## **Customer Installation Instructions**

IBM

TS7530 Patch Update for 3954-CV7 Virtualization Engine

## update-ve150720, 3.2.5.20 patch fixing issues with the Tape, and X-ray.

TS7530 Software Version 3.2 (Build 1507) Patch update-ve150720

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TS7530 Software Version 3.2 (Build 1507) Patch update-ve150720

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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 TS7530 3954-CV7 Virtualization Engine.

This patch should be installed on all TS7530 systems, with software version 3.2 that do not have patch update-ve150720.

#### **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 TS7530

You can check the version of TS7530 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.

2. Double-click VE for Tape Servers to expand the TS7500 list.

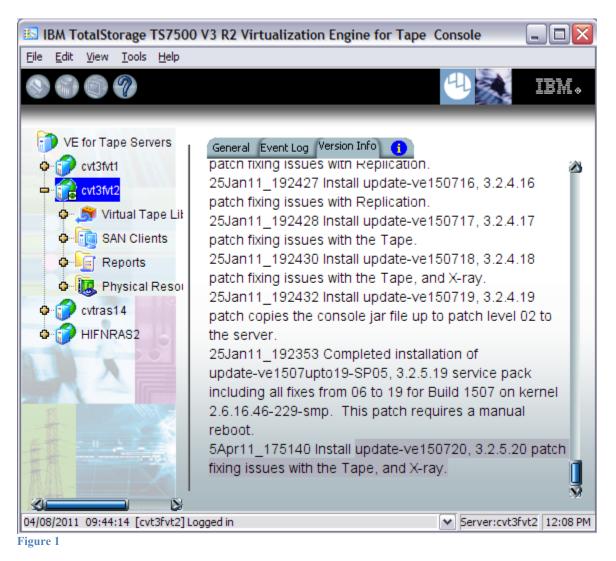
update-ve150720 3.2.5.20

- 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 "3.2.5.20" mentioned in the version info, then you already have update-ve150720 installed. Please close the VE Console after you have verified this information.



## 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.

#### 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 suspended. 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 20 Prerequisite; update-ve1507upto19-SP05

Patches up to and including **update-ve1507upto19-SP05** are prerequisites to this patch. Please check if these patches are installed by referring to section 1.1 Check Software version of TS7530. If you see **update-ve1507upto19-SP05** 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 these patches installed, please locate the Installation Instructions and apply these patches prior to applying **update-150720**. The patches can be found at:

http://www-01.ibm.com/support/search.wss?rs=1310&tc=STST5U&dc=D420&dtm

## 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: <u>http://www-01.ibm.com/support/search.wss?rs=1310&tc=STST5U&dc=D420&dtm</u>
- 2. Select the following patch level file and save it to a directory on the VE console workstation.
  - update-ve150720.zip

## **3.0 Preparation**

Installation of this patch is disruptive to normal TS7530 operation. Application of the patch will cause the 3954-CV7 server software to shutdown and restart. Application of the patch also requires the CV7 server itself to be rebooted. Schedule time when the TS7530 system can be taken out of normal operation.

#### Attention:

Ensure that all host jobs to the TS7530 are quiesced, and complete all pending TS7530 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-CV7 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 TS7530, 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 TS7530 Server.
- 3. Click Failover  $\rightarrow$  Suspend Failover. Refer to Figure 3.

IBM TotalStorage TS7500 V3 R2 Virtu File Edit View Tools Help	alization Engine for Tape Console		
0000			UN IBM.
VE for Tape Servers		General	Inc. I
✿ m cvt3fvt2		Name Server Name	Value cvt3fvt1
		Login Machine Name	9.11.218.83
	IS VE for Tape User Login	ser Name	root
	-		Not logged in
	Enter VE for Tape Server login infor	rmation	
	VE for Tape Server: cvt3fvt1 User Name: root		
	Password:		
	<u>ok</u>	<u>C</u> ancel	
	L		
02/03/2010 11:58:07 [hydie] Console started			Local:hydie 11:58 AM

Figure 2

### WARNING:

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

VE for Tape Servers      CVT3      Disconnect      Change Password      Key Management      Failover      Failover      Diagnostic Summary Data      License      License      System Maintenance      Options          Version Info      Failover Information      Bisconnect      Change Password      Key Management      Remove Failover Server      Start Takeover cvt3fvt2      Suspend Failover      Set CPF/DPF      View/Update Failover Options      System Up Time      View/Update Failover Options
Disconnect      Change Password      Key Management      Failover      Failover      Remove Failover Server      Start Takeover cvt3fvt2      Diagnostic Summary Data      License      System Maintenance      Ontions
Change Password    Change Password      Change Password    Login Machine Name      Key Management    Login User Name      Failover    Remove Failover Server      Failover    Start Takeover cvt3fvt2      Diagnostic Summary Data    Set CPF/DPF      License    Set CPF/DPF      System Maintenance    View/Update Failover Options
Key Management    Login User Name      Failover    Remove Failover Server      Start Takeover cvt3fvt2    Network Interface      Diagnostic Summary Data    Suspend Failover      License    Set CPF/DPF      System Maintenance    View/Update Failover Options      Options    System Up Time
Key Management    Login User Name      Failover    Remove Failover Server      Failover    Remove Failover Server      Diagnostic Summary Data    Start Takeover cvt3fvt2      License    Set CPF/DPF      System Maintenance    View/Update Failover Options    Admin Mode      Options    System Up Time
Failover    Remove Failover Server      Failover    Start Takeover cvt3fvt2      Diagnostic Summary Data    Start Takeover cvt3fvt2      License    Set CPF/DPF      System Maintenance    View/Update Failover Options    Server Type      Options    Start Takeover cvt3fvt2    Network Interface      System Up Time    System Up Time
Pailover  Reinover Pailover    Diagnostic Summary Data  Start Takeover cvt3fvt2    License  Set CPF/DPF    System Maintenance  View/Update Failover Options    Options  System Up Time
Diagnostic Summary Data  Suspend Failover  Network Interface    License  Set CPF/DPF  Admin Mode    System Maintenance  View/Update Failover Options  Server Status    Options  System Up Time
Diagnostic Summary Data    Suspend Failover    Protocol(s)      License    Set CPF/DPF    Admin Mode      System Maintenance    View/Update Failover Options    Server Status      Options    System Up Time
License Set CPF/DPF System Maintenance View/Update Failover Options Server Status Options Server Status
Set CPr/DPr  Admin Mode    System Maintenance  View/Update Failover Options  Server Status    Options  System Up Time
Options
Options
VE for Tape Up Time
Properties Fibre Channel WWPN
Fibre Channel WWPN
Fibre Channel WWPN
Fibre Channel WWPN
Fibre Channel WWPN
Fibre Channel WWPN
Eibre Channel MM/PN

## 4.0 Purpose and Description

This patch should be installed on all TS7530 systems, with software version 3.2 that do not have patch update-ve150720 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.

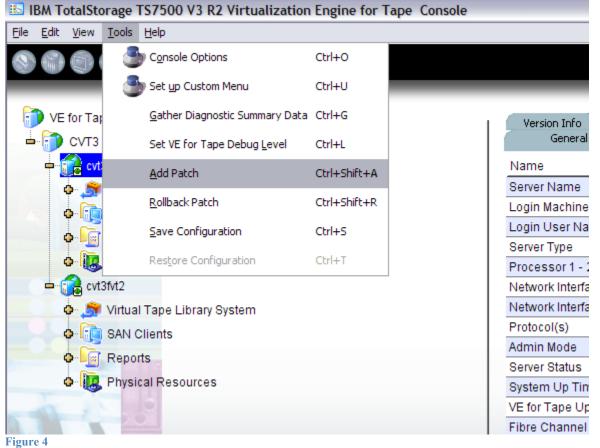
## 6.0 Details of Installation

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-CV7 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-ve150720.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 TS7530 to start the VE for Tape Console application.
- 3. Highlight the VE for Tape server and click *Tools*  $\rightarrow$  *Add Patch* (Figure 4).



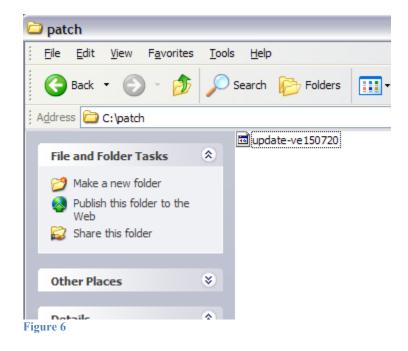
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4. Select "OK" when presented with the following Warning Message (Figure 5).



5. When presented with the Select Patch File window (Figure 6), index to the VE Console workstation directory where you unzipped the *update-ve150720* patch file and select the file.



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

Add Patch to VE for Tape Server "ras-B"				
(į)	Add patch job has been submitted successfully. Depending on the patch, you may be logged out of this VE for Tape server. Please log in after a while.			
Figure 8	ОК			

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

BM TotalStorage TS7500 V3 R2 Virtualization Engine for Tape	Console
<u>File Edit View T</u> ools <u>H</u> elp	
VE for Tape Servers	General
cvt3fvt1	Name
	Server Name
cvt3fvt2	Login Machine N Login User Nam
	Status
Figure 9	

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).

IBM TotalStorage TS7500 V3 R2 Virtualization Engine for Tape Console	
<u>File E</u> dit <u>V</u> iew <u>T</u> ools <u>H</u> elp	
VE for Tape Servers	Gei Na
Connect	Ser
Connect As	Lo <u>ç</u> Lo <u>ç</u> Sta
Figure 10	

10. Check the TS7530 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-ve150720 installation completed successfully".

**Note**: You may have to scroll through the log in order to find this entry depending on the configuration of your TS7530.

		04/05/2011 17:52:01	10055	VE for Tape Server FSID update is complete.
E		04/05/2011 17:51:58	40000	TLE Module Started
		04/05/2011 17:51:55		Patch update-ve150720 installation completed successfully.
G		84/05/2011 17:51:46	1014	VE for Tape Server has been shut down.
		04/05/2011 17:51:46	40001	TLE Module Stopped
้เฮมา	•e 11			

Figure 11

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 TS7530 User's Guide (GC27-2179-00) and return to this point once complete.

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- 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 the next section.

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-CV7 servers. Refer to the following procedure to Resume Failover **on each server present (both the upper and lower server if in an HA environment).** 

 If necessary, repeat steps 1 through 4 in section 1.1 Check Software version of TS7530 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 TS7530 Server.
- 3. Click Failover →*Resume Failover*.
- 4. Repeat for upper server if in an HA environment.

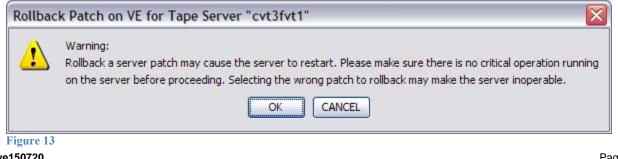
# 7.0 Rolling Back Patches

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 TS7530 to start the VE for Tape Console application.
  - IBM TotalStorage TS7500 V3 R2 Virtualization Engine for Tape Console <u>File Edit View</u> Tools Help Console Options Ctrl+O Set up Custom Menu Ctrl+U Gather Diagnostic Summary Data Ctrl+G VE for Tap CVT3 Set VE for Tape Debug Level Ctrl+L Add Patch Ctrl+Shift+A Rollback Patch Ctrl+Shift+R Save Configuration Ctrl+S Restore Configuration Ctrl+T cvt3fvt2 Virtual Tape Library System Figure 12
- 2. Highlight the VE for Tape server and click  $Tools \rightarrow Rollback Patch$

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



update-ve150720 3.2.5.20 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.

Available patch to rollback:			
Name	Description	Detail	
update-ve150720	Identification: 3.2.5.20 patch fixing issue	•	
update-ve150701	Identification: 3.2.0.1 patch fixing issue	•	
update-ve150702	Identification: 3.2.0.2 patch adding MCP	•	
update-ve150703	Identification: 3.2.1.3 patch fixing issue		D
update-ve150704	Identification: 3.2.1.4 patch fixing issue	•	
update-ve150706	Identification: 3.2.2.6 patch updating mu	•	
Warning: Patch rollback shou	Identification: 3.2.2.6 patch updating mu In be done only as per recommendation of your Techr Iback of a patch may cause damage to your system.	▶ Nical Supp	01
	OK Cancel		

#### Figure 14

5. Type "YES" to confirm the patch rollback

Rollback Patch	
Please confirm you wish to rollback patch: "update-ve150720"	D
Description: "Identification: 3.2.5.20 patch fixing issues with the Tape, and X-ray."	
Type YES to confirm:	
<u>OK</u> <u>C</u> ancel	] ic
ligure 15	

update-ve150720 3.2.5.20 6. Click on OK after the patch has been removed.



- 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 TS7530 User's Guide (GC27-2179-00) 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.
- 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 6.2 Resume Failover. Contact IBM support for assistance if the patch removal did not complete successfully.