Customer Installation Instructions

IBM

TS7530 Patch Update for 3954-CV7 Virtualization Engine

update-ve1465upto10-SP02, 3.1.2.10 service pack including all fixes up to 10 to Build 1465 on kernel 2.6.16.46-229-smp; requiring server reboot. Requires console patch CVT3.0-Console-1465-05.

TS7530 Software Version 3.1 (Build 1465) Patch update-ve1465upto10-SP02, 3.1.2.10 TS7530 Patch Update for 3954-CV7 Virtualization Engine

update-ve1465upto10-SP02, 3.1.2.10 service pack including all fixes up to 10 to Build 1465 on kernel 2.6.16.46-229-smp; requiring server reboot. Requires console patch CVT3.0-Console-1465-05.

TS7530 Software Version 3.1 (Build 1465) Patch update-ve1465upto10-SP02, 3.1.2.10

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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 3.1 that do not have patch update-ve146510 or update-ve1465upto10-SP02 installed.

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.

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- 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 "3.1.1.10" or "3.1.2.10" mentioned in the version info, then you already have patches up to Patch 10 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 10 Prerequisite

This patch should be installed on all TS7530 systems, with software version 3.1 that do not have patch update-ve146510 or update-ve1465upto10-SP02.

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-ve1465upto10-SP02.zip
 - update-ve146505console.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.

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File Edit View Tools Help			(B) (20)	
8) (i) (i) (i) (i) (i) (i) (i) (i) (i) (i			4	IBM.
VE for Tape Servers	General () VE for Tape VE for Tape Service	User Login	alue 13fvt1 11.218.87 ot	
	User Name: Password:	vetapeuser	ot logged in	
		•••••		
		OK Cancel		
10/28/2008 12:06:19 [IBM-4D75CE520	[30] Console started		Local:IBM-4D75CE52C	30 12:07 PM

Figure 2

WARNING:

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

BM TotalStorag	e TS7500 V3 R1 Virtual Is Help	ization Engine for Tape Console	
9669			
VE for Tape S	ervers Gene	ral Event Log Version Info Failover Inf	formation 1
	Nam	e	Value
🗢 🔂 cvt36/11	Discourse	Name	cvt3fvt1
o	Disconnect	lachine Name	9.11.218.87
	Change Password	lser Name	vetapeuser
	Key Management	Гуре	CVT3.0 HA Lower Server (x3755)
	Key Management	sor 1 - 2	Dual-Core AMD Opteron(tm) Processor
	Failover	Remove Failover Server	eth0 - mtu 1500 inet 9.11.218.201 ma
🗖 🔂 cvt3		Start Takeover cvt3fvt2	eth0:168 - mtu 1500 inet 192.167.168.
o 🍠	Diagnostic Summary Data	Current Failure	eth1 - mtu 1500 inet 192.168.0.7 mac
o 💼	License	Suspend Fallover	eth1:168 - mtu 1500 inet 192.167.169.
a 🗛 🔂	System Maintenance	View/Update Failover Options	Fibre Channel
	2,50011101100	Node	Read/Write
	Options	▶ Status	Online
O D RAS		Up Time	19 hours 40 minutes 55 seconds
	Properties	··· -·	
28/2008 12:07:28 [cvt3rvt2jLogged in		✓ perver:cvt3tvt1 2:09

4.0 Purpose and Description

This patch should be installed on all TS7530 systems, with software version 3.1 that do not have patch update-ve146510 or update-ve1465upto10-SP02.

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-ve1465upto10-SP02.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).

🔝 II	BM To	otalSto	orage T	S7500 V3 R1 Vi	rtualization	Engine for T	Tape Cons	sole	
File	Edit	View	Tools	Help					
9			3	Console Options		Ctrl+O		4	IBM.»
	-		- 3	Set up Custom Menu		Ctrl+U	_	-17A.	
	VE	for Tap		Gather Diagnostic Summary Data		Ctrl+G	Info Failover Information ()		
-	•	CVT3		Set VE for Tape Debug Level		Ctrl+L		Value	
	-	e cvt		Add Patch		Ctrl+Shift+A		cvt3fvt1	
	4	🔊 🗣				en la chifu an		9.11.218.87	
	4	þ. 💼		Rollback Patch		Ctrl+Shift+R		vetapeuser	
		• 🚡		Save Configuration		Ctrl+S		CVT3.0 HA Lov	wer Serve
	8			Restore Configurat	ion	Chrl+T		Dual-Core AM	D Opteror
				Rescore coningerat	.011	carri		eth0 - mtu 150	0 inet 9.1
-	0	👌 cvť	3fvt2		Network Inte	rface		eth0:168 - mtu	1500 ine
Ó		RAS		14	Network Inte	rface		eth1 - mtu 150	0 inet 19 🌄
30	四-		12		«				8
10/28	3/2008	12:11:	21 [cvt	3fvt2] Logged in				Server:cvt	3fvt1 2:13 PM
Figure	4								

update-ve1465upto10-SP02, 3.1.2.10

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

Add Pa	tch to VE for Tape Server "cvt3fvt1"
1	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.
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-ve1465upto10-SP02.zip* patch file and select the file.



6. When presented with the confirmation window, type "YES" to confirm (Figure 7) Add Patch to VE for Tape Server "cvt3fvt2"



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

Note: The server software will shutdown and restart.



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

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<u>File E</u> dit <u>V</u> iew <u>T</u> ools <u>H</u> elp			
o () () () () () () () () () () () () ()			IBM.
VE for Tape Servers	General () Name	Value	
cvt3fvt1	Server Name	cvt3fvt1	
cvt3fvt2	Login Machine Name	9.11.218.87	
🛥 🛅 RAS	Login User Name	vetapeuser	
ras-A	Status	Not logged in	
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).

BM TotalStorage TS7500 V3 R1	/irtualization Engine for Tape Console	, _ 🗆 🔀
		e internet de la companya de la comp
VE for Tape Servers	General	lu. 1
aut2544	Name	Value
Connect	Server Name	cvt3fvt1
Constant As	Login Machine Name	9.11.218.87
AS Connect As	Login User Name	vetapeuser
ras-A ras-B	Status	Not logged in
10/28/2008 12:19:49 [ras-A] Connection is b	roken.	Cocal:IBM-4D75CE52C30 12:20 PM

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-ve1465upto10-SP02 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.

	04/14/2009 22:26:27	10055	VE for Tape Server FSID update is complete.
	04/14/2009 22:26:12	40000	TLE Module Started
	04/14/2009 22:26:08	7000	Patch update-ve146510 installation completed successfully.
	04/14/2009 22.20.06	7000	Patch update-ve146509 installation completed successfully.
	04/14/2009 22:26:04	7000	Patch update-ve146508 installation completed successfully.
🔺 W	04/14/2009 22:26:02	7004	Patch update-ve146507 installation failed it has already been applied.
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:

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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.

- 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.

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.

6.3 VE Console Patch Installation

Perform the following steps on the VE console workstation and all other systems with the VE console installed on them.

Note:

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 during the initial installation.

- 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.
- Use a zip utility program to extract the contents of update-ve146505console.zip into the C:\Program Files\IBM\VE for Tape\Console\Bin\ directory or whichever directory you navigated to in step 1a above. The zip file includes a new version of IPStorConsole.jar.
 - a. Navigate to the location where the file was unzipped. Locate the file CVT3.0-Console-1465-05.jar.
 - b. Right click on the file **CVT3.0-Console-1465-05.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 file, choose Yes.

- 4. To verify that the patch was properly installed, 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 → 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.

• Select the Help \rightarrow About menu. If you are at Version 3.00 (Build 1465-05) Build Date: "Mar 16, 2009", then you have successfully applied the VE console portion of this patch.

🚯 About IBM TotalStorage TS7500 V3 R1 Virtualizat 🔀
EN.
TotalStorage TS7500 V3 R1 Virtualization Engine for Tape Version 3.00 (Build 1485-05) Build Date: "Mar 16, 2009" Copyright IBM and suppliers. 2000-2008
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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 TS7530 to start the VE for Tape Console application.
- 2. Highlight the VE for Tape server and click $Tools \rightarrow Rollback Patch$



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



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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.

Name	Description	etail
undate-ve146504	Identification: 3.1.0.4 natch fixing an iss	
update-ve146506	Identification: 3.1.1.6 patch fixing an iss	•
update-ve146507	Identification: 3.1.1.7 patch fixing an iss	
update-ve146508	Identification: 3.1.1.8 patch fixing issues	-
update-ve146509	Identification: 3.1.1.9 patch fixing issues	
update-ve146510	Identification: 3.1.1.10 patch fixing multi	>
Warning Patch rollback shou Representative. Improper roll	IId be done only as per recommendation of your Technic back of a patch may cause damage to your system.	al Support

5. Type "YES" to confirm the patch rollback

Rollback Patch
Please confirm you wish to rollback patch: "update-ve146510"
Description: "Identification: 3.1.1.10 patch fixing multiple issues with the Tape "
Type YES to confirm:
<u>OK</u> <u>C</u> ancel

Figure 16

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**.
- 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 6.2 Resume Failover. Contact IBM support for assistance if the patch removal did not complete successfully.