

ClearPass Policy Manager 6.1

Tech Note: Installing or Upgrading on a Virtual Machine

ClearPass 6.1 VMware software packages are distributed as zip files. Download the software image and unzip it to a folder on your server, and then unzip each file to access the VMware OVF files.

Be sure that your system meets the minimum specifications required for the Policy Manager Virtual Appliance. 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.



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.

Recommended VMware ESX/ESXi Server Specifications

The following are recommended requirements for the ClearPass Policy Manager 6.1 Virtual Appliance to properly operate in 64-bit VMware ESX or ESXi Server installations. These recommendations supersede earlier requirements that were published for ClearPass Policy Manager 5.x installations.



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.

Supported ESX/ESXi Versions

- 4.0 (This is the recommended minimum version of software for the CP-VA-500 and CP-VA-5K as it does not support greater than eight virtual CPUs required for the CP-VA-25K.)
- 5.0
- 5.1



VMware Player is not supported.

CP-SW-EVAL (Evaluation Version)

- 2 Virtual CPUs
- 40 GB disk space
- 4 GB RAM
- 2 Gigabit virtual switched ports (Only one is needed if you do not use separate ports for data and management traffic.)

CP-VA-500

- 2 Virtual CPUs
- 250 GB disk space
- 4 GB RAM

- 2 Gigabit virtual switched ports (Only one is needed if you do not use separate ports for data and management traffic.)

CP-VA-5K

- 8 Virtual CPUs
- 250 GB disk space
- 8 GB RAM
- 2 Gigabit virtual switched ports (Only one is needed if you do not use separate ports for data and management traffic.)

CP-VA-25K

- At least 12 CPUs (Aruba hardware appliances ship with 24 cores)
- 512 GB disk space
- At least 24 GB RAM (Aruba hardware appliances ships with 64 GB of RAM)
- 2 Gigabit virtual switched ports (Only one is needed if you do not use separate ports for data and management traffic.)



In order for a CP-VA-25K virtual appliance to properly support up to 25,000 unique authentications with full logging capability, customers should match the number of CPUs and RAM that ship in our hardware appliances. If you do not have the VA resources to support a full workload, then you should consider ordering the Policy Manager hardware appliance.

Installing ClearPass Policy Manager on a Virtual Machine

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

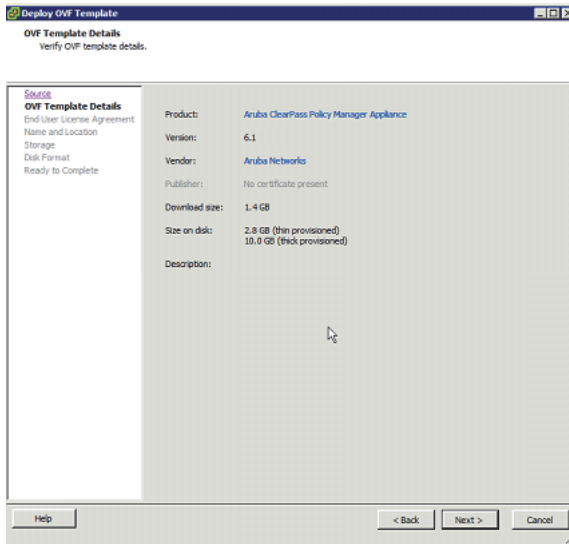
- Deploy the ClearPass Policy Manager image on a VMware server (below).
- Add a hard disk to the ClearPass Policy Manager virtual machine (page 4)



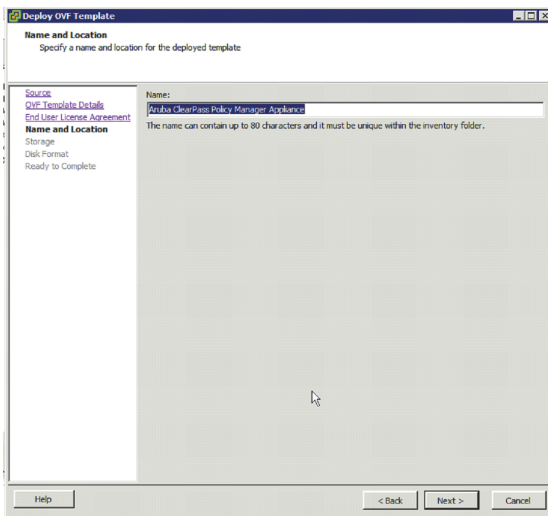
With Policy Manager 6.1, the steps used for installing and upgrading VM evaluation packages (CP-SW-EVAL) now mimic the steps in production versions. In prior versions, users could not upgrade evaluation packages.

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

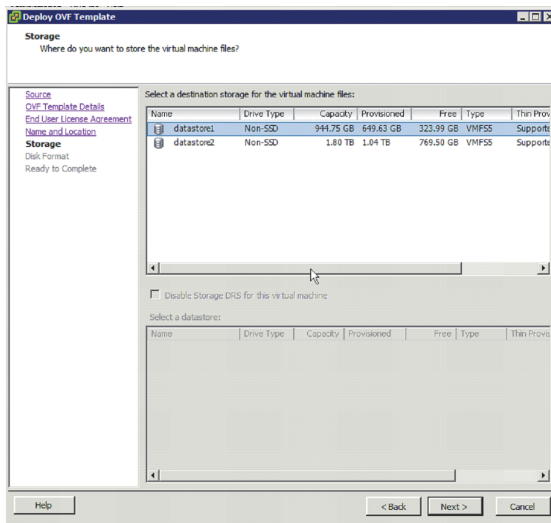
1. Start the VMware Vsphere console and connect to your ESX/ESXi server.
2. Select **File > Deploy OVF template**.
3. Select the .ovf file from the folder where the ClearPass Policy Manager zip file was unzipped. The Deploy OVF wizard appears.



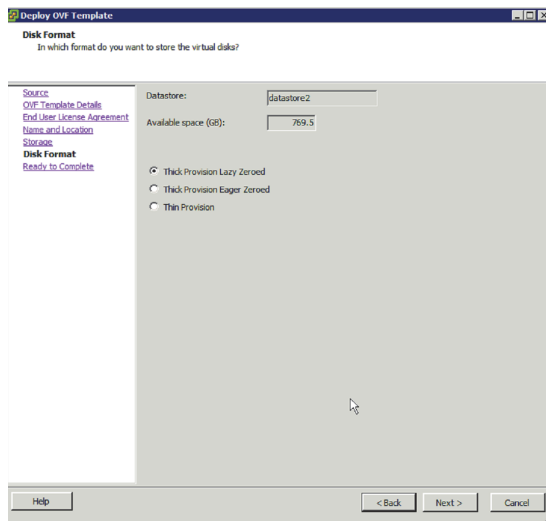
4. Click **Next**.
5. On the End User License Agreement page, click **Accept**, then click **Next**.
6. On the Name and Location page, the Name is set by default to Aruba ClearPass Policy Manager Appliance. You can change it as you wish, then click **Next**.



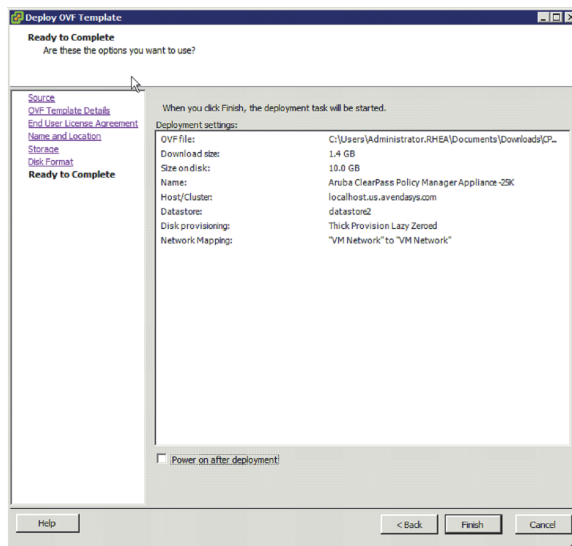
7. On the Storage page, select a location for the virtual machine files, then click **Next**.



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**.



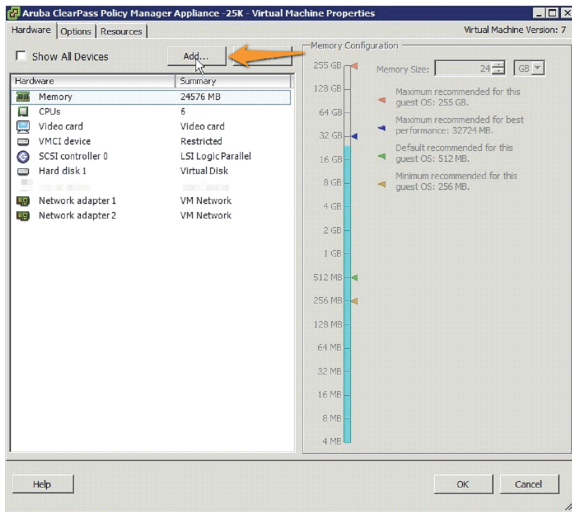
You will need to reconfigure the VM settings by adding a hard disk before you power on.

Add a hard disk to the virtual machine

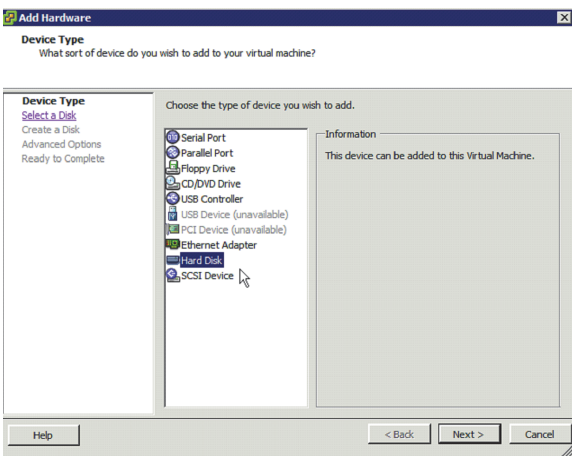


See the VMware specification guide for information about server hardware requirements.

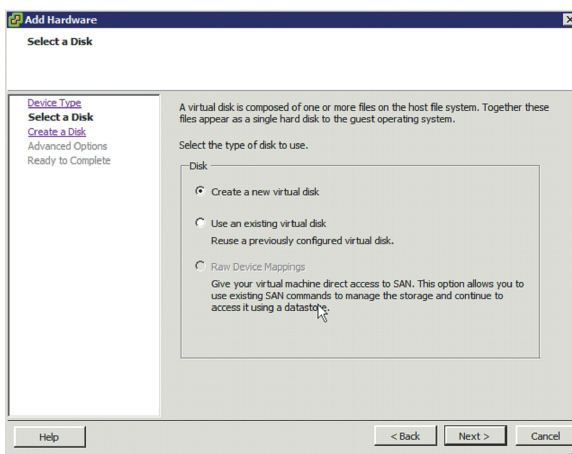
1. On the ClearPass Policy Manager appliance, select the deployed virtual machine, and edit its settings.
2. Click **Add** to add another hard disk,



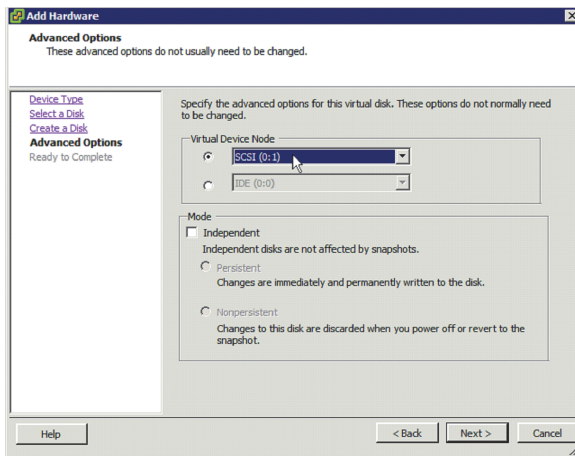
3. On the Device Type page of the Add Hardware wizard, select **Hard Disk**, then click **Next**.



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

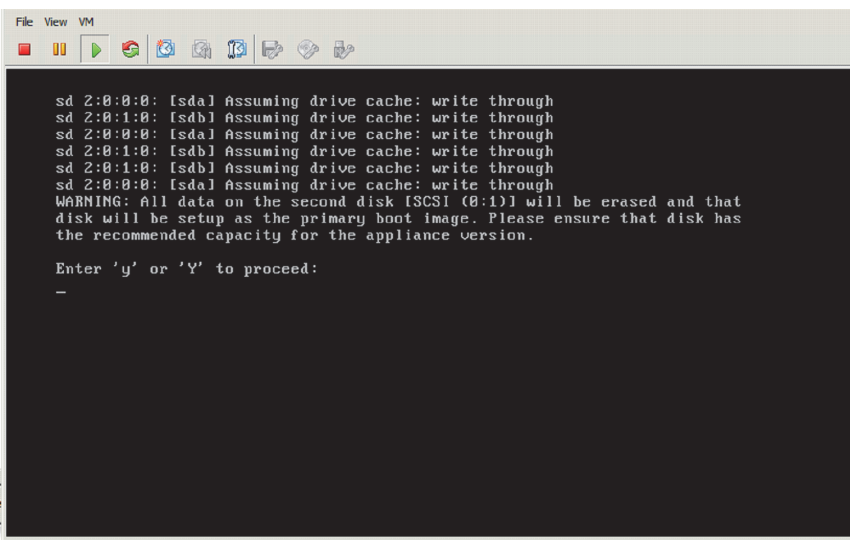


5. Leave the default settings on the Advanced Options page (the Virtual Device Node should be SCSI(0:1)), then click **Next**.

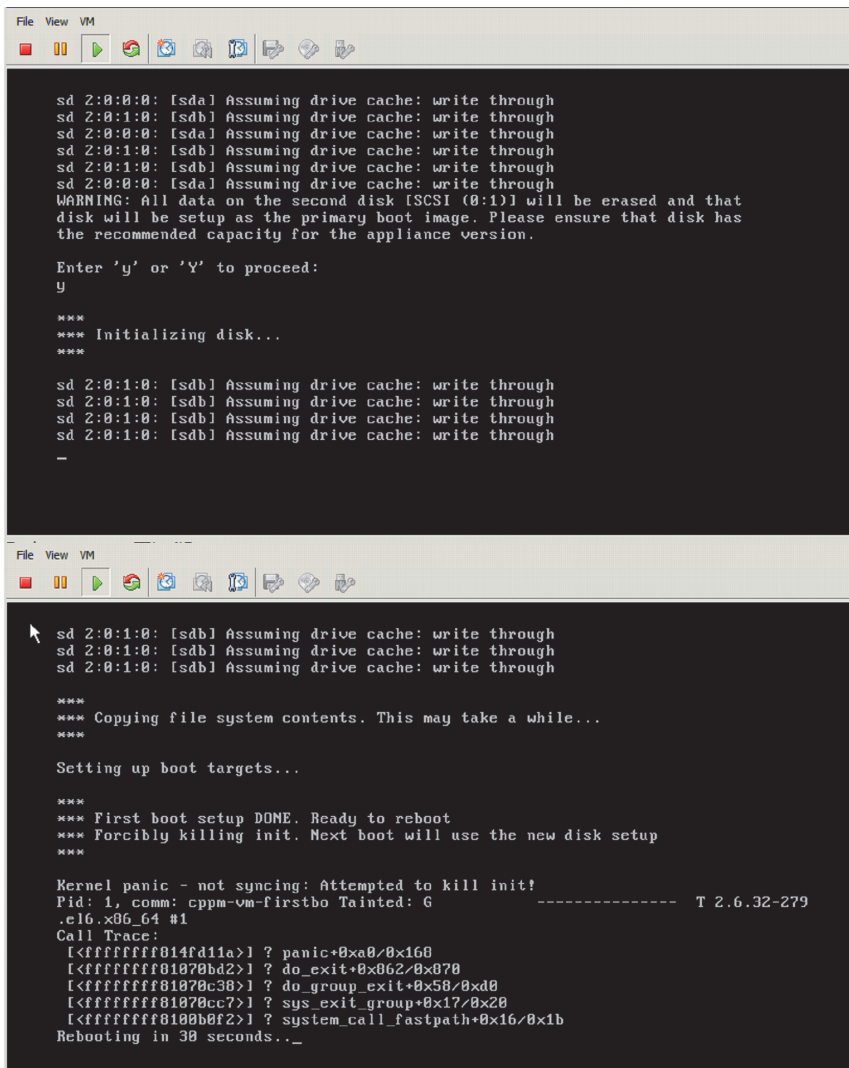


6. Click **Finish**.

7. Power on the virtual machine. You should see the following in the console:



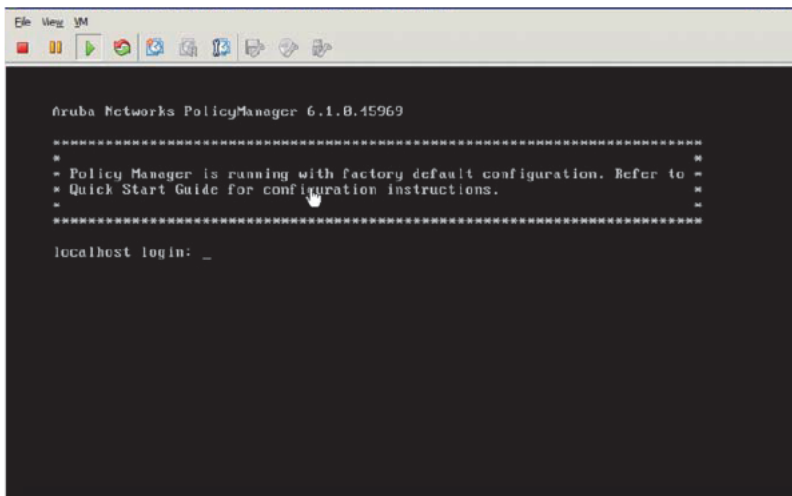
8. Press **y**. You should see the following in the console:



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 *ClearPass Policy Manager Quick Start Guide*.

Upgrading ClearPass Policy Manager on a Virtual Machine



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

Disk Space Requirements

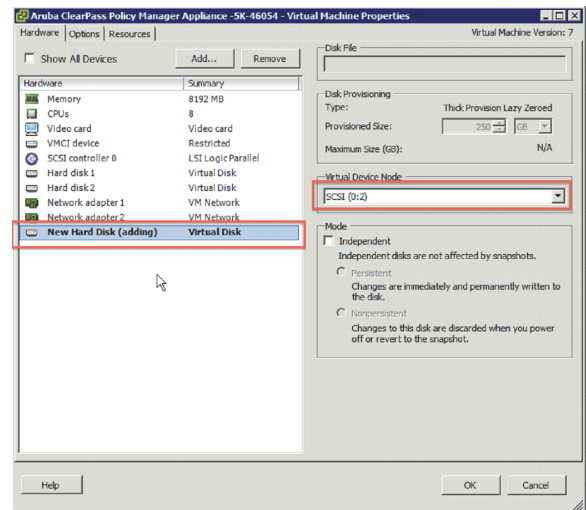
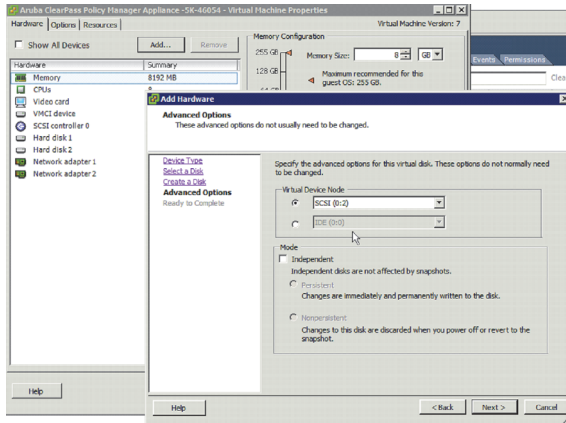
An additional hard disk equal to the size of SCSI(0:1) is required in order to upgrade. The size that you specified for SCSI(0:1) depends on the package. Refer to “[Recommended VMware ESX/ESXi Server Specifications](#)” (page 1) to review the disk space requirements.

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).



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**.



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.