket. Do not proceed or release VBECS for use until the ticket is resolved.*

- t) Log off from the passive cluster node. The remote desktop connection to the passive cluster node closes.
- u) Return to the server remote desktop connection to the cluster that is already open. On the Cluster Administrator window, click **File, Exit** to close the Cluster Administrator.

## 4 Execute VBECS Patch Scripts against the Cluster



*Patching the servers may 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.*



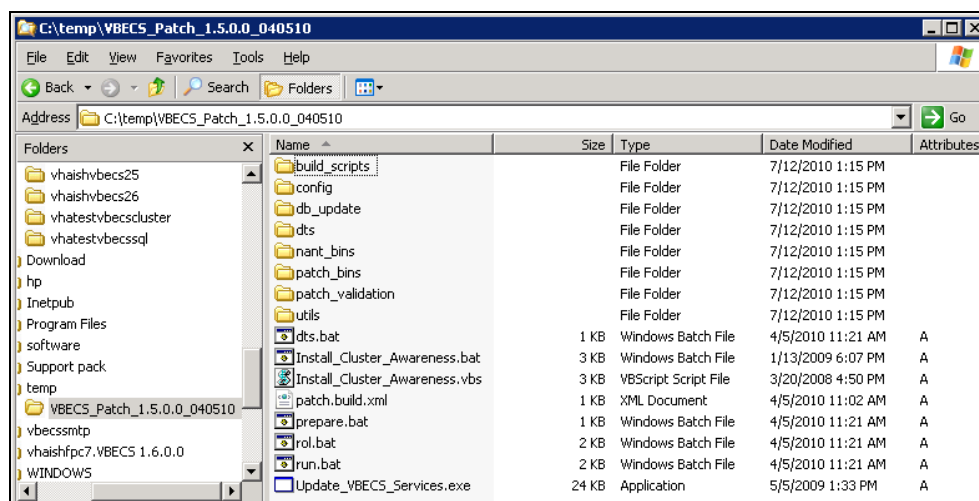
*After the upgrade, warning messages with the subject 'Operations Manager Critical Error Alert' are normal and should be ignored. They are merely noting that changes have been made to the various VBECS files which is expected during a software upgrade.*



*Do not run VBECS Administrator 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\_1.5.0.0\_040510** folder (Figure 101).

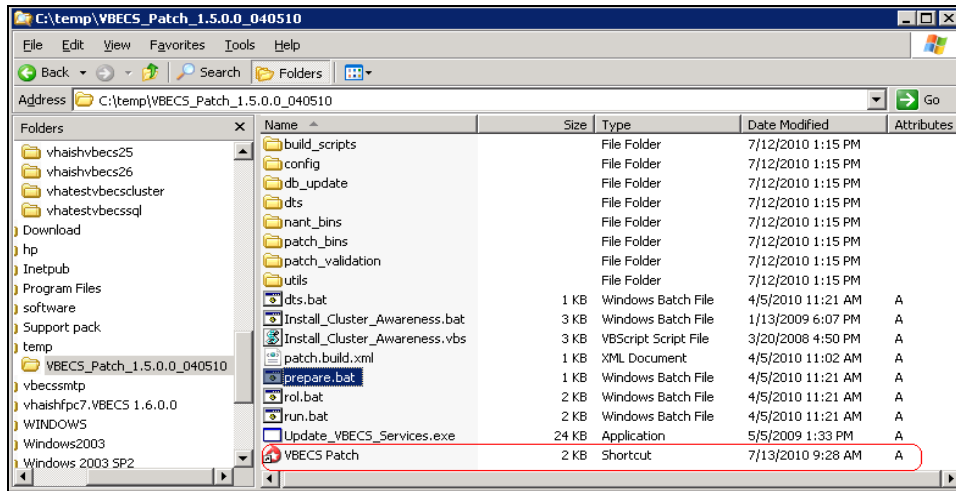
**Figure 101: Example of VBECS Patch Folder**



- 2) Double-click on **prepare.bat**.

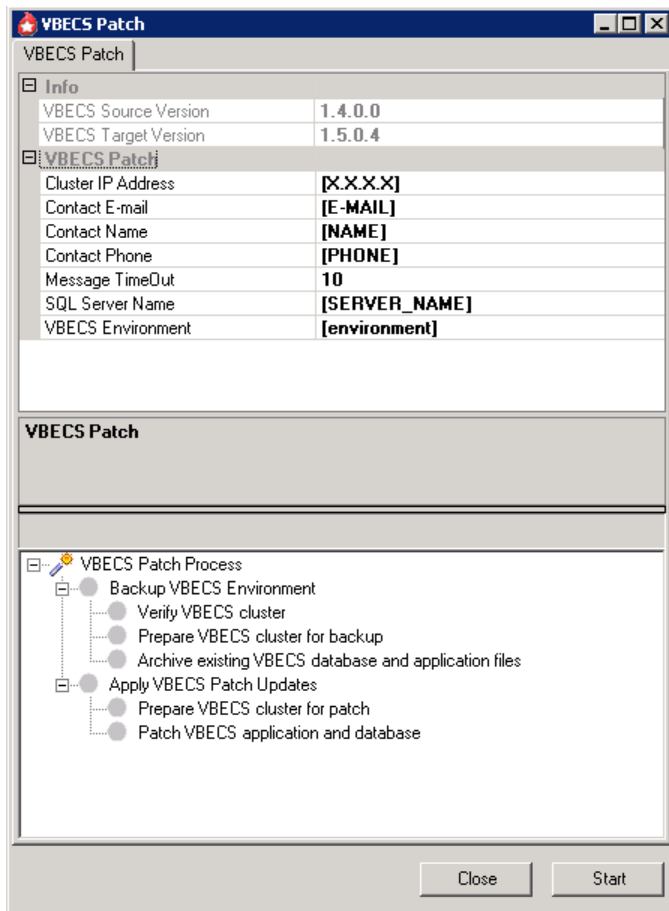
- 3) A VBECS Patch shortcut is created (Figure 102).

**Figure 102: Example of VBECS Patch Shortcut**



- 4) Double-click on the **VBECS Patch** shortcut.  
5) A VBECS Patch form will open (Figure 103).

**Figure 103: Example of VBECS Patch Form**



- 6) Enter the following for the required fields.
- **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 (Figure 104).
  - **Contact E-mail** – This is the email address of the contact person or group (Figure 104).
  - **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 (Figure 104).
  - **Contact Phone** – This is the telephone number of the contact person (Figure 104).
  - **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** (Figure 104). 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 (Figure 104).
  - **VBECS Environment** – This is the VBECS environment. Select **Prod** to patch VBECS Production environment (Figure 104).



**Figure 104: Example of VBECS Patch Form**

The screenshot shows the 'VBECS Patch' application window. It has a title bar with a red star icon and the text 'VBECS Patch'. Below the title bar are two tabs: 'VBECS Patch' (selected) and 'DTS Update'. The main area is divided into sections. The 'Info' section contains a table with the following data:

VBECS Source Version	1.4.0.0
VBECS Target Version	1.5.0.4

The 'VBECS Patch' section contains a table with the following data:

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\XXXSQLZ1 OR R01\XXXSQL\XXX01
VBECS Environment	prod

Below the tables is a section titled 'VBECS Environment' with the text 'VBECS environment to be patched.' and a large empty text area. At the bottom is a section titled 'VBECS Patch Process' containing a tree view of the patching steps:

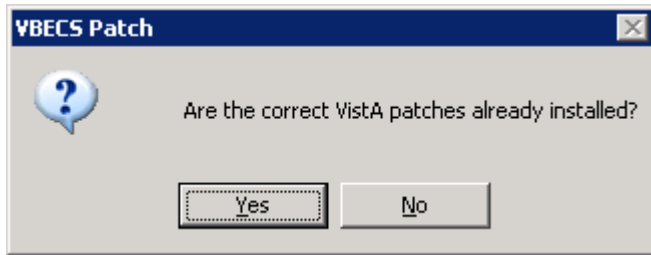
- VBECS Patch Process
  - Backup VBECS Environment
    - Verify VBECS cluster
    - Prepare VBECS cluster for backup
    - Archive existing VBECS database and application files
  - Apply VBECS Patch Updates
    - Prepare VBECS cluster for patch
    - Patch VBECS application and database

At the bottom right of the window are two buttons: 'Close' and 'Start'.

7) Click **Start**.

- 8) A prompt to verify that all correct VistA patches are installed appears (Figure 105).

**Figure 105: Example of Required VistA Patches Prompt**






- 9) Verify that all required VistA patches are installed. Check the box in Appendix F: VBECS Patch Installation Record Form for the Production Environment.
- 10) Click **Yes** to proceed on required VistA patches dialog. The VBECS Patch process starts. The patch will complete within 30 minutes.



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

- 11) Refer to Figure 106 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.

**Figure 106: Example of VBECS Patch Process Form**

The screenshot shows the 'VBECS Patch' application window. It has a title bar with a red star icon and the text 'VBECS Patch'. Below the title bar are two tabs: 'VBECS Patch' (selected) and 'DTS Update'. The main content area is divided into several sections:

- Info Section:** Contains two rows of configuration data:
 

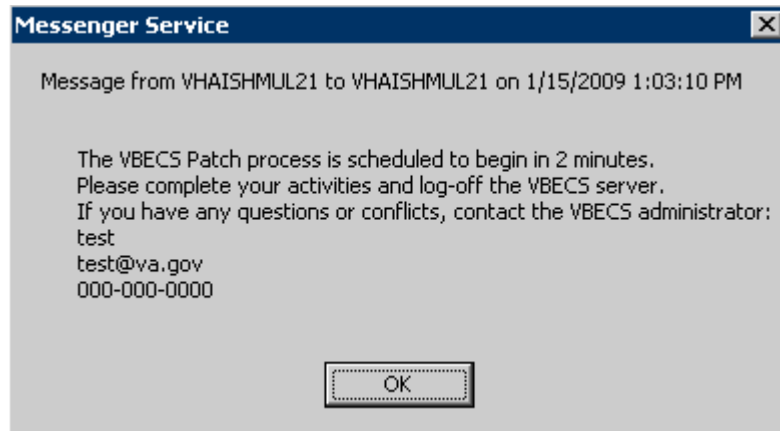
VBECS Source Version	1.4.0.0
VBECS Target Version	1.5.0.4
- VBECS Patch Section:** Contains a list of configuration fields:
 

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 R01XXSQLXX01
VBECS Environment	prod
- VBECS Environment Section:** A text area containing the text 'VBECS environment to be patched.'
- Process Tree Section:** A tree view showing the 'VBECS Patch Process' with the following steps:
  - Backup VBECS Environment
    - Verify VBECS cluster (checked)
    - Prepare VBECS cluster for backup (checked)
    - Archive existing VBECS database and application files (checked)
  - Apply VBECS Patch Updates
    - Prepare VBECS cluster for patch
    - Patch VBECS application and database

At the bottom of the window, there is a progress bar with green segments, a 'Close' button, and a 'Start' button.

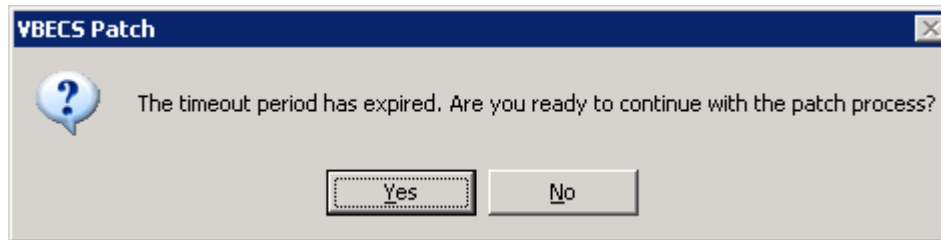
- 12) Active users (users connected to the system through remote desktop), will receive a message indicating the number of minutes they have to complete their work and log out (Message TimeOut argument entered in Step 6). The system will not make any system changes during this timeout period (Figure 107).

**Figure 107: Example of Messenger Service**



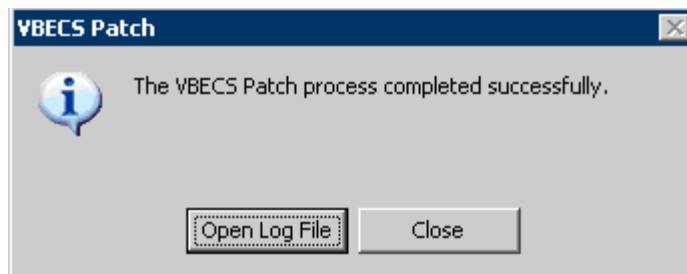
- 13) Click **OK**, after the timeout period had expired, a message signifying the final opportunity to abort the patch installation is displayed (Figure 108).

**Figure 108: Example of VBECS Patch: Continue Patch Message**




- 14) 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.
- 15) When the patch script finishes successfully a "VBECS Patch process completed successfully" message will be received (Figure 109).

**Figure 109: Example of VBECS Patch Process Complete Message**





If a Patch Failure message is displayed, file a Remedy ticket immediately. Do not proceed or release VBECS for use until the ticket is resolved.

- 16)  Capture a screen shot of VBECS Patch process completed successfully.
- 17) Insert the screen shot in Appendix F: VBECS Patch Installation Record Form for the Production Environment.
- 18) A log file will be created in the  
**L:\VBECS\_Archive\VBECSRecords\VBECS\_<mmddyy>\_1.4.0.0\_to\_1.5.0.4\prod**  
 directory, with <cluster>.<nnn.med.va.gov>\_VBECS\_1.5.0.4\_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 'vha' or 'region name' (e.g., RO1).
 For example, vhaxxxcluz1.vha.med.va.gov\_VBECS\_1.5.0.4\_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.

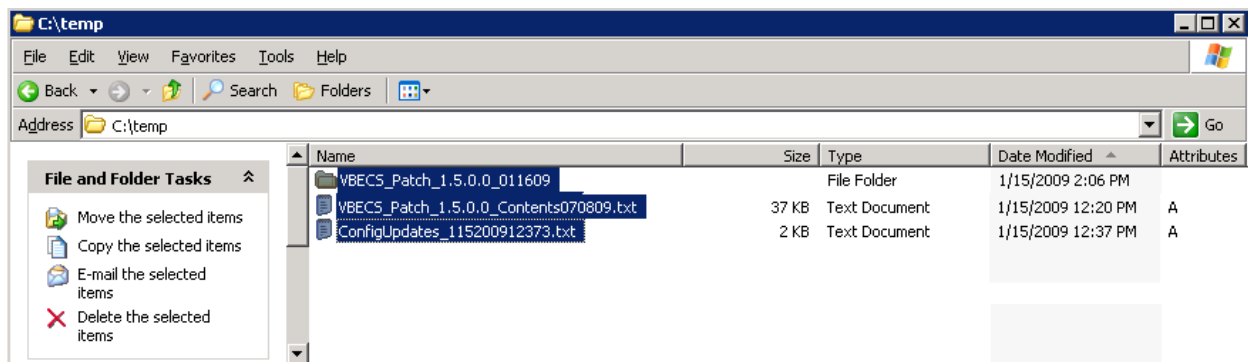
- 19) Record the name of the log file in Appendix F: VBECS Patch Installation Record Form for the Production Environment.
- 20) Click **Close** to close the VBECS Patch success message.
- 21) Click **Close** on the VBECS Patch main window to exit the patch application.

## 5 Delete Patch Files

To delete the VBECS 1.5.0.0 Patch files:

- 1) If necessary, open a remote desktop connection to the cluster, use Windows Explorer to navigate to **c:\temp** folder.
- 2) Select the following **3** objects (See Figure 110):
  - **VBECS\_Patch\_1.5.0.0\_040510** folder
  - **VBECS\_Patch\_1.5.0.0\_Contentsmmddyy.txt** file
  - **ConfigUpdates\_<date time>.txt** file (this is the log file created by running the Update\_VBECS\_Services.exe file)

**Figure 110: Example of Patch Files for Deletion**



- 3) While holding down the **Shift** key press the **Delete** key. Click **Yes** to confirm file 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.

## 6 Inactivating “Do Not Use” Division

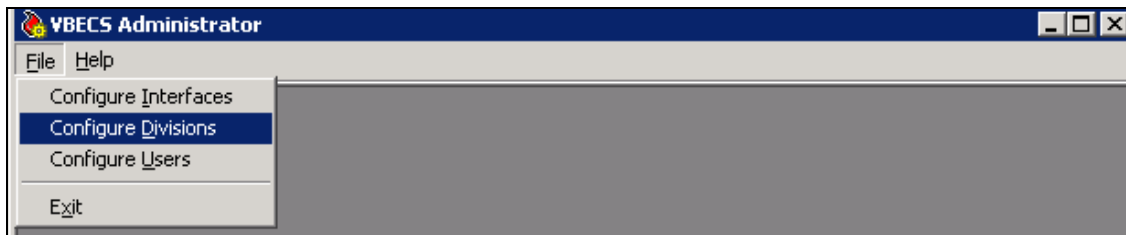
This section does not apply to single division installations of VBECS. Single division sites proceed to Step 6.

This section is performed at a multi-division site that has used VBECS 1.4.0.0 with a workaround for Remedy ticket HD 268596 that allowed printed reports to print on-site. Removing the “Do Not Use” division workaround will allow testing of the correction in VBECS 1.5.0.0.

This section must be performed by a VBECS Administrator.

- 1) Log into **VBECS Administrator**.
- 2) Click **File, Configure Divisions** (Figure 111).

**Figure 111: VBECS Administrator**



- 3) In the VBECS Division Configuration section, uncheck the Active checkbox for the **999** division (Figure 112).

**Figure 112: VBECS -Configure Division**

**VBECS - Configure Division**

Configure Division

Division Identification | Service Type | Printers | Time Zone

Division

Division Code\*  ...

Division Name\*

☐ Map orders from VistA institutions

Associated FDA Registered Facility

Facility Name\*

Accession Area

Area Name\*

Lock Timeout

Lock Inactivity Timeout\*  5 mins

Status

Active VBECS Division? ☐

Active | Division Code | Institution Name

Clear Save

VBECS Division Configuration

Active	Division Code	Division Name	Facility Name	Service Type	Accession Area
<input checked="" type="checkbox"/>	589GN	EMPORIA	St. Joseph Medi...	Full Service	WMBLOO
<input checked="" type="checkbox"/>	589GO	FT. RILEY	St. Joseph Medi...	Full Service	BLOOD E
<input type="checkbox"/>	999	DO NOT USE	St. Joseph Medi...	Full Service	BLOOD E

☐ Show Inactive Divisions

\* Required Field

- 4) Click **Yes** to continue when the VBECS – Confirmation message appears (Figure 113).

**Figure 113: VBECS - Confirmation**

**VBECS - Confirmation**

? You are about to inactivate division DO NOT USE. All roles for all users within the division will be inactivated. Continue?

Yes No

- 5) The “Do Not Use” Division is now inactivated. Users of the VBECS system will no longer be presented that division as an option to log into when launching VBECS (Figure 114).

**Figure 114: Inactivated “Do Not Use” Division**

**VBECS - Configure Division**

Configure Division

Division Identification | Service Type | Printers | Time Zone

Division

Division Code\*  ...

Division Name\*

☐ Map orders from VistA institutions

Associated FDA Registered Facility

Facility Name\*

Accession Area

Area Name\*

Lock Timeout

Lock Inactivity Timeout\*  mins

Status

Active VBECS Division? ☐

Active	Division Code	Institution Name
<input checked="" type="checkbox"/>	589GN	EMPORIA
<input checked="" type="checkbox"/>	589GO	FT. RILEY
<input type="checkbox"/>	999	DO NOT USE

Clear Save

**VBECS Division Configuration**

Active	Division Code	Division Name	Facility Name	Service Type	Accession Area
<input checked="" type="checkbox"/>	589GN	EMPORIA	St. Joseph Medi...	Full Service	WMBLOO
<input checked="" type="checkbox"/>	589GO	FT. RILEY	St. Joseph Medi...	Full Service	BLOOD E
<input type="checkbox"/>	999	DO NOT USE	St. Joseph Medi...	Full Service	BLOOD E

☐ Show Inactive Divisions

\* Required Field

- 6) Close all open applications.
- 7) Close remote desktop.
- 8) 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.

*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>\_1.4.0.0\_to\_1.5.0.4\test\<cluster>.<nnn.med.va.gov>\_VBECS\_1.5.0.4\_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 'vha' or 'region name' (e.g., RO1).

For example, vhaxxxcluz1.vha.med.va.gov\_VBECS\_1.5.0.4\_test\_1104.log.

- When the patch is executed for the Service monitor, a log file will be created in:
  - L:\VBECS\_Archive\VBECSRecords\VBECS\_<mmddyy>\_1.4.0.0\_to\_1.5.0.4\service monitor\<cluster>.<nnn.med.va.gov>\_VBECS\_1.5.0.4\_servicemonitor\_<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 'vha' or 'region name' (e.g., RO1).

For example, vhaxxxcluz1.vha.med.va.gov\_VBECS\_1.5.0.4\_servicemonitor\_1104.log.

- When the patch is executed for the Prod environment, a log file will be created in:
  - L:\VBECS\_Archive\VBECSRecords\VBECS\_<mmddyy>\_1.4.0.0\_to\_1.5.0.4\prod\<cluster>.<nnn.med.va.gov>\_VBECS\_1.5.0.4\_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 'vha' or 'region name' (e.g., RO1).

For example, vhaxxxcluz1.vha.med.va.gov\_VBECS\_1.5.0.4\_prod\_1104.log.

- When the patch is executed for the DTS updates, a log file will be created in:
  - L:\VBECS\_Archive\VBECSRecords\dts\<cluster>.<nnn.med.va.gov>\_VBECS\_DTS\_<hhmm>.log as the file name, where:
    - <hhmm> represents the hour and minute the patch began execution.
    - <nnn> represents 'vha' or 'region name' (e.g., RO1).

For example, vhaxxxcluz1.vha.med.va.gov\_VBECS\_DTS\_1359.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 VBECS Administrators	VhaBHS VBECS Administrators
	608	Manchester	TBD	TBD
	631	Northampton	TBD	TBD
	650	Providence	TBD	TBD
	402	Togus	TBD	TBD
	689	West Haven (Connecticut HCS)	TBD	TBD
	405	White River Junction	TBD	TBD
2	528A8	Albany (Upstate New York HCN) MC	TBD	TBD
	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	VhaBRXVbecsAdministrators	VhaBRXVbecsAdministrators
	620A4	Castle Point (Hudson Valley HCS)	TBD	TBD
	561	East Orange (New Jersey HCS)	TBD	TBD
	630	New York (New York Harbor HCS) New York	TBD	TBD
	630A4	New York (New York Harbor HCS) Brooklyn		
	632	Northport	VhaNOPVbecsAdministrators	VhaNOPVbecsAdministrators
4	503	Altoona	VhaALTVbecsAdministrators	VhaALTVbecsAdministrators
	529	Butler	TBD	TBD
	540	Clarksburg	TBD	TBD
	542	Coatesville	VhaCOAVbecsAdministrators	VhaCOAVbecsAdministrators
	562	Erie	VhaERIVbecsAdministrators	VhaERIVbecsAdministrators
	595	Lebanon	VhaLEBVbecsAdministrators	VhaLEBVbecsAdministrators
	642	Philadelphia	VhaPHIVBECS_ADM	VhaPhiladelphiaBBAdmin
	646	Pittsburgh University Drive (Pittsburgh HCS)	VhaPTHVbecsAdministrators	VhaPTHVbecsAdministrators
	693	Wilkes-Barre	VhaWBPVbecsAdministrators	VhaWBPVbecsAdministrators
5	460	Wilmington	VhaWIMVbecsAdministrators	VhaWIMVbecsAdministrators
	512	Baltimore (Maryland HCS)	TBD	TBD
	512A5	Perry Point (Maryland HCS)		
	613	Martinsburg	TBD	TBD
6	688	Washington	VhaWAS VBECS Administrators	VhaWAS VBECS Administrators
	637	Asheville	vhaASHVbecsServerAdmins	vhaASHVbecsAdministrators

VISN	Facility #	Facility	Server Administrative Group	VBECs Admin AD Group
	517	Beckley	vhaBECVbecsServerAdmins	vhaBECVbecsAdministrators
	558	Durham	vhaDURAdmin	v06DURVbecsAdministrators
	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


VISN	Facility #	Facility	Server Administrative Group	VBECs Admin AD Group
	607	Madison	v12MADVbecsServerAdmins	v12MADVbecsAdministrators
	695	Milwaukee	v12MIWVbecsServerAdmins	v12MIWVbecsAdministrators
	556	North Chicago	v12NCHVbecsServerAdmins	v12NCHVbecsAdministrators
	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)	R01VBECSServerAdmins	R01PORVbecsAdministrators
	653	Roseburg (VA Roseburg HCS)	R01VBECSServerAdmins	R01ROSVbecsAdministrators
	663	Seattle (Puget Sound HCS)	R01VBECSServerAdmins	R01PugVbecsAdministrators

<b>VISN</b>	<b>Facility #</b>	<b>Facility</b>	<b>Server Administrative Group</b>	<b>VBECS Admin AD Group</b>
21	663A4	American Lake (Puget Sound HCS)		
	668	Spokane	R01VBECS ServerAdmins	R01SPOVbecsAdministrators
	570	Fresno (VA Central California HCS)	R01VBECS ServerAdmins	R01FREVBECsAdministrators
	640	Palo Alto (Palo Alto HCS )	R01VBECS ServerAdmins	R01PALVbecsAdministrators
	640A4	Livermore (Palo Alto HCS)		
	612	Martinez (Northern California HCS)	R01VBECS ServerAdmins	R01MACVbecsAdministrators
	612A4	Sacramento (Northern California HCS)		
	654	Reno (VA Sierra Nevada HCS)	R01VBECS ServerAdmins	R01RenVbecsAdministrators
22	662	San Francisco	R01VBECS ServerAdmins	R01SFCVBECSAdministrators
	605	Loma Linda	R01VBECS ServerAdmins	R01LOMVbecsAdministrators
	600	Long Beach	R01VBECS ServerAdmins	R01LONVbecsAdministrators
	664	San Diego	R01VBECS ServerAdmins	R01SDCVbecsAdministrators
23	691	West Los Angeles (Greater Los Angeles HCS)	R01VBECS ServerAdmins	R01GLAVbecsAdministrators
	636	Omaha (NWIHS)	v23OMAVBECS ServerAdmins	v23OMAVbecsAdministrators
	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	vhaV23VbecsServerAdmins	v23MinVbecsAdministrators
CPS	NA	Sioux Falls	v23SUXVbecsServerAdmins	V23SUXVbecsAdministrators
		St. Cloud	v23STCVbecsServerAdmins	V23STCVbecsAdministrators
		Salt Lake City and Albany	R01VBECS ServerAdmins	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:

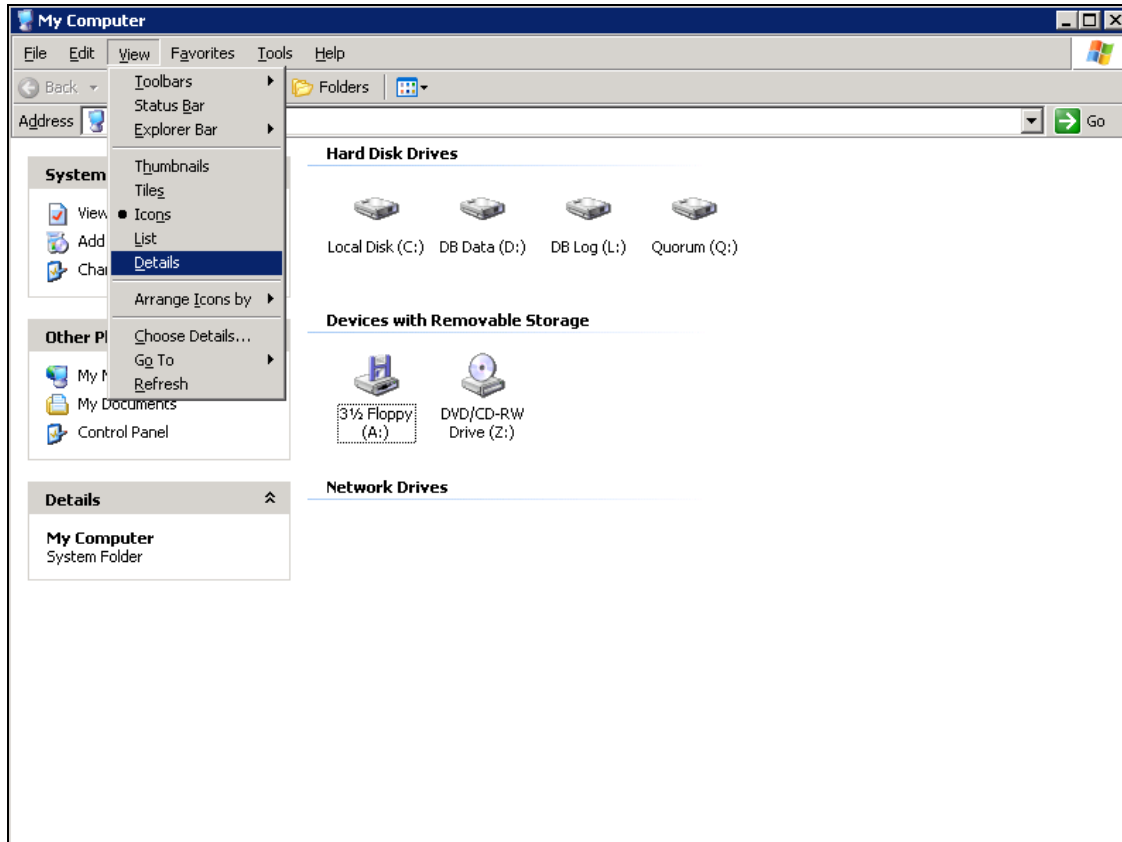
- 1) When the screen you wish to capture is displayed, press **Ctrl + Alt + Print Screen key**.
- 2) In the *VBECS Patch Installation Record Form for the Test (or Production) Environment*, place the cursor where you want to insert the picture.
- 3) Press **Ctrl + V** to paste.

This page intentionally left blank.

## Appendix D: Setup Detailed Folders View

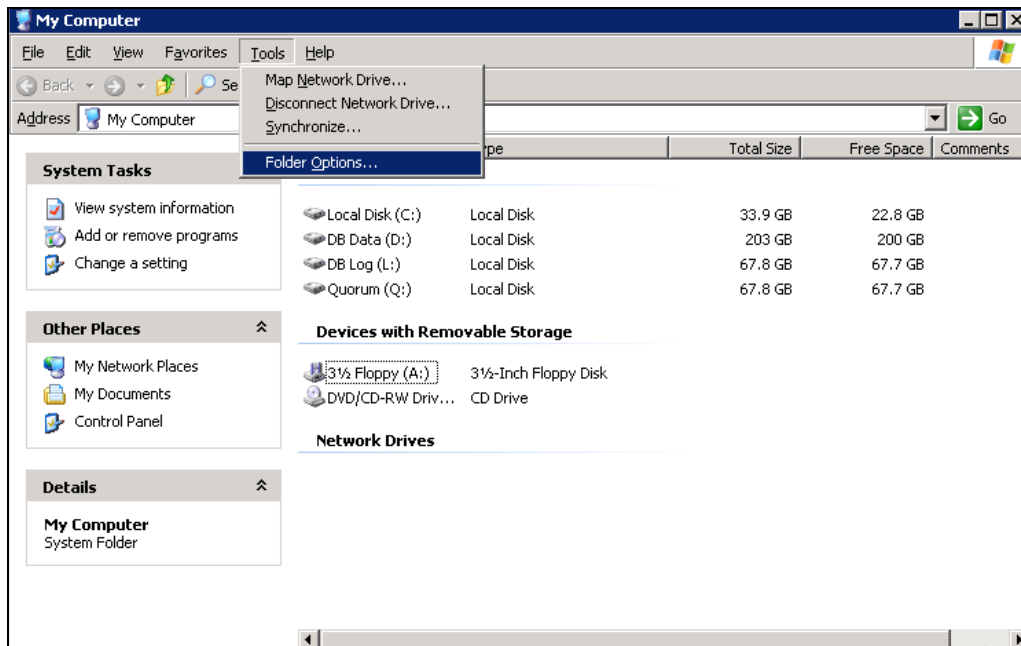
- 1) Click **Start, My Computer**.
- 2) Select **View, Details** (Figure 115).

**Figure 115: Details Menu**



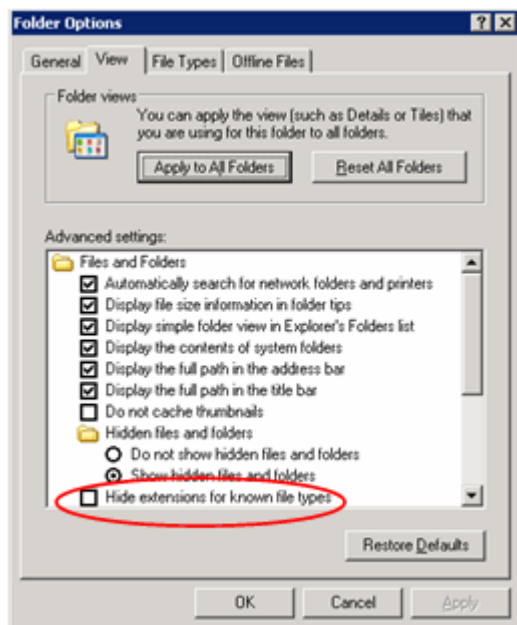
- 3) Select **Tools, Folder Options** (Figure 116).

**Figure 116: Folder Options Menu**



- 4) Select the **View** tab. Make sure the “Hide extensions for known file types” check box is clear (Figure 117).
- 5) Click **Apply to All Folders** (Figure 117).

**Figure 117: 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:

- Fill in the tables.
- Insert screen shots, as indicated.
- Replace the text in angle brackets and delete the brackets.
- Delete captions and enter “N/A” (as required).
- 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 1.5.0.0 Patch File**

**Step 14: Screen Shot: FTP Transfer Completed.**

<Insert screen shot.>

#### **2 Verify the Contents of the VBECS 1.5.0.0 Patch File**

**Step 19:** ☐ The numbers of the VBECS\_Patch\_1.5.0.0\_Contents<mmdyy>.txt file match.

**Step 20:** ☐ Printed the VBECS\_Patch\_1.5.0.0\_Contents<mmdyy>.txt file, and recorded the page number, step number, initials and date on the printed copy.

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

**Step 4:** Record the Switch Port Speed: \_\_\_\_\_.

**Step 7g: Record the Active Cluster Node**

<b>Server #1 (Active Cluster Node):</b>
---

**Step 7i: Record the Passive Cluster Node**

<b>Server #2 (Passive Cluster Node):</b>
--

**Step 9i: Screen shot: VBECS Services Updated**

<Insert screen shot.>

**Step 10f: Screen shot: Install Cluster Awareness Execution**

<Insert screen shot.>

**Step 10g:** ☐ Verified that all 10 [SC] ChangeServiceConfig were successful.

**Step 10o:** ☐ Verified that VBECS Group TEST is Online.

**Step 10s:** ☐ Verified that VBECS Group SM is Online.

#### 4 Verify NIC Card Configuration

**Step 5:** Record the Speed & Duplex value for Server #1: \_\_\_\_\_.

**Step 16:** Record the Speed & Duplex value for Server #2: \_\_\_\_\_.

#### 5 Execute VBECS Patch Scripts against the Cluster

**Step 9:** ☐ Verified that all required Vista patches are installed.

**Step 17: Screen shot: VBECS Patch process completed successfully.**

<Insert screen shot.>

**Step 19: VBECS Patch Log Output File Name**

**Log File:**

#### 6 Patch Service Monitor

**Step 9: Screen shot: VBECS Patch process completed successfully.**

<Insert screen shot.>

**Step 11: VBECS Patch Log Output File Name for Service Monitor Environment**

**Log File:**

#### 7 Perform DTS Update

**Step 9: Screen shot: VBECS Patch process completed successfully.**

<Insert screen shot.>

**Step 11: VBECS Patch Log Output File Name for DTS updates**

**Log File:**

#### 8 Delete the Patch Files

**Step 4:** ☐ Deleted the VBECS 1.5.0.0 patch files on server.

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

#### 9 Inactivating “Do Not Use” Division

N/A

**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.**

This page intentionally left blank.



## ***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:

- Fill in the tables.
- Insert screen shots, as indicated.
- Replace the text in angle brackets and delete the brackets.
- Delete captions and enter “N/A” (as required).
- 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 1.5.0.0 Patch File**

**Step 14: Screen Shot: FTP Transfer Completed.**

<Insert screen shot.>

#### **2 Verify the Contents of the VBECS 1.5.0.0 Patch File**

**Step 19:** ☐ The numbers of the VBECS\_Patch\_1.5.0.0\_Contents<mmddy>.txt file match.

**Step 20:** ☐ Printed the VBECS\_Patch\_1.5.0.0\_Contents<mmddy>.txt file, and recorded the page number, step number, initials and date on the printed copy.

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

**Step 8g: Record the Active Cluster Node**

<b>Server #1 (Active Cluster Node):</b>
---

**Step 8i: Record the Passive Cluster Node**

<b>Server #2 (Passive Cluster Node):</b>
--

**Step 10i: Screen Shot: VBECS Services Updated.**

<Insert screen shot.>

**Step 11f: Screen shot: Install Cluster Awareness Execution**

<Insert screen shot.>

**Step 11g:** ☐ Verified that all 8 [SC] ChangeServiceConfig were successful.

**Step 11o:** ☐ Verified that VBECS Group PROD is Online.

## 4 Execute VBECS Patch Scripts against the Cluster

**Step 9:** ☐ Verified that all required VistA patches are installed.

**Step 17: Screen shot: VBECS Patch process completed successfully.**

<Insert screen shot.>

**Step 19: VBECS Patch Log Output File Name**

<b>Log File:</b>
------------------

## 5 Delete Patch Files

**Step 4:** ☐ Deleted the VBECS 1.5.0.0 Patch files on server.

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

## 6 Inactivating “Do Not Use” Division

N/A

<b>List problems occurring in the installation process.</b>

---

Name (Print.)

---

Title

---

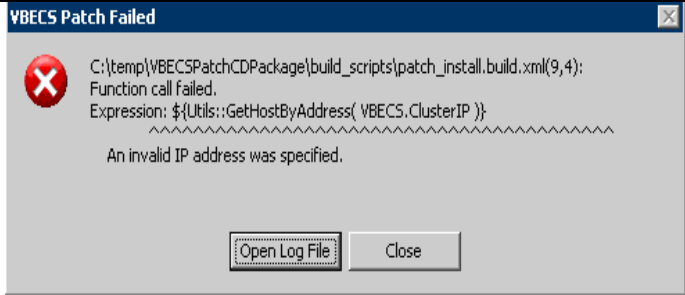
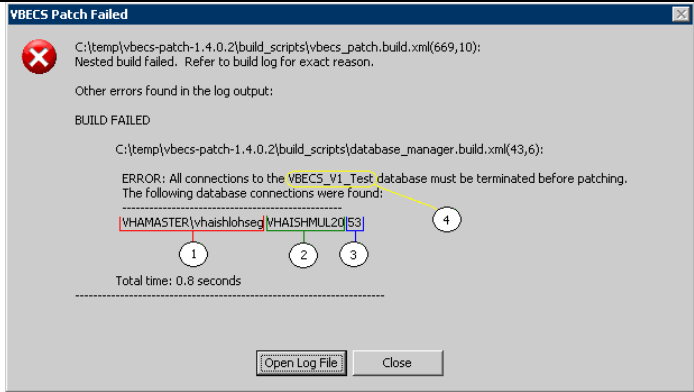
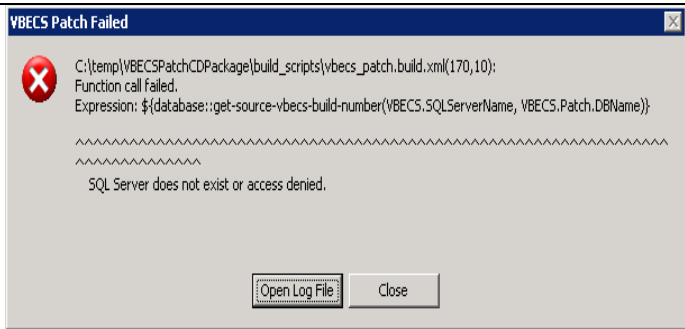
Signature

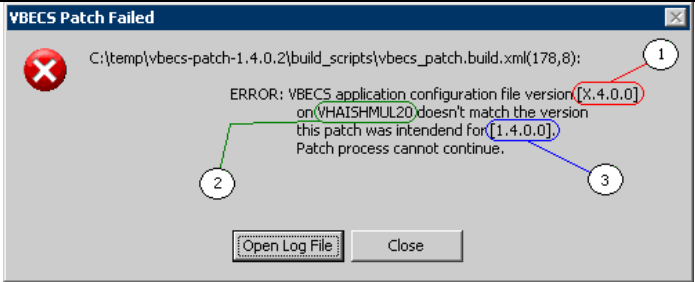
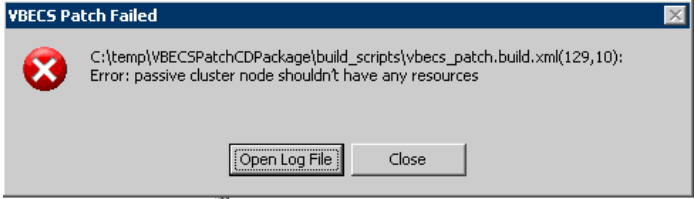
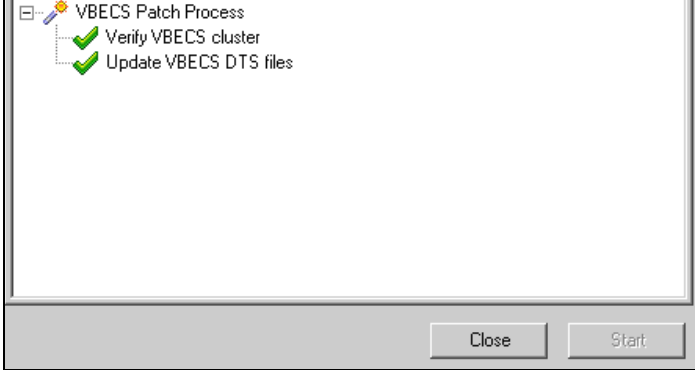

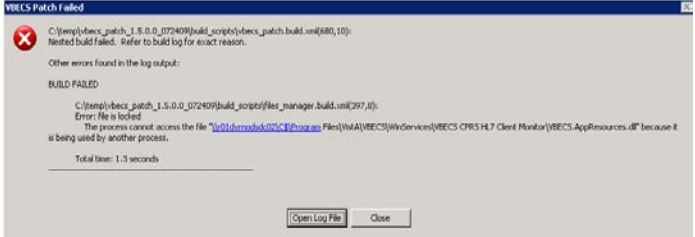
---

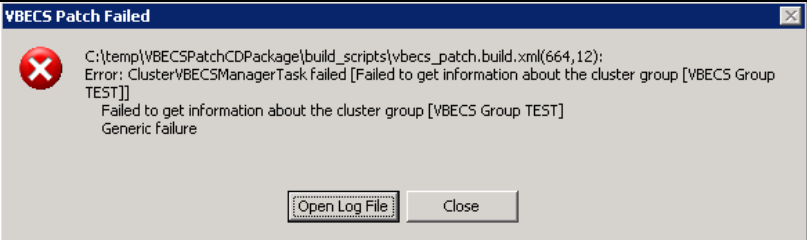
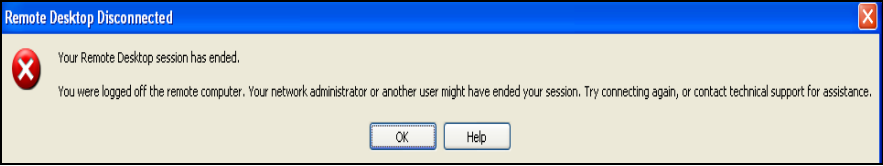
Date

**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 of the server console and repeat the patch process.</p>

This page intentionally left blank.

## ***Appendix H: Contents of VBECS 1.5.0.0 Patch File***

Volume in drive C is OS

Volume Serial Number is B0D6-103A

Directory of C:\Temp\vbecs\_patch\_1.5.0.0\_040510

```
04/05/2010 05:01 PM <DIR>      .
04/05/2010 05:01 PM <DIR>      ..
04/05/2010 05:01 PM <DIR>      build_scripts
04/05/2010 05:01 PM <DIR>      config
04/05/2010 05:01 PM <DIR>      db_update
04/05/2010 05:01 PM <DIR>      dts
04/05/2010 11:21 AM          195 dts.bat
01/13/2009 06:07 PM          2,076 Install_Cluster_Awareness.bat
03/20/2008 04:50 PM          2,597 Install_Cluster_Awareness.vbs
04/05/2010 05:01 PM <DIR>      nant_bins
04/05/2010 11:02 AM          705 patch.build.xml
04/05/2010 05:01 PM <DIR>      patch_bins
04/05/2010 05:01 PM <DIR>      patch_validation
04/05/2010 11:21 AM          33 prepare.bat
04/05/2010 11:21 AM          1,101 rol.bat
04/05/2010 11:21 AM          1,041 run.bat
05/05/2009 01:33 PM          24,576 Update_VBECS_Services.exe
04/05/2010 05:01 PM <DIR>      utils
      8 File(s)      32,324 bytes
```

Directory of C:\Temp\vbecs\_patch\_1.5.0.0\_040510\build\_scripts

```
04/05/2010 05:01 PM <DIR>      .
04/05/2010 05:01 PM <DIR>      ..
04/05/2010 11:02 AM          19,391 database_manager.build.xml
```

04/05/2010 11:02 AM 8,979 dts.build.xml  
 04/05/2010 11:02 AM 23,294 files\_manager.build.xml  
 04/05/2010 11:02 AM 5,461 patch\_install.build.xml  
 04/05/2010 11:02 AM 9,413 scripts.build.xml  
 04/05/2010 11:02 AM 1,151 vbecs\_globals.build.xml  
 04/05/2010 11:02 AM 39,150 vbecs\_patch.build.xml  
 04/05/2010 11:02 AM 15,526 vbecs\_services\_manager.build.xml  
 8 File(s) 122,365 bytes

Directory of C:\Temp\vbecs\_patch\_1.5.0.0\_040510\config

04/05/2010 05:01 PM <DIR> .  
 04/05/2010 05:01 PM <DIR> ..  
 04/05/2010 11:21 AM 32,335 envs\_configuration.xml  
 1 File(s) 32,335 bytes

Directory of C:\Temp\vbecs\_patch\_1.5.0.0\_040510\db\_update

04/05/2010 05:01 PM <DIR> .  
 04/05/2010 05:01 PM <DIR> ..  
 04/05/2010 11:04 AM 884,753 Build1.5.0.4\_01-VBECS\_V1\_PROD.sql  
 04/05/2010 11:04 AM 884,753 Build1.5.0.4\_01-VBECS\_V1\_TEST.sql  
 2 File(s) 1,769,506 bytes

Directory of C:\Temp\vbecs\_patch\_1.5.0.0\_040510\ots

04/05/2010 05:01 PM <DIR> .  
 04/05/2010 05:01 PM <DIR> ..  
 04/05/2010 11:11 AM 3,525,120 ConversionPackageMultiDB.ots  
 04/05/2010 11:11 AM 109,568 Data Comparison MultiDB.ots  
 04/05/2010 11:11 AM 48,128 Last Entry in Log.ots  
 04/05/2010 11:11 AM 138,240 Patient Count.ots  
 04/05/2010 11:11 AM 182,784 Patient Data Report MultiDB.ots



04/05/2010 11:11 AM	157,184 Patient Special Instructions Report MultiDB.dts
04/05/2010 11:11 AM	158,208 Patient Test Report MultiDB.dts
04/05/2010 11:11 AM	152,064 Patient Transfusion Comment MultiDB.dts
04/05/2010 11:11 AM	157,184 Patient Transfusion Reaction MultiDB.dts
04/05/2010 11:11 AM	167,424 Patient Transfusion Requirement Report MultiDB.dts
04/05/2010 11:11 AM	671 rundts.bat
11 File(s)	4,796,575 bytes

Directory of C:\Temp\vbecs\_patch\_1.5.0.0\_040510\nant\_bins

04/05/2010 05:01 PM	<DIR>	.
04/05/2010 05:01 PM	<DIR>	..
04/05/2010 05:01 PM	<DIR>	lib
04/05/2010 11:02 AM	241,664	log4net.dll
04/05/2010 11:02 AM	53,248	MessageBoxExLib.dll
04/05/2010 11:21 AM	15,872	NAnt.Compression.Tests.dll
04/05/2010 11:20 AM	32,768	NAnt.CompressionTasks.dll
04/05/2010 11:20 AM	31,078	NAnt.CompressionTasks.xml
04/05/2010 11:20 AM	409,600	NAnt.Core.dll
04/05/2010 11:21 AM	286,720	NAnt.Core.Tests.dll
04/05/2010 11:20 AM	743,343	NAnt.Core.xml
04/05/2010 11:21 AM	65,536	NAnt.DotNet.Tests.dll
04/05/2010 11:20 AM	126,976	NAnt.DotNetTasks.dll
04/05/2010 11:20 AM	229,163	NAnt.DotNetTasks.xml
04/05/2010 11:20 AM	10,752	NAnt.exe
04/05/2010 11:02 AM	19,348	NAnt.exe.config
04/05/2010 11:21 AM	4,096	NAnt.MSNet.Tests.dll
04/05/2010 11:21 AM	28,672	NAnt.MSNetTasks.dll
04/05/2010 11:21 AM	26,555	NAnt.MSNetTasks.xml
04/05/2010 11:21 AM	8,704	NAnt.NUnit.dll
04/05/2010 11:21 AM	19,633	NAnt.NUnit.xml
04/05/2010 11:21 AM	36,864	NAnt.NUnit1Tasks.dll
04/05/2010 11:21 AM	28,458	NAnt.NUnit1Tasks.xml

04/05/2010 11:21 AM	32,768 NAnt.NUnit2Tasks.dll
04/05/2010 11:21 AM	28,447 NAnt.NUnit2Tasks.xml
04/05/2010 11:21 AM	32,768 NAnt.SourceControl.Tests.dll
04/05/2010 11:21 AM	40,960 NAnt.SourceControlTasks.dll
04/05/2010 11:21 AM	57,090 NAnt.SourceControlTasks.xml
04/05/2010 11:21 AM	28,672 NAnt.Tests.dll
04/05/2010 11:21 AM	40,960 NAnt.VisualStudio.Tests.dll
04/05/2010 11:21 AM	49,152 NAnt.VisualStudioTasks.dll
04/05/2010 11:21 AM	54,415 NAnt.VisualStudioTasks.xml
04/05/2010 11:21 AM	40,960 NAnt.VSNet.Tests.dll
04/05/2010 11:21 AM	159,744 NAnt.VSNetTasks.dll
04/05/2010 11:21 AM	181,398 NAnt.VSNetTasks.xml
04/05/2010 11:21 AM	6,144 NAnt.Win32.Tests.dll
04/05/2010 11:21 AM	36,864 NAnt.Win32Tasks.dll
04/05/2010 11:21 AM	32,514 NAnt.Win32Tasks.xml
04/05/2010 11:20 AM	69,632 NAnt.WinForms.exe
04/05/2010 11:21 AM	27,213 NAnt.WinForms.exe.config
04/05/2010 11:20 AM	40,574 NAnt.WinForms.xml
04/05/2010 11:20 AM	2,088 NAnt.xml
04/05/2010 11:02 AM	7,680 scvs.exe
04/05/2010 11:02 AM	53,248 SLiNgshoT.Core.dll
04/05/2010 11:02 AM	6,144 SLiNgshoT.exe
04/05/2010 02:25 PM	<DIR> tasks
04/05/2010 11:21 AM	57,344 VBECSPatch.Tasks.dll
43 File(s) 3,505,829 bytes	

Directory of C:\Temp\vbecs\_patch\_1.5.0.0\_040510\nant\_bins\lib

04/05/2010 05:01 PM	<DIR>	.
04/05/2010 05:01 PM	<DIR>	..
04/05/2010 11:02 AM	98,304 ICSharpCode.SharpCvsLib.Console.dll	
04/05/2010 11:02 AM	155,648 ICSharpCode.SharpCvsLib.dll	
04/05/2010 11:02 AM	143,360 ICSharpCode.SharpZipLib.dll	

04/05/2010 05:01 PM <DIR> mono  
04/05/2010 05:01 PM <DIR> net  
04/05/2010 11:02 AM 40,960 NUnitCore.dll  
4 File(s) 438,272 bytes

Directory of C:\Temp\vbecs\_patch\_1.5.0.0\_040510\nant\_bins\lib\mono

04/05/2010 05:01 PM <DIR> .  
04/05/2010 05:01 PM <DIR> ..  
04/05/2010 05:01 PM <DIR> 1.0  
04/05/2010 05:01 PM <DIR> 2.0  
0 File(s) 0 bytes

Directory of C:\Temp\vbecs\_patch\_1.5.0.0\_040510\nant\_bins\lib\mono\1.0

04/05/2010 05:01 PM <DIR> .  
04/05/2010 05:01 PM <DIR> ..  
04/05/2010 11:02 AM 174,592 NDoc.Core.dll  
04/05/2010 11:02 AM 318,464 NDoc.Documenter.Msdn.dll  
04/05/2010 11:02 AM 16,896 NDoc.ExtendedUI.dll  
04/05/2010 11:02 AM 86,016 nunit.core.dll  
04/05/2010 11:02 AM 45,056 nunit.framework.dll  
04/05/2010 11:02 AM 86,016 nunit.util.dll  
6 File(s) 727,040 bytes

Directory of C:\Temp\vbecs\_patch\_1.5.0.0\_040510\nant\_bins\lib\mono\2.0

04/05/2010 05:01 PM <DIR> .  
04/05/2010 05:01 PM <DIR> ..  
04/05/2010 11:02 AM 174,592 NDoc.Core.dll  
04/05/2010 11:02 AM 318,464 NDoc.Documenter.Msdn.dll  
04/05/2010 11:02 AM 16,896 NDoc.ExtendedUI.dll  
04/05/2010 11:02 AM 86,016 nunit.core.dll

04/05/2010 11:02 AM 40,960 nunit.framework.dll

04/05/2010 11:02 AM 86,016 nunit.util.dll

6 File(s) 722,944 bytes

Directory of C:\Temp\vbecs\_patch\_1.5.0.0\_040510\nant\_bins\lib\net

04/05/2010 05:01 PM <DIR> .

04/05/2010 05:01 PM <DIR> ..

04/05/2010 05:01 PM <DIR> 1.0

04/05/2010 05:01 PM <DIR> 1.1

04/05/2010 05:01 PM <DIR> 2.0

04/05/2010 11:02 AM 73,728 CollectionGen.dll

04/05/2010 11:02 AM 11,776 Interop.MsmMergeTypeLib.dll

04/05/2010 11:02 AM 462,848 Interop.StarTeam.dll

04/05/2010 11:02 AM 32,768 Interop.WindowsInstaller.dll

04/05/2010 11:02 AM 61,440 SourceSafe.Interop.dll

5 File(s) 642,560 bytes

Directory of C:\Temp\vbecs\_patch\_1.5.0.0\_040510\nant\_bins\lib\net\1.0

04/05/2010 05:01 PM <DIR> .

04/05/2010 05:01 PM <DIR> ..

04/05/2010 11:02 AM 208,896 NDoc.Core.dll

04/05/2010 11:02 AM 331,776 NDoc.Documenter.Msdn.dll

04/05/2010 11:02 AM 28,672 NDoc.ExtendedUI.dll

04/05/2010 11:02 AM 86,016 nunit.core.dll

04/05/2010 11:02 AM 45,056 nunit.framework.dll

04/05/2010 11:02 AM 86,016 nunit.util.dll

6 File(s) 786,432 bytes

Directory of C:\Temp\vbecs\_patch\_1.5.0.0\_040510\nant\_bins\lib\net\1.1

04/05/2010 05:01 PM <DIR> .

```

04/05/2010 05:01 PM <DIR>      ..
04/05/2010 11:21 AM      10,240 AraxisAutoMergeLib.dll
04/05/2010 11:02 AM      208,896 NDoc.Core.dll
04/05/2010 11:02 AM      331,776 NDoc.Documenter.Msdn.dll
04/05/2010 11:02 AM      28,672 NDoc.ExtendedUI.dll
04/05/2010 11:02 AM      86,016 nunit.core.dll
04/05/2010 11:02 AM      45,056 nunit.framework.dll
04/05/2010 11:02 AM      86,016 nunit.util.dll
      7 File(s)      796,672 bytes

```

Directory of C:\Temp\vbecs\_patch\_1.5.0.0\_040510\nant\_bins\lib\net\2.0

```

04/05/2010 05:01 PM <DIR>      .
04/05/2010 05:01 PM <DIR>      ..
04/05/2010 11:02 AM      208,896 NDoc.Core.dll
04/05/2010 11:02 AM      331,776 NDoc.Documenter.Msdn.dll
04/05/2010 11:02 AM      28,672 NDoc.ExtendedUI.dll
04/05/2010 11:02 AM      86,016 nunit.core.dll
04/05/2010 11:02 AM      40,960 nunit.framework.dll
04/05/2010 11:02 AM      86,016 nunit.util.dll
      6 File(s)      782,336 bytes

```

Directory of C:\Temp\vbecs\_patch\_1.5.0.0\_040510\nant\_bins\tasks

```

04/05/2010 05:01 PM <DIR>      .
04/05/2010 05:01 PM <DIR>      ..
04/05/2010 05:01 PM <DIR>      net
      0 File(s)      0 bytes

```

Directory of C:\Temp\vbecs\_patch\_1.5.0.0\_040510\nant\_bins\tasks\net

```

04/05/2010 05:01 PM <DIR>      .
04/05/2010 05:01 PM <DIR>      ..

```

```

04/05/2010 11:02 AM      27,136 MSITaskErrors.mst
04/05/2010 11:02 AM      27,136 MSMTaskErrors.mst
04/05/2010 11:02 AM     249,344 MSMTaskTemplate.msm
04/05/2010 11:02 AM     565,248 NAnt.Contrib.Tasks.dll
04/05/2010 11:02 AM     912,774 NAnt.Contrib.Tasks.xml
      5 File(s)    1,781,638 bytes

```

Directory of C:\Temp\vbecs\_patch\_1.5.0.0\_040510\patch\_bins

```

04/05/2010 05:01 PM <DIR>      .
04/05/2010 05:01 PM <DIR>      ..
04/05/2010 05:01 PM <DIR>      VBECS Bins
04/05/2010 05:01 PM <DIR>      VBECS WinServices
      0 File(s)      0 bytes

```

Directory of C:\Temp\vbecs\_patch\_1.5.0.0\_040510\patch\_bins\VBECS Bins

```

04/05/2010 05:01 PM <DIR>      .
04/05/2010 05:01 PM <DIR>      ..
03/29/2010 01:58 PM      4,431,872 Reports.dll
03/29/2010 01:58 PM      475,136 VBECS.Admin.exe
03/29/2010 01:58 PM      630,784 VBECS.AppResources.dll
03/29/2010 01:58 PM      1,036,288 VBECS.BOL.dll
04/05/2010 09:27 AM      1,257,096 VBECS.chm
03/29/2010 01:58 PM      851,968 VBECS.Common.dll
03/29/2010 01:58 PM      2,207,744 VBECS.Controls.dll
03/29/2010 01:58 PM      278,528 VBECS.DAL.dll
03/29/2010 01:57 PM      6,918,144 VBECS.exe
03/29/2010 01:55 PM      28,672 VBECS.HL7.OpenLibrary.dll
03/29/2010 01:58 PM      61,440 VBECS.HL7AL.dll
03/29/2010 01:58 PM      53,248 VBECS.VAL.dll
03/29/2010 01:54 PM      40,960 VistALink.Client.dll
03/29/2010 01:54 PM      282,624 VistALink.OpenLibrary.dll

```

14 File(s) 18,554,504 bytes

Directory of C:\Temp\vbecs\_patch\_1.5.0.0\_040510\patch\_bins\VBECs WinServices

```
04/05/2010 05:01 PM <DIR> .
04/05/2010 05:01 PM <DIR> ..
04/05/2010 05:01 PM <DIR> VBECs CPRS HL7 Client Monitor
04/05/2010 05:01 PM <DIR> VBECs CPRS HL7 Listener
04/05/2010 05:01 PM <DIR> VBECs HL7 Multi Listener
04/05/2010 05:01 PM <DIR> VBECs Patient Merge HL7 Listener
04/05/2010 05:01 PM <DIR> VBECs Patient Update HL7 Listener
04/05/2010 05:01 PM <DIR> VBECs Scheduled Report Runner
04/05/2010 05:01 PM <DIR> VBECs Service Monitor
04/05/2010 05:01 PM <DIR> VBECs VistALink RPC XML Listener
0 File(s) 0 bytes
```

Directory of C:\Temp\vbecs\_patch\_1.5.0.0\_040510\patch\_bins\VBECs WinServices\VBECs CPRS HL7 Client Monitor

```
04/05/2010 05:01 PM <DIR> .
04/05/2010 05:01 PM <DIR> ..
03/29/2010 01:58 PM 630,784 VBECs.AppResources.dll
03/29/2010 01:58 PM 851,968 VBECs.Common.dll
03/29/2010 01:58 PM 278,528 VBECs.DAL.dll
03/29/2010 01:55 PM 28,672 VBECs.HL7.OpenLibrary.dll
03/29/2010 01:58 PM 61,440 VBECs.HL7AL.dll
03/29/2010 02:03 PM 20,480 VbcsCprsHL7ClientService.exe
03/29/2010 01:54 PM 40,960 VistALink.Client.dll
03/29/2010 01:54 PM 282,624 VistALink.OpenLibrary.dll
8 File(s) 2,195,456 bytes
```

Directory of C:\Temp\vbecs\_patch\_1.5.0.0\_040510\patch\_bins\VBECs WinServices\VBECs CPRS HL7 Listener

```

04/05/2010 05:01 PM <DIR>      .
04/05/2010 05:01 PM <DIR>      ..
03/29/2010 01:58 PM      4,431,872 Reports.dll
03/29/2010 01:58 PM      630,784 VBECS.AppResources.dll
03/29/2010 01:58 PM      1,036,288 VBECS.BOL.dll
03/29/2010 01:58 PM      851,968 VBECS.Common.dll
03/29/2010 01:58 PM      278,528 VBECS.DAL.dll
03/29/2010 01:58 PM      36,864 VBECS.HL7.Listener.Core.dll
03/29/2010 01:55 PM      28,672 VBECS.HL7.OpenLibrary.dll
03/29/2010 01:58 PM      61,440 VBECS.HL7.Parsers.dll
03/29/2010 01:58 PM      61,440 VBECS.HL7AL.dll
03/29/2010 01:58 PM      53,248 VBECS.VAL.dll
03/29/2010 02:03 PM      20,480 VbecsCprsHL7ListenerService.exe
03/29/2010 01:54 PM      40,960 VistALink.Client.dll
03/29/2010 01:54 PM      282,624 VistALink.OpenLibrary.dll
      13 File(s)      7,815,168 bytes

```

Directory of C:\Temp\vbecs\_patch\_1.5.0.0\_040510\patch\_bins\VBECS WinServices\VBECS HL7 Multi Listener

```

04/05/2010 05:01 PM <DIR>      .
04/05/2010 05:01 PM <DIR>      ..
03/29/2010 01:58 PM      4,431,872 Reports.dll
03/29/2010 01:58 PM      630,784 VBECS.AppResources.dll
03/29/2010 01:58 PM      1,036,288 VBECS.BOL.dll
03/29/2010 01:58 PM      851,968 VBECS.Common.dll
03/29/2010 01:58 PM      278,528 VBECS.DAL.dll
03/29/2010 01:58 PM      36,864 VBECS.HL7.Listener.Core.dll
03/29/2010 01:58 PM      28,672 VBECS.HL7.OpenLibrary.dll
03/29/2010 01:58 PM      61,440 VBECS.HL7.Parsers.dll
03/29/2010 01:58 PM      61,440 VBECS.HL7AL.dll
03/29/2010 01:58 PM      53,248 VBECS.VAL.dll
03/29/2010 02:03 PM      24,576 VbecsHL7ListenerService.exe
03/29/2010 01:54 PM      40,960 VistALink.Client.dll

```



03/29/2010 01:54 PM 282,624 VistALink.OpenLibrary.dll  
13 File(s) 7,819,264 bytes

Directory of C:\Temp\vbecs\_patch\_1.5.0.0\_040510\patch\_bins\VBECs WinServices\VBECs Patient Merge HL7 Listener

04/05/2010 05:01 PM <DIR> .  
04/05/2010 05:01 PM <DIR> ..  
03/29/2010 01:58 PM 4,431,872 Reports.dll  
03/29/2010 01:58 PM 630,784 VBECs.AppResources.dll  
03/29/2010 01:58 PM 1,036,288 VBECs.BOL.dll  
03/29/2010 01:58 PM 851,968 VBECs.Common.dll  
03/29/2010 01:58 PM 278,528 VBECs.DAL.dll  
03/29/2010 01:58 PM 36,864 VBECs.HL7.Listener.Core.dll  
03/29/2010 01:58 PM 28,672 VBECs.HL7.OpenLibrary.dll  
03/29/2010 01:58 PM 61,440 VBECs.HL7.Parsers.dll  
03/29/2010 01:58 PM 61,440 VBECs.HL7AL.dll  
03/29/2010 01:58 PM 53,248 VBECs.VAL.dll  
03/29/2010 02:03 PM 20,480 VbcsPatientMergeHL7ListenerService.exe  
03/29/2010 01:54 PM 40,960 VistALink.Client.dll  
03/29/2010 01:54 PM 282,624 VistALink.OpenLibrary.dll  
13 File(s) 7,815,168 bytes

Directory of C:\Temp\vbecs\_patch\_1.5.0.0\_040510\patch\_bins\VBECs WinServices\VBECs Patient Update HL7 Listener

04/05/2010 05:01 PM <DIR> .  
04/05/2010 05:01 PM <DIR> ..  
03/29/2010 01:58 PM 4,431,872 Reports.dll  
03/29/2010 01:58 PM 630,784 VBECs.AppResources.dll  
03/29/2010 01:58 PM 1,036,288 VBECs.BOL.dll  
03/29/2010 01:58 PM 851,968 VBECs.Common.dll  
03/29/2010 01:58 PM 278,528 VBECs.DAL.dll  
03/29/2010 01:58 PM 36,864 VBECs.HL7.Listener.Core.dll

03/29/2010 01:58 PM	28,672 VBECS.HL7.OpenLibrary.dll
03/29/2010 01:58 PM	61,440 VBECS.HL7.Parsers.dll
03/29/2010 01:58 PM	61,440 VBECS.HL7AL.dll
03/29/2010 01:58 PM	53,248 VBECS.VAL.dll
03/29/2010 02:03 PM	20,480 VbecsPatientUpdateHL7ListenerService.exe
03/29/2010 01:54 PM	40,960 VistALink.Client.dll
03/29/2010 01:54 PM	282,624 VistALink.OpenLibrary.dll
13 File(s) 7,815,168 bytes	

Directory of C:\Temp\vbecs\_patch\_1.5.0.0\_040510\patch\_bins\VBECS WinServices\VBECS Scheduled Report Runner

04/05/2010 05:01 PM	<DIR>	.
04/05/2010 05:01 PM	<DIR>	..
03/29/2010 01:58 PM	4,431,872 Reports.dll	
03/29/2010 01:58 PM	630,784 VBECS.AppResources.dll	
03/29/2010 01:58 PM	1,036,288 VBECS.BOL.dll	
03/29/2010 01:58 PM	851,968 VBECS.Common.dll	
03/29/2010 01:58 PM	278,528 VBECS.DAL.dll	
03/29/2010 01:55 PM	28,672 VBECS.HL7.OpenLibrary.dll	
03/29/2010 01:58 PM	61,440 VBECS.HL7AL.dll	
03/29/2010 01:58 PM	53,248 VBECS.VAL.dll	
03/29/2010 02:03 PM	24,576 VbecsScheduledReportRunner.exe	
03/29/2010 01:54 PM	40,960 VistALink.Client.dll	
03/29/2010 01:54 PM	282,624 VistALink.OpenLibrary.dll	
11 File(s) 7,720,960 bytes		

Directory of C:\Temp\vbecs\_patch\_1.5.0.0\_040510\patch\_bins\VBECS WinServices\VBECS Service Monitor

04/05/2010 05:01 PM	<DIR>	.
04/05/2010 05:01 PM	<DIR>	..
03/29/2010 02:03 PM	36,864 VbecsServiceMonitor.exe	
03/29/2010 01:54 PM	282,624 VistALink.OpenLibrary.dll	

2 File(s) 319,488 bytes

Directory of C:\Temp\vbecs\_patch\_1.5.0.0\_040510\patch\_bins\VBECs WinServices\VBECs VistALink  
RPC XML Listener

04/05/2010 05:01 PM <DIR> .  
04/05/2010 05:01 PM <DIR> ..  
03/29/2010 01:58 PM 630,784 VBECs.AppResources.dll  
03/29/2010 01:58 PM 851,968 VBECs.Common.dll  
03/29/2010 01:58 PM 278,528 VBECs.DAL.dll  
03/29/2010 01:58 PM 53,248 VBECs.VAL.dll  
03/29/2010 01:54 PM 40,960 VistALink.Client.dll  
03/29/2010 02:00 PM 36,864 VistALink.Listener.Core.dll  
03/29/2010 02:03 PM 24,576 VistALink.Listener.WinService.exe  
03/29/2010 01:54 PM 282,624 VistALink.OpenLibrary.dll

8 File(s) 2,199,552 bytes

Directory of C:\Temp\vbecs\_patch\_1.5.0.0\_040510\patch\_validation

04/05/2010 05:01 PM <DIR> .  
04/05/2010 05:01 PM <DIR> ..  
04/05/2010 05:01 PM <DIR> prod  
04/05/2010 05:01 PM <DIR> test

0 File(s) 0 bytes

Directory of C:\Temp\vbecs\_patch\_1.5.0.0\_040510\patch\_validation\prod

04/05/2010 05:01 PM <DIR> .  
04/05/2010 05:01 PM <DIR> ..  
08/16/2005 12:57 AM 471,040 HHActiveX.dll  
06/16/2008 03:12 PM 4,431,872 Reports.dll  
12/20/2007 10:12 PM 475,136 VBECs.Admin.exe  
12/20/2007 10:12 PM 626,688 VBECs.AppResources.dll  
06/16/2008 03:12 PM 1,032,192 VBECs.BOL.dll

06/16/2008 04:09 PM	1,160,310 VBECS.chm
06/16/2008 03:12 PM	847,872 VBECS.Common.dll
12/20/2007 10:12 PM	2,203,648 VBECS.Controls.dll
06/16/2008 03:12 PM	278,528 VBECS.DAL.dll
12/20/2007 10:12 PM	6,922,240 VBECS.exe
04/30/2007 08:33 PM	24,576 VBECS.HL7.OpenLibrary.dll
06/16/2008 03:12 PM	57,344 VBECS.HL7AL.dll
06/16/2008 03:12 PM	53,248 VBECS.VAL.dll
12/20/2007 10:19 PM	40,960 VistALink.Client.dll
12/20/2007 10:19 PM	282,624 VistALink.OpenLibrary.dll
04/05/2010 05:01 PM	<DIR> WinServices
15 File(s) 18,908,278 bytes	

Directory of C:\Temp\vbecs\_patch\_1.5.0.0\_040510\patch\_validation\prod\WinServices

04/05/2010 05:01 PM	<DIR>	.
04/05/2010 05:01 PM	<DIR>	..
04/05/2010 05:01 PM	<DIR>	VBECS CPRS HL7 Client Monitor
04/05/2010 05:01 PM	<DIR>	VBECS CPRS HL7 Listener
04/05/2010 05:01 PM	<DIR>	VBECS HL7 Multi Listener
04/05/2010 05:01 PM	<DIR>	VBECS Patient Merge HL7 Listener
04/05/2010 05:01 PM	<DIR>	VBECS Patient Update HL7 Listener
04/05/2010 05:01 PM	<DIR>	VBECS Scheduled Report Runner
04/05/2010 05:01 PM	<DIR>	VBECS VistALink RPC XML Listener
0 File(s) 0 bytes		

Directory of C:\Temp\vbecs\_patch\_1.5.0.0\_040510\patch\_validation\prod\WinServices\VBECS CPRS HL7 Client Monitor

04/05/2010 05:01 PM	<DIR>	.
04/05/2010 05:01 PM	<DIR>	..
12/20/2007 10:12 PM	626,688 VBECS.AppResources.dll	
06/16/2008 03:12 PM	847,872 VBECS.Common.dll	
06/16/2008 03:12 PM	278,528 VBECS.DAL.dll	

04/30/2007 08:33 PM	24,576 VBECS.HL7.OpenLibrary.dll
06/16/2008 03:12 PM	57,344 VBECS.HL7AL.dll
04/30/2007 08:40 PM	20,480 VbecsCprsHL7ClientService.exe
12/20/2007 10:19 PM	40,960 VistALink.Client.dll
12/20/2007 10:19 PM	282,624 VistALink.OpenLibrary.dll
8 File(s) 2,179,072 bytes	

Directory of C:\Temp\vbecs\_patch\_1.5.0.0\_040510\patch\_validation\prod\WinServices\VBECS CPRS HL7 Listener

04/05/2010 05:01 PM	<DIR>	.
04/05/2010 05:01 PM	<DIR>	..
06/16/2008 03:12 PM	4,431,872 Reports.dll	
12/20/2007 10:12 PM	626,688 VBECS.AppResources.dll	
06/16/2008 03:12 PM	1,032,192 VBECS.BOL.dll	
06/16/2008 03:12 PM	847,872 VBECS.Common.dll	
06/16/2008 03:12 PM	278,528 VBECS.DAL.dll	
12/20/2007 10:14 PM	28,672 VBECS.HL7.Listener.Core.dll	
04/30/2007 08:33 PM	24,576 VBECS.HL7.OpenLibrary.dll	
12/20/2007 10:14 PM	61,440 VBECS.HL7.Parsers.dll	
06/16/2008 03:12 PM	57,344 VBECS.HL7AL.dll	
06/16/2008 03:12 PM	53,248 VBECS.VAL.dll	
07/07/2006 07:18 AM	20,480 VbecsCprsHL7ListenerService.exe	
12/20/2007 10:19 PM	40,960 VistALink.Client.dll	
12/20/2007 10:19 PM	282,624 VistALink.OpenLibrary.dll	
13 File(s) 7,786,496 bytes		

Directory of C:\Temp\vbecs\_patch\_1.5.0.0\_040510\patch\_validation\prod\WinServices\VBECS HL7 Multi Listener

04/05/2010 05:01 PM	<DIR>	.
04/05/2010 05:01 PM	<DIR>	..
06/16/2008 03:12 PM	4,431,872 Reports.dll	
12/20/2007 10:12 PM	626,688 VBECS.AppResources.dll	

06/16/2008 03:12 PM	1,032,192 VBECS.BOL.dll
06/16/2008 03:12 PM	847,872 VBECS.Common.dll
06/16/2008 03:12 PM	278,528 VBECS.DAL.dll
12/20/2007 10:14 PM	28,672 VBECS.HL7.Listener.Core.dll
04/30/2007 08:33 PM	24,576 VBECS.HL7.OpenLibrary.dll
12/20/2007 10:14 PM	61,440 VBECS.HL7.Parsers.dll
06/16/2008 03:12 PM	57,344 VBECS.HL7AL.dll
06/16/2008 03:12 PM	53,248 VBECS.VAL.dll
07/07/2006 07:18 AM	24,576 VbecsHL7ListenerService.exe
12/20/2007 10:19 PM	40,960 VistALink.Client.dll
12/20/2007 10:19 PM	282,624 VistALink.OpenLibrary.dll
13 File(s)	7,790,592 bytes

Directory of C:\Temp\vbecs\_patch\_1.5.0.0\_040510\patch\_validation\prod\WinServices\VBECS Patient Merge HL7 Listener

04/05/2010 05:01 PM	<DIR>	.
04/05/2010 05:01 PM	<DIR>	..
06/16/2008 03:12 PM	4,431,872 Reports.dll	
12/20/2007 10:12 PM	626,688 VBECS.AppResources.dll	
06/16/2008 03:12 PM	1,032,192 VBECS.BOL.dll	
06/16/2008 03:12 PM	847,872 VBECS.Common.dll	
06/16/2008 03:12 PM	278,528 VBECS.DAL.dll	
12/20/2007 10:14 PM	28,672 VBECS.HL7.Listener.Core.dll	
04/30/2007 08:33 PM	24,576 VBECS.HL7.OpenLibrary.dll	
12/20/2007 10:14 PM	61,440 VBECS.HL7.Parsers.dll	
06/16/2008 03:12 PM	57,344 VBECS.HL7AL.dll	
06/16/2008 03:12 PM	53,248 VBECS.VAL.dll	
07/07/2006 07:18 AM	20,480 VbecsPatientMergeHL7ListenerService.exe	
12/20/2007 10:19 PM	40,960 VistALink.Client.dll	
12/20/2007 10:19 PM	282,624 VistALink.OpenLibrary.dll	
13 File(s)	7,786,496 bytes	

Directory of C:\Temp\vbecs\_patch\_1.5.0.0\_040510\patch\_validation\prod\WinServices\VBECs Patient Update HL7 Listener

```
04/05/2010 05:01 PM <DIR>      .
04/05/2010 05:01 PM <DIR>      ..
06/16/2008 03:12 PM      4,431,872 Reports.dll
12/20/2007 10:12 PM      626,688 VBECs.AppResources.dll
06/16/2008 03:12 PM      1,032,192 VBECs.BOL.dll
06/16/2008 03:12 PM      847,872 VBECs.Common.dll
06/16/2008 03:12 PM      278,528 VBECs.DAL.dll
12/20/2007 10:14 PM      28,672 VBECs.HL7.Listener.Core.dll
04/30/2007 08:33 PM      24,576 VBECs.HL7.OpenLibrary.dll
12/20/2007 10:14 PM      61,440 VBECs.HL7.Parsers.dll
06/16/2008 03:12 PM      57,344 VBECs.HL7AL.dll
06/16/2008 03:12 PM      53,248 VBECs.VAL.dll
07/07/2006 07:18 AM      20,480 VbcsPatientUpdateHL7ListenerService.exe
12/20/2007 10:19 PM      40,960 VistALink.Client.dll
12/20/2007 10:19 PM      282,624 VistALink.OpenLibrary.dll
      13 File(s)      7,786,496 bytes
```

Directory of C:\Temp\vbecs\_patch\_1.5.0.0\_040510\patch\_validation\prod\WinServices\VBECs Scheduled Report Runner

```
04/05/2010 05:01 PM <DIR>      .
04/05/2010 05:01 PM <DIR>      ..
06/16/2008 03:12 PM      4,431,872 Reports.dll
12/20/2007 10:12 PM      626,688 VBECs.AppResources.dll
06/16/2008 03:12 PM      1,032,192 VBECs.BOL.dll
06/16/2008 03:12 PM      847,872 VBECs.Common.dll
06/16/2008 03:12 PM      278,528 VBECs.DAL.dll
04/30/2007 08:33 PM      24,576 VBECs.HL7.OpenLibrary.dll
06/16/2008 03:12 PM      57,344 VBECs.HL7AL.dll
06/16/2008 03:12 PM      53,248 VBECs.VAL.dll
07/07/2006 07:18 AM      24,576 VbcsScheduledReportRunner.exe
```

12/20/2007 10:19 PM 40,960 VistALink.Client.dll  
 12/20/2007 10:19 PM 282,624 VistALink.OpenLibrary.dll  
 11 File(s) 7,700,480 bytes

Directory of C:\Temp\vbecs\_patch\_1.5.0.0\_040510\patch\_validation\prod\WinServices\VBECs  
 VistALink RPC XML Listener

04/05/2010 05:01 PM <DIR> .  
 04/05/2010 05:01 PM <DIR> ..  
 12/20/2007 10:12 PM 626,688 VBECs.AppResources.dll  
 06/16/2008 03:12 PM 847,872 VBECs.Common.dll  
 06/16/2008 03:12 PM 278,528 VBECs.DAL.dll  
 06/16/2008 03:12 PM 53,248 VBECs.VAL.dll  
 12/20/2007 10:19 PM 40,960 VistALink.Client.dll  
 06/20/2006 05:21 AM 36,864 VistALink.Listener.Core.dll  
 06/20/2006 05:21 AM 16,384 VistALink.Listener.Core.UnitTest.MockRpcContainer.dll  
 04/30/2007 08:40 PM 24,576 VistALink.Listener.WinService.exe  
 12/20/2007 10:19 PM 282,624 VistALink.OpenLibrary.dll  
 06/20/2006 05:21 AM 401,408 VistALink.OpenLibrary.UnitTest.dll  
 10 File(s) 2,609,152 bytes

Directory of C:\Temp\vbecs\_patch\_1.5.0.0\_040510\patch\_validation\test

04/05/2010 05:01 PM <DIR> .  
 04/05/2010 05:01 PM <DIR> ..  
 08/16/2005 12:57 AM 471,040 HHActiveX.dll  
 06/16/2008 03:12 PM 4,431,872 Reports.dll  
 12/20/2007 10:12 PM 475,136 VBECs.Admin.exe  
 12/20/2007 10:12 PM 626,688 VBECs.AppResources.dll  
 06/16/2008 03:12 PM 1,032,192 VBECs.BOL.dll  
 06/16/2008 04:09 PM 1,160,310 VBECs.chm  
 06/16/2008 03:12 PM 847,872 VBECs.Common.dll  
 12/20/2007 10:12 PM 2,203,648 VBECs.Controls.dll  
 06/16/2008 03:12 PM 278,528 VBECs.DAL.dll



12/20/2007 10:12 PM	6,922,240 VBECS.exe
04/30/2007 08:33 PM	24,576 VBECS.HL7.OpenLibrary.dll
06/16/2008 03:12 PM	57,344 VBECS.HL7AL.dll
06/16/2008 03:12 PM	53,248 VBECS.VAL.dll
12/20/2007 10:19 PM	40,960 VistALink.Client.dll
12/20/2007 10:19 PM	282,624 VistALink.OpenLibrary.dll
04/05/2010 05:01 PM	<DIR> WinServices
15 File(s) 18,908,278 bytes	

Directory of C:\Temp\vbecs\_patch\_1.5.0.0\_040510\patch\_validation\test\WinServices

04/05/2010 05:01 PM	<DIR>	.
04/05/2010 05:01 PM	<DIR>	..
04/05/2010 05:01 PM	<DIR>	VBECS Test CPRS HL7 Client Monitor
04/05/2010 05:01 PM	<DIR>	VBECS Test CPRS HL7 Listener
04/05/2010 05:01 PM	<DIR>	VBECS Test HL7 Multi Listener
04/05/2010 05:01 PM	<DIR>	VBECS Test Patient Merge HL7 Listener
04/05/2010 05:01 PM	<DIR>	VBECS Test Patient Update HL7 Listener
04/05/2010 05:01 PM	<DIR>	VBECS Test Scheduled Report Runner
04/05/2010 05:01 PM	<DIR>	VBECS Test VistALink RPC XML Listener
0 File(s) 0 bytes		

Directory of C:\Temp\vbecs\_patch\_1.5.0.0\_040510\patch\_validation\test\WinServices\VBECS Test CPRS HL7 Client Monitor

04/05/2010 05:01 PM	<DIR>	.
04/05/2010 05:01 PM	<DIR>	..
12/20/2007 10:12 PM	626,688 VBECS.AppResources.dll	
06/16/2008 03:12 PM	847,872 VBECS.Common.dll	
06/16/2008 03:12 PM	278,528 VBECS.DAL.dll	
04/30/2007 08:33 PM	24,576 VBECS.HL7.OpenLibrary.dll	
06/16/2008 03:12 PM	57,344 VBECS.HL7AL.dll	
04/30/2007 08:40 PM	20,480 VbcsCprsHL7ClientService.exe	
12/20/2007 10:19 PM	40,960 VistALink.Client.dll	

12/20/2007 10:19 PM 282,624 VistALink.OpenLibrary.dll

8 File(s) 2,179,072 bytes

Directory of C:\Temp\vbecs\_patch\_1.5.0.0\_040510\patch\_validation\test\WinServices\VBECs Test CPRS HL7 Listener

04/05/2010 05:01 PM <DIR> .  
04/05/2010 05:01 PM <DIR> ..  
06/16/2008 03:12 PM 4,431,872 Reports.dll  
12/20/2007 10:12 PM 626,688 VBECs.AppResources.dll  
06/16/2008 03:12 PM 1,032,192 VBECs.BOL.dll  
06/16/2008 03:12 PM 847,872 VBECs.Common.dll  
06/16/2008 03:12 PM 278,528 VBECs.DAL.dll  
12/20/2007 10:14 PM 28,672 VBECs.HL7.Listener.Core.dll  
04/30/2007 08:33 PM 24,576 VBECs.HL7.OpenLibrary.dll  
12/20/2007 10:14 PM 61,440 VBECs.HL7.Parsers.dll  
06/16/2008 03:12 PM 57,344 VBECs.HL7AL.dll  
06/16/2008 03:12 PM 53,248 VBECs.VAL.dll  
07/07/2006 07:18 AM 20,480 VbcsCprsHL7ListenerService.exe  
12/20/2007 10:19 PM 40,960 VistALink.Client.dll  
12/20/2007 10:19 PM 282,624 VistALink.OpenLibrary.dll

13 File(s) 7,786,496 bytes

Directory of C:\Temp\vbecs\_patch\_1.5.0.0\_040510\patch\_validation\test\WinServices\VBECs Test HL7 Multi Listener

04/05/2010 05:01 PM <DIR> .  
04/05/2010 05:01 PM <DIR> ..  
06/16/2008 03:12 PM 4,431,872 Reports.dll  
12/20/2007 10:12 PM 626,688 VBECs.AppResources.dll  
06/16/2008 03:12 PM 1,032,192 VBECs.BOL.dll  
06/16/2008 03:12 PM 847,872 VBECs.Common.dll  
06/16/2008 03:12 PM 278,528 VBECs.DAL.dll  
12/20/2007 10:14 PM 28,672 VBECs.HL7.Listener.Core.dll

04/30/2007 08:33 PM	24,576 VBECS.HL7.OpenLibrary.dll
12/20/2007 10:14 PM	61,440 VBECS.HL7.Parsers.dll
06/16/2008 03:12 PM	57,344 VBECS.HL7AL.dll
06/16/2008 03:12 PM	53,248 VBECS.VAL.dll
07/07/2006 07:18 AM	24,576 VbecsHL7ListenerService.exe
12/20/2007 10:19 PM	40,960 VistALink.Client.dll
12/20/2007 10:19 PM	282,624 VistALink.OpenLibrary.dll
13 File(s) 7,790,592 bytes	

Directory of C:\Temp\vbecs\_patch\_1.5.0.0\_040510\patch\_validation\test\WinServices\VBECS Test Patient Merge HL7 Listener

04/05/2010 05:01 PM	<DIR>	.
04/05/2010 05:01 PM	<DIR>	..
06/16/2008 03:12 PM	4,431,872 Reports.dll	
12/20/2007 10:12 PM	626,688 VBECS.AppResources.dll	
06/16/2008 03:12 PM	1,032,192 VBECS.BOL.dll	
06/16/2008 03:12 PM	847,872 VBECS.Common.dll	
06/16/2008 03:12 PM	278,528 VBECS.DAL.dll	
12/20/2007 10:14 PM	28,672 VBECS.HL7.Listener.Core.dll	
04/30/2007 08:33 PM	24,576 VBECS.HL7.OpenLibrary.dll	
12/20/2007 10:14 PM	61,440 VBECS.HL7.Parsers.dll	
06/16/2008 03:12 PM	57,344 VBECS.HL7AL.dll	
06/16/2008 03:12 PM	53,248 VBECS.VAL.dll	
07/07/2006 07:18 AM	20,480 VbecsPatientMergeHL7ListenerService.exe	
12/20/2007 10:19 PM	40,960 VistALink.Client.dll	
12/20/2007 10:19 PM	282,624 VistALink.OpenLibrary.dll	
13 File(s) 7,786,496 bytes		

Directory of C:\Temp\vbecs\_patch\_1.5.0.0\_040510\patch\_validation\test\WinServices\VBECS Test Patient Update HL7 Listener

04/05/2010 05:01 PM	<DIR>	.
04/05/2010 05:01 PM	<DIR>	..

06/16/2008 03:12 PM	4,431,872 Reports.dll
12/20/2007 10:12 PM	626,688 VBECS.AppResources.dll
06/16/2008 03:12 PM	1,032,192 VBECS.BOL.dll
06/16/2008 03:12 PM	847,872 VBECS.Common.dll
06/16/2008 03:12 PM	278,528 VBECS.DAL.dll
12/20/2007 10:14 PM	28,672 VBECS.HL7.Listener.Core.dll
04/30/2007 08:33 PM	24,576 VBECS.HL7.OpenLibrary.dll
12/20/2007 10:14 PM	61,440 VBECS.HL7.Parsers.dll
06/16/2008 03:12 PM	57,344 VBECS.HL7AL.dll
06/16/2008 03:12 PM	53,248 VBECS.VAL.dll
07/07/2006 07:18 AM	20,480 VbecsPatientUpdateHL7ListenerService.exe
12/20/2007 10:19 PM	40,960 VistALink.Client.dll
12/20/2007 10:19 PM	282,624 VistALink.OpenLibrary.dll

13 File(s) 7,786,496 bytes

Directory of C:\Temp\vbecs\_patch\_1.5.0.0\_040510\patch\_validation\test\WinServices\VBECS Test  
Scheduled Report Runner

04/05/2010 05:01 PM	<DIR>	.
04/05/2010 05:01 PM	<DIR>	..
06/16/2008 03:12 PM	4,431,872 Reports.dll	
12/20/2007 10:12 PM	626,688 VBECS.AppResources.dll	
06/16/2008 03:12 PM	1,032,192 VBECS.BOL.dll	
06/16/2008 03:12 PM	847,872 VBECS.Common.dll	
06/16/2008 03:12 PM	278,528 VBECS.DAL.dll	
04/30/2007 08:33 PM	24,576 VBECS.HL7.OpenLibrary.dll	
06/16/2008 03:12 PM	57,344 VBECS.HL7AL.dll	
06/16/2008 03:12 PM	53,248 VBECS.VAL.dll	
07/07/2006 07:18 AM	24,576 VbecsScheduledReportRunner.exe	
12/20/2007 10:19 PM	40,960 VistALink.Client.dll	
12/20/2007 10:19 PM	282,624 VistALink.OpenLibrary.dll	

11 File(s) 7,700,480 bytes

Directory of C:\Temp\vbecs\_patch\_1.5.0.0\_040510\patch\_validation\test\WinServices\VBECs Test  
VistALink RPC XML Listener

04/05/2010 05:01 PM <DIR> .  
04/05/2010 05:01 PM <DIR> ..  
12/20/2007 10:12 PM 626,688 VBECs.AppResources.dll  
06/16/2008 03:12 PM 847,872 VBECs.Common.dll  
06/16/2008 03:12 PM 278,528 VBECs.DAL.dll  
06/16/2008 03:12 PM 53,248 VBECs.VAL.dll  
12/20/2007 10:19 PM 40,960 VistALink.Client.dll  
06/20/2006 05:21 AM 36,864 VistALink.Listener.Core.dll  
06/20/2006 05:21 AM 16,384 VistALink.Listener.Core.UnitTest.MockRpcContainer.dll  
04/30/2007 08:40 PM 24,576 VistALink.Listener.WinService.exe  
12/20/2007 10:19 PM 282,624 VistALink.OpenLibrary.dll  
06/20/2006 05:21 AM 401,408 VistALink.OpenLibrary.UnitTest.dll  
10 File(s) 2,609,152 bytes

Directory of C:\Temp\vbecs\_patch\_1.5.0.0\_040510\utils

04/05/2010 05:01 PM <DIR> .  
04/05/2010 05:01 PM <DIR> ..  
04/05/2010 11:02 AM 582 create\_exe\_link.vbs  
04/05/2010 11:02 AM 6,832 Execute Remote Process.vbs  
04/05/2010 11:02 AM 57,344 osql.exe  
04/05/2010 11:02 AM 2,149 sc.vbs  
04/05/2010 11:21 AM 10,752 VBECsLock.exe  
04/05/2010 11:21 AM 32,768 VBECsLockWin.exe  
6 File(s) 110,427 bytes

Total Files Listed:

411 File(s) 204,396,107 bytes  
140 Dir(s) 94,242,549,760 bytes free

This page intentionally left blank.

[illegible]

This page intentionally left blank.



# Index

## D

Delete Patch Files	
Prod .....	25, 73
Test.....	45
Download and Verify the Contents of the VBECS Patch.....	5, 49
Download the VBECS 1.5.0.0 Patch File .....	5
Download the VBECS 1.5.0.0 Patch File .....	49

## E

Execute VBECS Patch Scripts against the Cluster	
Prod .....	66
Test.....	33

## H

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

## I

Installation Logs.....	79
Installation Procedure for the Production Environment.....	49
Instructions for Capturing Screen Shots for Installation Records.....	85
Introduction.....	1

## P

Prerequisites for Installation	
Production .....	56
Test.....	12
Problems?.....	3
Product Support .....	3

## R

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

## S

Screen Shots.....	3
Set Up Detailed Folders View .....	87

## V

VA Service Desk.....	3
VBECS Patch Installation Record Form for the Production Environment.....	93
VBECS Patch Installation Record Form for the Test Environment .....	89
Verify the Contents of the VBECS 1.5.0.0 Patch File.....	8
Verify the Contents of the VBECS 1.5.0.0 Patch File.....	52

This is the last page of *VistA Blood Establishment Computer Software (VBECS) 1.5.0.0 Patch Installation Guide*.