



Cisco Modeling Labs ISO Installation

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Cisco Modeling Labs ISO Image Installation

This chapter details the ISO image installation procedure for a bare metal environment.

A bare metal implementation is a computer system in which the software for a virtual machine is installed directly on hardware rather than as a virtual machine on top of a hypervisor system, such as VMware ESXi, within the host operating system. The term bare metal refers to a hard disk, the usual medium on which a computer's operating system is installed.

The following bare metal implementations are described:

- [Installing the Cisco Modeling Labs ISO Image on a Cisco UCS B-Series Server, on page 2](#)
- [Installing the Cisco Modeling Labs ISO Image on a Cisco UCS C-Series Server, on page 10](#)



Note

These hardware configurations are for example purposes only; you can deploy the server implementation that best suits your requirements.

Prerequisites

Ensure that the following requirements are met:

- Know the location of the Cisco Modeling Labs ISO image file required for installation.
- A minimum of 30 GB of disk space is available.
- Have three network interface ports available, in addition to the Cisco UCS Manager or Cisco Integrated Management Controller management port.

Installing the Cisco Modeling Labs ISO Image on a Cisco UCS B-Series Server

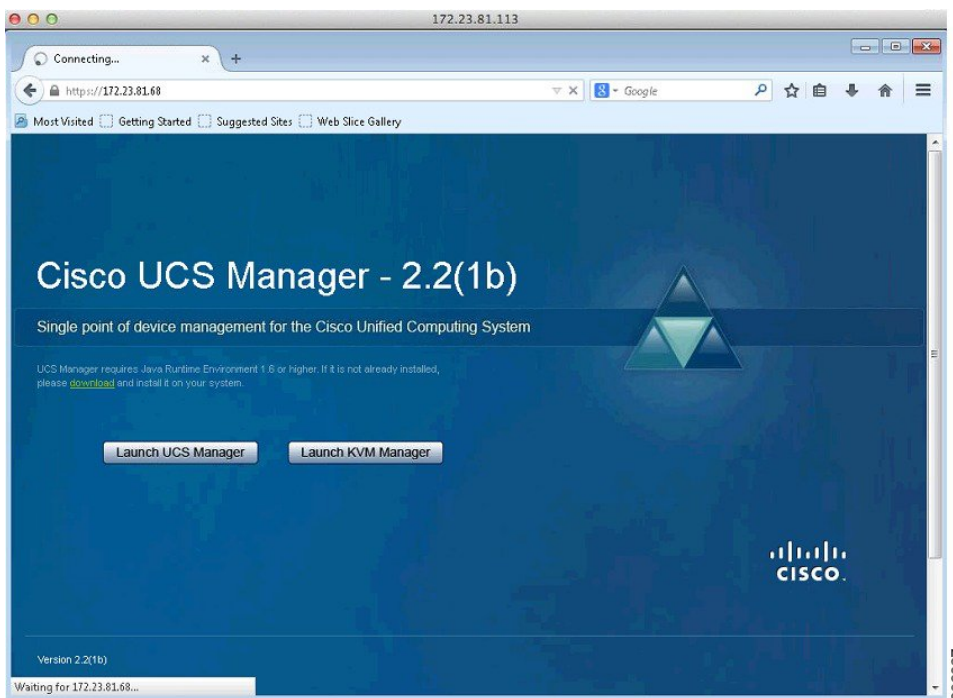
The following sections describe how to install the Cisco Modeling Labs ISO image on a Cisco UCS B-Series Server.

Logging In to the Cisco UCS Manager Interface

The default HTTPS web link for the Cisco UCS Manager interface is `https://UCSManager_IP`, where `UCSManager_IP` represents the IP address assigned to Cisco UCS Manager.

- Step 1** Open a browser window and enter the IP address of the Cisco UCS Manager interface in the format `https://UCSManager_IP`
- Step 2** If a **Security Alert** dialog box appears, click **Yes** to accept the security certificate and continue.
- Step 3** In the Cisco UCS Manager launch page, click **Launch UCS Manager**.
Depending on the web browser you use to log in, you may be prompted to download or save the .JNLP file.

Figure 1: Cisco UCS Manager Login Window



- Step 4** If the Cisco UCS Manager displays a pre-login banner, review the message and click **OK** to close the dialog box.
- Step 5** If a **Security** dialog box appears, perform the following tasks:
- (Optional) Check the check box to accept all content from Cisco.
 - Click **Yes** to accept the certificate and continue.
- Step 6** In the **Login** dialog box, perform the following tasks:

- Enter your username and password.
- If your Cisco UCS implementation includes multiple domains, choose the appropriate domain from the **Domain** drop-down list.
- Click **Login**.

Mapping the Cisco Modeling Labs ISO Image on a Cisco UCS B-Series Server

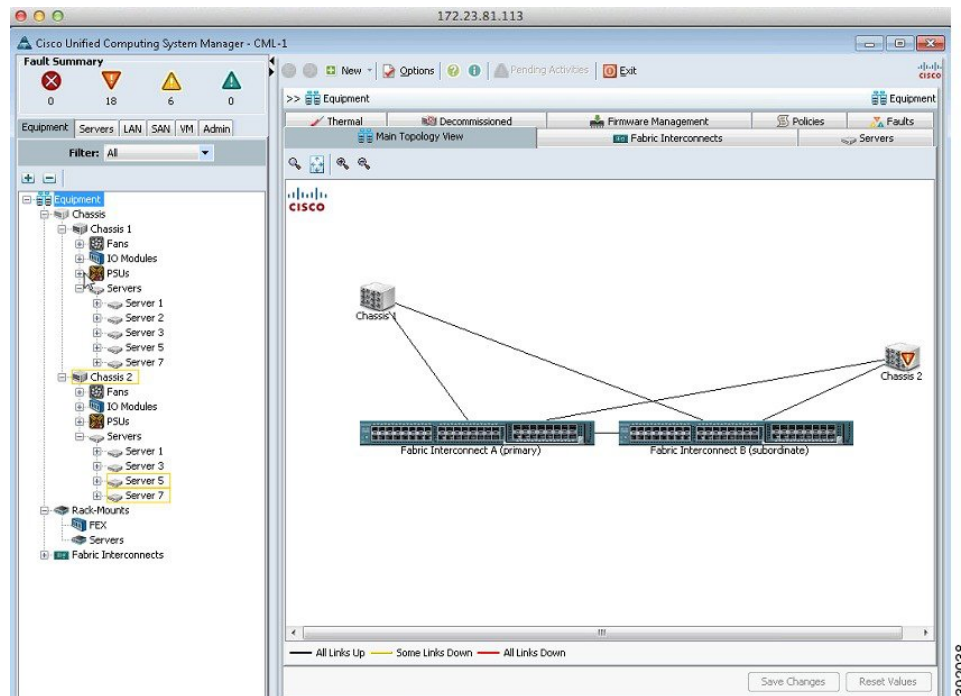


Note

This procedure requires you to have downloaded the Cisco Modeling Labs ISO image file and to ensure it is accessible from the computer that you are using to log in to the Cisco UCS Manager interface.

When the Cisco UCS Manager launches, the pane on the left provides an equipment inventory of the Cisco UCS.

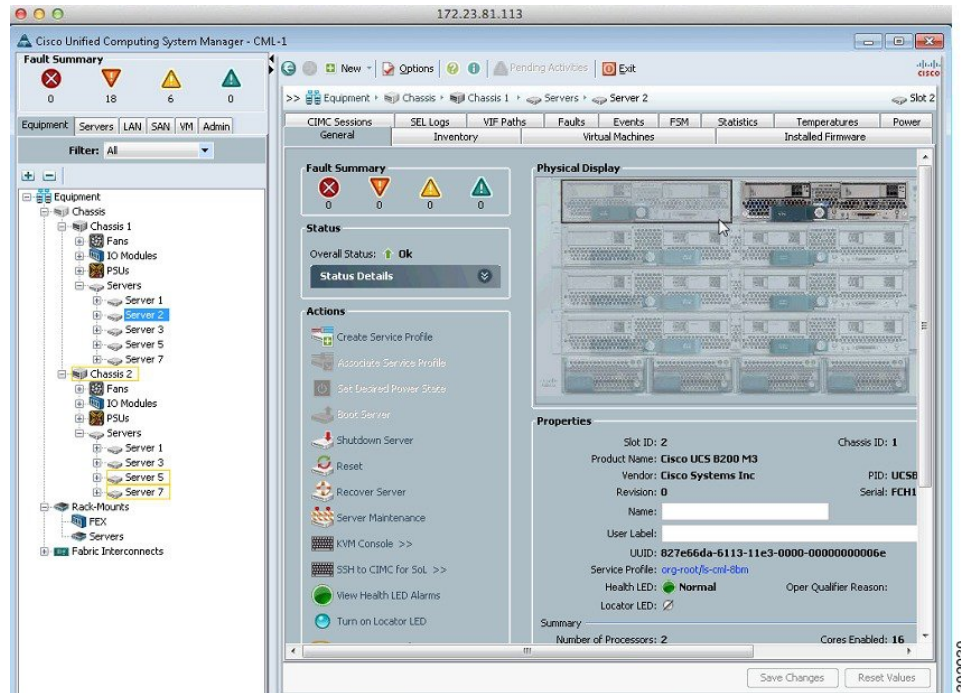
Figure 2: Cisco UCS Equipment Inventory



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You can see a physical view of the server under the **Physical Display** pane.

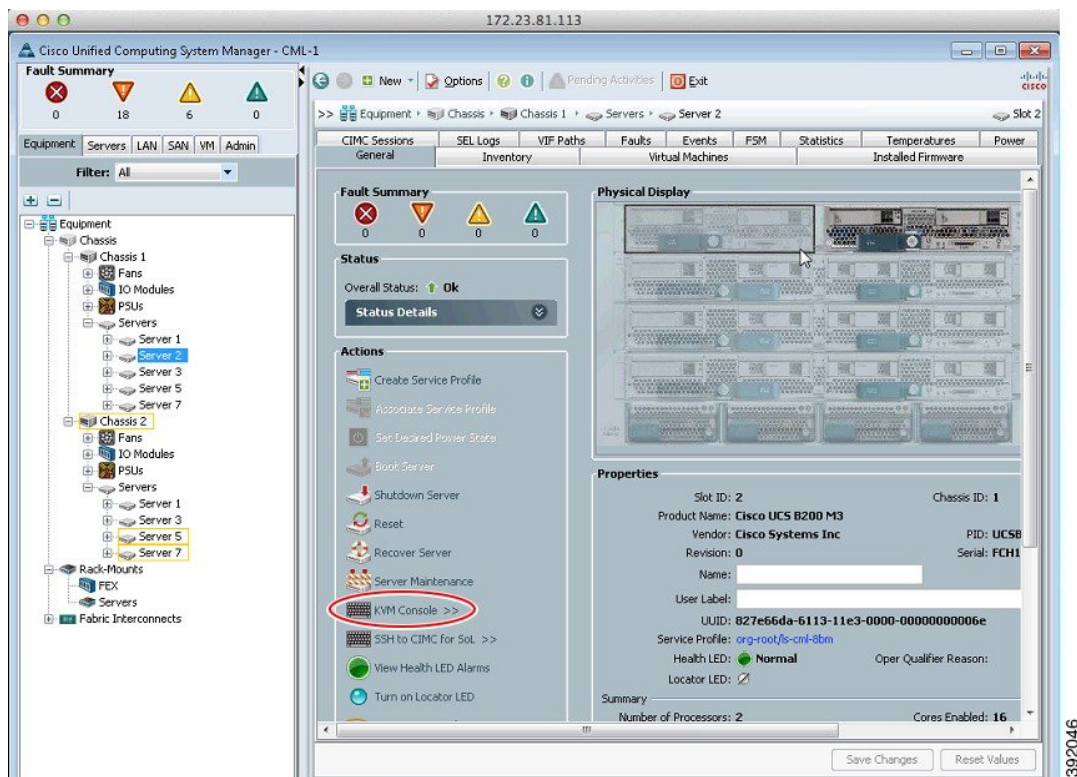
Figure 3: Cisco UCS Physical Display



To map the Cisco Modeling Labs ISO image, complete the following steps:

Step 1 Under the **General** tab, click **KVM Console** to launch the KVM Console and connect to the KVM server.

Figure 4: KVM Console

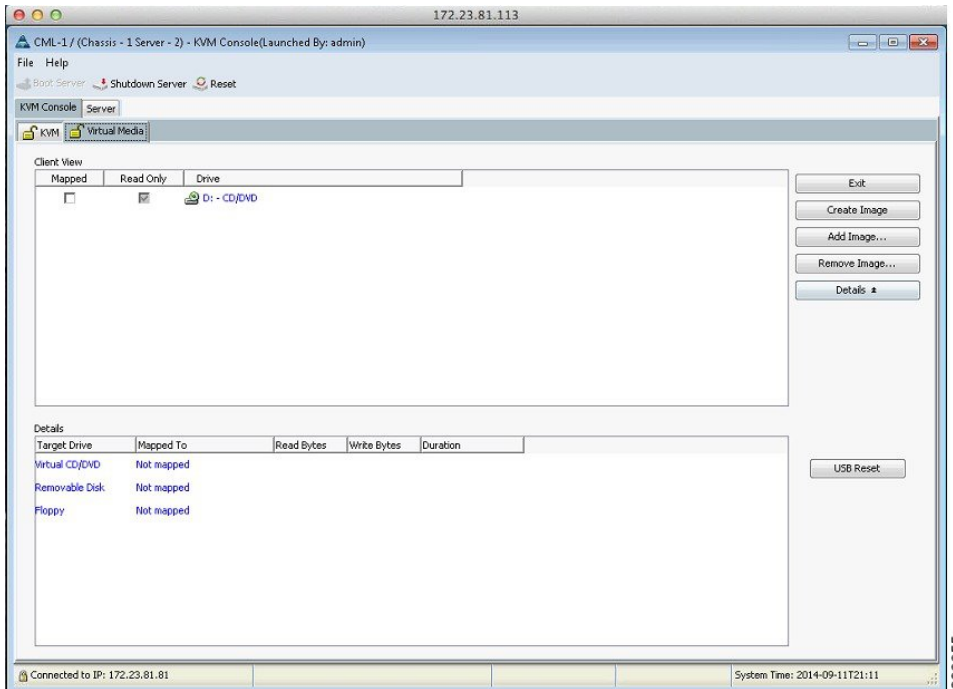


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Step 2 In the KVM Console, click the **Virtual Media** tab. (In the KVM Console, the ISO image is mapped to the server so that at boot time, the server boots from the ISO image.)

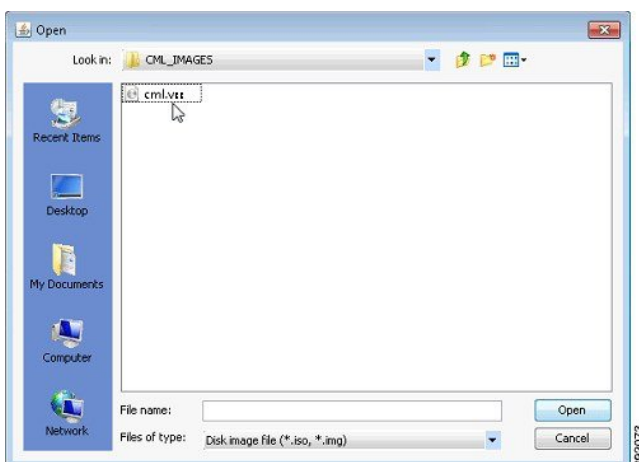
Step 3 Click **Add Image**.

Figure 5: Virtual Media Tab



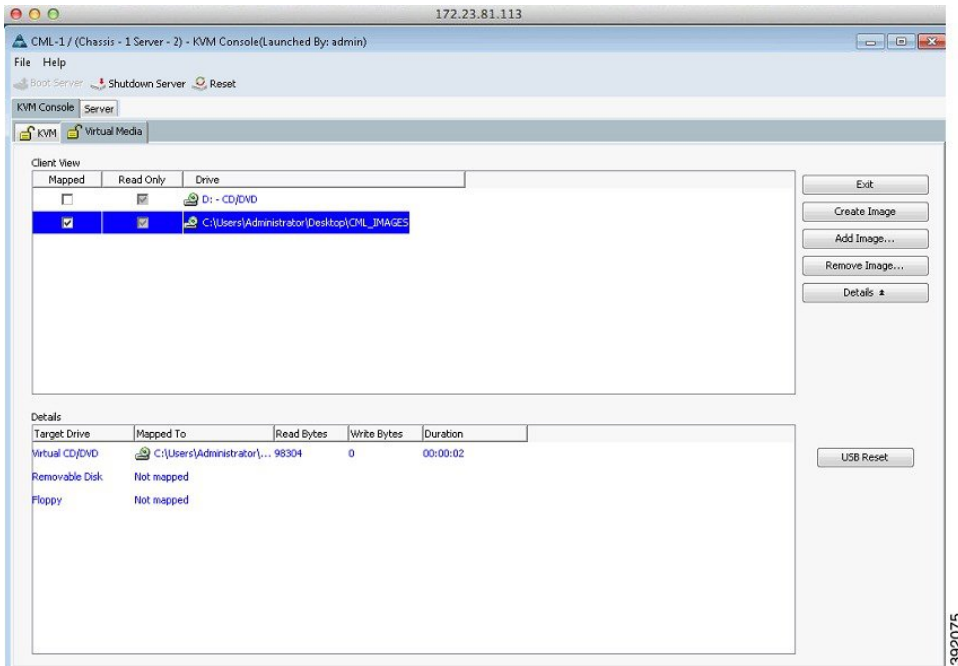
Step 4 From the dialog box that is displayed, navigate to the location of the Cisco Modeling Labs ISO image, click the corresponding image and click **Open**.

Figure 6: ISO File Location

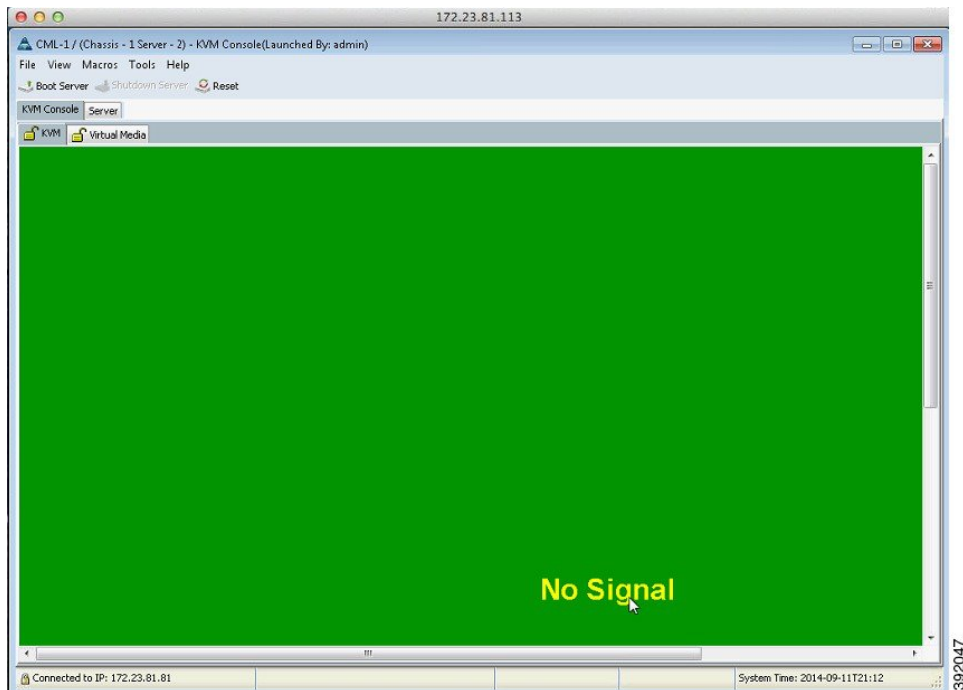


- Step 5** The path to the ISO image is visible in the **Client View** of the Virtual Media tab. Check the **Mapped** check box to allow the image file to be accessed by the server. Uncheck the check box to disconnect the server from the drive or image file.

Figure 7: ISO Image Mapped to Server



- Step 6** Click the **KVM** tab. The **No Signal** window is displayed. The **No Signal** window indicates that the server is not powered on.

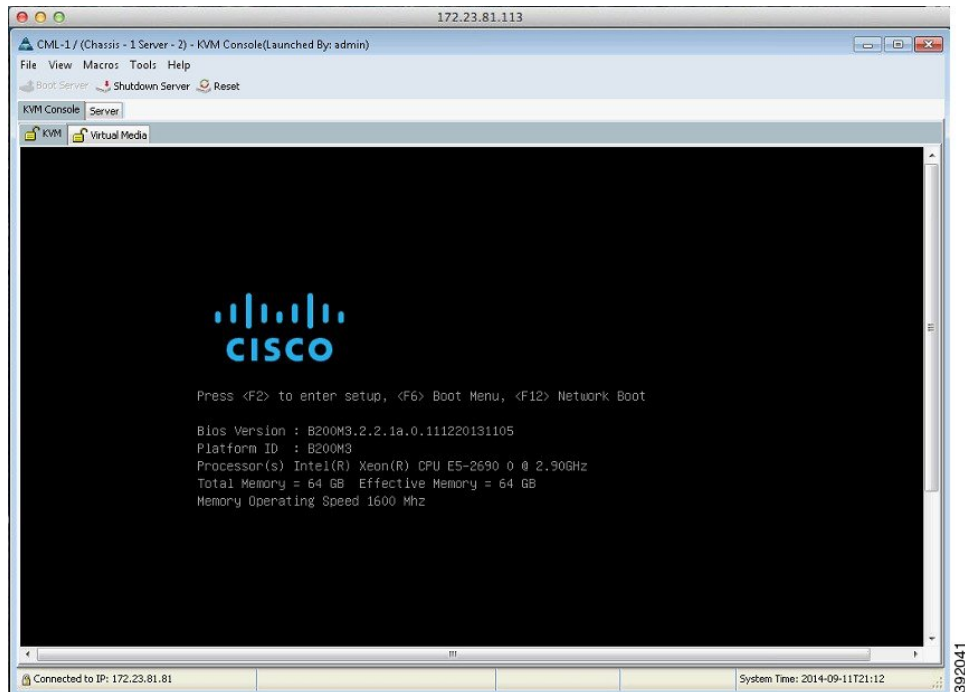
Figure 8: No Signal Window

Click **Boot Server** in the icon bar. The server boots up momentarily and the Cisco menu is displayed. There are three options available:

- <F2>—Enter the setup menu.
- <F6>—Boot menu

- <F12>—Network boot

Figure 9: Cisco Setup Menu



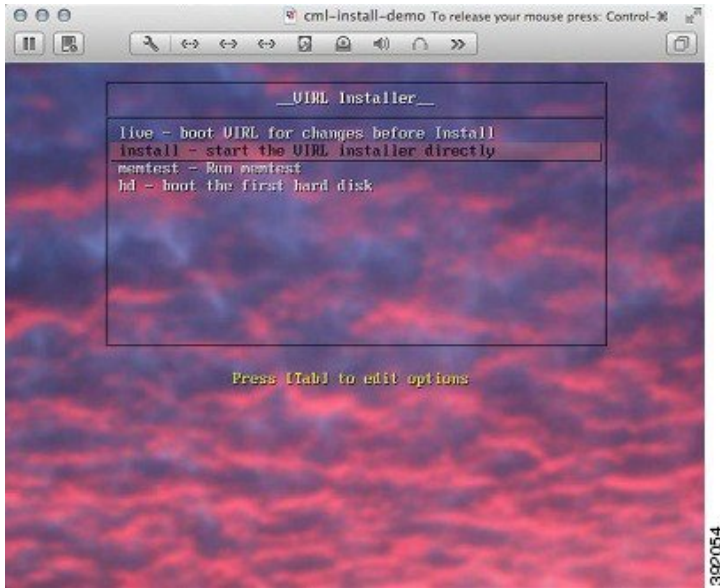
Step 7 Press <F6> to access the Boot menu. The server boots from the virtual machine and the VIRT Installer window appears.

Step 8 There are four options available:

- **Live**—Boots VIRT for changes before install.
- **Install**—Starts the VIRT installer directly.
- **Memtest**—Runs a memory test.

- **Hd**—Boots the first hard drive.

Figure 10: VIRT Installer Window



Choose the second option **Install** using the [tab] key. The installation process starts and installs the Ubuntu (12.04.3 LTS) operating system and Cisco Modeling Labs.

What to Do Next

[Installing the Cisco Modeling Labs ISO Image, on page 21](#)

Installing the Cisco Modeling Labs ISO Image on a Cisco UCS C-Series Server

The following sections describe how to install the Cisco Modeling Labs ISO image on a Cisco UCS C-Series Server.

Logging In to the Cisco Integrated Management Controller Interface

The default HTTPS web link for CIMC is `https://ip-address`.

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- Step 1** Open a browser and enter the IP address of the CIMC interface in the format `https://ip-address`.
- Step 2** If prompted, click **OK** to open `Java viewer.jnlp`.
- Step 3** If a security dialog box is displayed, perform the following tasks:
- (Optional) Check the check box to accept all content from Cisco.

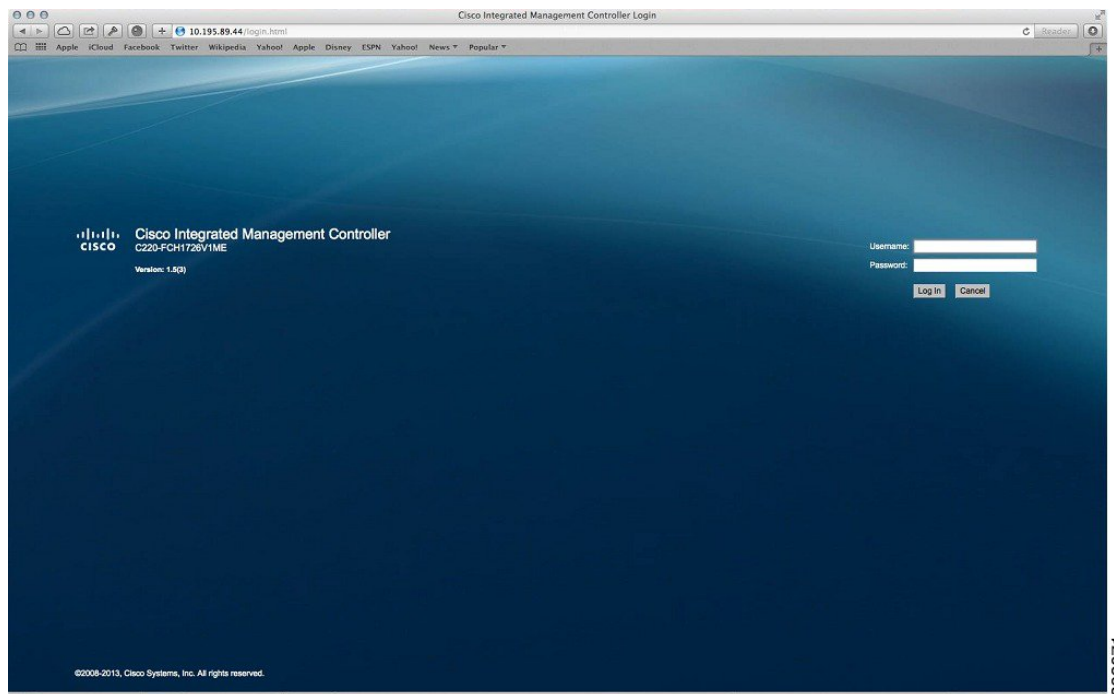
- b) Click **Yes** to accept the certificate and continue.
- c) Confirm any additional security certificate exceptions.

Step 4

In the CIMC login window, enter the username and password for the CIMC interface.

Tip The default credential is **admin** and **password**. If you changed the password during server setup, use the password that you configured.

Figure 11: Cisco Integrated Management Controller Login Window

**Step 5**

Click **Log In**.

Mapping the Cisco Modeling Labs ISO Image on a Cisco UCS C-Series Server

**Note**

This procedure requires you to have downloaded the Cisco Modeling Labs ISO image file and to ensure it is accessible from the computer that you are using to log in to the Cisco Integrated Management Controller (CIMC) interface.

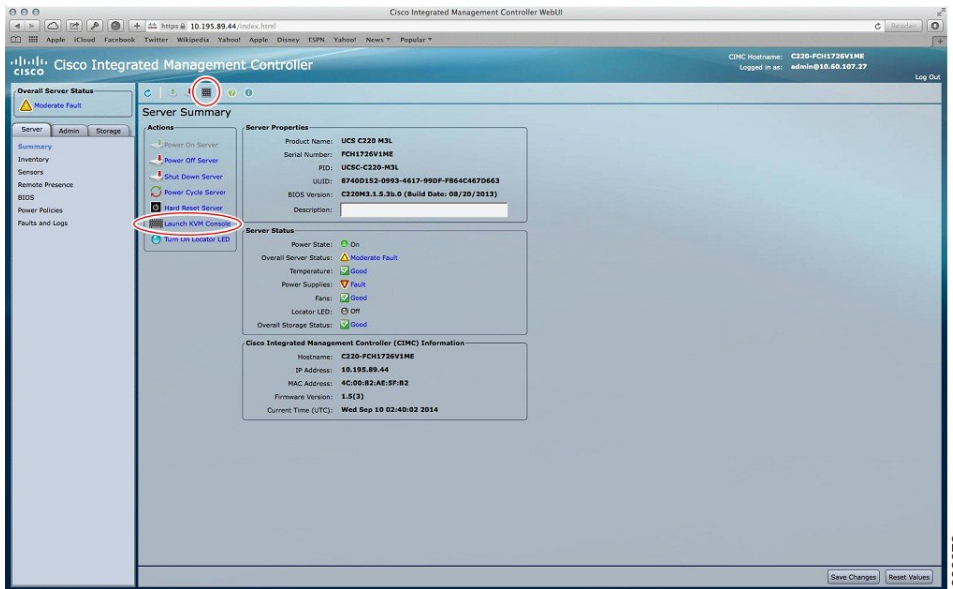
To map the Cisco Modeling Labs ISO image, complete the following steps:

Step 1

Under the **General** tab, click **KVM Console** to launch the KVM Console and connect to the KVM server.

Tip You can also click the keyboard icon in the icon bar at the top of the console to launch the KVM console.

Figure 12: KVM Console



Step 2 If a security dialog box is displayed, perform the following tasks:

- (Optional) Check the check box to accept all content from Cisco.
- Click **Yes** to accept the certificate and continue.

Step 3 At the Cisco KVM Virtual Console confirmation box, perform the following tasks:

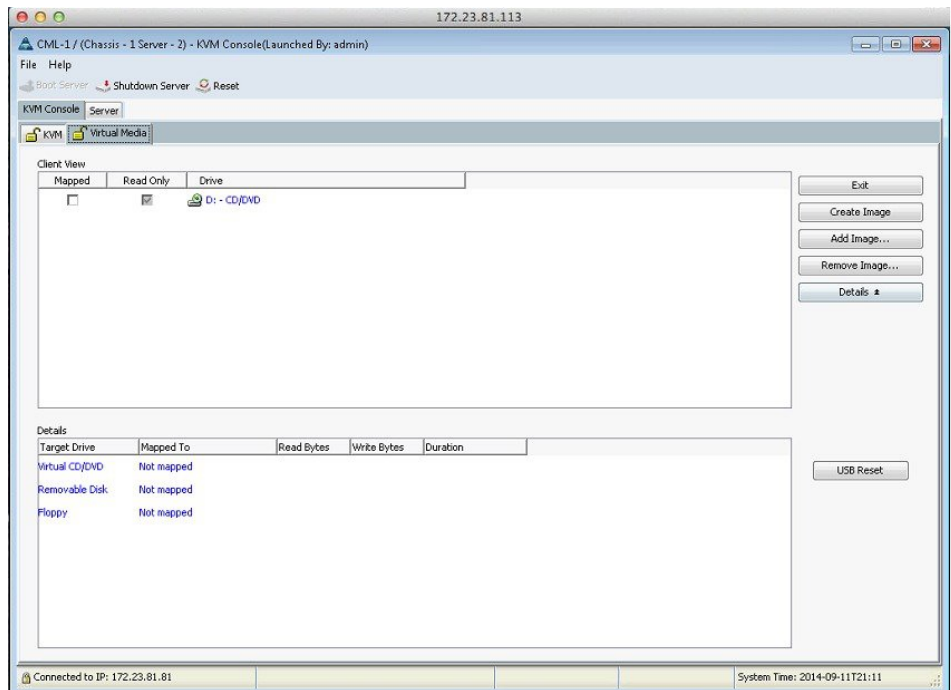
- (Optional) Check the check box to accept all content from Cisco.
- Click **Run**.

c) Confirm any additional security certificate exceptions.

Step 4 In the KVM Console, click the **Virtual Media** tab. (In the KVM Console, the ISO image is mapped to the server so that at boot time, the server boots from the ISO image.)

Step 5 Click **Add Image**.

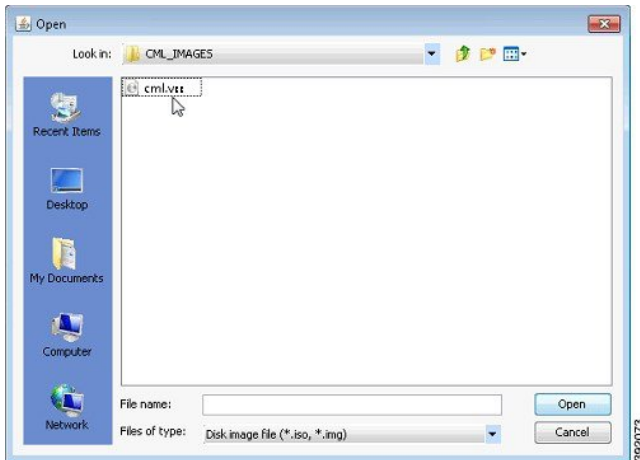
Figure 13: Virtual Media Tab



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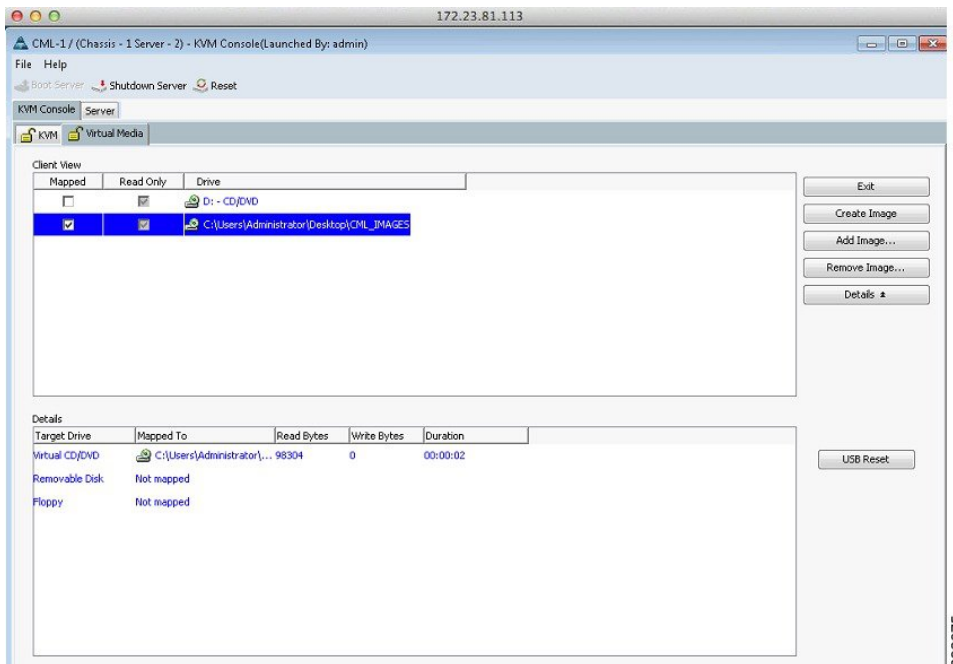
- Step 6** From the dialog box that is displayed, navigate to the location of the Cisco Modeling Labs ISO image, click the corresponding image and click **Open**.

Figure 14: ISO File Location

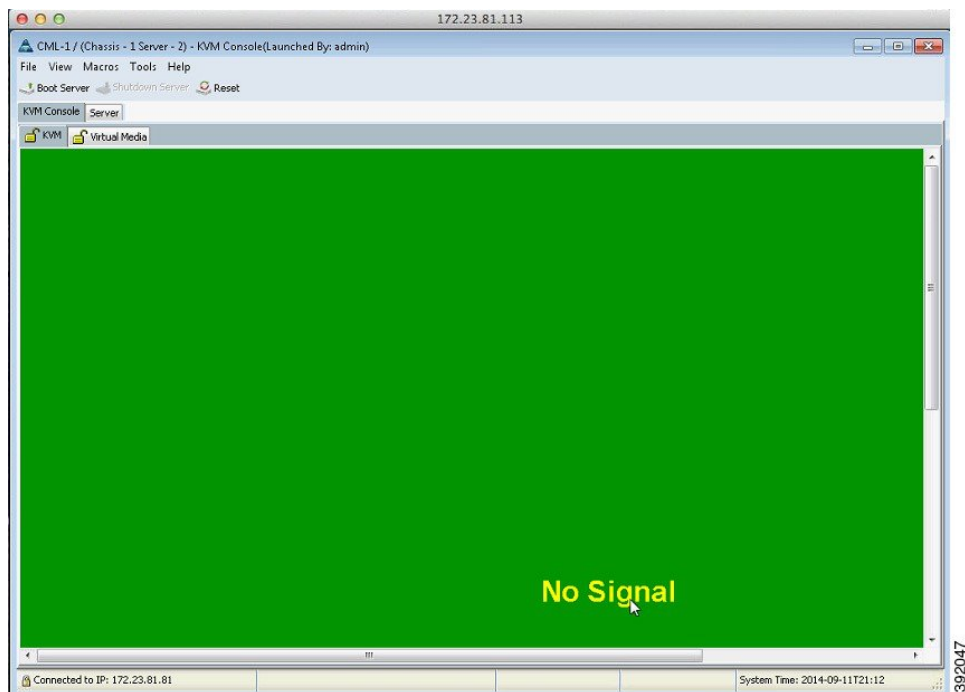


- Step 7** The path to the ISO image is visible in the **Client View**. Check the **Mapped** check box to allow the image file to be accessed by the server. Uncheck the check box to disconnect the server from the drive or image file.

Figure 15: ISO Image Mapped to Server



- Step 8** Click the **KVM** tab. The No Signal window is displayed. The **No Signal** window indicates that the server is not powered on.

Figure 16: No Signal Window

Click **Boot Server** in the icon bar. The server boots up momentarily and the Cisco menu is displayed. There are five options available:

- <F2>—Setup
- <F6>—Boot Menu
- <F7>—Diagnostics
- <F8>—CIMC Config

- <F12>—Network Boot

Figure 17: Cisco Setup Menu

```

CISCO

Press <F2> Setup, <F6> Boot Menu, <F7> Diagnostics, <F8> CIMC Config, <F12> Network Boot

Bios Version : C220M3.1.5.1g.0.031520130940
Platform ID  : C220M3

CIMC IP Address  : 10.0.0.3
CIMC MAC Address : F8:72:EA:A4:7D:20

Processor(s) Intel(R) Xeon(R) CPU E5-2690 0 @ 2.90GHz
Total Memory = 32 GB Effective Memory = 32 GB
Memory Operating Speed 1600 Mhz

Entering CIMC Configuration Utility...

```

Step 9 Press <F8> to access the CIMC Config menu.

Figure 18: CIMC Configuration Utility

```

CIMC Configuration Utility  Version 1.6  Cisco Systems, Inc.
*****
NIC Properties
NIC mode                               NIC redundancy
Dedicated:      [X]                    None:           [X]
Shared LOM:     [ ]                    Active-standby: [ ]
Cisco Card:     [ ]                    Active-active:  [ ]
Shared LOM Ext: [ ]

IPV4 (Basic)                               Factory Defaults
DHCP enabled:   [ ]                    CIMC Factory Default:[ ]
CIMC IP:        10.0.0.3                Default User (Basic)
Subnetmask:     255.255.255.0           Default password:
Gateway:        10.0.0.1                Reenter password:

VLAN (Advanced)                             Port Profile
VLAN enabled:   [ ]                    Reset:          [ ]
VLAN ID:        1                      Name:           [ ]
Priority:        0

*****
<Up/Down arrow> Select items   <F10> Save   <Space bar> Enable/Disable
<F5> Refresh                   <ESC> Exit


```

Set the following parameters:

Under **NIC mode**, enable **Dedicated**. Under **IPV4 (Basic)**, provide values for your network for **CIMC IP**, **Subnetmask**, and **Gateway**. Under **NIC Redundancy**, enable **None**.

Step 10 When completed, select <ESC> to exit the utility and return to the Cisco setup menu.

Figure 19: Cisco Setup Menu



```

Cisco
-----
Press <F2> Setup, <F6> Boot Menu, <F7> Diagnostics, <F8> CIMC Config, <F12> Network Boot

Bios Version : C220M3.1.5.1g.0.031520130940
Platform ID  : C220M3

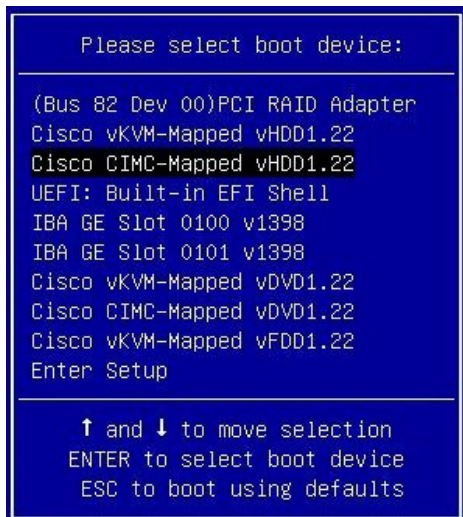
CIMC IP Address  : 10.0.0.3
CIMC MAC Address : F8:72:EA:A4:7D:20

Processor(s) Intel(R) Xeon(R) CPU E5-2690 0 @ 2.90GHz
Total Memory = 32 GB Effective Memory = 32 GB
Memory Operating Speed 1600 Mhz

Entering boot selection menu...
  
```

Step 11 Press <F6> to access the Boot Menu. Click the applicable boot device.

Figure 20: Boot Device Details



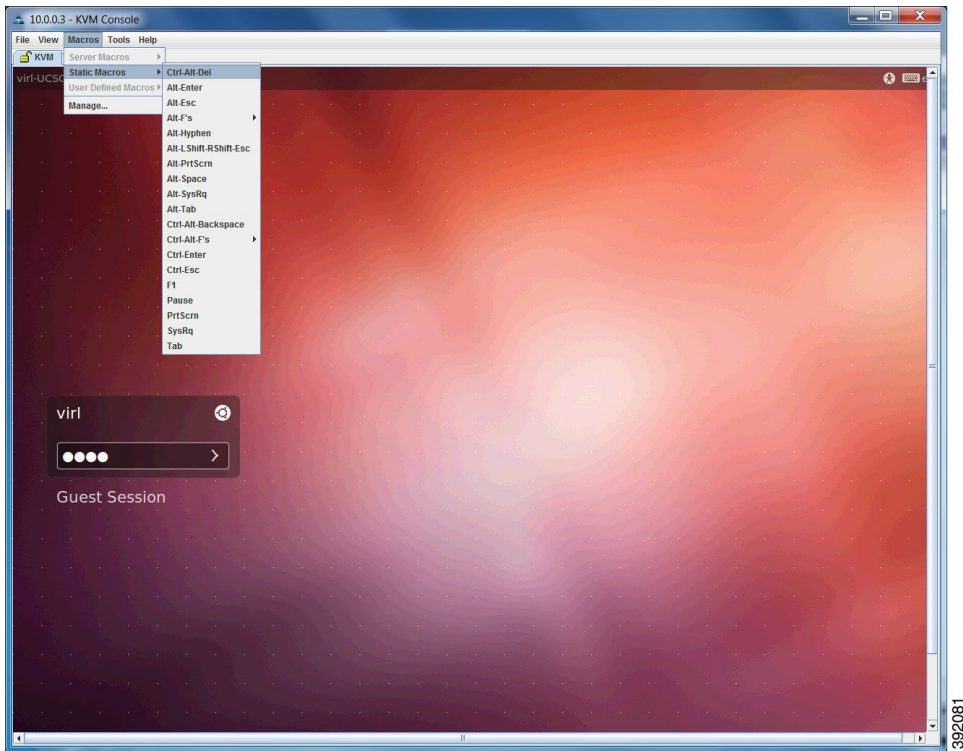
```

Please select boot device:
-----
(Bus 82 Dev 00)PCI RAID Adapter
Cisco vKVM-Mapped vHDD1.22
Cisco CIMC-Mapped vHDD1.22
UEFI: Built-in EFI Shell
IBA GE Slot 0100 v1398
IBA GE Slot 0101 v1398
Cisco vKVM-Mapped vDVD1.22
Cisco CIMC-Mapped vDVD1.22
Cisco vKVM-Mapped vFDD1.22
Enter Setup

↑ and ↓ to move selection
ENTER to select boot device
ESC to boot using defaults
  
```

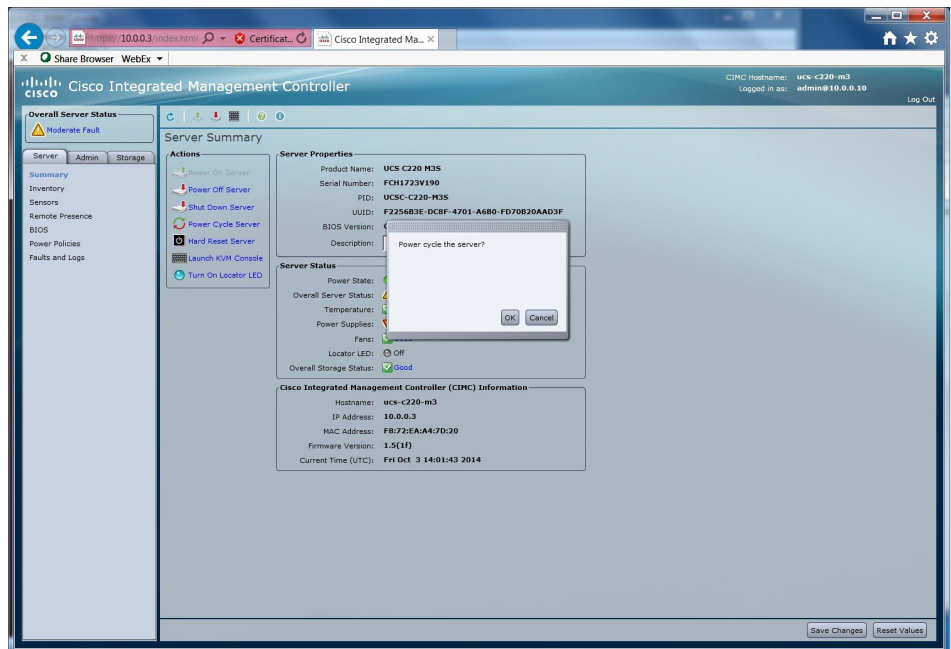
Step 12 Reboot the server using the CTRL-ALT-DEL macro as shown.

Figure 21: Reboot the Server



Step 13 On the **Power cycle the server?** confirmation dialog box, click **OK**.

Figure 22: Power Cycle the Server



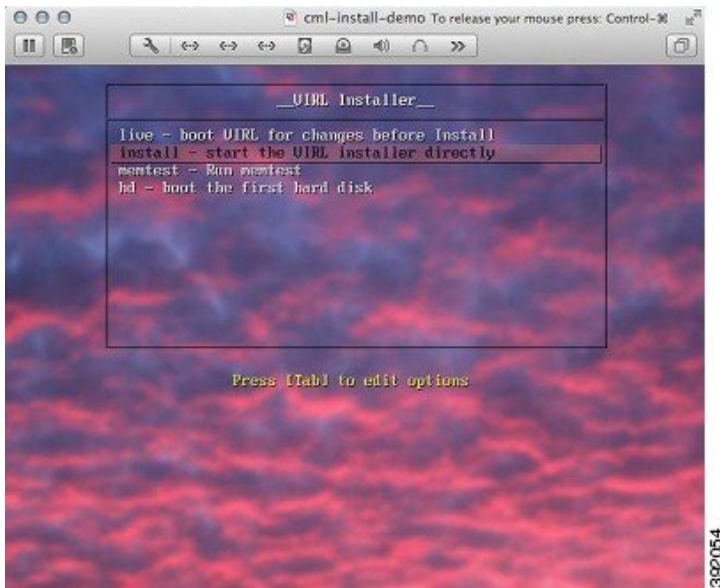
The server boots from the virtual machine and the VIRT Installer window appears.

Step 14 There are four options available:

- **Live**—Boots VIRT for changes before install.
- **Install**—Starts the VIRT installer directly.
- **Memtest**—Runs a memory test.

- **Hd**—Boots the first hard drive.

Figure 23: VIRT Installer Window



Select the **Install** option using the [tab] key. The installation process starts and installs the Ubuntu (12.04.3 LTS) operating system and Cisco Modeling Labs.

What to Do Next

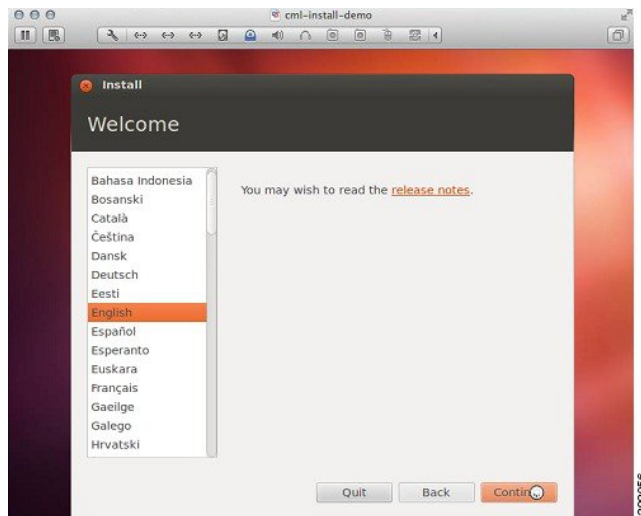
[Installing the Cisco Modeling Labs ISO Image](#), on page 21

Installing the Cisco Modeling Labs ISO Image

To install the Cisco Modeling Labs ISO image, complete the following steps:

Step 1 In the **Welcome** window, select the applicable language and click **Continue**.

Figure 24: Welcome Window

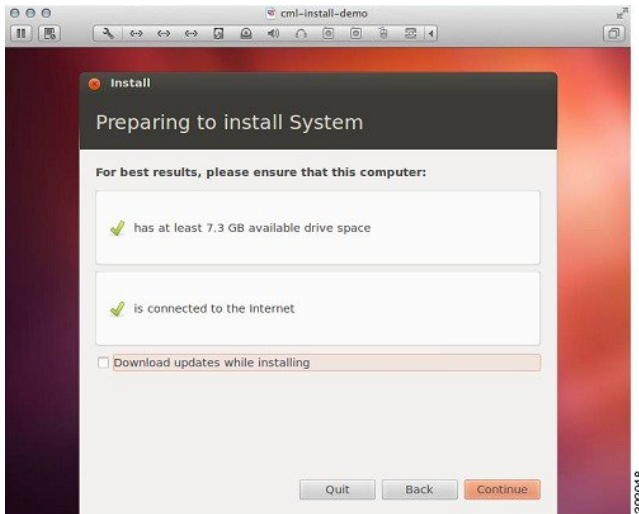


Step 2 In the **Preparing to Install Window** screen, ensure that you have adequate resources to install the ISO image and click **Continue**.

Note We recommend a minimum of 8 GB disk.

Caution Do not check the **Download updates while installing** check box as this will cause the installation to fail.

Figure 25: Preparing to Install System Window



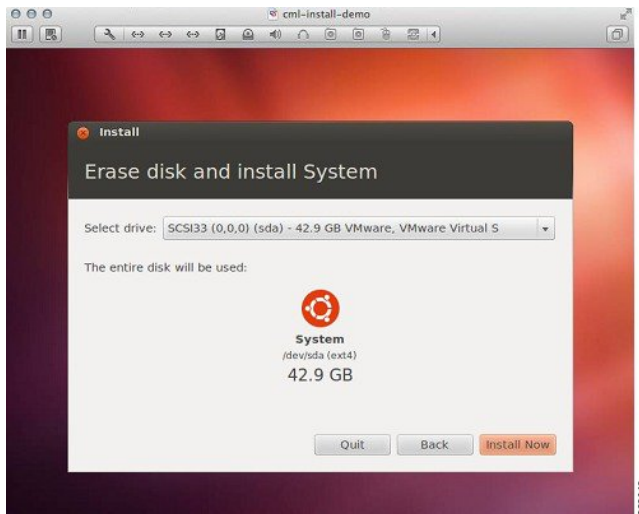
Step 3 In the **Installation type** window, click the **Erase disk and install System** radio button, and click **Continue**.

Figure 26: Installation Type Window



Step 4 In the **Erase disk and install System** window, select the applicable drive from the Select drive list, and click **Install Now**.

Figure 27: Erase Disk and Install System Window



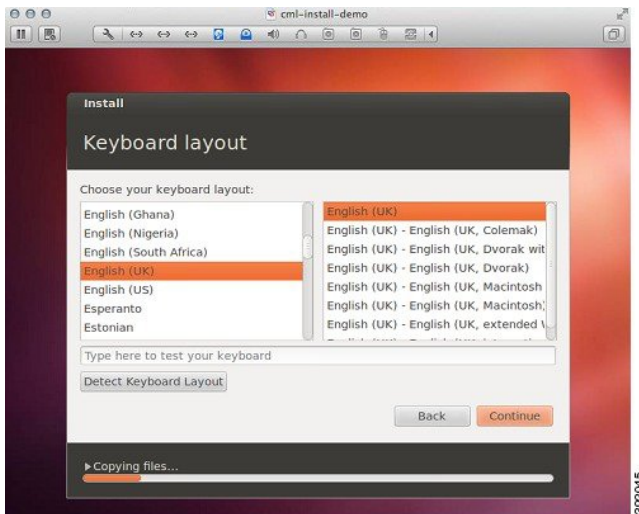
Step 5 In the **Where are you?** window, enter the applicable time zone, and click **Continue**.

Figure 28: Where are you? Window



- Step 6** In the **Keyboard layout** window, select the applicable keyboard layout to use by clicking the corresponding option from the Choose your keyboard layout list, and click **Continue**.

Figure 29: Keyboard Layout Window



- Step 7** In the **Who are you?** window, enter values for the fields exactly as described here:

- In the Your name field, enter the value **vir1**.
 - In the Your computer's name field, enter the value: **vir1**
 - In the Pick a username field, enter the value: **vir1**
 - In the Choose a password field, enter the value: **VIRL**
- Note** The password VIRL should be capitalized.
- In the Confirm your password field, enter the value: **VIRL**
 - Uncheck the **Log in automatically** radio button if it is checked.
 - Click the **Require my password to log in** radio button.
 - Uncheck the **Encrypt my home folder** check box if it is checked.

Caution No variations on these values are permitted.

Click **Continue** to start the installation.

Figure 30: Who are you? Window

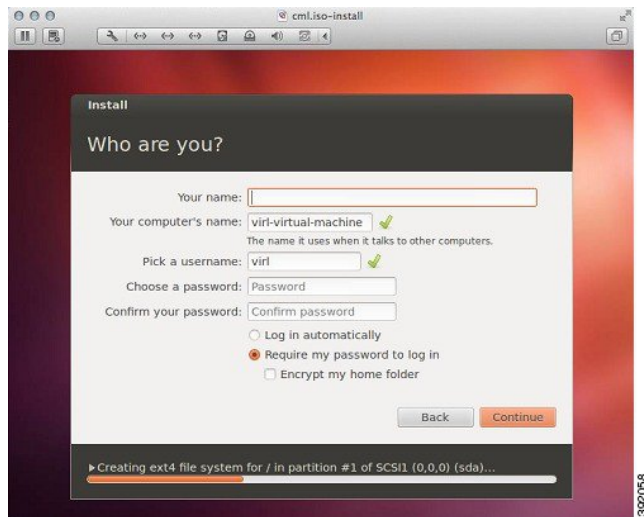
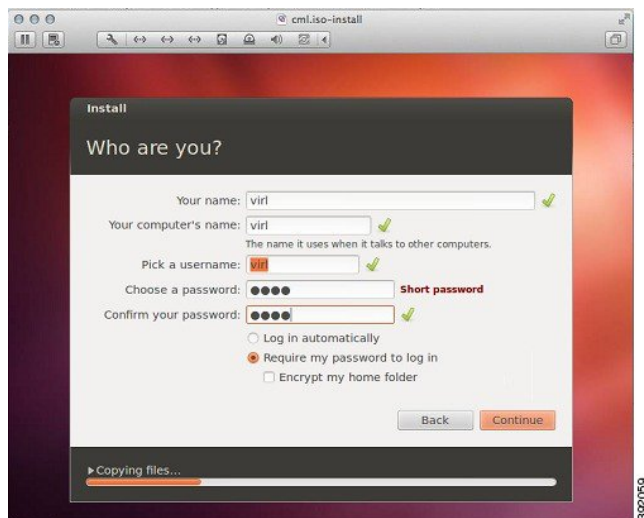


Figure 31: Completed Fields



Note You must eject or unmount the ISO image before proceeding.

Step 8 In the **Installation Complete** window, click **Restart Now** to restart the server.

Figure 32: Installation Complete Window



What to Do Next

[Start the Cisco Modeling Labs Server for the First Time](#)