# Dell Networking W-ClearPass Policy Manager Tech Note: Installing or Upgrading on a Virtual Machine

Dell Networking W-ClearPass 6.0 (ClearPass) VMware software packages are distributed as zip files. Download the software image and unzip it to a folder on your server. Each zip file contains three files with the extensions:

.vmdk

- .ovf
- .mf

### Installing ClearPass Policy Manager on a Virtual Machine

Installing ClearPass Policy Manager on a virtual machine is a two-part process:

- Deploy the ClearPass Policy Manager image on a VMware server (below).
- Add a hard disk to the ClearPass Policy Manager virtual machine (page 4).

#### **Disk Space Requirements**

The ClearPass VMware ships with a 10GB hard disk volume. This has to be supplemented with an additional storage/hard disk through the VMware's settings by adding a new hard disk. The additional space required depends on your package.

NOTE: If you do not add a new hard disk to the VM before it is powered on, then it will continue to restart with kernel panics.

- CP-VA-500: 10GB (default) + 250GB
- CP-VA-5K: 10GB (default) + 512GB
- CP-VA-25K: 10GB (default) + 512GB

NOTE: An additional hard disk equal to the size of the new hard disk is required in order to upgrade to future versions. Please refer to Upgrading ClearPass Policy Manager on a Virtual Machine for more information.

#### Deploy ClearPass Policy Manager image on a VMware ESX/ESXi server

- 1. Start the VMware Vsphere console and connect to your ESX/ESXi server.
- 2. Select File > Deploy OVF template.
- 3. Select the .ovf file from the folder where the ClearPass Policy Manager 6.0.1 zip file was unzipped. The Deploy OVF wizard appears.

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Deploy OVF Template OVF Template Details		
Verify OVF template details.		
Source OVF Template Details End User License Agreement	Product:	Aruba ClearPass Policy Manager Applance
Name and Location Storage	Version:	6.0.1
Jisk Format	Vendor:	Aruba Networks
Ready to complete	Publisher:	No certificate present
	Download size:	1.4 GB
	Size on disk:	2.8 GB (thin provisioned) 10.0 GB (thick provisioned)
	Description:	
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нер		<back next=""> Cancel</back>

- 4. Click Next.
- 5. On the End User License Agreement page, click Accept, then click Next.
- 6. On the Name and Location page, the Name is set by default to Dell ClearPass Policy Manager Appliance. You can change it as you wish, then click Next.

<u>Source</u> DVF Template Details	Name: Analya Char Bairy Managar Appliance
End User License Agreemen Name and Location Storage Disk Format Ready to Complete	The name can contain up to 80 characters and it must be unique within the inventory folder.
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7. On the Storage page, select a location for the virtual machine files, then click Next.

urce	Select a destination	storage for the virtue	al machine files:		
VF Template Details Id User License Agreement	Name	Drive Type	Capacity Provisioned	Free Type	Thin P
<u>e and Location</u> a <b>ge</b> Format ly to Complete	datastore1	Non-SSD Non-SSD	944.75 GB 649.63 GB 1.80 TB 1.04 TB	323.99 GB VMF55 769.50 GB VMF55	Supp
		POS for this city of	4		
	Disable Storage	DRS for this virtual	Madhine		
	Disable Storage     Select a datastore:     Name	DRS for this virtual	Capacity   Provisioned	Free   Type	Thin Pr
	Disable Storage Select a datastore: Name	DRS for this virtual	Capacity Provisioned	Free Type	Thin Pr
	Disable Storage Select a datastore: Name	DRS for this virtual	Capacity   Provisioned	Free   Type	Thin Pr
	Disable Storage Select a datastore: Name	DRS for this virtual	Capacity Provisioned	Free Type	Thin Pr
	Disable Storage Select a datastore: Name	2 DRS for this virtual	Lg. Capacity Provisioned	Free Type	Thin P
	Disable Storage Select a datastore: Name	2 DRS for this virtual Drive Type	Lg. Capacity Provisioned	Free Type	Thin P

8. On the Disk Format page, leave the default option of Thick Provision Lazy Zeroed, then click Next.

Deploy OVF Template Disk Format In which format do you wa	nt to store the virtual disks?			
Source Off-Template/Details Off-Template/Details Off-Details Microsoft Uteration Details Details Ready to Concilete	Datastore: Available space (65); C Thick Provision Lazy Zeroec C Thick Provision C Thin Provision	datastore2 769.5 d		
			L3	
Нер			< Back Next >	Cancel

9. On the Ready to Complete page, do not select the Power on after deployment check box. Just click Finish.

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<u>ource</u> IVF Template Details	When you dick Finish, the depl	loyment task will be started.
nd User License Agreemen	Deployment settings:	
ame and Location	OVF file:	C:\Users\Administrator.RHEA\Documents\Downloads\CP.
torage	Download size:	1.4 GB
<u>Jisk Format</u>	Size on disk:	10.0 GB
leady to complete	Name:	Aruba ClearPass Policy Manager Appliance -25K
	Host/Cluster:	localhost.us.avendasys.com
	Datastore:	datastore2
	Disk provisioning:	Thick Provision Lazy Zeroed
	Network Mapping:	"VM Network" to "VM Network"
	Power on after deployment	

You will need to reconfigure the VM settings by adding a hard disk before you power on.

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NOTE: See the VMware specification guide for information about server hardware requirements.

- 1. On the ClearPass Policy Manager appliance, select the deployed virtual machine, and edit its settings.
- 2. Click Add to add another hard disk,



3. On the Device Type page of the Add Hardware wizard, select Hard Disk, then click Next.

Device Type elect a Dak reate a Dak dvanced Options lecady to Complete ↓ Serial Port Paralel Port ↓ Paralel Port ↓ Scontoler ↓ US Controler ↓ US Controler ↓ US Controler ↓ US Controler ↓ US Controler ↓ US Controler ↓ Scit Device (unavailab Element Adapter ↓ Scit Device (Lavavailab € Scit Device (Lavavailab	e you wish to add.
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4. On the Select a Disk page, select Create a new virtual disk, then click Next.



5. Leave the default settings on the Advanced Options page (the Virtual Device Node should be SCSI(0:1)), then click Next.

<u>Pevice Type</u> Select a Disk	Specify the advanced options for this virtual disk. These options do not normally need to be depended
Create a Disk	to be changed.
Advanced Options	Virtual Device Node
Ready to Complete	SCSI (0:1) ▼
	Mode
	☐ Independent
	Independent disks are not affected by snapshots.
	C Persistent
	Changes are immediately and permanently written to the disk.
	C. Nonersistent
	Changes to this disk are discarded when you power off or revert to the
	snapshot.

- 6. Click Finish.
- 7. Power on the virtual machine. You should see the following in the console:



8. Press y. You should see the following in the console:



During the first boot process you will see a Kernel Panic message. This is normal and part of the boot up process. After the Kernel Panic message, the VM will reboot itself one more time within 30 seconds.

After that reboot, ClearPass VMs will power on and boot up in the next couple of minutes. The whole process from the Deploying the OVF image to the final startup screen should take anywhere between 30 and 40 minutes.

After the ClearPass VM launches correctly, you should see the following banner on the VM console.



Once you see the banner on the virtual machine console, you can log in by following the instructions in the Dell Networking W-ClearPass Policy Manager Quick Start Guide.

## **Upgrading ClearPass Policy Manager on a Virtual Machine**

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NOTE: Review the release notes for the current release before you upgrade ClearPass Policy Manager.

#### **Disk Space Requirements**

An additional hard disk equal to the size of SCSI(0:1) is required in order to upgrade. The size that you specified for SCSI(0:1) depends on the package:

- CP-VA-500: 10GB (default) + 250GB
- CP-VA-5K: 10GB (default) + 512GB
- CP-VA-25K: 10GB (default) + 512GB

#### **Upgrade Procedure**

- 1. Power off the ClearPass VMware instance.
- 2. In VMware, open the ClearPass virtual machine properties.
- 3. Add a new hard disk to the virtual machine. The Virtual Device Node should be SCSI(0:2).



NOTE: Ensure that the SCSI(0:2) hard disk is the same size as the SCSI(0:1) hard disk that was added to the VM during the initial installation of the VM.

Aruba ClearPass Policy Manager	Appliance - 5K - 46054 - Virtual	Machine Properties	🛃 Aruba ClearPass Policy Manag	jer Appliance -5K-46054 - Virt	ual Machine Properties 📃 🗖
Hidana (okane) Resurce)  Show Al Dexces  Tachara  Tachara  Show Al Dexces  Tachara  Henson  Henson Henson  Hen	Add Remove Summary 1927 Hd Hardware Characed Options These schanded options Create a 20% Create a 20% Advanced Options Ready to Complete	Witable Modern Version: 7       250 G       250 G       250 B       250	Hardware Options Resources Show All Devices Hardware Wear or VKCI device ScST controller 0 Hard disk 1 Hard disk 1 Hard disk 1 Network adapter 1 Network adapter 1	Add Remove Summary 81322 MB 8 Video card Restricted LSL Log/Paniled Virtual Disk Virtual Disk VM Network VM Network VM Network	Virtual Machine Version: Dak Ple Dak Ple Type:
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- 4. Power on the ClearPass Policy Manager instance.
- 5. Sign in to ClearPass Policy Manager and navigate to Administration > Agents and Software Updates > Software Updates.

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NOTE: A valid Subscription ID is required to download the latest ClearPass Policy Manager updates.

- 6. In the Firmware & Patch Updates section, click Download next to the upgrade image name.
- 7. After the upgrade image has downloaded, click Install next to the upgrade image name.
- 8. Click Yes in the Confirm Installation dialog box. The Install Update dialog box appears and shows the progress of the update.



9. When the installation is complete. click Reboot.

The updated version of ClearPass Policy Manager starts after the reboot and the configuration from the previous version is migrated to the new version.

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