



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.

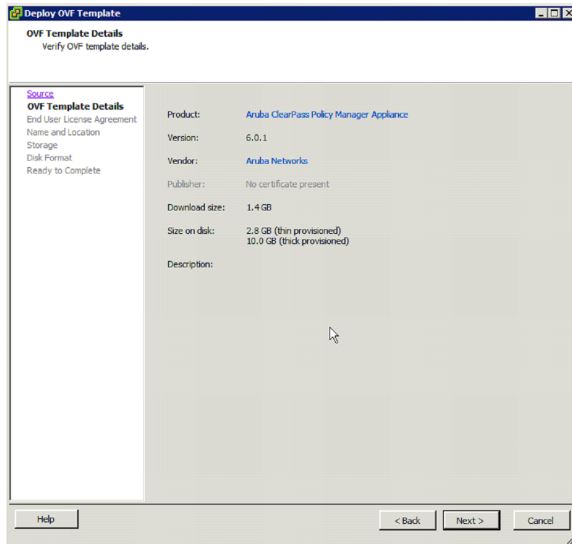
- CP-VA-500: 10GB (default) + 250GB
- CP-VA-5K: 10GB (default) + 512GB
- CP-VA-25K: 10GB (default) + 512GB



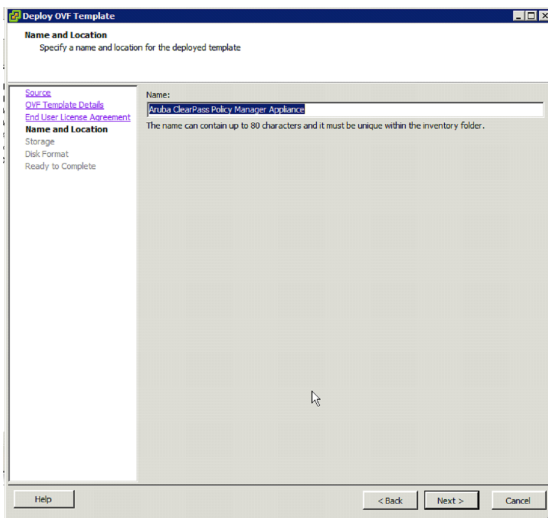
NOTE: An additional hard disk equal to the size of the new hard disk is required in order to upgrade to future versions. Please refer to [Upgrading ClearPass Policy Manager on a Virtual Machine](#) for more information.

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

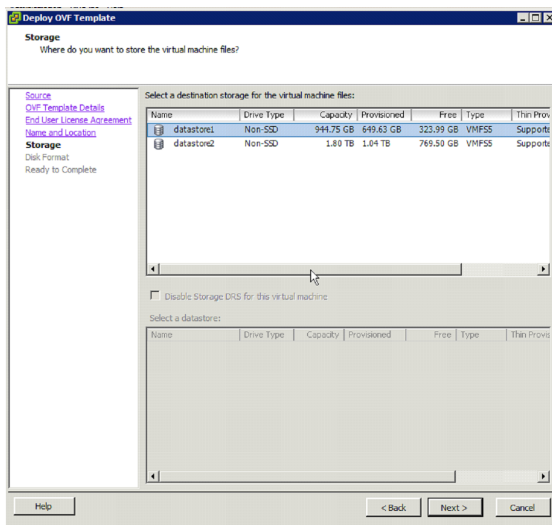
1. Start the VMware Vsphere console and connect to your ESX/ESXi server.
2. Select File > Deploy OVF template.
3. Select the .ovf file from the folder where the ClearPass Policy Manager 6.0.1 zip file was unzipped. The Deploy OVF wizard appears.



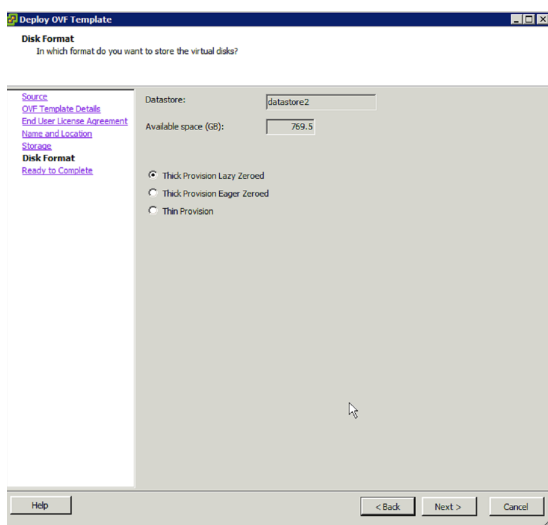
4. Click Next.
5. On the End User License Agreement page, click Accept, then click Next.
6. On the Name and Location page, the Name is set by default to Dell ClearPass Policy Manager Appliance. You can change it as you wish, then click Next.



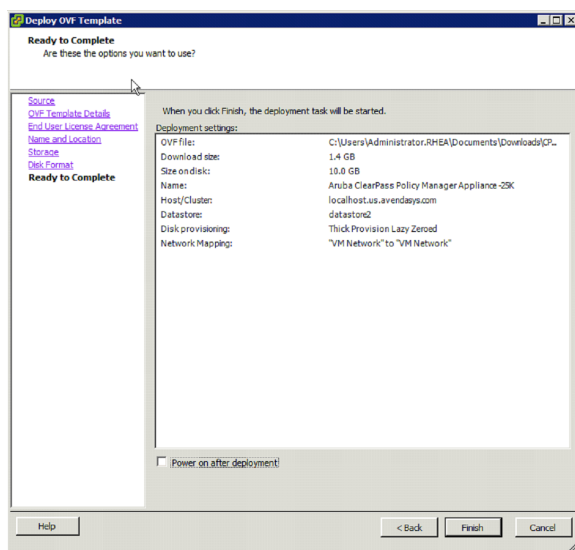
7. On the Storage page, select a location for the virtual machine files, then click Next.



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



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



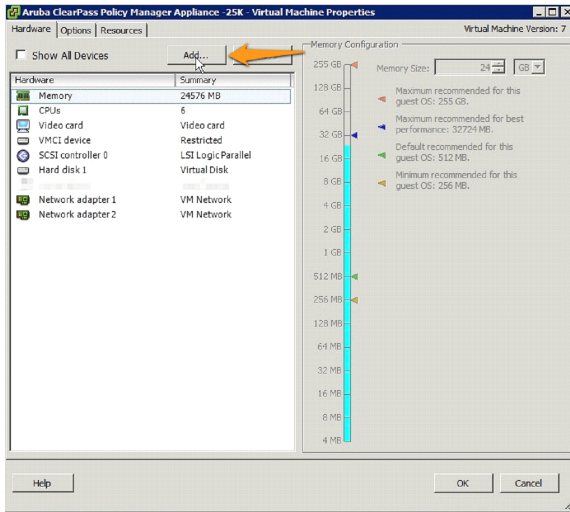
You will need to reconfigure the VM settings by adding a hard disk before you power on.

Add a hard disk to the virtual machine

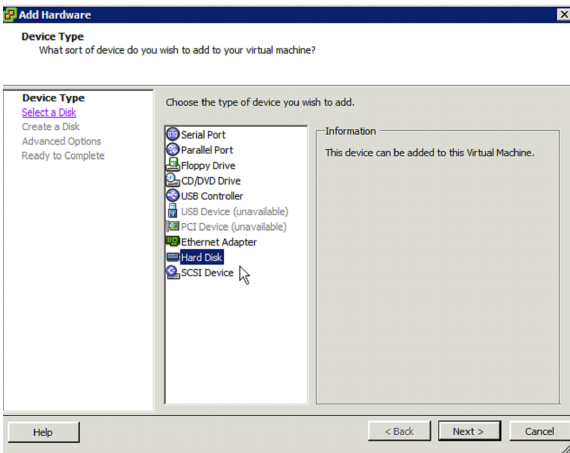


NOTE: See the VMware specification guide for information about server hardware requirements.

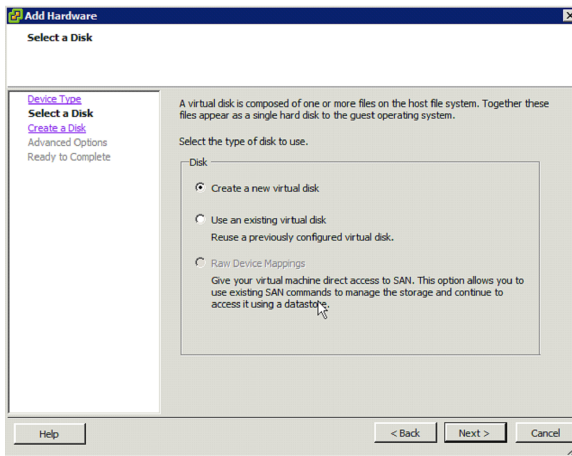
1. On the ClearPass Policy Manager appliance, select the deployed virtual machine, and edit its settings.
2. Click Add to add another hard disk,



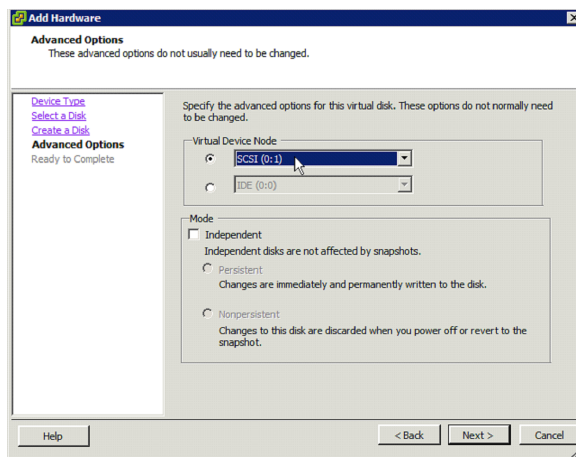
3. On the Device Type page of the Add Hardware wizard, select Hard Disk, then click Next.



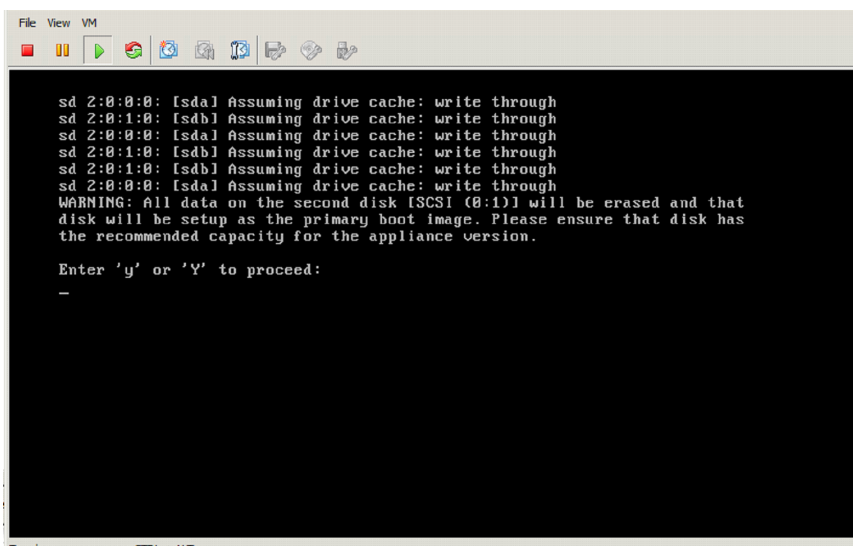
4. On the Select a Disk page, select Create a new virtual disk, then click Next.



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



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:

```

File View VM
sd 2:0:0:0: [sda] Assuming drive cache: write through
sd 2:0:1:0: [sdb] Assuming drive cache: write through
sd 2:0:0:0: [sda] Assuming drive cache: write through
sd 2:0:1:0: [sdb] Assuming drive cache: write through
sd 2:0:1:0: [sdb] Assuming drive cache: write through
sd 2:0:0:0: [sda] Assuming drive cache: write through
WARNING: All data on the second disk [SCSI (0:1)] will be erased and that
disk will be setup as the primary boot image. Please ensure that disk has
the recommended capacity for the appliance version.

Enter 'y' or 'Y' to proceed:
y

***
*** Initializing disk...
***

sd 2:0:1:0: [sdb] Assuming drive cache: write through
sd 2:0:1:0: [sdb] Assuming drive cache: write through
sd 2:0:1:0: [sdb] Assuming drive cache: write through
sd 2:0:1:0: [sdb] Assuming drive cache: write through
-

```

```

File View VM
sd 2:0:1:0: [sdb] Assuming drive cache: write through
sd 2:0:1:0: [sdb] Assuming drive cache: write through
sd 2:0:1:0: [sdb] Assuming drive cache: write through

***
*** Copying file system contents. This may take a while...
***

Setting up boot targets...

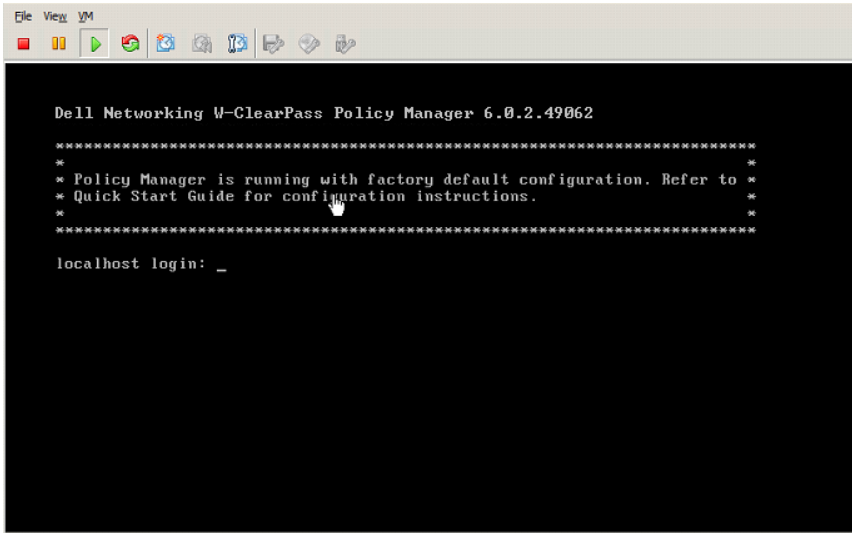
***
*** First boot setup DONE. Ready to reboot
*** Forcibly killing init. Next boot will use the new disk setup
***

Kernel panic - not syncing: Attempted to kill init!
Pid: 1, comm: cppm-vm-firstbo Tainted: 6 ----- T 2.6.32-279
.e16.x86_64 #1
Call Trace:
[<ffffffff014fd11a>] ? panic+0xa0/0x160
[<ffffffff01070bd2>] ? do_exit+0x062/0x070
[<ffffffff01070c30>] ? do_group_exit+0x50/0xd0
[<ffffffff01070cc7>] ? sys_exit_group+0x17/0x20
[<ffffffff0100b0f2>] ? system_call_fastpath+0x16/0x1b
Rebooting in 30 seconds...

```

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.



```
Dell Networking W-ClearPass Policy Manager 6.0.2.49062
*****
*
* Policy Manager is running with factory default configuration. Refer to *
* Quick Start Guide for configuration instructions. *
*
*****

localhost login: _
```

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



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:

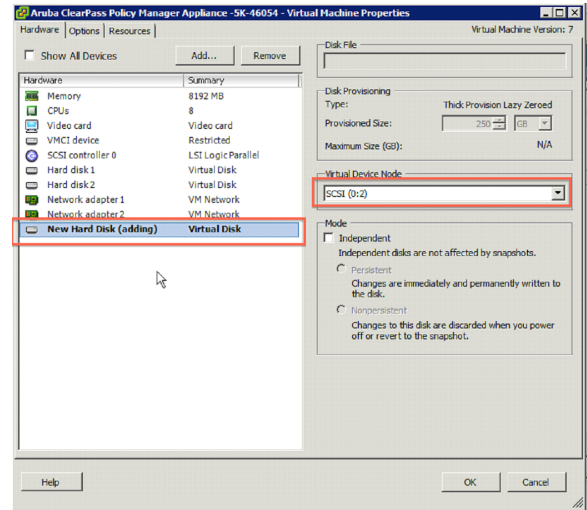
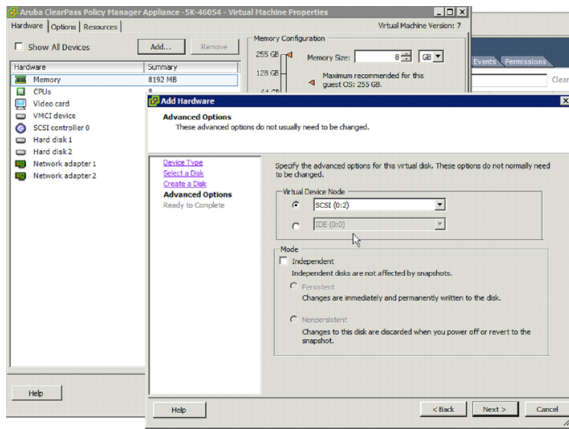
- CP-VA-500: 10GB (default) + 250GB
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- CP-VA-25K: 10GB (default) + 512GB

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.

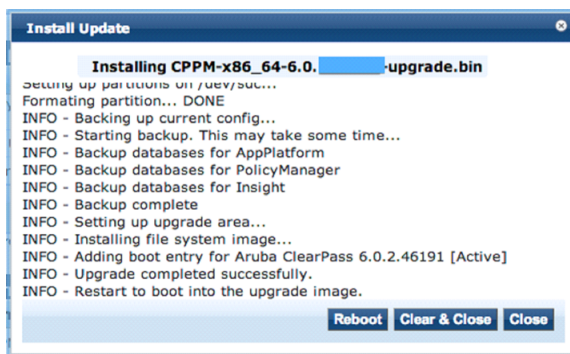


4. Power on the ClearPass Policy Manager instance.
5. Sign in to ClearPass Policy Manager and navigate to Administration > Agents and Software Updates > Software Updates.



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.