



CHAPTER 2

VMware ESXi Installation

This chapter contains two procedures:

- [Installation on an Internal Drive, page 2-1](#)
- [SAN Boot Installation, page 2-9](#)

Installation on an Internal Drive

This section describes how to install VMware ESXi and required drivers on an internal drive by using the virtual media feature.



Note

Not all optional hardware components are qualified for use with VMware at this time. For the exact VMware ESX versions and the hardware components supported on this server, see the hardware and software interoperability matrix for the C-Series servers on Cisco.com: http://www.cisco.com/en/US/products/ps10477/prod_technical_reference_list.html



Note

UCS C200 and C210 Servers only: VMWare ESX/ESXi Server software does not support the use of the integrated software RAID with the ICH10R controller. You must use a different RAID option. See [Appendix A, “RAID Controller Considerations”](#).

Prerequisites

The following items or actions are required before you begin this procedure:



Note

Refer to the licensing procedures for your VMware software at <http://www.vmware.com/support/licensing/> before you begin this OS installation procedure. VMware requires you to combine the licenses for multiple processors.

- A configured IP address for the management port of the server. You use this port and IP address to access the Cisco Integrated Management Controller (CIMC) utility.
- The VMware installation media, either CD/DVD or an ISO image. Also, the activation keys for this software installation.



Note

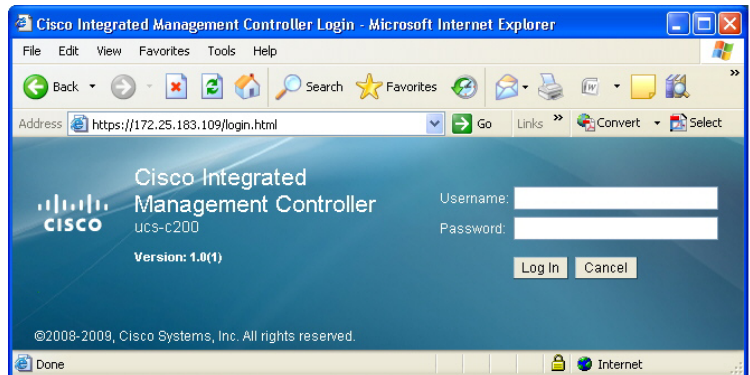
If your server has an LSI MegaRAID controller, configure RAID settings for the drives in your server. If you do not configure your LSI MegaRAID LUNs before installing the OS, disk discovery failures might occur during the installation and you see error messages such as “No Device Found.”

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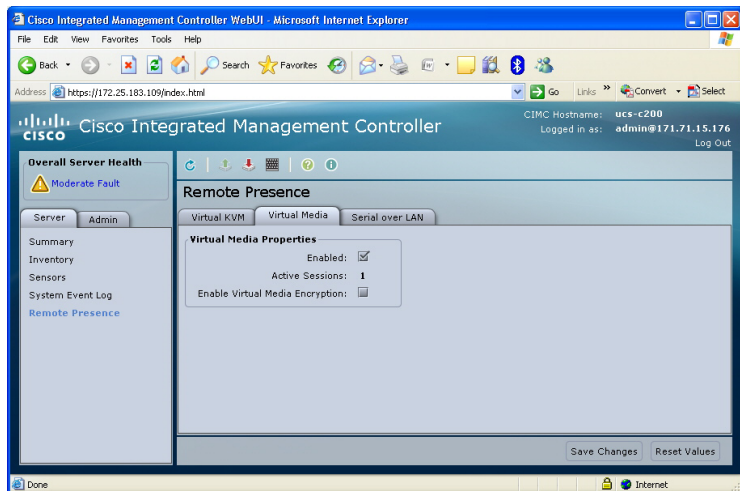
Procedure

Use the following procedure to install the software and drivers:

- Step 1** Use a browser to connect to CIMC Manager using the CIMC IP address.
- Step 2** Log in to CIMC Manager using your administrator user ID and password.
The default user ID is *admin*; the default password is *password*.

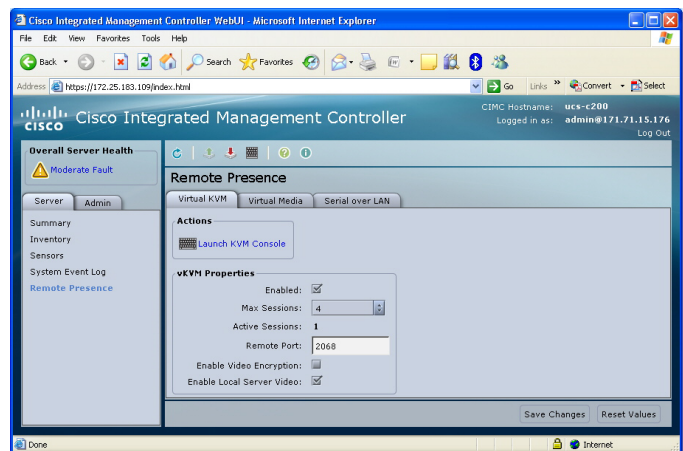


- Step 3** Enable the Virtual Media feature, which enables the server to mount virtual drives:
- On the CIMC Manager **Server** tab, click **Remote Presence**.
 - On the Remote Presence pane, click the **Virtual Media** tab and check the check box to enable Virtual Media.
 - Click **Save Changes**.



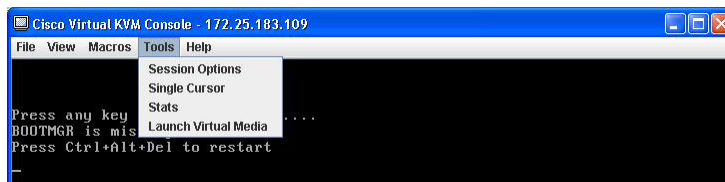
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Step 4 On the Remote Presence pane, click the **Virtual KVM** tab and then click **Launch KVM Console**.



Step 5 When the Virtual KVM Console window launches, select **Tools > Launch Virtual Media** (for CIMC release 1.2(4) and earlier).

For CIMC release 1.3(1) and later, click the **VM** tab.



Step 6 In the Virtual Media Session window, provide the path to the VMware installation image using one of these two methods:

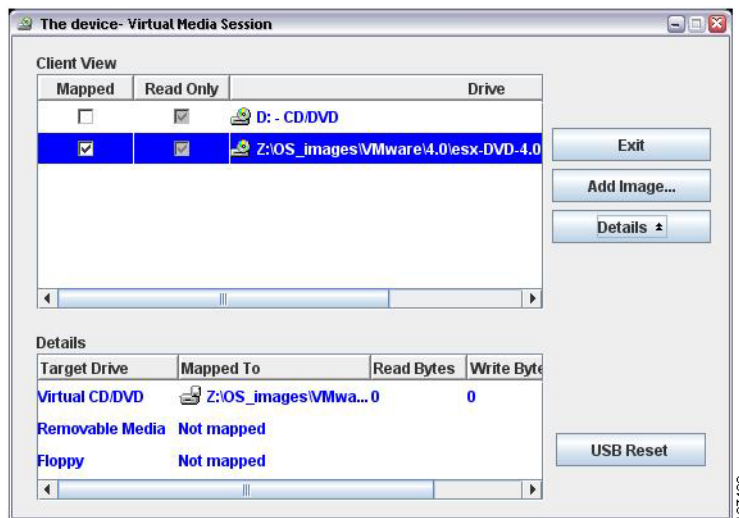
- If you are installing from VMware disc, place the installation disc in the DVD drive of the C-Series server. Wait for the server to read the disc, as indicated by the D: drive icon in the Client View pane.
- If you are installing from a VMware ISO image, click **Add Image** and then use the dialog to navigate to your VMware ISO file and select it. The ISO image is displayed in the Client View pane.

Step 7 Check the check box in the Mapped column for the media that you added, and then wait for mapping to complete. Observe the progress in the Details pane.



Tip Click **Details** to display the Details pane and observe the reading and writing progress.

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Step 8 When mapping is complete, power on or reboot the server.



Note

You can reboot the server by pressing the Power button on the server; by selecting **Macros > Ctrl-Alt-Del** on the Cisco KVM Console window menu bar; or by selecting **Power Cycle Server** on the Server Summary tab of the Cisco Integrated Management Controller GUI.

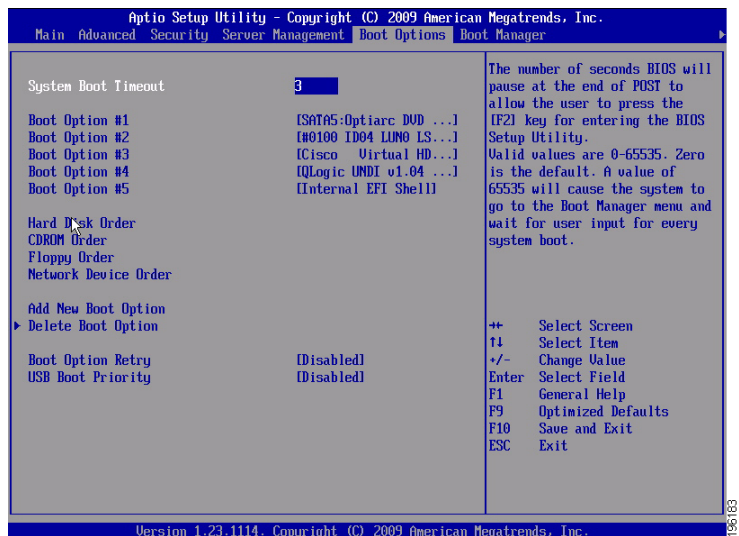
Step 9 In the Virtual KVM Console window, watch during bootup for the **F2** prompt, and then press **F2** to enter BIOS setup. Wait for the setup utility screen to appear.



Note

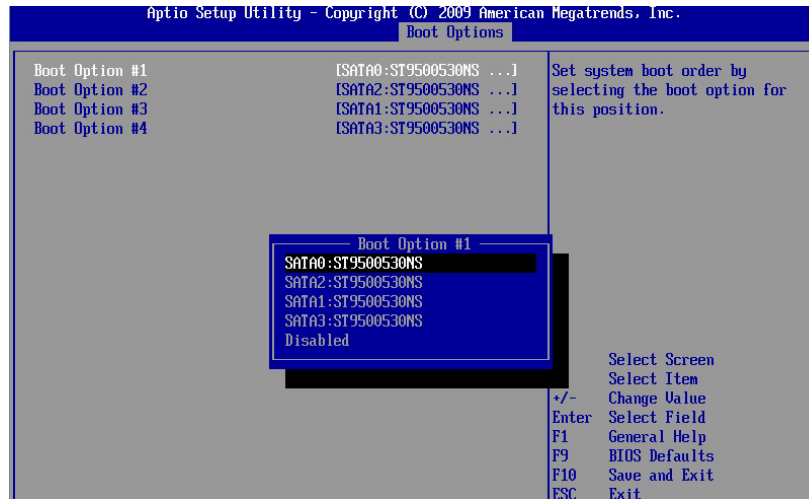
After you press **F2** there is a small time interval before the BIOS setup utility is displayed because the server continues to initialize devices and then displays the utility only after this is complete.

Step 10 On the BIOS setup utility screen, select the **Boot Options** tab and verify that you see the devices that you just added in [Step 6](#) listed as bootable devices.



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- Step 11** Set the hard disk boot order so that the installation-target disk is first:
- a. On the Boot Options screen, select **Hard Disk Order**.
 - b. On the Hard Disk Order screen, set the installation-target disk to be the first boot option.
Select **Boot Option#1** and press **Enter**, then select the hard drive in the pop-up dialog and press **Enter**.
 - c. Press **Esc** to return to the Boot Options screen.



- Step 12** Set the installation-target hard drive to be the first boot option for the server:

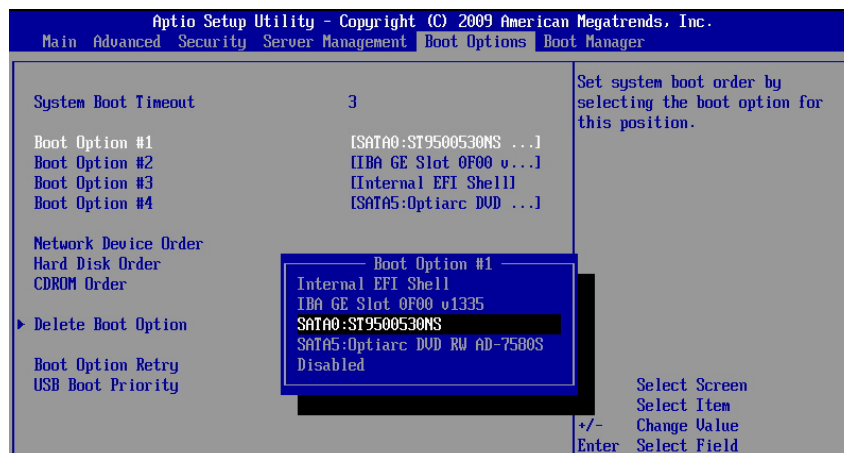


Note

Alternatively, you can change the boot option order in the CIMC Configuration Utility (on the Server Summary screen). For instructions on using the CIMC Configuration Utility, refer to the *Cisco UCS C-Series Rack-Mount Server Configuration Guide*. See the documentation roadmap:

<http://www.cisco.com/go/unifiedcomputing/c-series-doc>

- a. Select **Boot Option#1** and press **Enter**, then select the hard drive in the pop-up dialog and press **Enter**.
- b. Press **Esc** to return to the Boot Options screen.

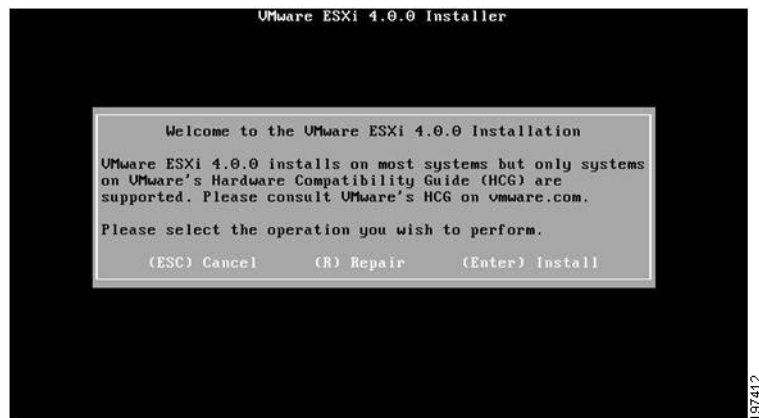


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- Step 13** Press **F10** to save your changes and reboot the server.
- Step 14** In the Virtual KVM Console window, watch during bootup for the F6 prompt, and then press **F6** to enter the Boot Menu.
- Step 15** On the Boot Menu screen, select the physical installation disc in the DVD drive or any virtual disc that you mounted in [Step 6](#) and then press **Enter**. The installation begins when the installation image is booted.



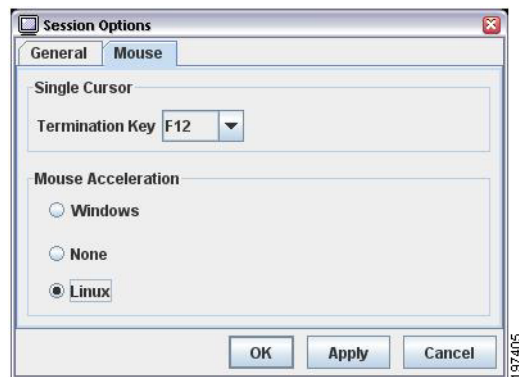
- Step 16** Wait until the following screen is displayed, and then press **Enter** to start the installation process.



- Step 17** Observe the installation process and respond to prompts in the wizard as required for your preferences and company standards, including the license agreement.

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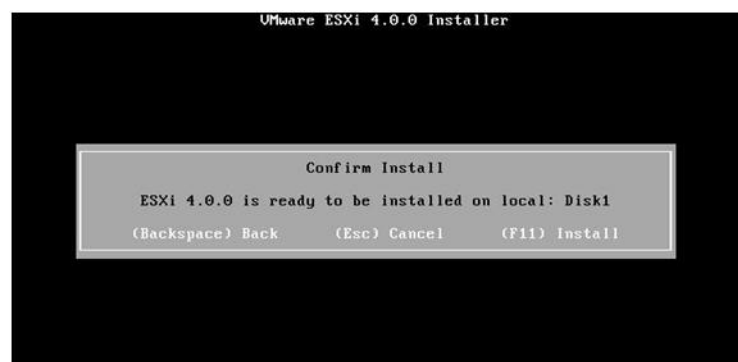
- Step 18 Optional step:** Set mouse acceleration if you experience laggy response when using the KVM window:
- a. From the Virtual KVM Console window menu bar, select **Tools > Session Options**. The Session Options window opens.
 - b. Select the **Mouse** tab.
 - c. Under **Mouse Acceleration**, select **Linux** and then click **OK** to apply your changes and close the Session Options window.



- Step 19** When the following screen is displayed, select the installation target drive or logical volume and then press **Enter** to install ESXi to the drive.



- Step 20** When the following screen is displayed, press **F11** to start the installation.



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**Note**

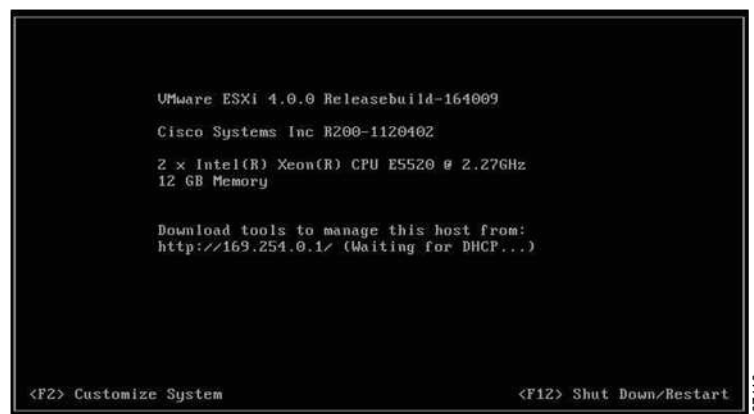
Do not press Enter to reboot at the next screen until after you remove or unmap the installation media.

Step 21 When the installation is complete, the following screen is displayed.

- If you installed from physical disc, eject that disc, then press **Enter** to boot the target installation drive with ESXi.
- If you installed from an ISO installation image, use the Virtual Media Session window to unmap the installation ISO that you mapped in [Step 7](#), then press **Enter** to boot the target installation drive with ESXi.



After the target server reboots and loads ESXi, the following screen is displayed. You can press **F2** to access the ESXi Console utility when you see the following screen.



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SAN Boot Installation

This section describes how to install VMware ESXi and required drivers on a bootable SAN LUN (a logical disk, or RAID volume).

**Note**

Not all optional hardware components are qualified for use with VMware at this time. For the exact VMware ESX versions and the hardware components supported on this server, see the hardware and software interoperability matrix for the C-Series servers on Cisco.com:

http://www.cisco.com/en/US/products/ps10477/prod_technical_reference_list.html

**Note**

UCS C200 and C210 Servers only: VMWare ESX/ESXi Server software does not support the use of the integrated software RAID with the ICH10R controller. You must use a different RAID option. See [Appendix A, “RAID Controller Considerations”](#).

Prerequisites

The following items or actions are required before you begin this procedure:

**Note**

Refer to the licensing procedures for your VMware software at <http://www.vmware.com/support/licensing/> before you begin this OS installation procedure. VMware requires you to combine the licenses for multiple processors.

- A configured IP address for the management port of the server. You use this port and IP address to access the Cisco Integrated Management Controller (CIMC) utility.
- The VMware installation media, either CD/DVD or an ISO image. Also, the activation keys for this software installation.
- Configure a LUN or RAID volume on your SAN, then connect to the SAN and verify that one (and only one) path exists from the SAN HBA to the LUN.

If you are using an LSI RAID controller, see the LSI documentation and the help documentation within the utility for your controller. See [RAID Controller Considerations, page A-1](#).

**Note**

To launch the option ROM-based utilities for your controller, you press a key combination when prompted during bootup. For information about determining which controller is in your server and how to disable quiet boot so that you can see the prompts, see [RAID Controller Considerations, page A-1](#).

**Note**

If your server has an LSI MegaRAID controller, configure RAID settings for the drives in your server. If you do not configure your LSI MegaRAID LUNs before installing the OS, disk discovery failures might occur during the installation and you see error messages such as “No Device Found.”

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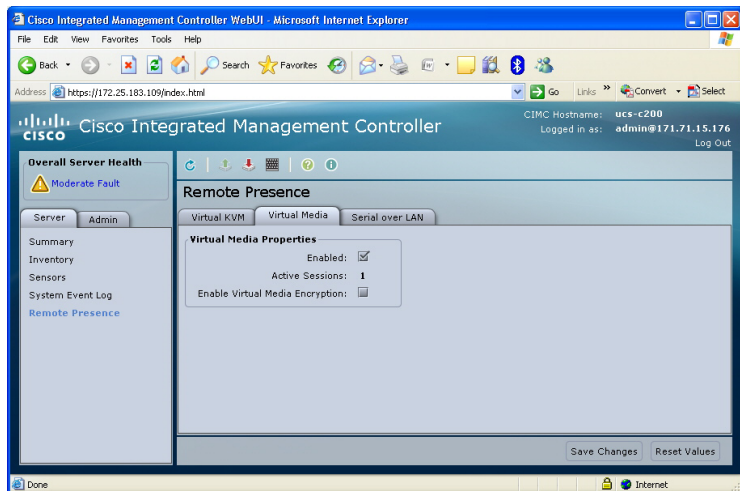
Procedure

Use the following procedure to install the software and drivers:

- Step 1** Use a browser to connect to CIMC Manager using the CIMC IP address.
- Step 2** Log in to CIMC Manager using your administrator user ID and password.
The default user ID is *admin*; the default password is *password*.

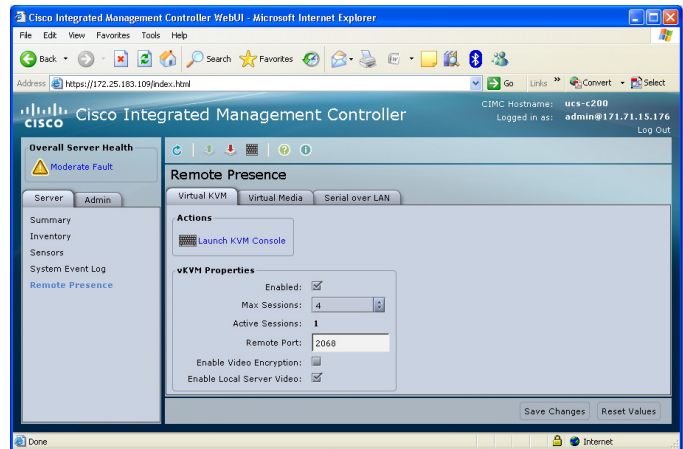


- Step 3** Enable the Virtual Media feature, which enables the server to mount virtual drives:
- a. On the CIMC Manager **Server** tab, click **Remote Presence**.
 - b. On the Remote Presence pane, click the **Virtual Media** tab and check the check box to enable Virtual Media.
 - c. Click **Save Changes**.



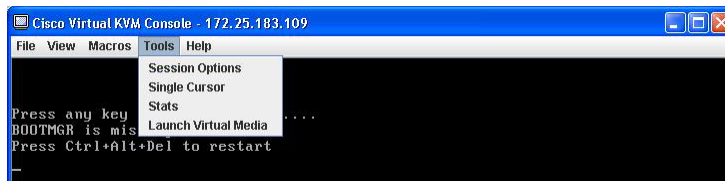
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Step 4 On the Remote Presence pane, click the **Virtual KVM** tab and then click **Launch KVM Console**.



Step 5 When the Virtual KVM Console window launches, select **Tools > Launch Virtual Media** (for CIMC release 1.2(4) and earlier).

For CIMC release 1.3(1) and later, click the **VM** tab.



Step 6 In the Virtual Media Session window, provide the path to the VMware installation image using one of these two methods:

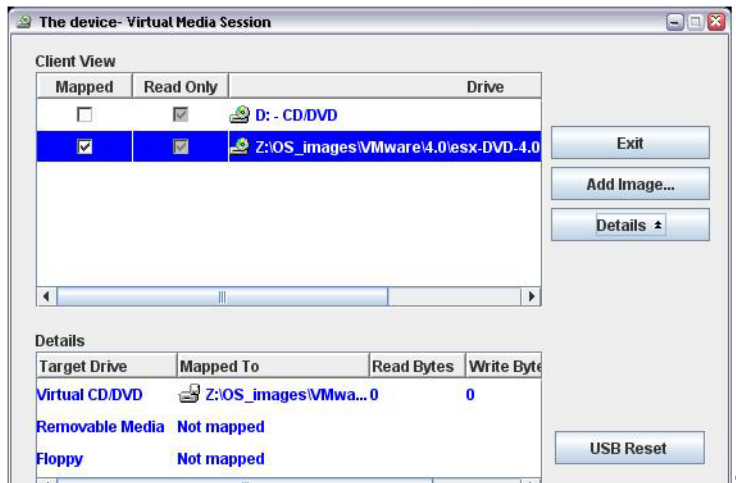
- If you are installing from VMware disc, place the installation disc in the DVD drive of the C-Series server. Wait for the server to read the disc, as indicated by the D: drive icon in the Client View pane.
- If you are installing from a VMware ISO image, click **Add Image** and then use the dialog to navigate to your VMware ISO file and select it. The ISO image is displayed in the Client View pane.

Step 7 Check the check box in the Mapped column for the media that you added, and then wait for mapping to complete. Observe the progress in the Details pane.



Tip Click **Details** to display the Details pane and observe the reading and writing progress.

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Step 8 When mapping is complete, power on or reboot the server.



Note

You can reboot the server by pressing the Power button on the server; by selecting **Macros > Ctrl-Alt-Del** on the Cisco KVM Console window menu bar; or by selecting **Power Cycle Server** on the **Server Summary** tab of the Cisco Integrated Management Controller GUI.

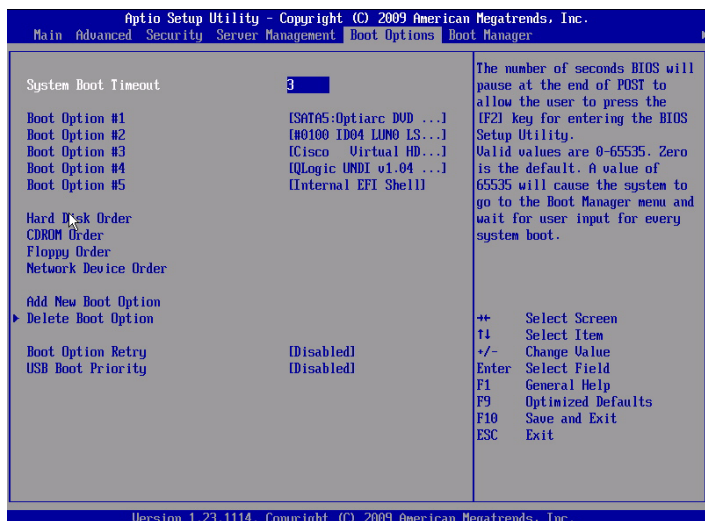
Step 9 In the Virtual KVM Console window, watch during bootup for the **F2** prompt, and then press **F2** to enter BIOS setup. Wait for the setup utility screen to appear.



Note

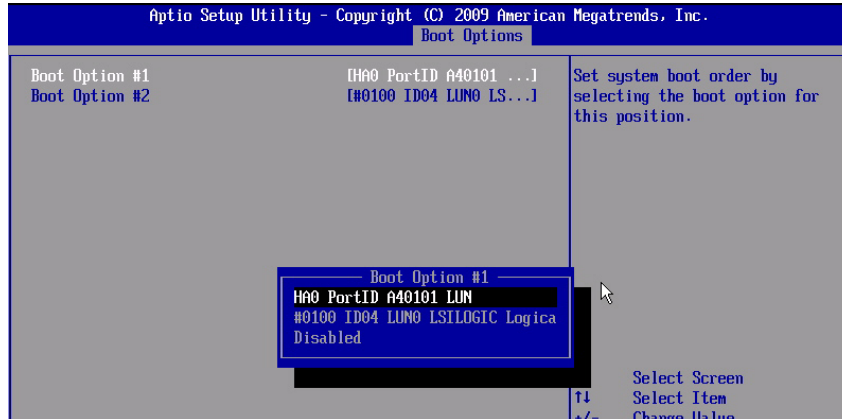
After you press **F2** there is a small time interval before the BIOS setup utility is displayed because the server continues to initialize devices and then displays the utility only after this is complete.

Step 10 On the BIOS setup utility screen, select the **Boot Options** tab and verify that you see the device that you just added [Step 6](#) listed as a bootable device.

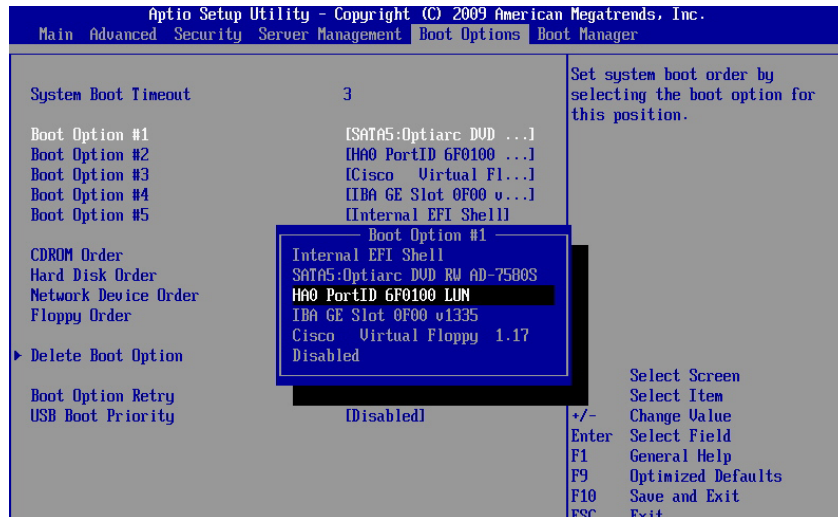


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- Step 11** Set the SAN LUN boot order so that the target LUN boots first after the installation:
- On the Boot Options screen, select **Hard Disk Order**.
 - On the Hard Disk Order screen, set the target SAN LUN to be the first in the list of hard disk devices. Select **Boot Option #1** and press **Enter**, then select the **LUN** entry in the pop-up dialog and press **Enter**.



- Step 12** Set the installation-target LUN to be the first boot option for the server:
- Select **Boot Option #1** and press **Enter**, then select the LUN in the pop-up dialog and press **Enter**.
 - Press **Esc** to return to the Boot Options screen.



- Step 13** Press **F10** to save your changes and reboot the server.

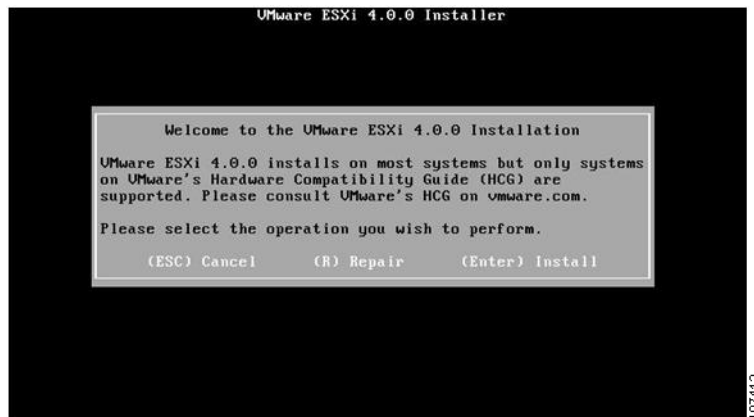
- Step 14** In the Virtual KVM Console window, watch during bootup for the F6 prompt, and then press **F6** to enter the Boot Menu.

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- Step 15** On the Boot Menu screen, select the physical disc in the DVD drive or any virtual disc that you mounted in [Step 6](#) and then press **Enter**. The installation begins when the installation image is booted.



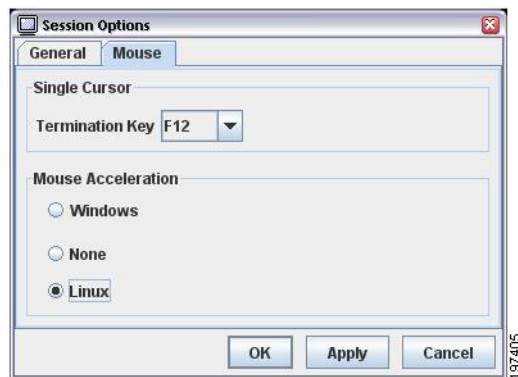
- Step 16** Wait until the following screen is displayed, and then press **Enter** to start the installation process.



- Step 17** Observe the installation process and respond to prompts in the wizard as required for your preferences and company standards, including the license agreement.

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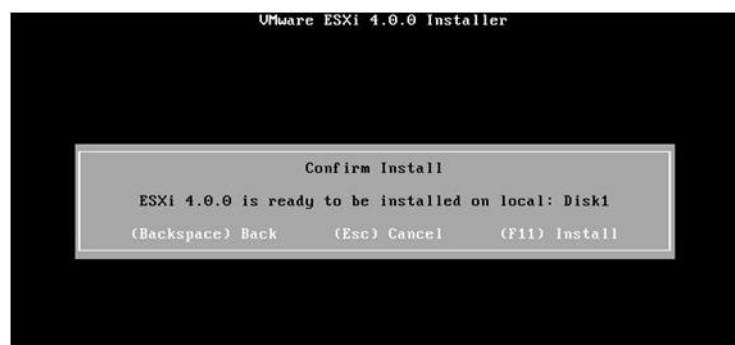
- Step 18 Optional step:** Set mouse acceleration if you experience laggy response when using the KVM window:
- a. From the Virtual KVM Console window menu bar, select **Tools > Session Options**. The Session Options window opens.
 - b. Select the **Mouse** tab.
 - c. Under **Mouse Acceleration**, select **Linux** and then click **OK** to apply your changes and close the Session Options window.



- Step 19** When the following screen is displayed, select the installation target LUN or logical volume and then press **Enter** to install ESXi to the drive.



- Step 20** When the following screen is displayed, press **F11** to start the installation.



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**Note**

Do not press Enter to reboot at the next screen until after you remove or unmap the installation media.

Step 21 When the installation is complete, the following screen is displayed.

- If you installed from physical disc, eject that disc, then press **Enter** to boot the target installation drive with ESXi.
- If you installed from an ISO installation image, use the Virtual Media Session window to unmap the installation ISO that you mapped in [Step 7](#), then press **Enter** to boot the target installation drive with ESXi.



After the target server reboots and loads ESXi, the following screen is displayed. You can press **F2** to access the ESXi Console utility when you see the following screen.

