IBM *Engineering Documentation*

IBM

Customer Installation Instructions

TS7520 Patch Update for 3954-CV6 Virtualization Engine

update-ve1382upto29-SP05 – Install update-ve1382upto29-SP05, 2.2.5.29 service pack including all fixes up to 29 to Build 1382 on kernel 2.6.5-390; requiring server reboot. Requires console patch CVT2.2-Console-1382-07.

TS7520 Software Version 2.1 (Build 1382)
Patch update-ve1382upto29-SP05

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TS7520 Software Version 2.1 (Build 1382)
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Before Installation (Section 1 through 5)

> **Warning**:
>
> Throughout this documentation, there are occurrences of service passwords and sudo commands that are used to manage and configure the product. Improper use of these commands and passwords poses significant risk to the product and your data. It is imperative that these commands and passwords are used only as documented.

1.0 Machines Affected

This is a field patch installation instruction for the TS7520 3954-CV6 Virtualization Engine.

This patch should be installed on all TS7520 systems, with software version 2.1 that do not have patch update-ve1382upto29-SP05.

Important Note:

Technical Bulletin Regarding TS7500 and Removing Failover Configurations

If a machine is in a failed-over state or a take-over state, **you must NOT attempt to remove failover**. In addition, if failover must be removed to change configurations of the machine (such as IP addresses, etc.) then it must be ensured that the system is not in a failed-over state, a take-over state, or a failover-suspended state. If any of these cases are true, call IBM support immediately.

1.1 Check Software version of TS7520

You can check the version of TS7520 software and determine whether or not the patch is already installed, using the VE Console *Version Info* tab.

1. If necessary, start the TS7500 Virtualization Engine management console (VE console) workstation by performing one of the following:

    *   If there is a desktop shortcut for the **VE for Tape Console** application, double-click it.
    *   If there is not a desktop shortcut for the **VE for Tape Console** application, click **Start → All Programs → IBM → VE for Tape → VE for Tape Console**.

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> **Note:** This is the default installation location for the **VE for Tape Console** application. The location of the application might differ for you.

2. Double-click **VE for Tape Servers** to expand the TS7500 list.
3. Double-click any server icon.
4. In the VE for Tape User Login window, enter the following user name and password:

> Userid: **vetapeuser**
> Password: **veuserpassword**

> **Note:** The user name and password are case-sensitive

5. Click on the VE Console *Version Info* tab (refer to Figure 1) to see what patches you have installed. If you see "2.2.4.29" or "2.2.5.29" mentioned in the version info, then you already have Patch 29 installed. Please close the VE Console after you have verified this information.
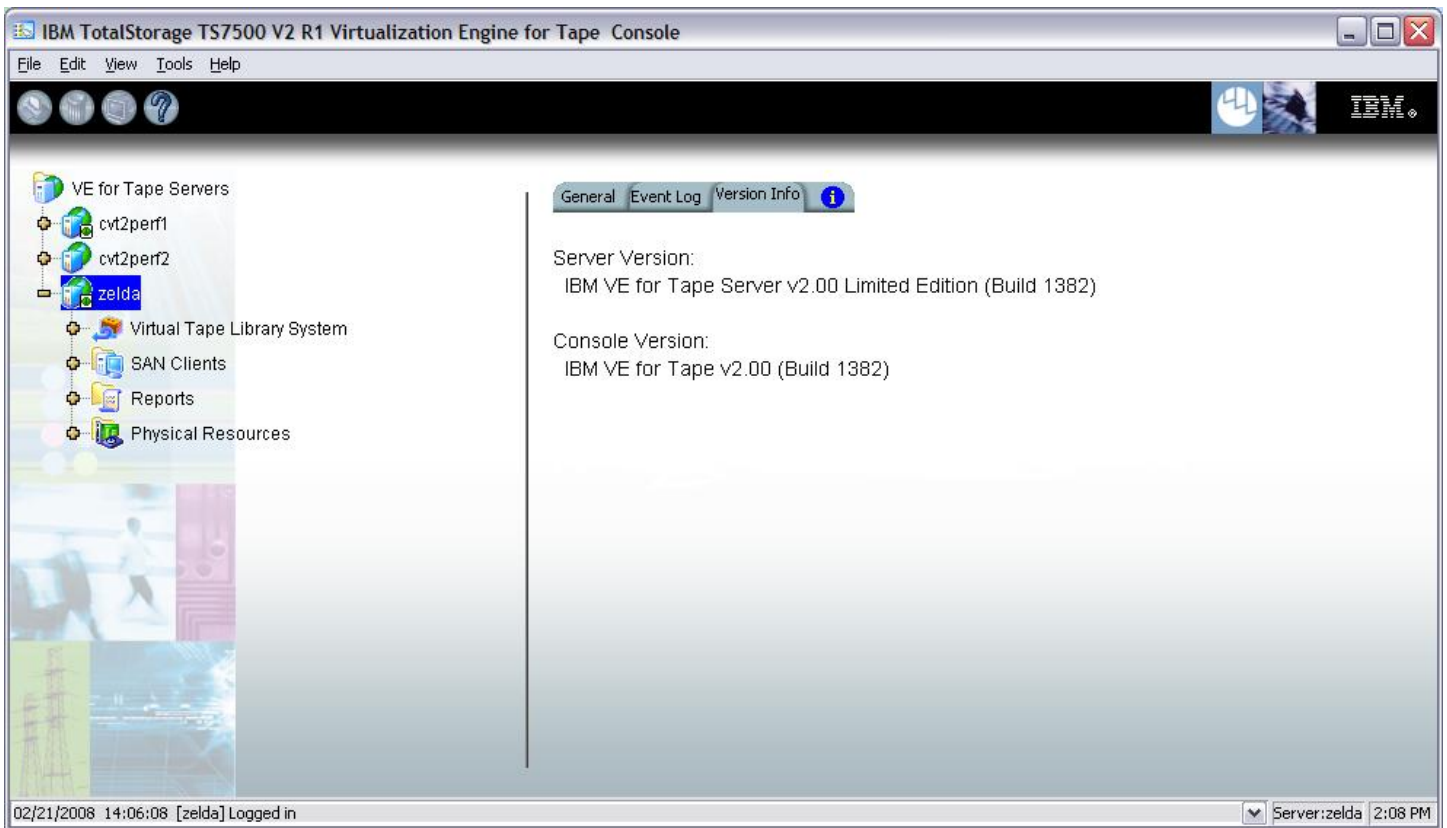

Figure 1

2.0 Prerequisites

If using a 64-bit Windows host, ensure the installed level of the IBMTape driver is at a minimum of 6.1.8.2 or higher.

You may also require the following software CDs if your system is not at the required levels for this patch.

TS7500 Software Upgrade Disk Version 2.2.2 (LCD8-0687-01)
http://www.elink.ibmlink.ibm.com/publications/servlet/pbi.wss
- TS7520 CVT Console Installation Disk v2.2.3 1382-06 (EC L30806 Part number 45E2071)

Attention:

Special notes for HA (High Availability) configurations

In each step, there will be times when the servers are required to be restarted or rebooted. Since this will trigger a failover, it is required that failover is **s**uspended. Instructions on how to suspend failover can be found in section 3.1 Suspend Failover (Only for systems with Failover configured).

Removing failover is **not recommended** and should never be done unless directed by IBM support prior to doing so.

If failover has been not configured yet, it is IBM's advice to first install the upgrades and patches outlined in this document prior to configuring HA. After failover has been suspended, it is important to allow enough time for the systems to activate their Primary Server IPs. While in most cases, it takes only 2 to 3 minutes for the server IP to become active, it can take a bit longer. If after 20 minutes, the server IP access has not been restored, please call IBM support for assistance.

2.1 update-ve1382upto29-SP05 required files and Prerequisites

1. Select the following patch level file and save it to a directory on the VE console workstation.

    - **update-ve1382upto29-SP05.zip**
    - **CVT2.2-Console-1382-07.zip**

2.2 TS7520 CVT Console Installation Disk v2.2.3 1382-07

The client portion of this patch requires that your console be at the above mentioned version. To verify if the **VE for Tape Console** application is at the required level, perform the following steps:

1. If necessary, repeat steps 1 through 4 in section 1.0 to start the **VE for Tape Console** application.
2. Click **Help → About TotalStorage TS7500…**

      a. If you have Build 1382-07 Update 2 Build Date: "Feb 12, 2009", as seen in the figure below, then you are at the required level and should proceed to section 6.1 to install the server portion of the patch.
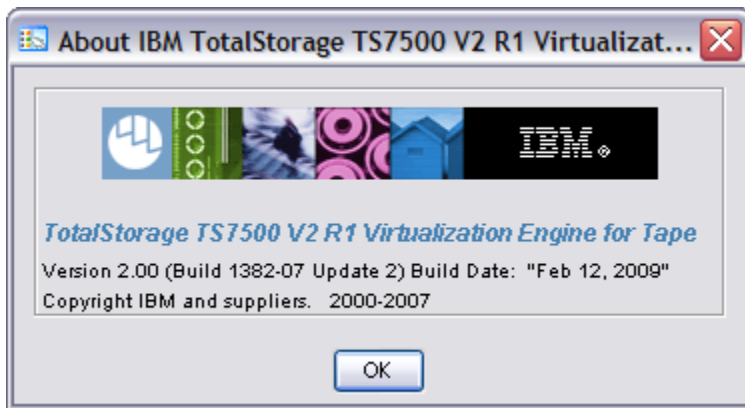
Figure 2

      b. If you have Build 1382 Build Date: "Oct 11, 2007", or later, as seen in the figure below, then you are at the 2.2 version of the console. You should proceed to sections 6.1 and 6.2 for instructions on how to install the server and console patches.

Figure 3

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c. If you have Build 1382 Build Date: "May 08, 2007", as seen in the figure below, then you are not at the 2.2 level of the console and will need to upgrade your VE console.
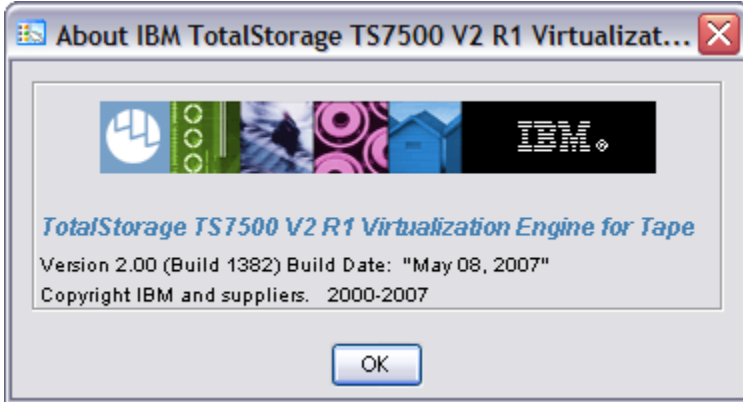
Perform the following steps to install the correct console version:

   i. Obtain the TS7520 CVT Console Installation Disk v2.2.3 1382-06 with part number: **45E2071**
  ii. Locate the TS7520 User's Guide (GC27-2068-02)
 iii. Go to the "Installing the VE console on a workstation running Windows" section in chapter 2 of the TS7520 User's Guide and follow the instructions on installing the VE console.

   Note: Please record the directory path where you install the VE for Tape Console if you do not use the default path. You will also need to follow the steps in sections "Starting the VE Console" and "Connecting to the TS7500 Virtualization Engine" to re-establish the connection between the TS7500 VE for Tape Console and all the TS7500 Virtualization Engine Servers which you want to manage using this VE for Tape Console.

  iv. Once finished, repeat step 2 to verify that the required VE console is installed.
   v. If the required version is listed, proceed to section 3.0. If version is still incorrect, please call IBM support for assistance.

3.0 Preparation

Installation of this patch is disruptive to normal TS7520 operation. Application of the patch will cause the 3954-CV6 server software to shutdown and restart. Application of the patch also requires the CV6 server itself to be rebooted. Schedule time when the TS7520 system can be taken out of normal operation.

Attention: **Ensure that all host jobs to the TS7520 are quiesced, and complete all pending TS7520 operations.**

3.1 Suspend Failover (Only for systems with Failover configured)

For HA configurations (FC-7420 Failover/Failback Enable), use the **VE for Tape Console** application to Suspend Failover on both 3954-CV6 servers in the frame. Refer to Figure 5 and Figure 6, and use the following procedure to Suspend Failover **on each server in the frame (both the upper and lower server if in an HA environment)**.

1. If necessary, repeat steps 1 through 4 in section 1.1 Check Software version of TS7520, to start the **VE for Tape Console** application and login to the VE for Tape server (Figure 5), or highlight the VE for Tape server if already connected, using the following userid and password:

   Userid: **vetapeuser**
   Password: **veuserpassword**

2. From the **VE for Tape Console** application, right-click the TS7520 Server.
3. Click **Failover → Suspend Failover**. Refer to Figure 6.

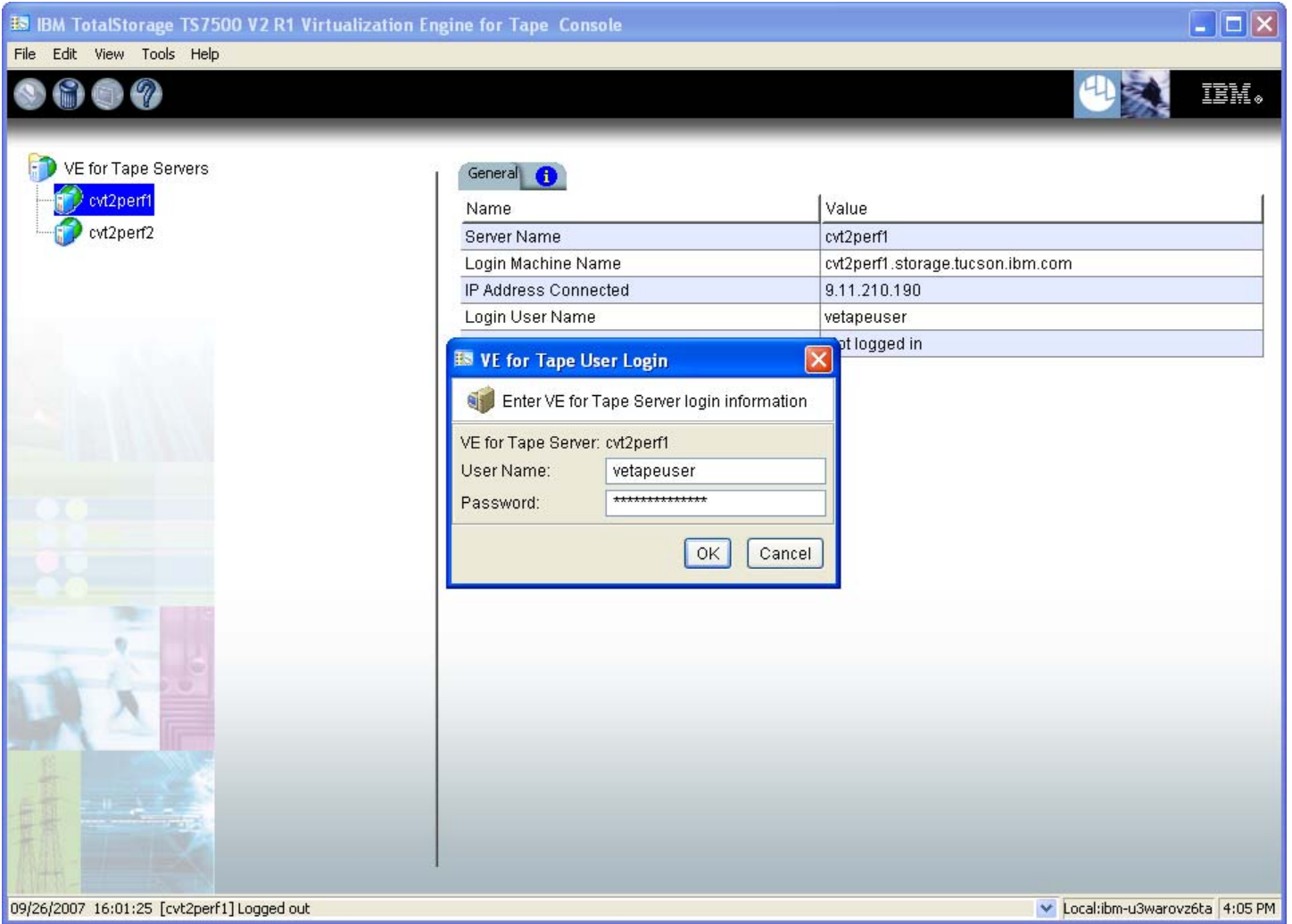© *Copyright IBM Corp.2009*

Figure 5

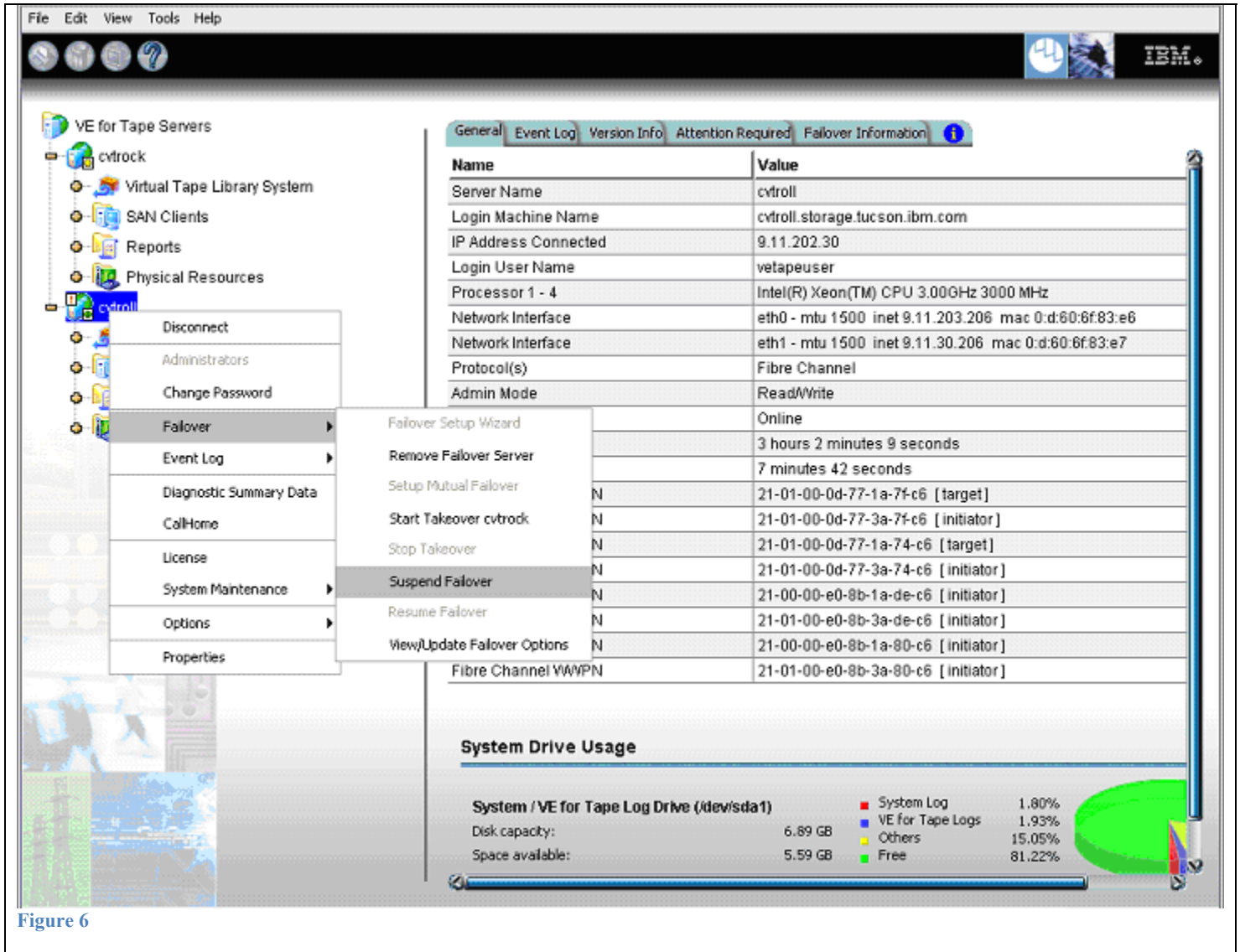| WARNING: |
| --- |
| You must choose **Suspend Failover** and not Remove Failover Server or any of the other options, otherwise unpredictable results may occur. |

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Figure 6

4.0 Purpose and Description

This patch should be installed on all TS7520 systems, with software version 2.1 that do not have patch update-ve1382upto29-SP05 installed.

5.0 Installation Time

The average time to install this patch on a HA configuration is 1.0 hour. The number of persons required to install the patch is 1.

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6.0 Details of Installation

Perform the steps outlined in section 6.1 Patch Installation **on each server** present before proceeding to section 6.2 Resume Failover. You should always start with the lower server in the frame and proceed to the upper server.

6.1 Patch Installation

Use the following procedure to install the patch on each 3954-CV6 VE for Tape server (both the upper and lower server if in an HA environment). Refer to Figure 7 through Figure 14.

1. Use a zip utility program to extract the contents of update-ve1382upto29-SP05.zip to a directory on your hard drive. Note this location as you will require this information in Step 5.
2. If necessary, repeat steps 1 through 4 in section 1.1 Check Software version of TS7520 to start the **VE for Tape Console** application.
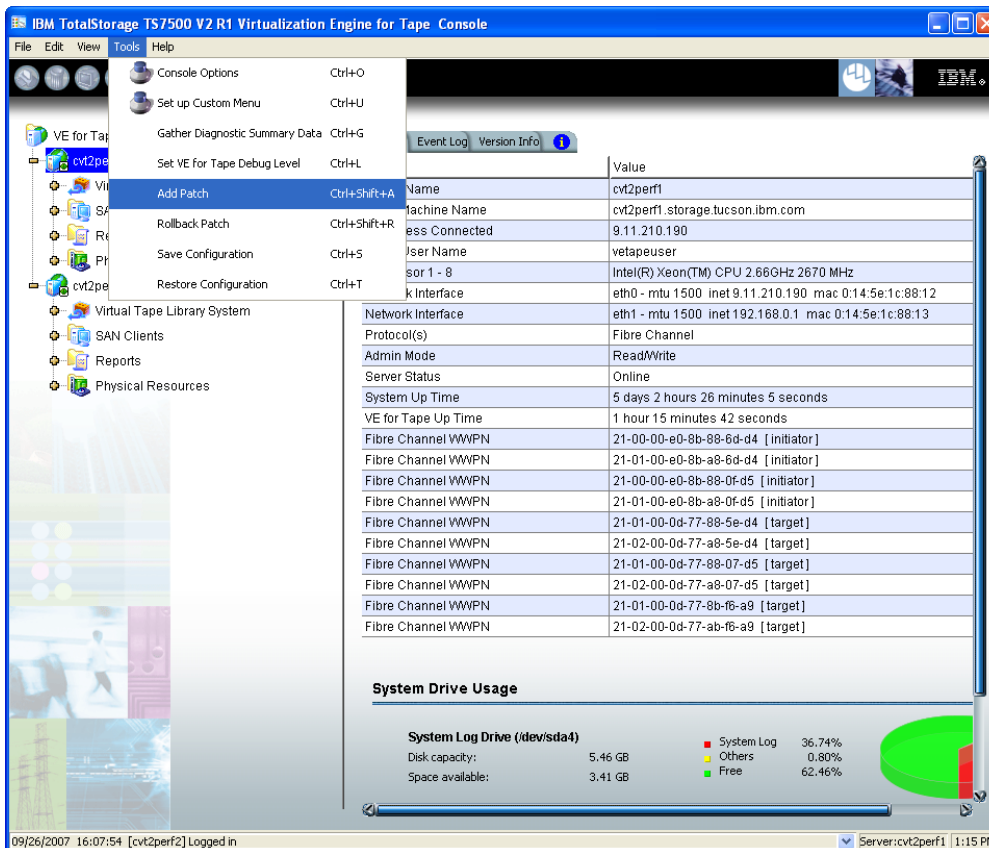3. Highlight the VE for Tape server and click ***Tools → Add Patch*** (Figure 7).

Figure 7

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4. Select "OK" when presented with the following Warning Message (Figure 8).
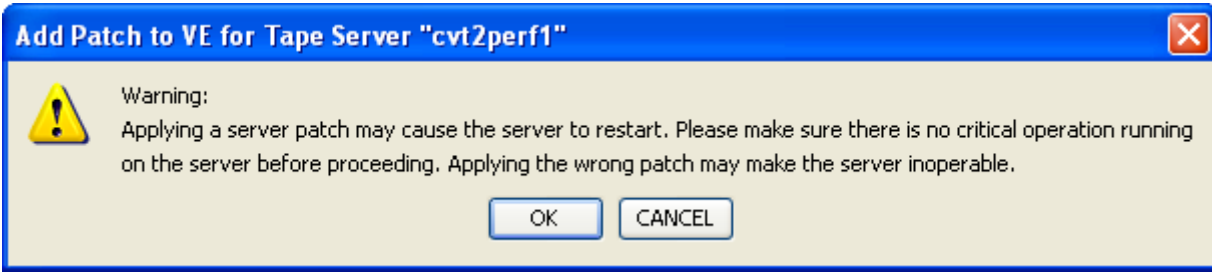

Figure 8

5. When presented with the Select Patch File window (Figure 9), index to the VE Console workstation directory where you unzipped the *update-ve1382upto29-SP05* patch file and select the file.
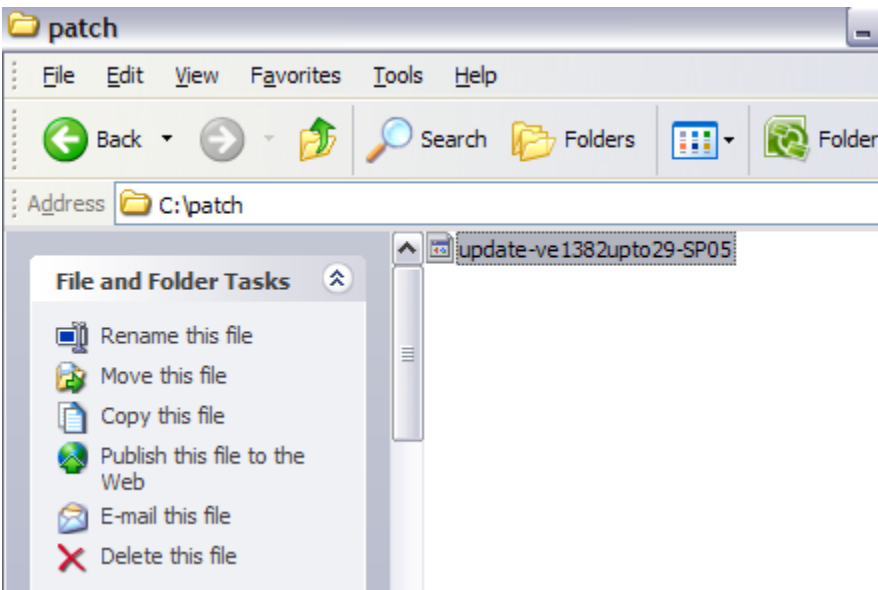

Figure 9

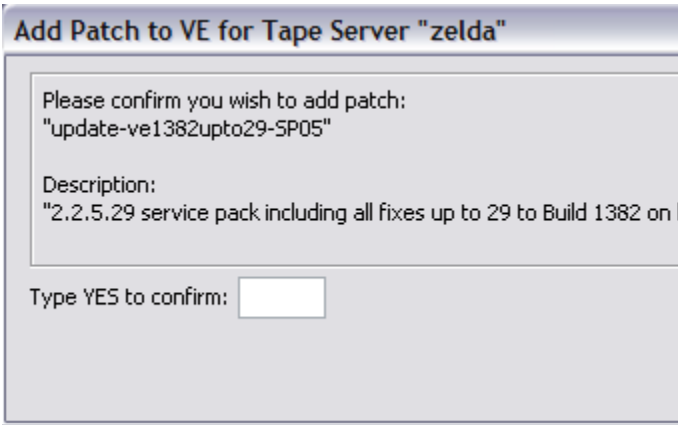6. When presented with the confirmation window, type "YES" to confirm (Figure 10)

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Figure 10

7. If the "Add Patch to VE for tape Server" window appears, click OK (Figure 11).

   Note: The server software will shutdown and restart.

Figure 11

8. The **VE for Tape Console** application will be disconnected from the VE for Tape server (Figure 12).
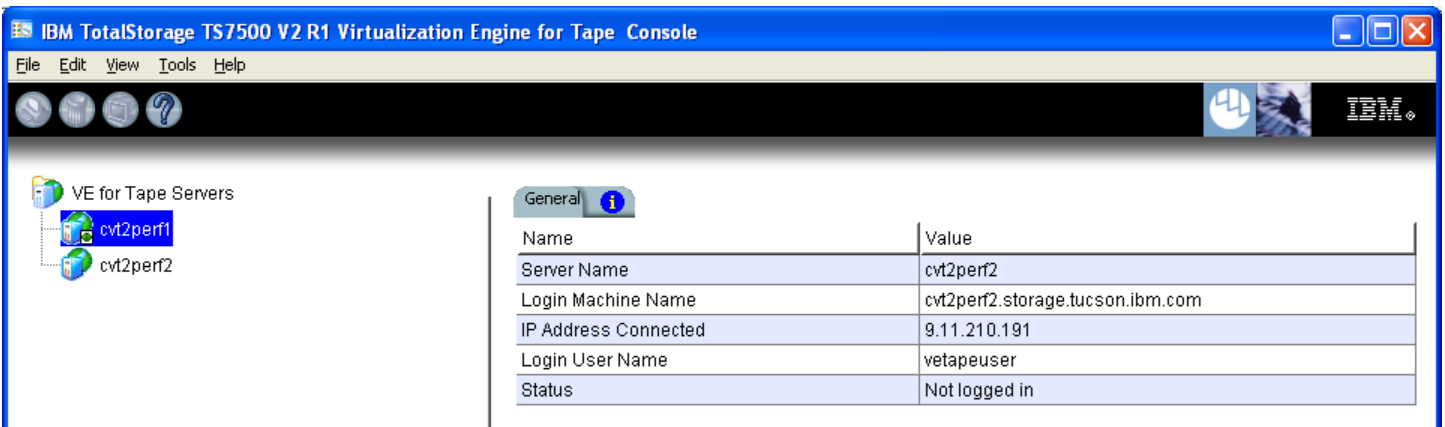

Figure 12

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9. Once the server software has completed the restart (approximately 2 to 5 minutes) you will be able connect to the VE for Tape server from the **VE for Tape Console** application (Figure 13).
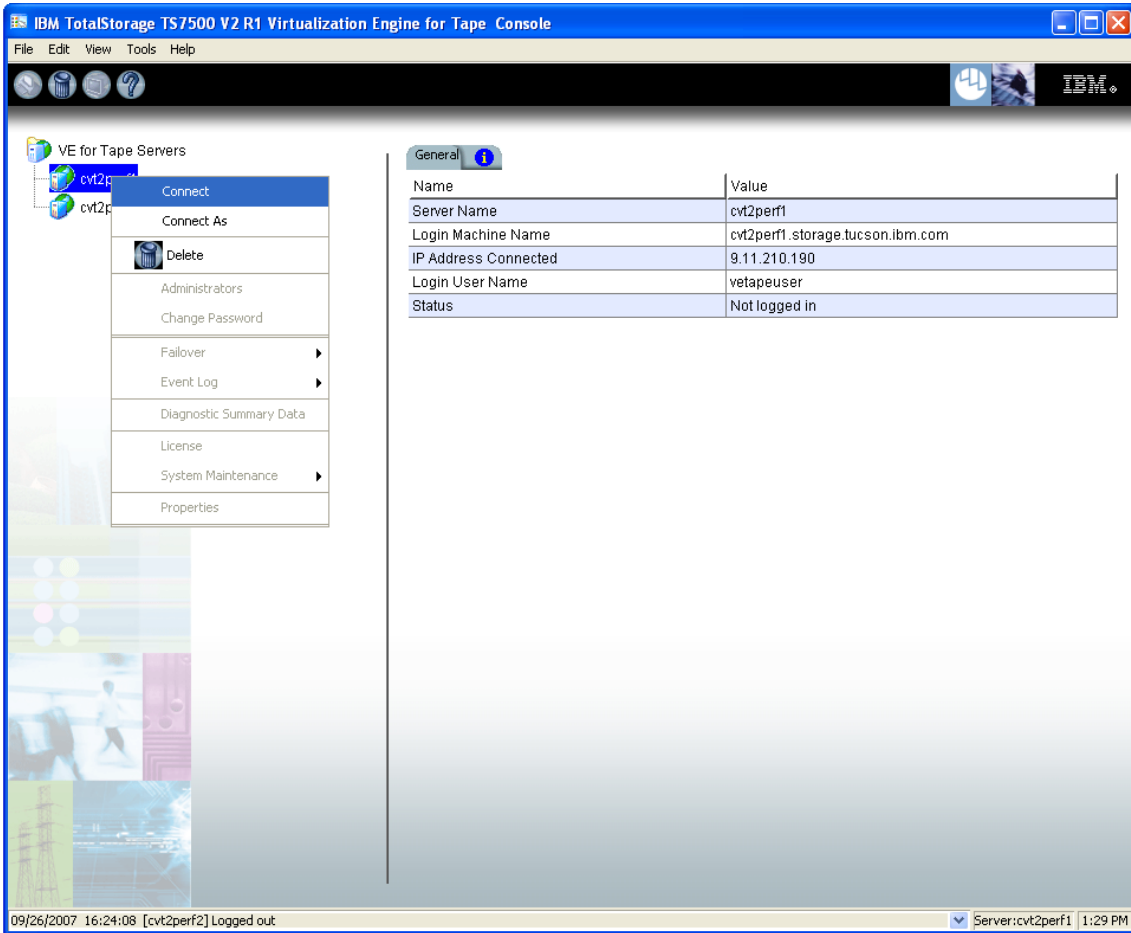
10. Check the TS7520 Event Log of each server, using the **VE for Tape Console** application *Event Log* tab, to confirm the successful installation of the patch (refer to Figure 14). There should be an Event Log entry stating the "Patch update-ve1382upto29-SP05 installation completed successfully".

    Note: You may have to scroll through the log in order to find this entry depending on the configuration of your TS7520.

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11. After patch installation has been verified, the server must be rebooted.
Open a PuTTY Session by performing the following steps from the PuTTY console:

> **Note:** If PuTTY is not installed, refer to "Install PuTTY on VE Console" in the TS7520 User's Guide (GC27-2068-02) and return to this point once complete.

    a. Click **Start**.
    b. Click **All Programs**.
    c. Click **PuTTY**.
    d. Click **PuTTY**.
    e. Enter IP Address of the server you are connecting to where specified.
    f. Select **Open**.
    g. Enter the following userid and password. The userid and password are case-sensitive.
        Login: **vetapeservice**
        Password: **service4u**
    h. At the command prompt, enter the following command:
        sudo shutdown -r now

12. Repeat the above steps (section 6.1) on the second server if in an HA configuration.
13. After the server reboots in 5-10 minutes, continue to section 6.2 VE Console Patch Installation.

Contact IBM support for assistance if the patch installation did not complete successfully.

6.2 VE Console Patch Installation

Perform the following steps on the VE console workstation.

> **Note:**
> - Do not perform the following steps if the VE console is not at the required level. Refer to section 2.2 - TS7520 CVT Console Installation Disk v2.2.3 1382-07.
> - If the **VE for Tape Console** application is open, please close the application prior to performing these steps.

1. Perform the following steps to backup the IPStorConsole.jar file:
   a. Navigate to the C:\Program Files\IBM\VE for Tape\Console\Bin\ directory and locate your **IPStorConsole.jar** file.

      Note: This directory may vary if you did not choose the default install location in Section 2.2.

   b. Right click on the **IPStorConsole.jar** file and select **rename** from the pop up window. Rename this file to IPStorConsole.old.
   c. Select **Yes** on the pop up confirmation window, if displayed.

2. Use a zip utility program to extract the contents of CVT2.2-Console-1382-07.zip to the C:\Program Files\IBM\VE for Tape\Console\Bin\ directory. The zip file includes a new version of **IPStorConsole.jar**.
   a. Navigate to the C:\Program Files\IBM\VE for Tape\Console\Bin directory and locate the file **CVT2.2-Console-1382-07.jar**.
   b. Right click on the file **CVT2.2-Console-1382-07.jar** and select **rename** from the pop up window. Rename this file to **IPStorConsole.jar**.
3. If prompted whether or not you wish to replace the destination files, choose **yes**.
4. You can verify that the patch was properly installed by starting the **VE for Tape Console** application and selecting the **Help → About menu**. If you are at Version 2.00 (Build 1382-07 Update 2) Build Date: "Feb 12, 2009", refer to the figure below, then you have successfully applied the VE console portion of this patch.
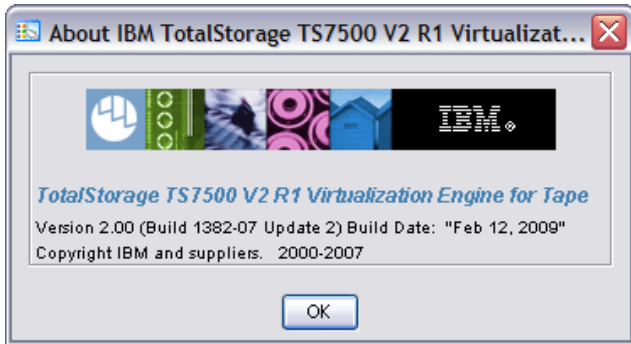
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Figure 15

6.3 Resume Failover (Only for systems with Failover configured)

> **Attention:**
>
> Only perform this step if section 6.1 Patch Installation has been successfully performed on both the upper and lower servers in the failover pair. If you have not already done so, perform the steps in section 6.1 Patch Installation on the other member of the failover pair.

For HA configurations (FC-7420 Failover/Failback Enable), use the **VE for Tape Console** application to Resume Failover on both 3954-CV6 servers. Refer to the following procedure to Resume Failover **on each server present (both the upper and lower server if in an HA environment).**

1. If necessary, repeat steps 1 through 4 in section 1.1 Check Software version of TS7520 to start the **VE for Tape Console** application and login to the VE for Tape server, or highlight the VE for Tape server if already connected, using the following userid and password:

   > Userid: **vetapeuser**
   > Password: **veuserpassword**

2. From the VE console, right-click the TS7520 Server.
3. Click **Failover →*Resume Failover***.
4. Repeat for upper server if in an HA environment.

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7.0 Rolling Back Patches

Warning: Patch rollback should be done only as per recommendation of your Technical Support Representative. Improper rollback of a patch may cause damage to your system.

Follow the procedures in section 3.1 Suspend Failover (Only for systems with Failover configured) to suspend failover before rolling back any patches.

1. If necessary, repeat steps 1 through 4 in section 1.1 Check Software version of TS7520 to start the **VE for Tape Console** application.
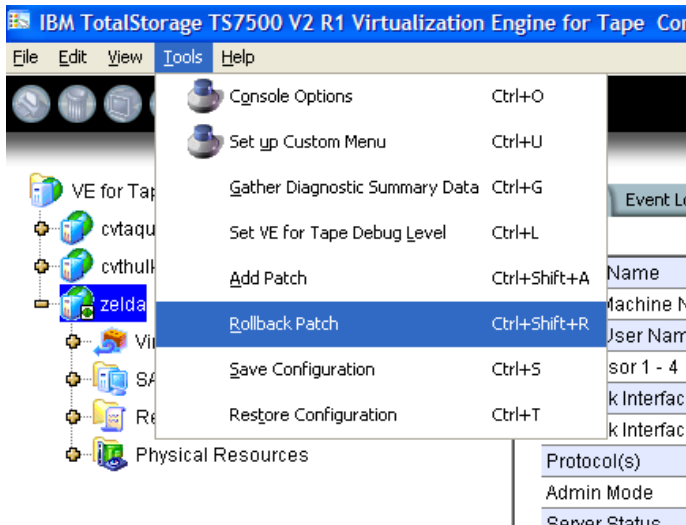2. Highlight the VE for Tape server and click *Tools → Rollback Patch*

Figure 16

3. Select "OK" when presented with the following Warning Message.
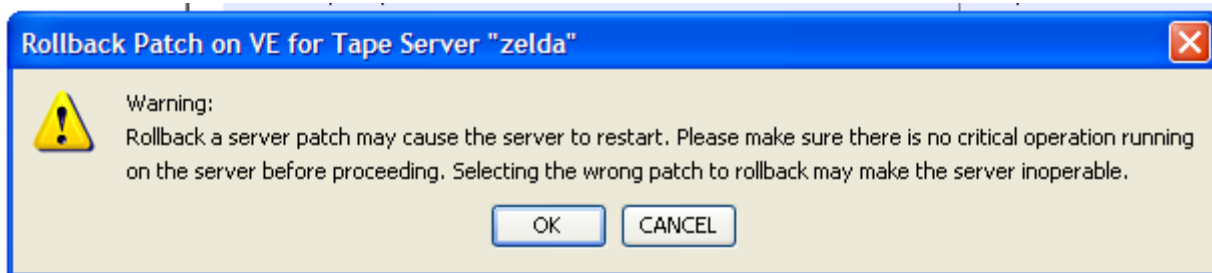

Figure 17

4. Select the patch you want to rollback from the list and click Ok.
   Warning: Patch rollback should be done only as per recommendation of your Technical Support Representative. Improper rollback of a patch may cause damage to your system.
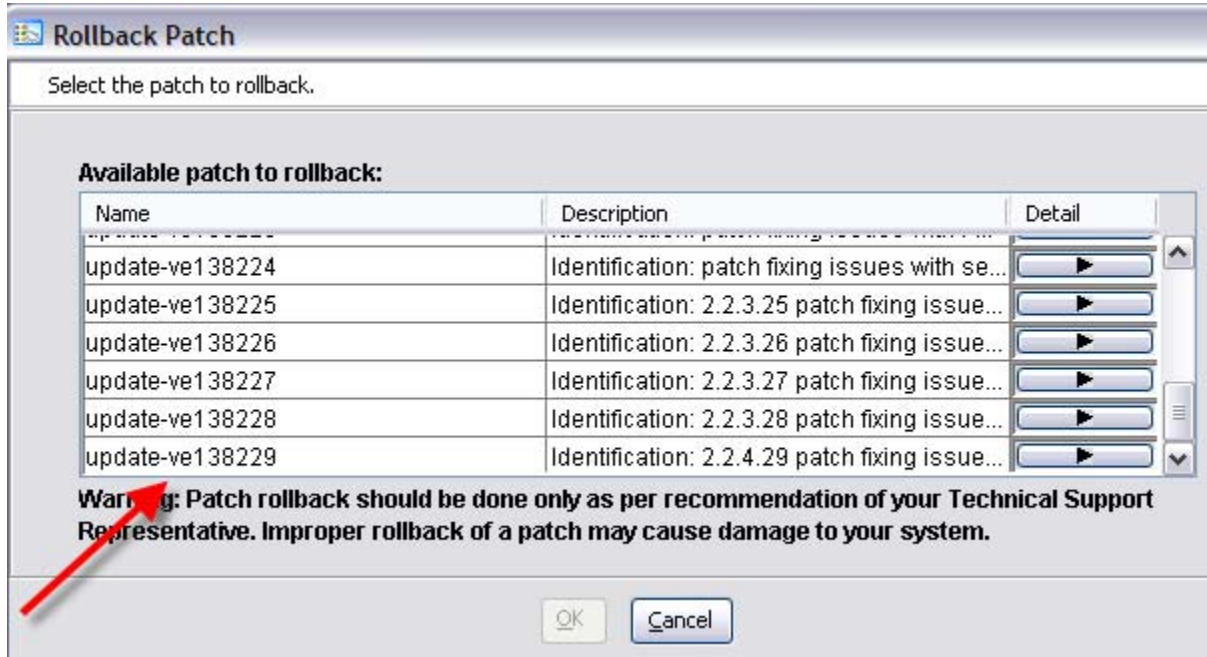

Figure 18

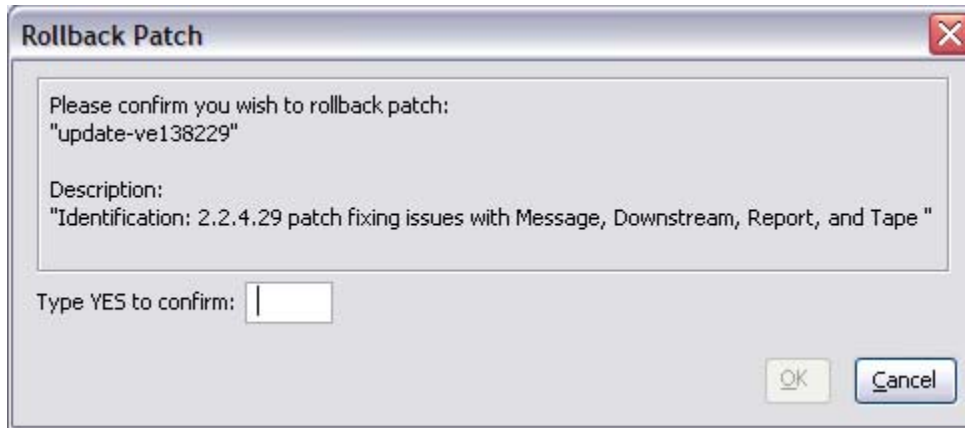5. Type "YES" to confirm the patch rollback

Figure 19

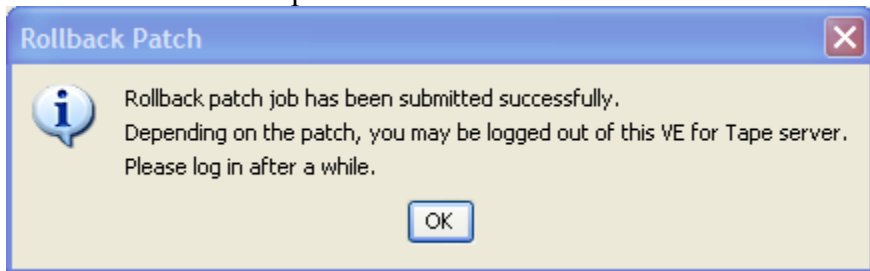6. Click on OK after the patch has been removed.

Figure 20

7. A server reboot is required after you have removed the patch.

   a. Open a PuTTY Session by performing the following steps from the PuTTY console:

   Note: If PuTTY is not installed, refer to "Install PuTTY on VE Console" in the TS7520 User's Guide (GC27-2068-02) and return to this point once complete.

   b. Click **Start**.
   c. Click **All Programs**.
   d. Click **PuTTY**.
   e. Click **PuTTY**.
   f. Enter IP Address of the server you are connecting to where specified.
   g. Select **Open**.
   h. Enter the following userid and password. The userid and password are case-sensitive.
      Login: **vetapeservice**
      Password: **service4u**
   i. At the command prompt, enter the following command:
      sudo shutdown -r now

8. After the server reboots in 5-10 minutes, refer to section 6.3 Resume Failover. Contact IBM support for assistance if the patch removal did not complete successfully.