ClearPass Policy Manager 6.3

Tech Note: Installing or Upgrading on a Virtual Machine

This document describes the procedures for installing and upgrading ClearPass Policy Manager 6.3 on a Virtual Machine. Refer to the following sections:

Recommended VMware ESX/ESXi Server Specifications

The following are recommended requirements for the ClearPass Policy Manager 6.3 Virtual Appliance to properly operate in 64-bit VMware ESX or EXSi Server installations. These recommendations supersede earlier requirements that were published for ClearPass Policy Manager 6.x installations. Be sure that your system meets the recommended specifications required for the Policy Manager Virtual Appliance. The ClearPass VMware ships with a 15GB hard disk volume.

Supported ESX/ESXi Versions

- 4.0 (This is the recommended minimum version of software for the CP-VA-500 and CP-VA-5K. This does not support greater than eight virtual CPUs, which is required for the CP-VA-25K.)
- 5.0
- 5.1
- 5.5

VMware Player is not supported.

CP-SW-EVAL (Evaluation Version)

- 2 Virtual CPUs
- 80 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.)

An evaluation version can be upgraded to a later evaulation version in a manner similar to a production upgrade. An evaluation version cannot be upgraded to a production version.

CP-VA-500

- 2 Virtual CPUs
- 500 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.)

- Functional IOP rating for a 40-60 read/write profile for 4k random read/write = 75.

CP-VA-5K

- 8 Virtual CPUs
- 500 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.)
- Functional IOP rating for a 40-60 read/write profile for 4k random read/write = 105.

CP-VA-25K

- At least 12 CPUs. (Aruba hardware appliances ship with 24 cores.)
- 1024 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.)
- Functional IOP rating for a 40-60 read/write profile for 4k random read/write = 350.

In order for a CP-VA-25K virtual appliance to properly support up to 25,000 unique authentications with full logging capability, customers should configure additional hardware to 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.

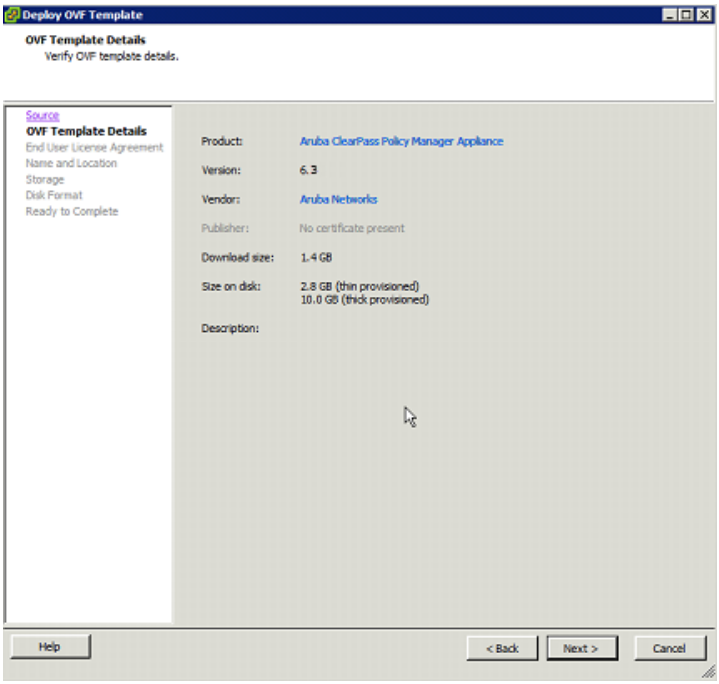
Installing ClearPass Policy Manager on a Virtual Machine

ClearPass 6.3 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.

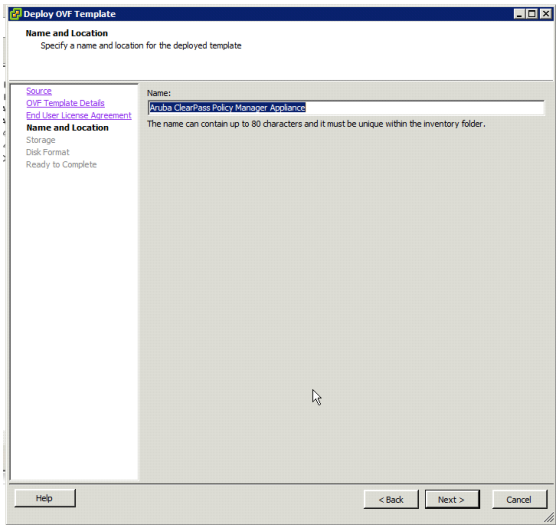
Installing ClearPass Policy Manager on a virtual machine involves deploying the ClearPass Policy Manager image onto a VMware server.

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

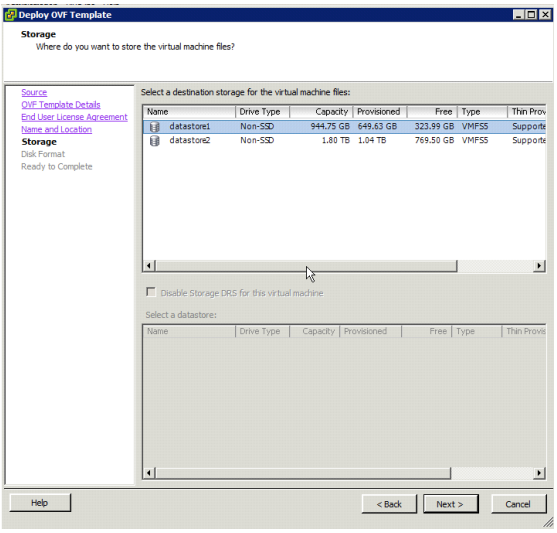
1. Start the VMware vSphere console and connect to your ESX/ESXi server.
2. Select **File > Deploy OVF template**.
3. Select the .ovf file from the folder where the ClearPass Policy Manager zip file was unzipped. The Deploy OVF wizard appears.



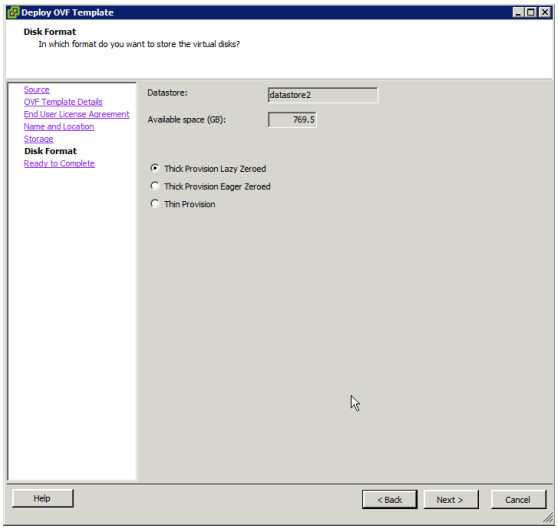
4. Click **Next**.
5. On the End User License Agreement page, click **Accept**, then click **Next**.
6. On the Name and Location page, the Name is set by default to Aruba ClearPass Policy Manager Appliance. You can change it as you wish, then click **Next**.



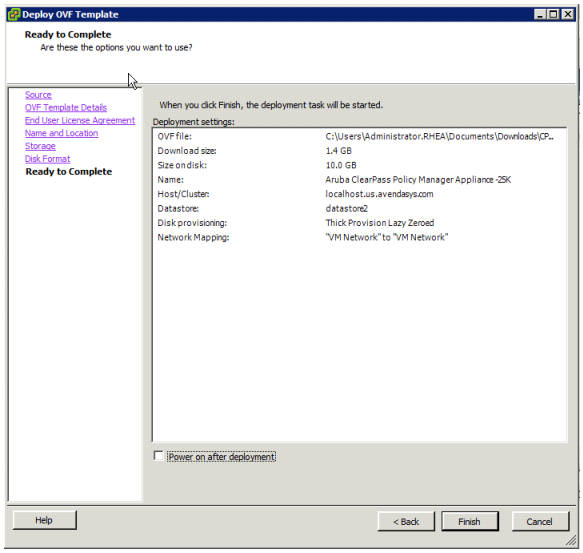
7. On the Storage page, select a location for the virtual machine files, then click **Next**.



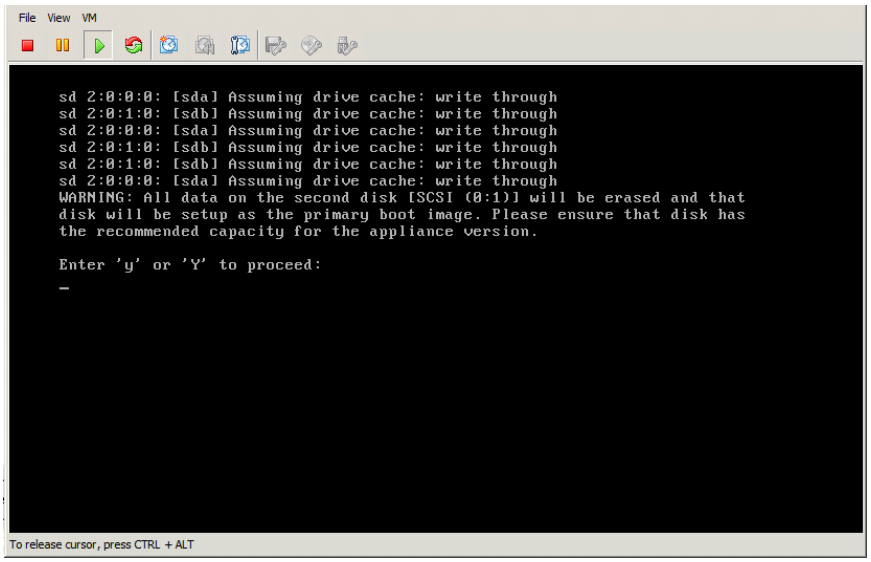
8. On the Disk Format page, leave the default option of **Thick Provision Lazy Zeroed**, then click **Next**.



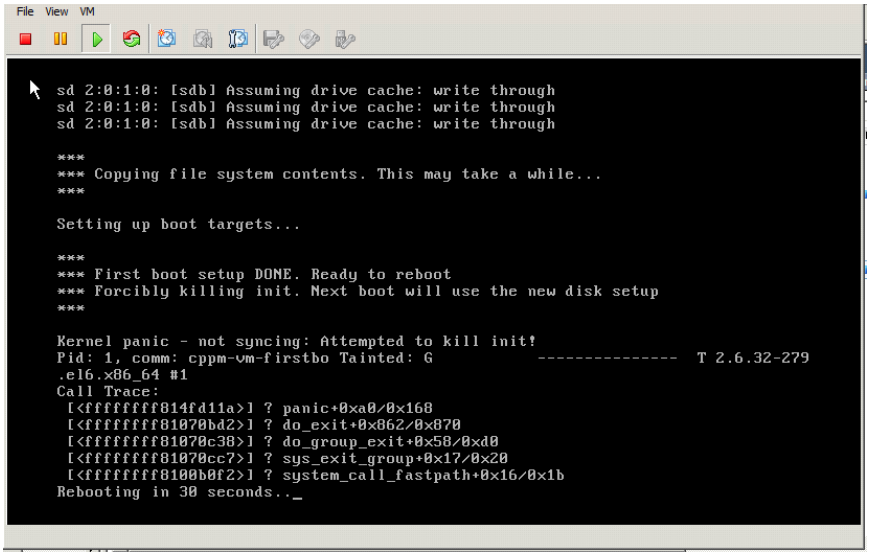
9. On the Ready to Complete page, do not select the **Power on after deployment check box**. Just click **Finish**.



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



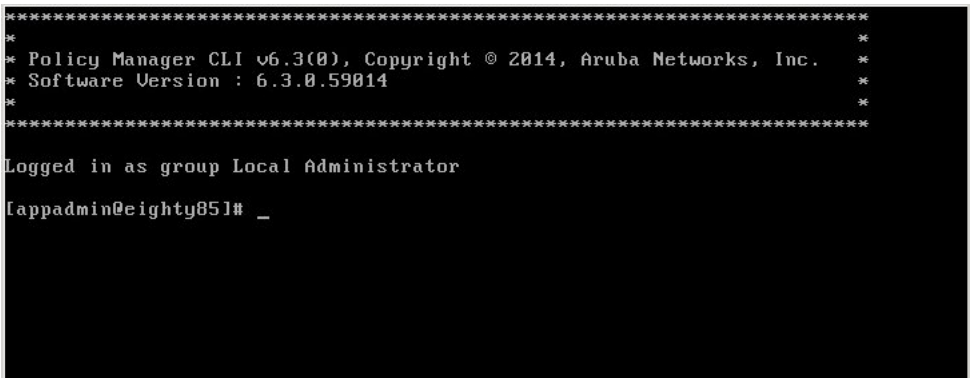
11. Press y. You should see the following in the console:



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 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 a banner similar to the following on the VM console.



After 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

As of ClearPass 6.3, an additional hard disk is no longer required in order to upgrade. During the upgrade process, a second partition equal to the size of the original is automatically created. If you have two disks already loaded with previous W-ClearPass versions—for example, 6.1 on SCSI 0:1 and 6.2 on SCSI 0:2—then drop the inactive disk before upgrading. You must then add a newer disk that is twice the size of the old disk. The W-ClearPass installation will partition this disk into two logical volumes.

Never remove SCSI 0:0.

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

Upgrades can be performed from within the Web UI or by downloading the upgrade image from the Support site. Refer to the following sections for specific information:

- “Disk Space Requirements” (page 6)
- “Upgrading from the Web UI” (page 7)
- “Upgrading from the Support Site” (page 8)

Disk Space Requirements

CP-SW-EVAL (Evaluation Version)

- 2 Virtual CPUs
- 80 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.)

An evaluation version can be upgraded to a later evaulation version in a manner similar to a production upgrade. An evaluation version cannot be upgraded to a production version.

CP-VA-500

- 2 Virtual CPUs
- 500 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.)
- Functional IOP rating for a 40-60 read/write profile for 4k random read/write = 75.

CP-VA-5K

- 8 Virtual CPUs
- 500 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.)
- Functional IOP rating for a 40-60 read/write profile for 4k random read/write = 105.

CP-VA-25K

- At least 12 CPUs. (Aruba hardware appliances ship with 24 cores.)
- 1024 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.)
- Functional IOP rating for a 40-60 read/write profile for 4k random read/write = 350.

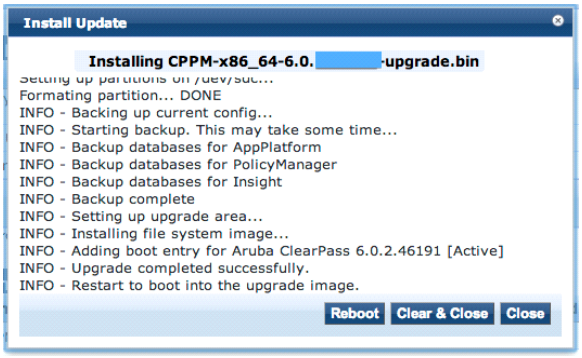
In order for a CP-VA-25K virtual appliance to properly support up to 25,000 unique authentications with full logging capability, customers should configure additional hardware to match the number of CPUs and RAM that ship in our hardware appliances. If you do not have the VA resources to support a full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

Upgrading from the Web UI

Perform the following steps when upgrading from a previous or evaulation version of ClearPass to a newer version. An evaluation version can be upgraded to a later evaulation version in a manner similar to a production upgrade. An evaluation version cannot be upgraded to a production version.

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

1. Power on the ClearPass Policy Manager instance.
2. Sign in to ClearPass Policy Manager and navigate to **Administration > Agents and Software Updates > Software Updates**.
3. In the Firmware & Patch Updates section, click **Download** next to the upgrade image name.
4. After the upgrade image has downloaded, click **Install** next to the upgrade image name.
5. Click **Yes** in the Confirm Installation dialog box. The Install Update dialog box appears and shows the progress of the update.



6. 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.

Upgrading from the Support Site

ClearPass 6.3 VMware upgrade packages are distributed as Signed or Unsigned zip files. Be sure to select the appropriate upgrade image. Use the Signed version to install the image from Web UI; use the Unsigned version to install the image from the CLI. The Signed version can update to 6.3 from versions 6.2 onward. (Note that 6.1.3 and 6.1.4 users can import the Signed version, but installation is required using the CLI.) Upgrades from earlier versions are not supported with the Signed image. The Unsigned version can update to 6.3 from version 5.2 onward.