IBM

Customer Installation Instructions
TS7520 Patch Update for 3954-CV6 Virtualization Engine

update-ve138225– Install update-ve138225, 2.2.3.25 patch fixing issues with export in low memory condition causing out of sync data between virtual tape and physical tape, race condition issue in upcall handling resulting in communication failure with management module, lmcpd module not starting when ve services are restarted after an IBM 3494 physical library is configured, and Qlogic FC resulting in a kernel error when a SCSI command aborted

TS7520 Software Version 2.1 (Build 1382)
Patch update-ve138225

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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-ve1382225

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**.

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

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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 "2.2.3.25" mentioned in the version info, then you already have Patch 25 installed. Please close the VE Console after you have verified this information.
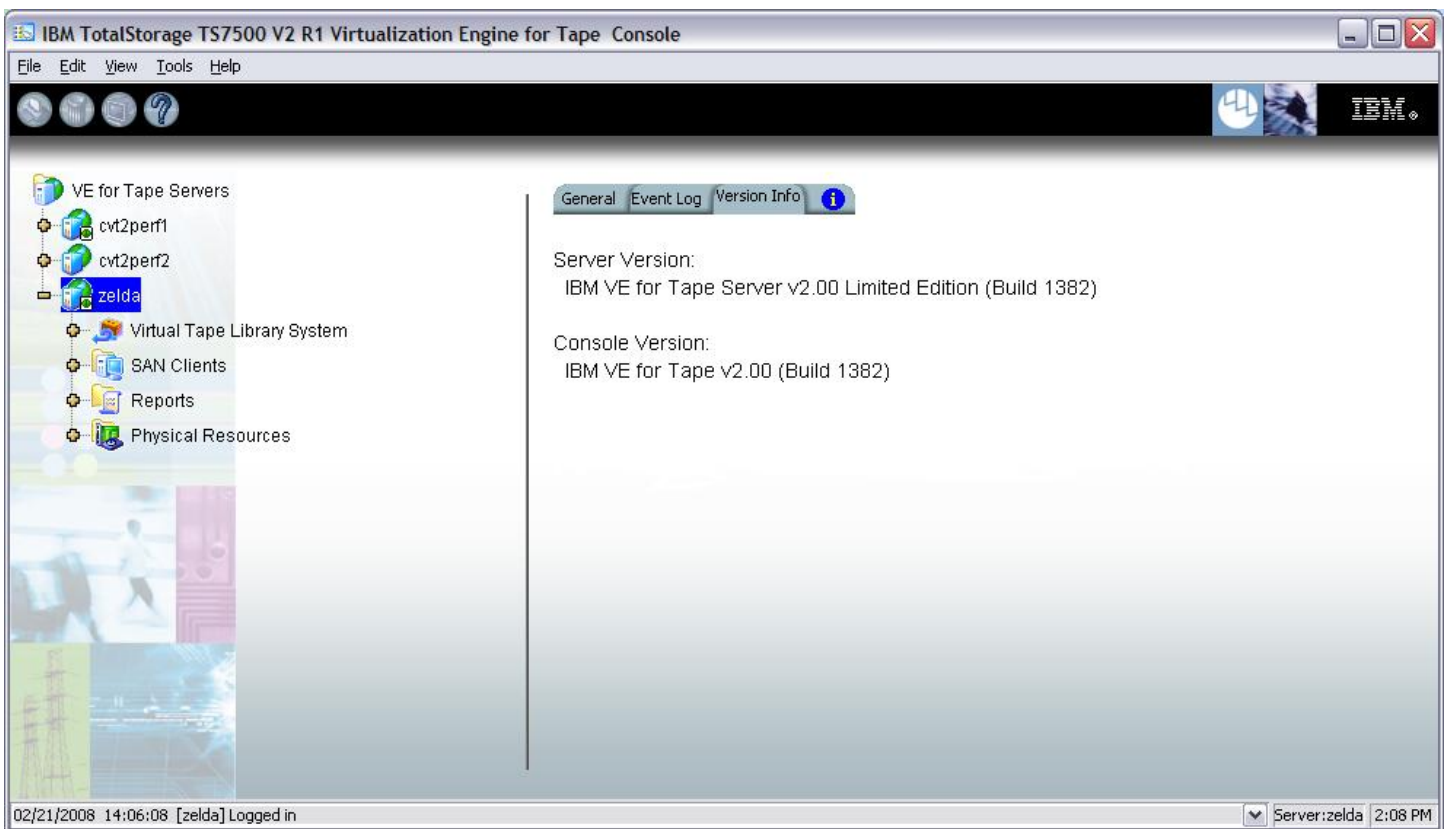

Figure 1

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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 (steps to verify this are provided in the document referenced in section 2.1 Patch 25 Prerequisite;). ISO images for this software are also available from the following Virtualization Engine patch download page: http://www-1.ibm.com/support/search.wss?rs=1174&tc=HW29K&q=ssg1*&dc=D400&dtm

The password for the ISO images is the following:
service4u

- 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 Patch 25 Prerequisite; update-ve138224

Patches up to and including level update-ve138224 are a prerequisite to this patch. Please check if this patch is installed by referring to section 1.1 Check Software version of TS7520. If you see "install update-ve138224" mentioned in the version info, then you already have the prerequisite levels installed. Please close the VE Console after you have verified this information. If you do not have this level installed, please locate the Installation Instructions and apply these patches prior to applying update-ve138225.

http://www-01.ibm.com/support/docview.wss?rs=1174&context=HW29K&dc=D400&q1=ssg1*&uid=ssg1S4000705&loc=en_US&cs=utf-8&lang=en

2.2 Obtain the latest Installation Instruction and the patch file

Download the latest patch by completing the following steps:

1. Using the VE console workstation, go to the following Virtualization Engine patch download page:
    http://www-1.ibm.com/support/search.wss?rs=1174&tc=HW29K&q=ssg1*&dc=D400&dtm

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

    - **update-ve138225.zip**

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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 2 and Figure 3, 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 2), 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 3.
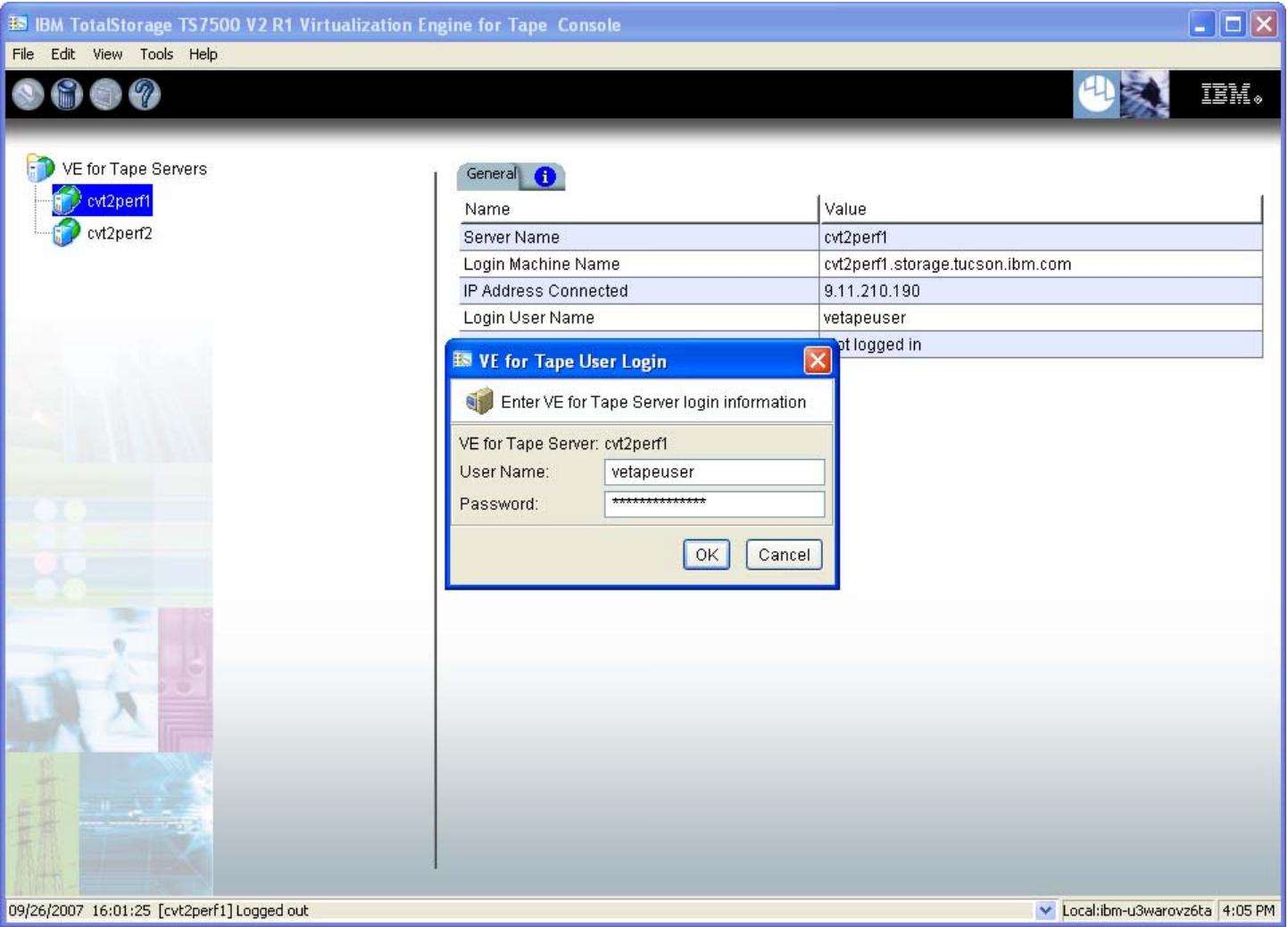
Figure 2

WARNING:	

You must choose **Suspend Failover** and not Remove Failover Server or any of the other options, otherwise unpredictable results may occur.
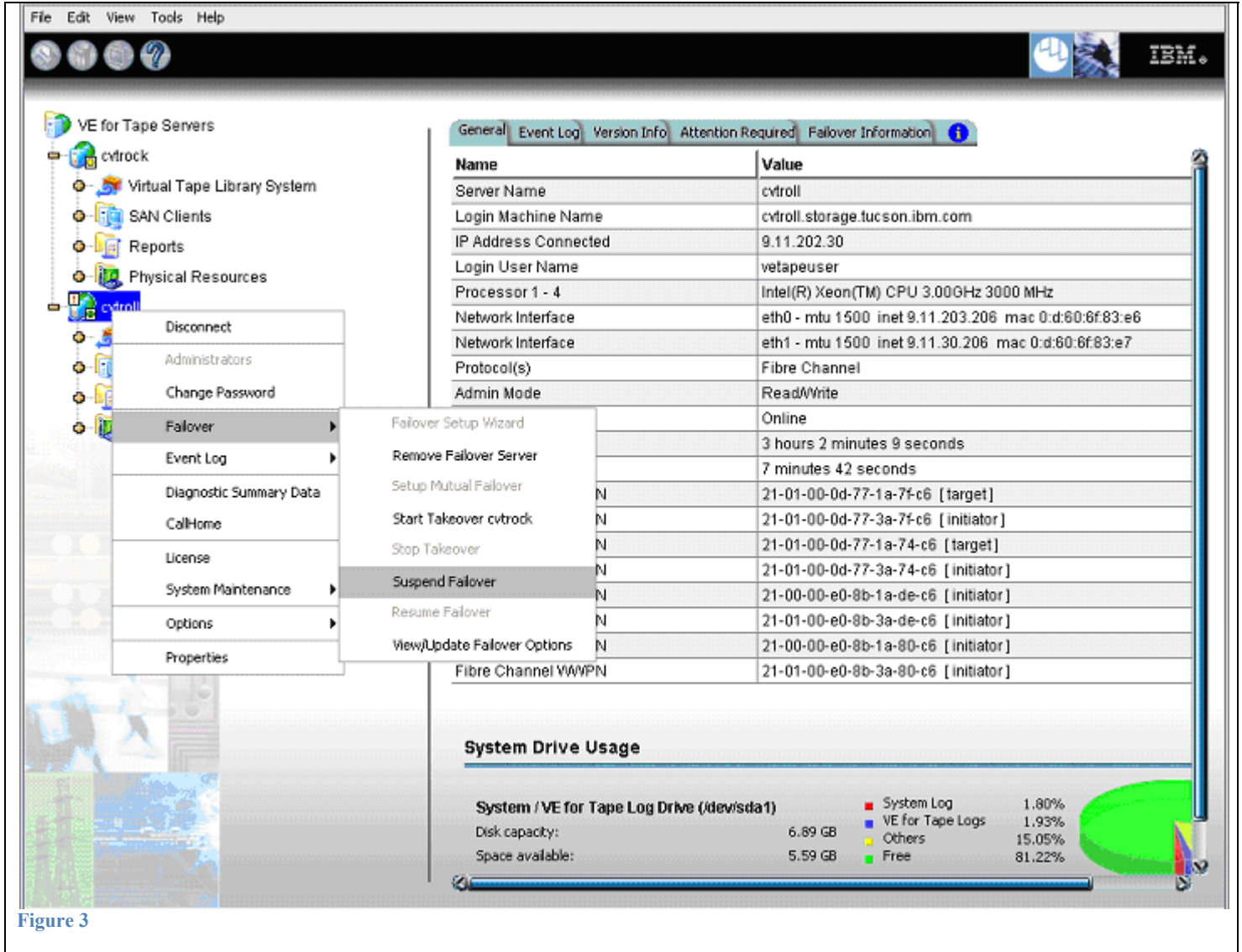
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Figure 3

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-ve138225 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 (Only for systems with Failover configured). 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 4 through Figure 11.

1. Use a zip utility program to extract the contents of update-ve13825.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.
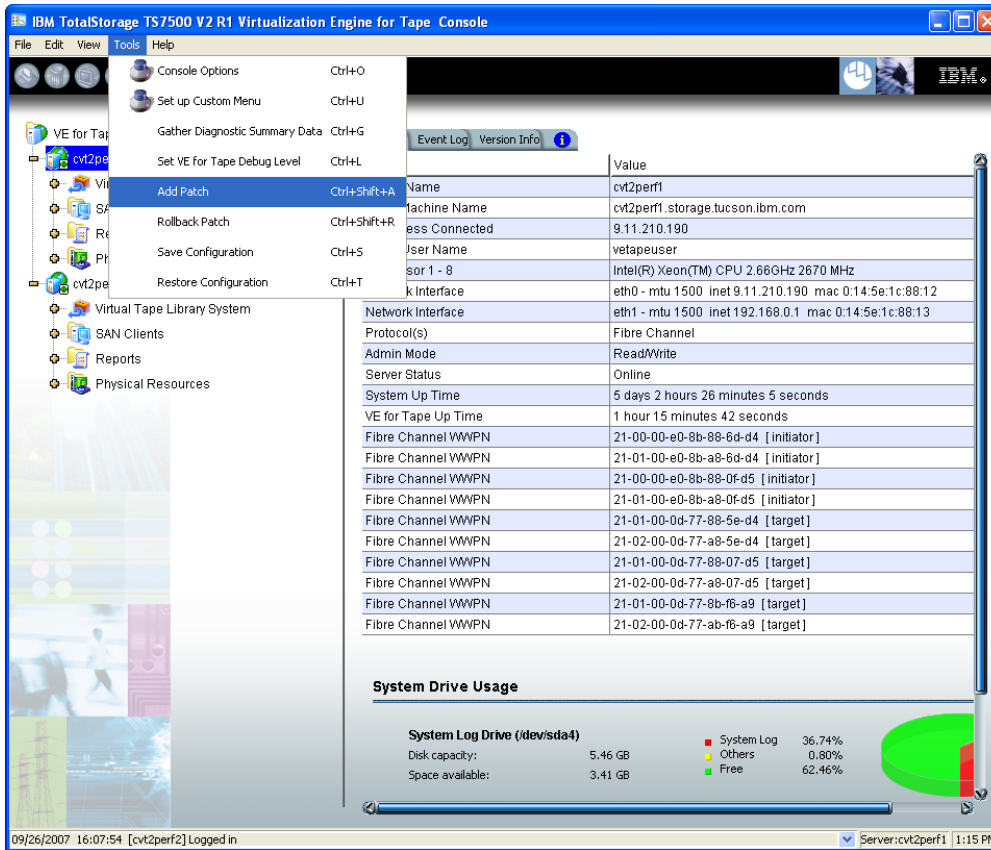3. Highlight the VE for Tape server and click **Tools → Add Patch** (Figure 4).

Figure 4

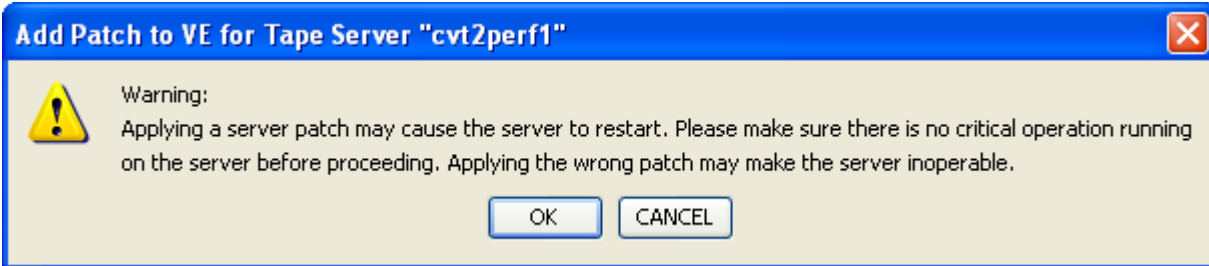4. Select "OK" when presented with the following Warning Message (Figure 5).

Add Patch to VE for Tape Server "cvt2perf1"

Warning:
Applying a server patch may cause the server to restart. Please make sure there is no critical operation running on the server before proceeding. Applying the wrong patch may make the server inoperable.

OK   CANCEL

Figure 5

5. When presented with the Select Patch File window (Figure 6), index to the VE Console workstation directory where you unzipped the *update-ve138225* patch file and select the file.

Select Patch File

Look in: patch25

update-ve138225

Recent

Desktop
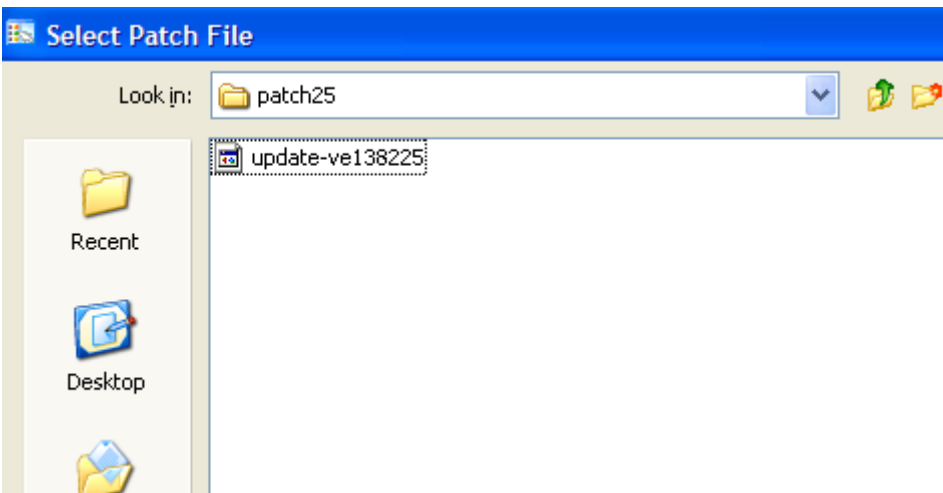
Figure 6

6. When presented with the confirmation window, type "YES" to confirm (Figure 7)
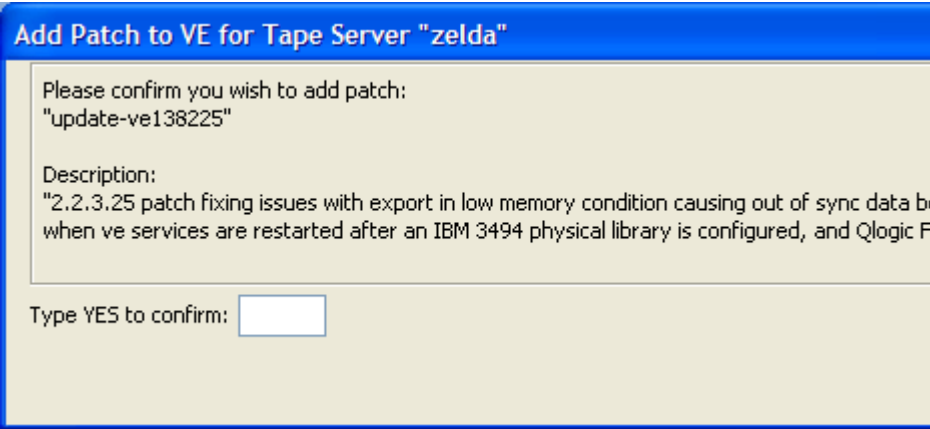
© *Copyright IBM Corp.2008*

Figure 7

7. If the "Add Patch to VE for tape Server" window appears, click OK (Figure 8).

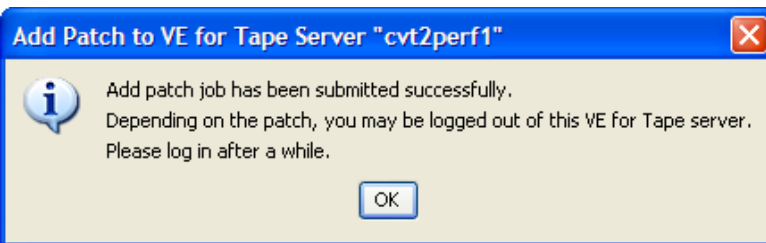   **Note:** The server software will shutdown and restart.

Figure 8

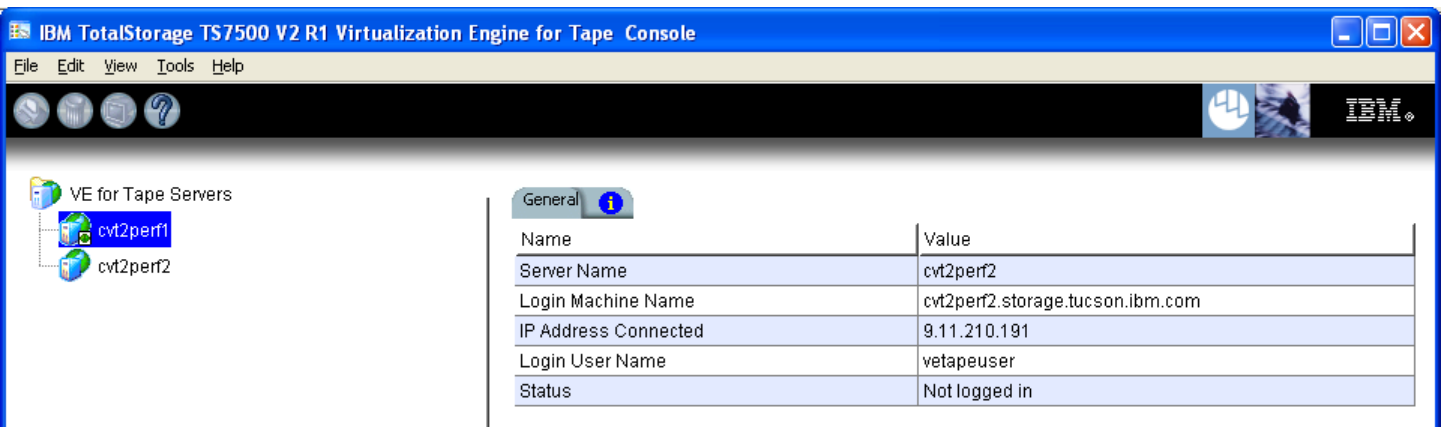8. The **VE for Tape Console** application will be disconnected from the VE for Tape server (Figure 9).

Figure 9

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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 10).
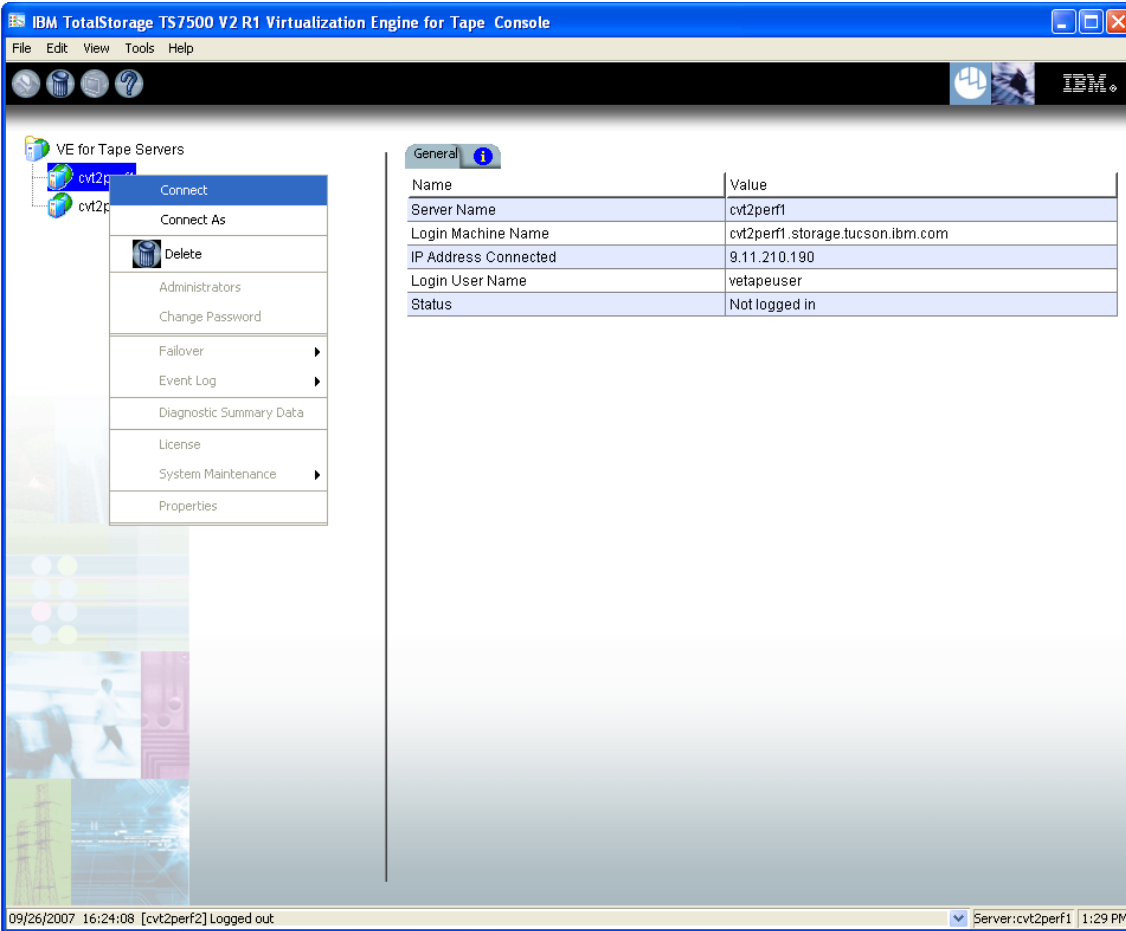

Figure 10

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 11). There should be an Event Log entry stating the "Patch update-ve138225 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.

Figure 11

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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 Resume Failover (Only for systems with Failover configured).

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

6.2 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.

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.
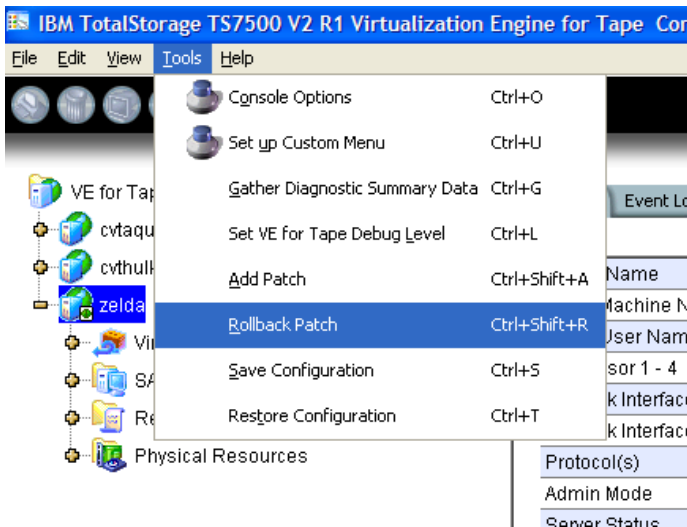2. Highlight the VE for Tape server and click *Tools → Rollback Patch*

Figure 12

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

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Figure 13

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.
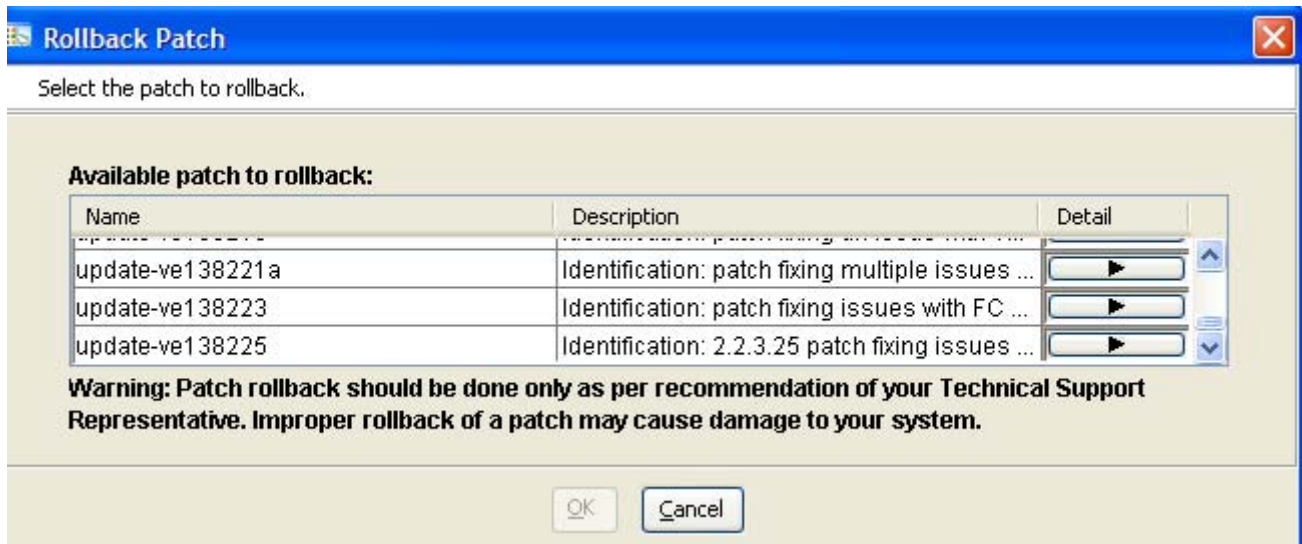

Figure 14

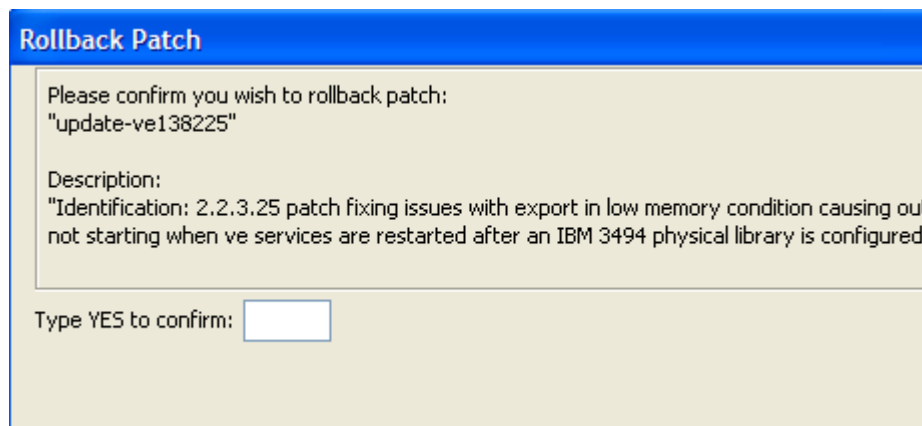5. Type "YES" to confirm the patch rollback

Figure 15

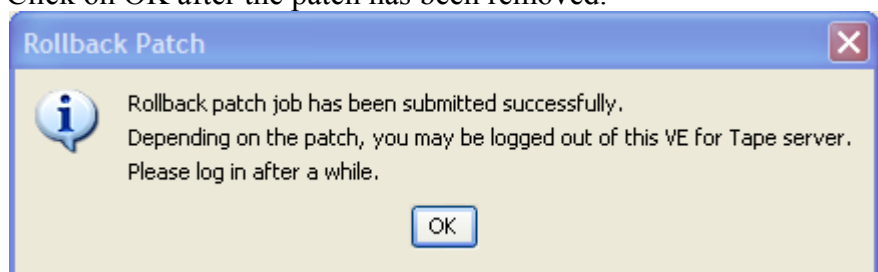6. Click on OK after the patch has been removed.

Figure 16

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:

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sudo shutdown -r now

8. After the server reboots in 5-10 minutes, refer to section 6.2 Resume Failover (Only for systems with Failover configured). Contact IBM support for assistance if the patch removal did not complete successfully.