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Introduction

Cisco TelePresence Conductor (TelePresence Conductor) is playing an increasingly important role in the deployment of video networks. Although the 1 U appliance provides a solid platform on which to run TelePresence Conductor, many companies now want to run TelePresence Conductor on the 'Company Standard' Virtual Machine (VM) hardware platform for ease of management and deployment within an existing data center.

This deployment guide specifies:

- ⁿ the VM platform requirements for TelePresence Conductor
- n how to load the TelePresence Conductor .ova installation file
- n how to install a VM
- n how to troubleshoot the system, when there are issues

With a suitably specified VM platform, the TelePresence Conductor running on VMware will perform identically to the TelePresence Conductor running on its appliance hardware.

Why does the VM .ova file specify "use .ova for initial VM install only"?

The VM TelePresence Conductor is licensed using information that is generated at the time of the .ova file installation. If the .ova was installed a second time, new licensing information would be created, and to use the new VM, new release and licence keys would need to be purchased. To upgrade a VM TelePresence Conductor, follow the procedure under <u>Upgrading a VM TelePresence Conductor [p.16]</u>, using the .tar.gz version of the TelePresence Conductor software.

After installation we recommend that you take a snapshot of the VM TelePresence Conductor (see <u>Snapshot</u> <u>and restore using VM snapshot [p.13]</u>) so that it can be restored if the running VM gets damaged in any way. The VM snapshot retains the licensing information that was generated when the .ova file was installed, including any release and license keys that were applied.

How do I get release keys and license keys for my VM TelePresence Conductor?

Licenses can be obtained after the VM TelePresence Conductor is installed, using the serial number of the VM TelePresence Conductor. The serial number is available from the **Option key** page and from the footer of the TelePresence Conductor web interface.

For full details on obtaining your release and license keys, see <u>Appendix 2 — VM Cisco TelePresence</u> <u>Conductor activation process [p.22]</u>.

Installing a VM

The sections below list the recommended platform and specifications-based system requirements, and describe the VM installation process. The requirements outlined below refer to the minimum requirements for TelePresence Conductor version XC2.2. The minimum requirements for future TelePresence Conductor software releases may differ and you should refer to the release notes or administrator guide to ensure that pre-requisites are met.

Requirements

Recommended platform

See <u>http:</u> /wiki/Virtualization_for_Cisco_TelePresence_Conductor for the current list of supported UCS Tested Reference Configurations and specs-based supported platforms.

Ensure that:

- ⁿ VT is enabled in the BIOS before installing VMware ESXi
- n the VM host "Virtual Machine Startup/Shutdown" is configured to "Allow Virtual machines to start and stop automatically with the system", and that the VM TelePresence Conductor has been moved to the Automatic startup section
- n your UCS system is configured with RAID 5

Specifications-based system – minimum specification

If using a specifications-based system, the minimum requirements are:

- NVM host operational and running ESXi 4.1, ESXi 5.0 (Update 1) or ESXi 5.1
- n 6GB of RAM per VM TelePresence Conductor
- ⁿ 132GB disk space per VM (for a 4GB virtual disk 1 and a 128GB virtual disk 2)
- 2 cores reserved per VM TelePresence Conductor; each core >= 2.8GHz processor (5600MHz for 2 vCPUs)
- n vCenter or vSphere operational

Note: ESXi 5.0 is currently not supported; during testing a problem was observed on a host using ESXi 5.0 and an LSI MegaRAID card. We strongly recommend using ESXi 5.0 (Update 1), where this issue has been resolved.

Co-residency support

The TelePresence Conductor can co-reside with applications (any other VMs occupying same host) subject to the following conditions:

- n oversubscription of CPU: 1:1 allocation of vCPU to physical cores must be used (2 cores required per VM TelePresence Conductor)
- n no oversubscription of RAM: 1:1 allocation of vRAM to physical memory
- sharing disk storage subsystem is supported subject to correct performance (latency, bandwidth) characteristics

Installation process

This process guides you through installing VM; it assumes that you are using vSphere.

Configuring the VM host

Ensure that the VM host is configured with a valid NTP server – the same NTP server that will be specified in **Tele**Presence Conductor.

- 1. Select the host.
- 2. Go to the **Configuration** tab.
- 3. Select Time configuration.
- 4. Select **Properties**. If the date and time were red on the previous page, set the date and time **manua**lly to the current time.
- 5. Click Options.
- 6. Select NTP Settings.
- 7. Click Add.
- 8. Enter the IP address of the NTP server.
- 9. Click OK.
- 10. Select the Restart NTP service to apply changes check box.
- 11. Click **OK**.
- 12. Click **OK**.

Deploying OVA to host

These instructions represent a typical installation. The Deploy OVF Template wizard dynamically changes to reflect host configuration.

- 1. Log in to vSphere to access the ESXi Host.
- 2. Select File > Deploy OVF Template.



3. Select **Source** and **Browse** to the location of the .ova file.

4. Click Next.

If the .ova file is already preloaded onto the datastore, you may have to re-enter username and password credentials so that vSphere client can access the web server.

🚱 Deploy OVF Template	
Source Select the source location.	
Source OVF Template Details Name and Location Storage Disk Format Ready to Complete	Deploy from a file or URL Z:\Downloads\x.ova Image: Browse Enter a URL to download and install the OVF package from the Internet, or specify a location accessible from your computer, such as a local hard drive, a network share, or a CD/DVD drive.
Help	< Back Next > Cancel

- 5. On the OVF Template Details page click Next.
- 6. On the End User License Agreement page read the EULA.

🕝 Deploy OVF Template		
End User License Agreement Accept the end user license ag	greements.	
Source OVF Template Details End User License Agreeme Name and Location Disk Format Ready to Complete	End User License Agreement IMPORTANT: PLEASE READ THIS END USER LICENSE AGREEMENT CAREFULLY. IT IS VERY IMPORTANT THAT YOU CHECK THAT YOU ARE PURCHASING CISCO SOFTWARE OR EQUIPMENT FROM AN APPROVED SOURCE AND THAT YOU, OR THE ENTITY YOU REPRESENT (COLLECTIVELY, THE « CUSTOMER ») HAVE BEEN REGISTERED AS THE END USER FOR THE PUROSES OF THIS CISCO END USER LICENSE AGREEMENT. IF YOU ARE NOT REGISTERED AS THE END USER YOU HAVE NO LICENSE TO USE THE SOFTWARE AND THE LIMITED WARRANTY IN THIS END USER LICENSE AGREEMENT DOES NOT APPLY. ASSUMING YOU HAVE PURCHASED FROM AN APPROVED SOURCE, DOWNLOADING, INSTALLING OR USING CISCO OR CISCO-SUPPLIED SOFTWARE CONSTITUTES ACCEPTANCE OF THIS AGREEMENT. CISCO SYSTEMS, INC. OR ITS SUBSIDIARY LICENSING THE SOFTWARE INSTEAD OF CISCO SYSTEMS, INC. (« CISCO ») IS WILLING TO LICENSE THIS SOFTWARE TO YOU ONLY UPON THE CONDITION THAT YOU PURCHASED THE SOFTWARE FROM AN APPROVED SOURCE AND THAT YOU ACCEPT ALL OF THE TERMS CONTAINED IN THIS END USER LICENSE AGREEMENT PLUS ANY ADDITIONAL LIMITATIONS ON THE LICENSE SET FORTH IN A SUPPLEMENTAL LICENSE AGREEMENT ACCOMPANYING THE PRODUCT OR AVAILABLE AT THE TIME OF YOUR ORDER (COLLECTIVELY THE « AGREEMENT »). TO THE EXTENT OF ANY CONFLICT RETWFEN THE TERMS	
	Accept	
<u>H</u> elp	<u>≤Back</u> Next ≥ Car	cel

7. If you accept the EULA, click **Accept** then **Next**.

8. On the Name and Location page enter a Name for this TelePresence Conductor VM guest, for example "Virtual_Conductor".

🕝 Deploy OVF Template		
Name and Location Specify a name and locati	on for the deployed template	
Source OVF Template Details Name and Location Disk Format Network Mapping Ready to Complete	Name: Virtual_Conductor The name can contain up to 80 characters and it must be unique within the inventory folder.	
Help	< Back Next >	Cancel

9. On the **Storage** page, select the datastore onto which the TelePresence Conductor VM Guest will be deployed and then click **Next**.

🕑 Deploy OVF Template						
Storage Where do you want to store the virtual machine files?						
Source	Select a destination stora	age for the virtu	al machine files:			
OVF Template Details End User License Agreement	Name	Drive Type	Capacity	Provisioned	Free Type	Thin Prov
Name and Location	🔋 datastore_RAI	Non-SSD	951.75 GB	816.84 GB	159.82 GB VMF55	Supporte
Storage	👔 datastore1	Non-SSD	131.00 GB	971.00 MB	130.05 GB VMF55	Supporte
Disk Format Network Mension						
Ready to Complete						
	<					>
	Disable Storage DB	S For this virtual	machina			
	 Disable Storage DK. 	o fuir unis virtual	maunine			
	Select a datastore:					
	Name	Drive Type	Capacity Pr	ovisioned	Free Type	Thin Provis
						>
Help				< Back	Next >	Cancel

10. On the **Disk Format** page, ensure that the default cisk format of **Thick Provision Lazy Zeroed** is selected and then click **Next**.

Note that **Thin Provision** is not supported as VM performance may degrade during resizing of a partition.

🕑 Deploy OVF Template					
Disk Format In which format do you wa	nt to store the virtual disks?				
Source OVF Template Details End User License Agreement	Datastore: Available space (GB):	guest-datastore			
Storage Disk Format Ready to Complete	G This Devices Less 7				
	Thick Provision Lazy Zeroe Thick Provision Eager Zeroe Thick Provision	ed			
<u>H</u> elp			<u>≤</u> Back	Next >	Cancel

11. If listed, configure Network Mapping and select the network mapping that applies to your infrastructure and then click Next (default is VM Network).

🚱 Deploy OVF Template			
Network Mapping What networks should the c	deployed template use?		
Source OVF Template Details End User License Agreement	Map the networks used in this OVF	template to networks in your inventory	
Name and Location	Source Networks	Destination Networks	
Storage	VM Network	VM Network	
Disk Format Network Mapping			
Ready to Complete			
	Description:		
	The VM Network network		
	1		
Help		< Back Next >	Cancel

- 12. On the Ready to Complete page confirm Deployment Settings.
- 13. Select the **Power on after deployment** check box.
- 14. Click Finish.



The TelePresence Conductor OVA is now deployed as a Guest on the VM Host.

Configuring the VM guest

- 1. Either:
 - Select the VM guest and then select the 'Console' tab, or
 - Right-click on the VM guest and select 'Open Console'.

Virtual_Conductor
Summary Resource Allocation Performance Tasks & Events Alarms Console Permissions Maps Storage Views Update Manager
51200000 bytes (51 MB) copied, 1.02784 s, 49.8 MB/s
sd 0:0:1:0: [sdb] Cache data unavailable
sa 0:01:00 [sab] Hssuming drive cache: write through
SUD: SUD/ SUD/
su 6.8.1.6. Isubj cathe unta unavailable
su 6.6.1.6. Isubi Assuming urive cache. write inrougn
stubi stubi stubi mikozfe i di 12 (12-Mau-2010)
Filesustem lahel=
OS tune: Linux
Block size=4096 (log=2)
Fragment size=4096 (log=2)
Stride=0 blocks, Stripe width=0 blocks
7782400 inodes, 31109872 blocks
1555493 blocks (5.00%) reserved for the super user
First data block=0
Maximum filesystem blocks=4294967296
950 block groups
32768 blocks per group, 32768 fragments per group
8192 inodes per group
Superdiock backups stored on blocks:
32/00, 90304, 103040, 2233/0, 234312, 019200, 004/30, 1003032, 2034200, Abicada Josefsa, 4423042, Jakobada 23007073
4630000, /302024, 11233424, 20408080, 2300/072
Writing inode tables: 565/950

2. The VM guest will take some time to boot, create its second hard disk partition and then reboot to a login prompt.

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