



Customer Installation Instructions

TS7520 Patch Update for 3954-CV6 Virtualization Engine

update-ve138205f – Cumulative patch fixing multiple issues with Tape, Report, Storage, Library, Memory, and Import/Export.

TS7520 Software Version 2.1 (Build 1382)

Patch update-ve138205f

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Before Installation (Section 1 through 5)

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-ve138205f installed. TS7520 systems without this patch may experience problems with Tape, Report, Storage, Library, Memory, and Import/Export.

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 (refer to Figure-1).

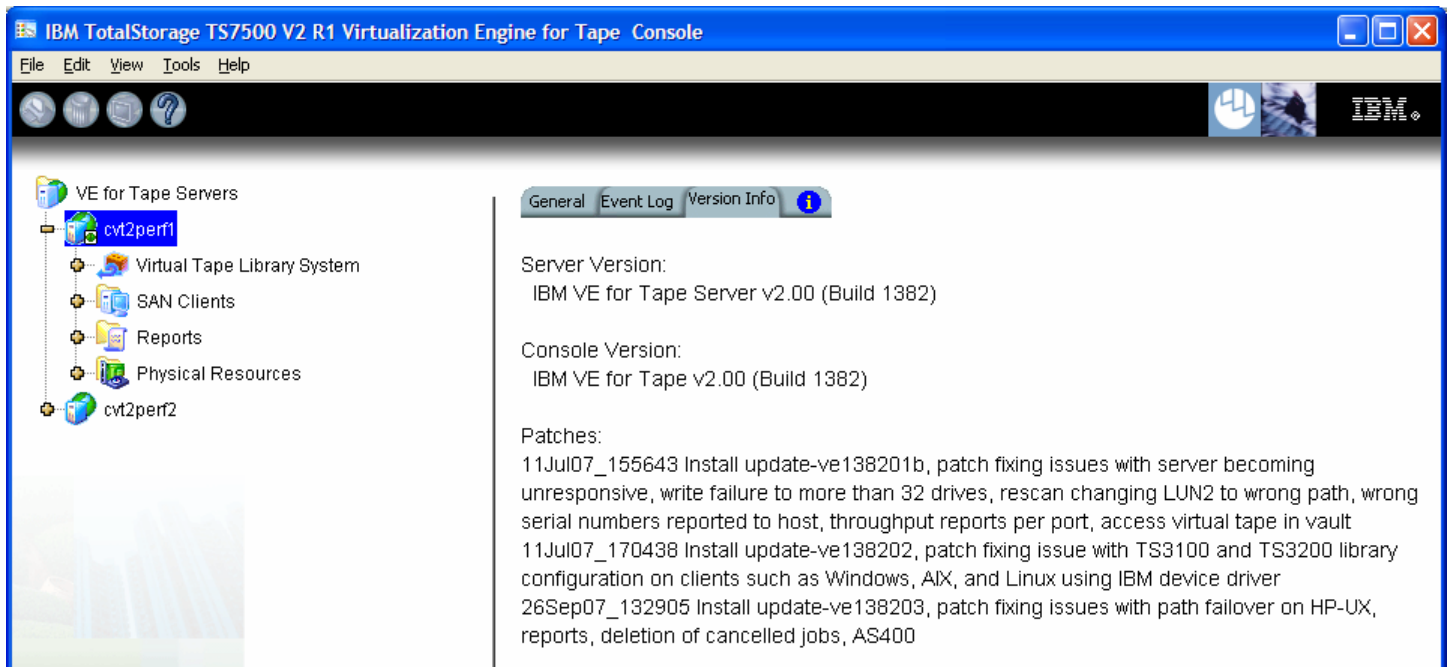


Figure-1

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.

Obtain the latest Installation Instruction and the patch file:

Patch filename -- update-ve138205f

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. Schedule time when the TS7520 system can be taken out of normal operation.

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. Schedule time when the TS7520 system can be taken out of normal operation.

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

Transfer the patch file (update-ve138205f) into a directory on the VE Console.

3.1 Suspend Failover (Only for systems with Failover configured)

For HA configurations (FC-7420 Failover/Failback Enable), use the VE Console to Suspend Failover on both 3954-CV6 servers. Refer to Figure-2 and Figure-3, and use the following procedure to Suspend Failover **on each server (both the upper and lower server if in an HA environment)**.

1. Login to the VE for Tape server (Figure-2), or highlight the VE for Tape server if already connected. The login userid is “vetapeuser” and the password is “veuserpassword”
2. With your mouse Right-click on the VE Console, a context menu will appear, select *Failover*, then select *Suspend Failover* (Figure-3).

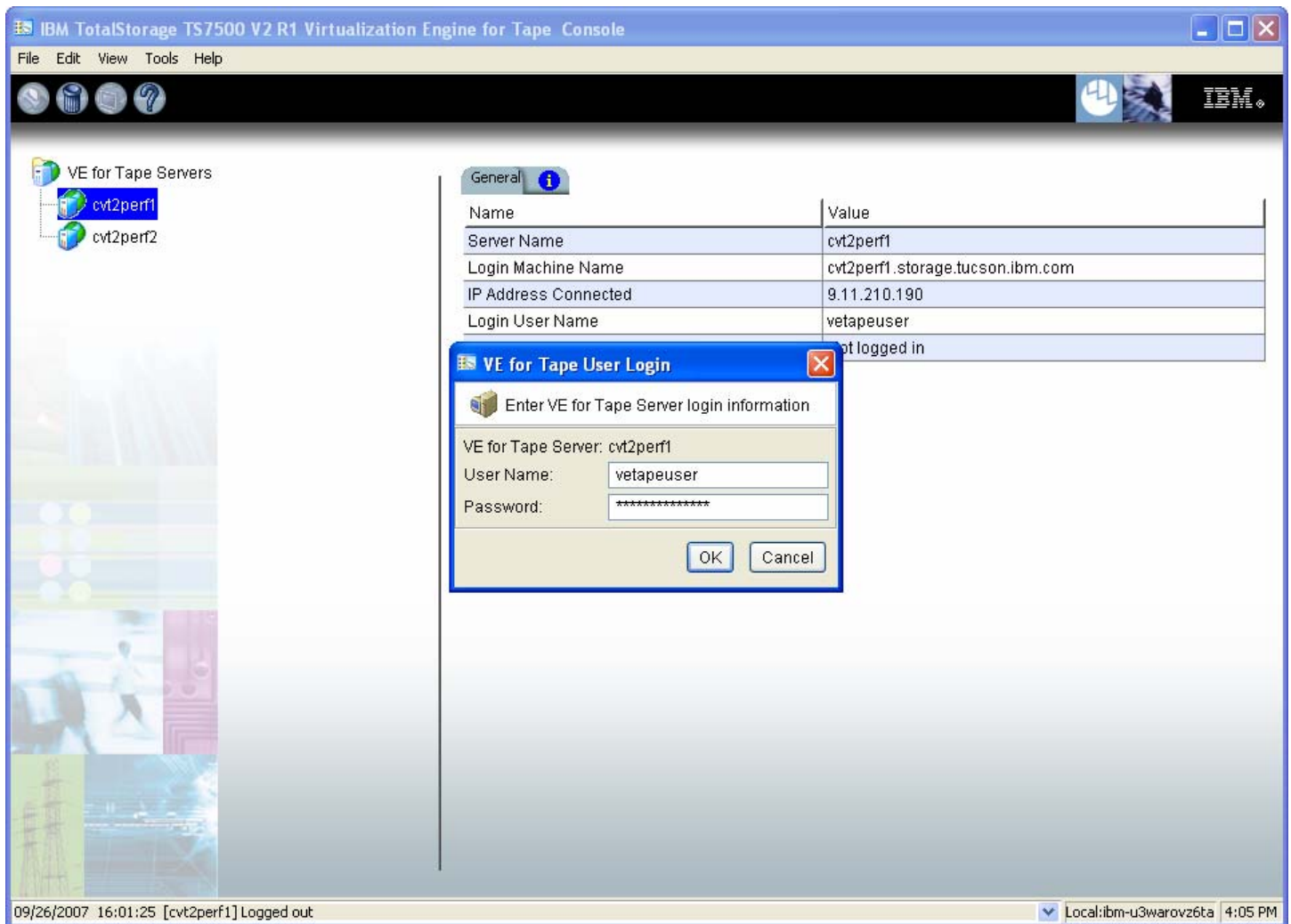


Figure-2

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

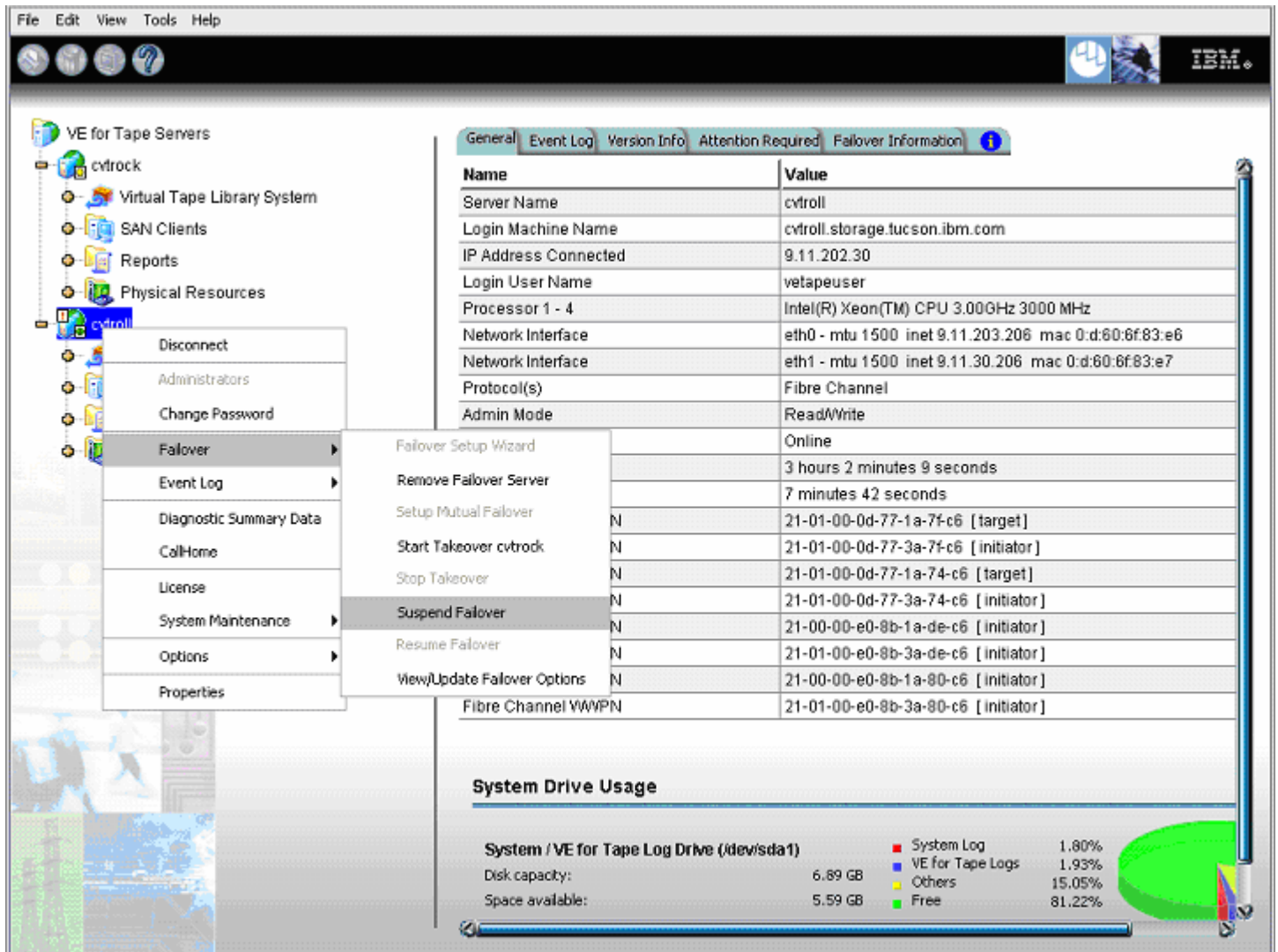


Figure-3

Note: After suspending failover, the TS7520 server's IP address assigned to eth0 will now be the secondary (service) IP address. Therefore, it is recommended that when you connect via the console to the server you use the hostname (for example Fred.IBM.com) versus the IP address (for example 9.xxx.xxx.xxx), or you may have to connect to the TS7520 server using its secondary (service) IP address.

4.0 Purpose and Description

This patch should be installed on all TS7520 systems, with software version 2.1 (Build 1382), that do not have the patch installed. TS7520 systems without this patch may experience problems with problems with Tape, Report, Storage, Library, Memory, and Import/Export.

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.

Installation (Section 6 through 7)

6.0 Details of Installation

In an HA (High Availability) environment, perform steps outlined in sections 6.1 and 6.2 on one server and then the other server before proceeding to section 6.3.

6.1 Patch Installation

Use the VE Console *Add Patch* option to install the patch. Refer to Figure-4 through Figure-7 and 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).

1. Highlight the VE for Tape server, select the *Tools* button on the Menu bar, and select *Add Patch* (Figure-4)

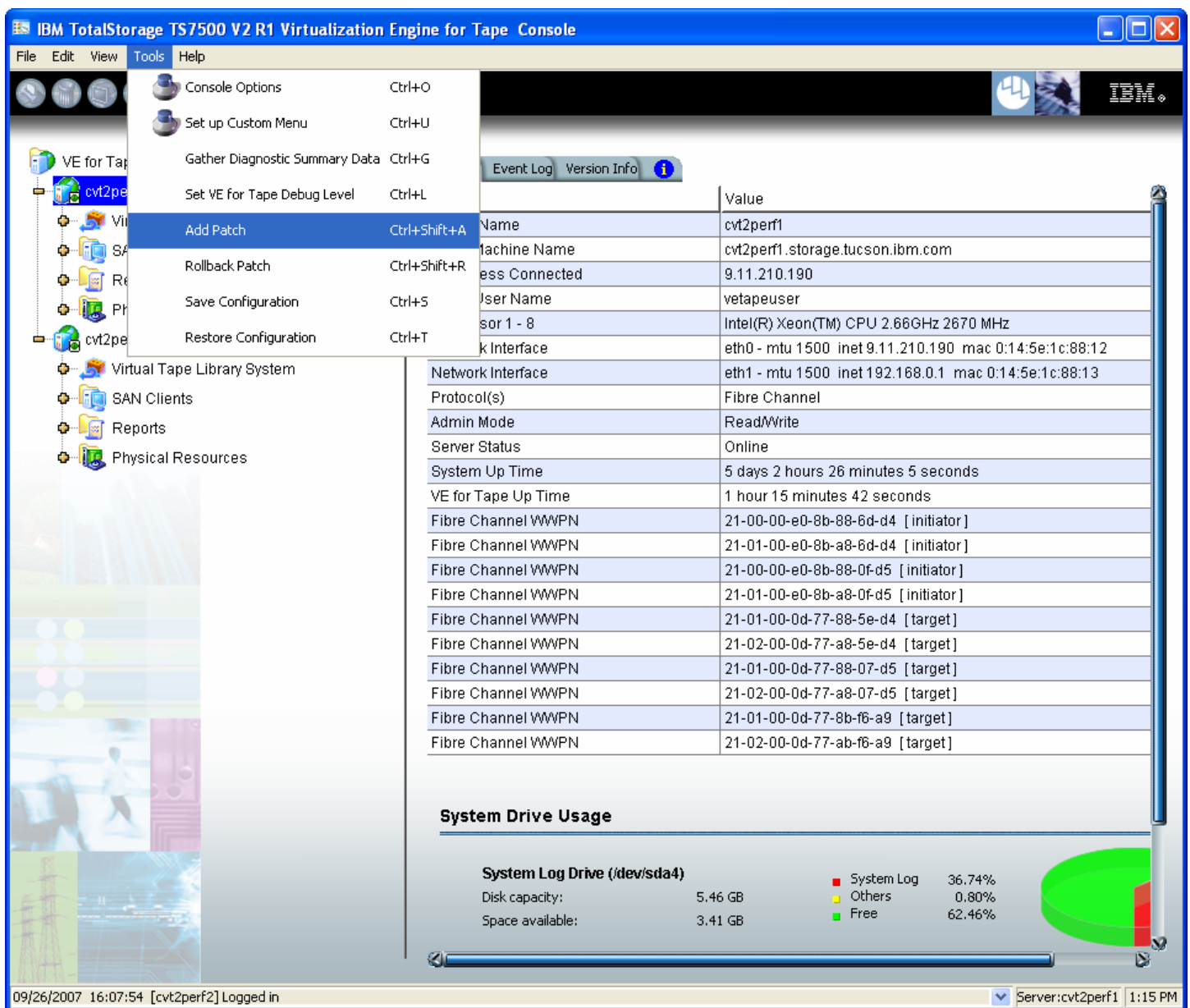


Figure-4

2. Select “OK” when presented with the following Warning Message (Figure-5).

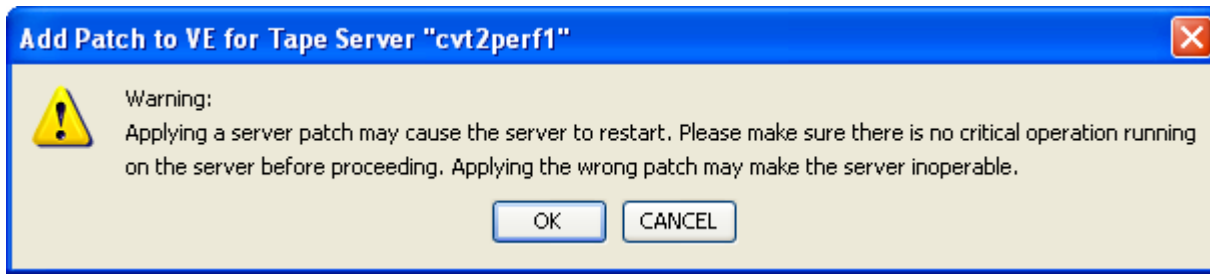


Figure-5

3. When presented with the Select Patch File window (Figure-6), index to the VE Console directory where the *update-ve138205f* patch file resides and select the file.

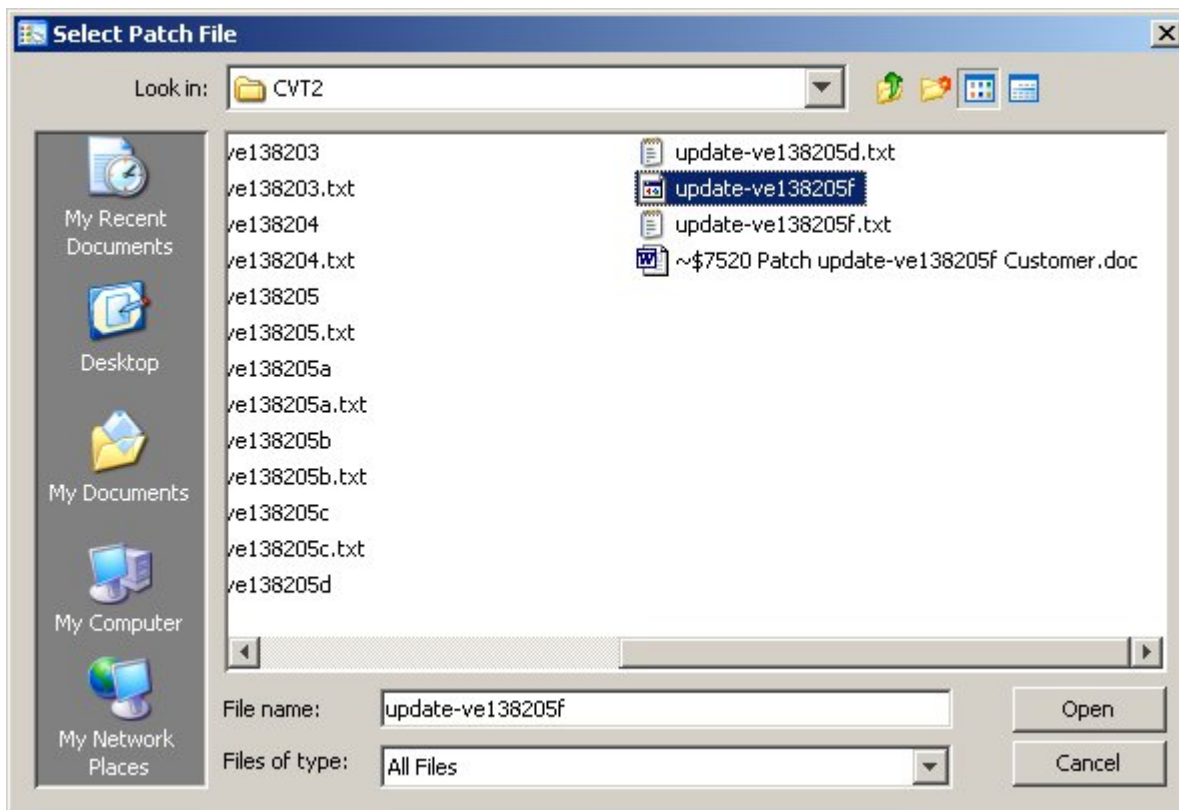


Figure-6

4. When presented with the confirmation window, type “YES” to confirm (Figure-7)



Figure-7

5. The server software will shutdown and restart (Figure-8). The VE Console will be disconnected from the VE for Tape server (Figure-9). Once the server software has completed the restart (approximately 2 minutes) you will be able connect to the VE for Tape server from the VE Console (Figure-10).



Figure-8

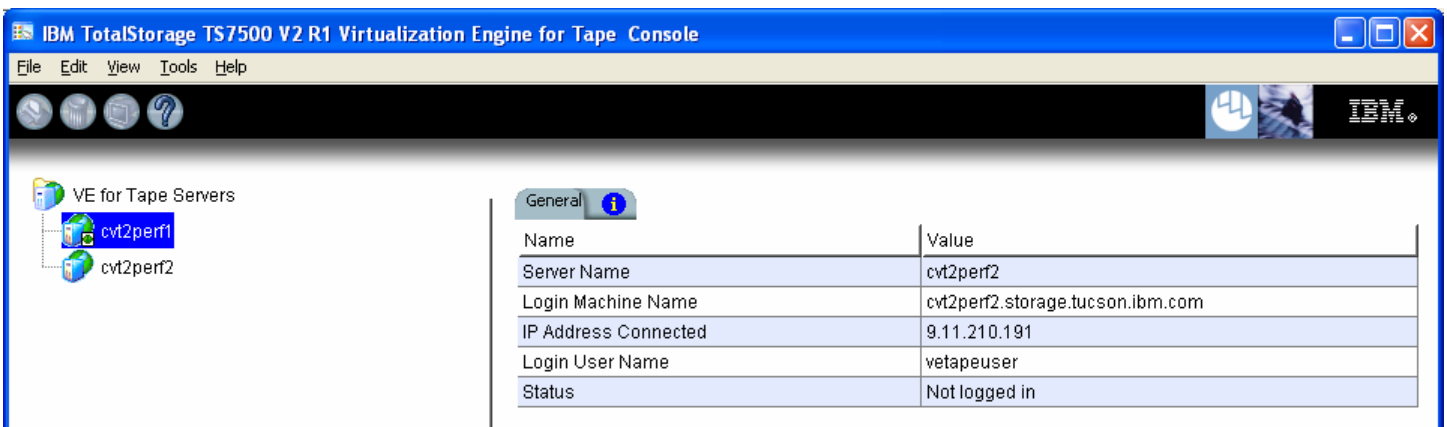


Figure-9

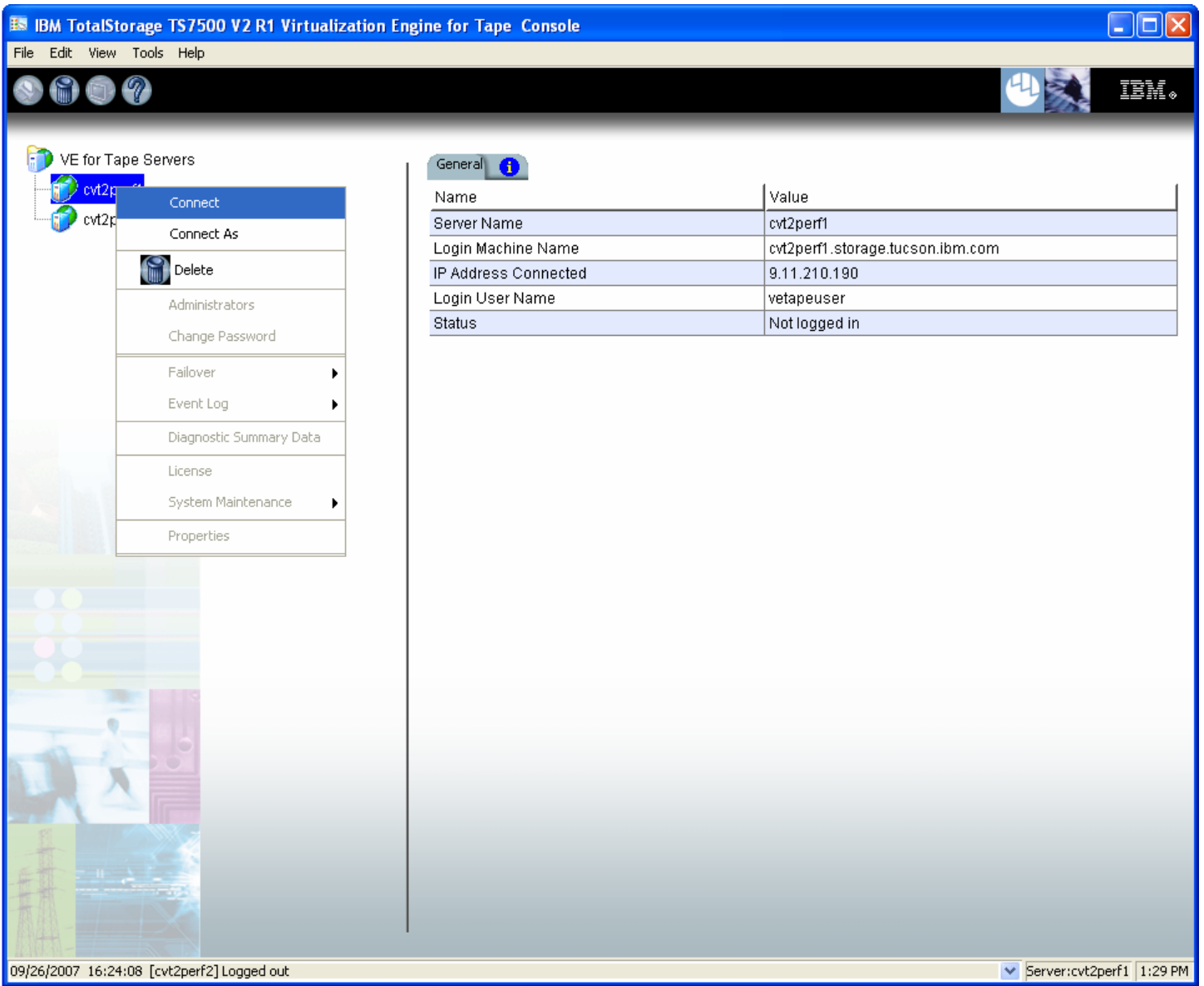


Figure-10

6. Check the TS7520 Event Log of each server, using the VE Console *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-ve138205f 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.

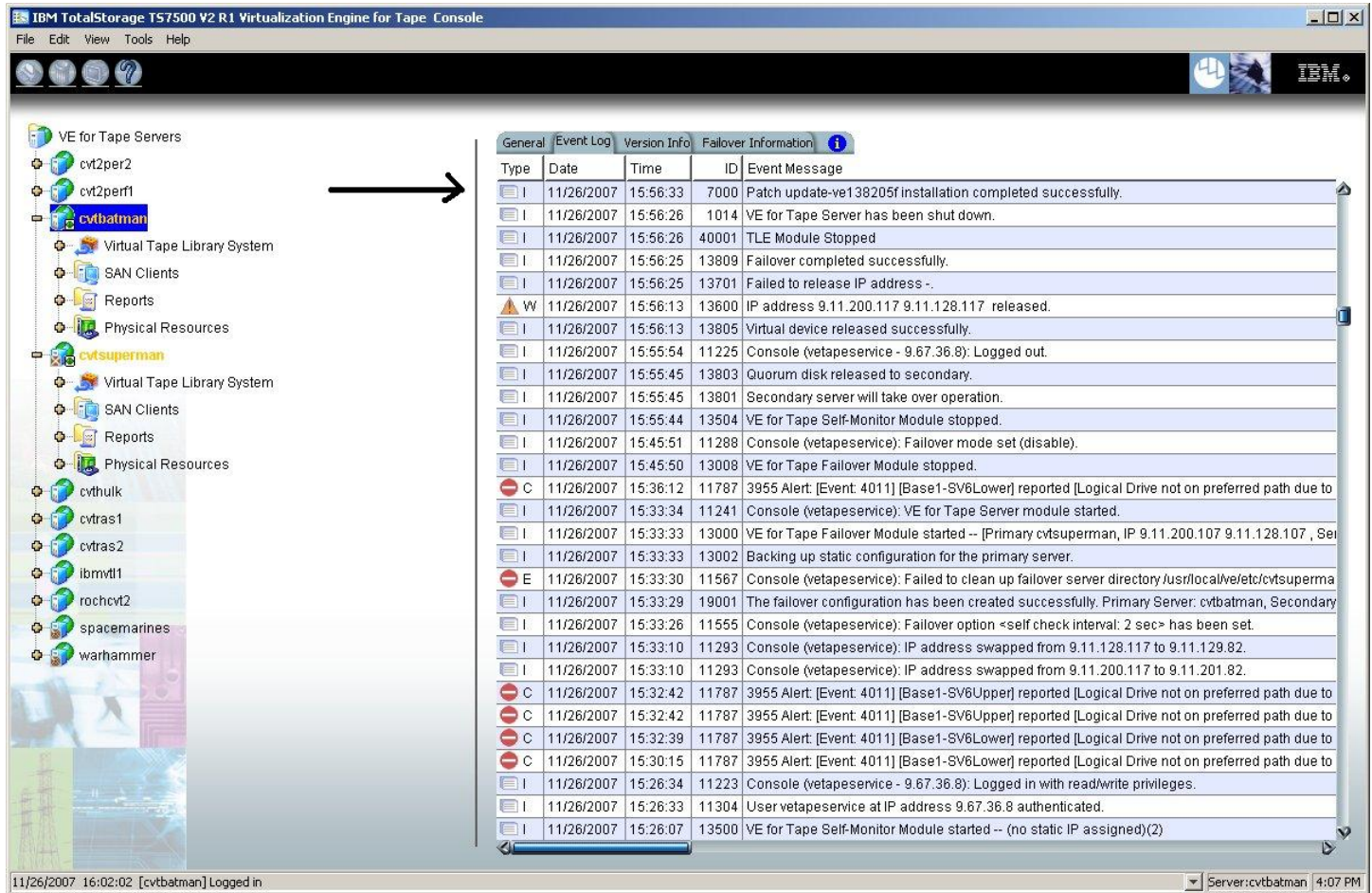


Figure-11

6.2 VE Services Restart (Only for systems with Failover configured)

For HA configurations (FC-7420 Failover/Failback Enable), use the following procedure to restart the services on each 3954-CV6 VE for Tape server (both the upper and lower server). Use a standard SSH client to SSH into the TS7520 using the following username: `vetapeservice` and password: `service4u`

Note: You may have to wait up to five minutes to connect after installing the patch, or use the Secondary (service) IP address to connect with your SSH client.

Once logged into the TS7520, run the following command followed by pressing the enter key:
`sudo ve restart`

You will be prompted to ensure that you wish to continue, type the letter 'y' and then press enter.

You should see output similar to that shown in Figure-12.

```
vetapeservice@cvtbodyman:/var/log
vetapeservice@cvtbodyman:/var/log> sudo ve restart

IBM VE for Tape Server v2.00 (Build 1382)
Copyright (c) 2001-2007 FalconStor Software. All Rights Reserved.

Detaching all Virtual Devices
We recommend stopping all VE for Tape client services prior to shutdown.
Otherwise, data loss may occur.
Are you sure you want to continue? (y/n) [n]: y
Continuing with Detaching all Virtual Devices
Stopping VE for Tape Self Monitor Module [ OK ]
Stopping VE for Tape Logger Module [ OK ]
Stopping VE for Tape Communication Module [ OK ]
Stopping VE for Tape iSCSI (Daemon) [ OK ]
Stopping VE for Tape iSCSI Target Module [ OK ]
Stopping VE for Tape Target Module [ OK ]
Stopping VE for Tape Server (User) [ OK ]
Stopping VE for Tape Server (Application IOCTL) Module [ OK ]
Stopping VE for Tape Server (Application) Module [ OK ]
Stopping VE for Tape Server (Uppcall) Module [ OK ]
Stopping VE for Tape Server (FSNBase) Module [ OK ]
Stopping VE for Tape Server (Application Uppcall) Module [ OK ]
Stopping VE for Tape Server (Compression) Module [ OK ]
Stopping VE for Tape Server (HW Compression) Module [ OK ]
Stopping VE for Tape Authentication Module [ OK ]
Stopping VE for Tape SNMPD Module [ OK ]

IBM VE for Tape Server v2.00 (Build 1382)
Copyright (c) 2001-2007 FalconStor Software. All Rights Reserved.

Starting VE for Tape Configuration Module [RUNNING]
Starting VE for Tape Base Module [RUNNING]
Starting VE for Tape HB& Module [RUNNING]
Starting VE for Tape SNMPD Module [ OK ]
Starting VE for Tape Authentication Module [ OK ]
Starting VE for Tape Server (Compression) Module [ OK ]
Starting VE for Tape Server (HW Compression) Module [ OK ]
Starting VE for Tape Server (Application Uppcall) Module [ OK ]
Starting VE for Tape Server (FSNBase) Module [ OK ]
Starting VE for Tape Server (Uppcall) Module [ OK ]
Starting VE for Tape Server (Application) Module [ OK ]
Starting VE for Tape Server (Application IOCTL) Module [ OK ]
Starting VE for Tape Server (User) [ OK ]
Starting VE for Tape Target Module [ OK ]
Starting VE for Tape iSCSI Target Module [ OK ]
Starting VE for Tape iSCSI (Daemon) [ OK ]
Loading VE for Tape Resources [ OK ]
Starting VE for Tape Communication Module [ OK ]
Starting VE for Tape Logger Module [ OK ]
Starting VE for Tape Self Monitor Module [ OK ]
```

Figure-12

After the command has completed running, type 'exit' followed by pressing enter to close the SSH session.

6.3 Resume Failover (Only for systems with Failover configured)

Note: Only perform this step if steps 6.1 and 6.2 have been successfully performed on both the upper and lower servers in the failover pair. If you have not already done so, perform steps 6.1 and 6.2 on the other member of the failover pair.

For HA configurations (FC-7420 Failover/Failback Enable), use the VE Console to Resume Failover on both 3954-CV6 servers. Refer to Figure-3 and the following procedure to Resume Failover **on each server (both the upper and lower server if in an HA environment)**.

1. Highlight the VE for Tape server
2. With your mouse Right-click on the VE Console, a context menu will appear, select *Failover*, then select *Resume Failover*.

Note: After resuming failover, the TS7520 server's IP address assigned to eth0 will now be the primary IP address. Therefore, it is recommended that when you connect via the console to the server you use the hostname (for example Fred.IBM.com) versus the IP address (for example 9.xxx.xxx.xxx), or you may have to connect to the TS7520 server using its primary IP address.

7.0 Test Procedure

7.1 Check Patch Installation

Check the TS7520 Event Log of each server, using the VE Console *Event Log* tab, to confirm the successful installation of the patch (refer to Figure-11, top entry in log). There should be an Event Log entry stating the “Patch update-ve138205f 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.

If the patch installed successfully the customer can resume normal operations.
Contact the IBM Support Center if the patch installation did not complete successfully.

8.0 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 either a failed-over state, a take-over state, or a failover-suspended state. If either of these cases is true, call IBM support immediately.