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Cisco UCS C-Series Servers VMware Installation Guide

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CONTENTS

Preface

This preface includes the following sections:

Audience

This guide is intended primarily for data center administrators with responsibilities and expertise in one or more of the following:

- Server administration
- Storage administration
- Network administration
- Network security

Conventions

This document uses the following conventions:

Convention	Indication
bold font	Commands, keywords, GUI elements, and user-entered text appear in **bold** font.
italic font	Document titles, new or emphasized terms, and arguments for which you supply values are in *italic* font.
`courier` font	Terminal sessions and information that the system displays appear in `courier` font.

Convention	Indication
[ ]	Elements in square brackets are optional.
{x	y	z}	Required alternative keywords are grouped in braces and separated by vertical bars.
[x	y	z]	Optional alternative keywords are grouped in brackets and separated by vertical bars.
string	A nonquoted set of characters. Do not use quotation marks around the string or the string will include the quotation marks.
< >	Nonprinting characters such as passwords are in angle brackets.
[ ]	Default responses to system prompts are in square brackets.
!, #	An exclamation point (!) or a pound sign (#) at the beginning of a line of code indicates a comment line.

Note   Means *reader take note*.

Tip   Means *the following information will help you solve a problem*.

Caution   Means *reader be careful*. In this situation, you might perform an action that could result in equipment damage or loss of data.

Timesaver   Means *the described action saves time*. You can save time by performing the action described in the paragraph.

Warning   Means *reader be warned*. In this situation, you might perform an action that could result in bodily injury.

Related Cisco UCS Documentation

Documentation Roadmaps

For a complete list of all B-Series documentation, see the *Cisco UCS B-Series Servers Documentation Roadmap* available at the following URL: http://www.cisco.com/go/unifiedcomputing/b-series-doc.

For a complete list of all C-Series documentation, see the *Cisco UCS C-Series Servers Documentation Roadmap* available at the following URL: http://www.cisco.com/go/unifiedcomputing/c-series-doc .

Other Documentation Resources

An ISO file containing all B and C-Series documents is available at the following URL: http://www.cisco.com/cisco/software/type.html?mdfid=283853163&flowid=25821. From this page, click **Unified Computing System (UCS) Documentation Roadmap Bundle**.

The ISO file is updated after every major documentation release.

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Documentation Feedback

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C H A P T E R 1

Installation Checklists and Prerequisites

This chapter includes the following sections:

Installation Overview Checklist

Complete the following tasks to install an operating system (OS) on your C-Series Rack-Mount Server.

Note Cisco has developed the Cisco UCS Server Configuration Utility for C-Series Rack-Mount Servers, which can perform an unattended installation of some Window and Linux operating systems. This utility is shipped with new servers on the CD, and you can also download the ISO from Cisco.com. See the user documentation for the latest release of this utility at the following URL: http://www.cisco.com/en/US/products/ps10493/products_user_guide_list.html

Completed?	Task	Additional Information
	Complete the prerequisites described in Installation Prerequisites Checklist, on page 2.	For more information about installation or licensing requirements, see the documentation for the operating system you are going to install.
	Launch the **KVM Console** and mount the installation media.	For details, see Mounting the Installation ISO Image, on page 3.

Completed?	Task	Additional Information
	Complete the installation as described in the procedure for your OS.	For details, see one of the following: • Installing VMware vSphere ESX on an Internal Drive, on page 7 • Installing VMware vSphere ESX on a Bootable SAN LUN, on page 9 • Installing VMware vSphere ESXi on an Internal Drive, on page 13 • Installing VMware vSphere ESXi on a Bootable SAN LUN, on page 14

Installation Prerequisites Checklist

Before you begin installing the operating system (OS), make sure that you have the following items or have completed the following tasks:

Completed?	Prerequisite
	Make sure the installation-target server supports the version of the operating system (OS) you plan to install. For the supported versions, see the appropriate PDF or use the interactive *UCS Hardware and Software Interoperability Utility*. Both are available at the following URL: http://www.cisco.com/web/techdoc/ucs/interoperability/matrix/matrix.html.
	Make sure you have a configured IP address for CIMC GUI, as well as a login account with administration privileges.
	Make sure you have the installation media for the OS, either on a DVD or as an ISO image. If the software requires an activation key, make sure you have that information as well. **Tip** We recommend that you install the OS by placing the installation disk into the DVD drive because it is comparatively faster than using an ISO image. However, steps are also provided for mapping an ISO image as a virtual disk.

Completed?	Prerequisite
	Make sure you have the *Cisco UCS C-Series Drivers DVD*, or the ISO image of this DVD, for the type of C-Series server that you are using.
	The driver DVD ISO image is available from the Cisco.com support site under **Unified Computing and Servers** > **Cisco UCS Rack-Mount Standalone Server Software** > *server_model* **Server Software** > **Unified Computing System (UCS) Drivers** .
	To view the list of available server models, go to the following URL: http://www.cisco.com/cisco/software/navigator.html?mdfid=283612685&flowid=26802.
	Note If you download the ISO image, you need to burn the image to a DVD or use a third-party utility to mount the image on a laptop hard drive. During the installation, you will need to extract the appropriate driver image file from this DVD to a location accessible to the server so that it can be mounted as a virtual floppy.
	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 may see error messages such as "No Device Found."

Mounting the Installation ISO Image

Before You Begin

Make sure you have completed the prerequisites described in Installation Prerequisites Checklist, on page 2.

Procedure

Step 1   In your web browser, type or select the web link for CIMC GUI.

Step 2   In the login window, enter your administrator username and password.
The default username is admin and the default password is password.

Step 3   In the **Navigation** pane, click **Remote Presence** on the **Server** tab.

Step 4   (Optional) If you are going to use any virtual media, such as an ISO installation image or a driver IMG file, do the following:

   a) Go to the **Virtual Media** tab in the **Work** pane.

   b) If the **Enabled** check box in the **Virtual Media Properties** area is not checked, check it.

   c) If you changed the settings, click **Save Changes**.

Step 5   Go to the **Virtual KVM** tab in the **Work** pane.

Step 6   If the **Enabled** check box in the **vKVM Properties** area is not checked, check it and click **Save Changes**.

Step 7   Click **Launch KVM Console** in the **Actions** area.

CIMC GUI opens the **KVM Console** in a separate window.

Step 8   How you access virtual media depends on the version of the **KVM Console** that you are using. Do one of the following to access virtual media:

> • Click the **Virtual Media** tab.
>
> • Click the **VM** tab.
>
> • Select **Tools** > **Virtual Media**.

Step 9   Click **Add Image** and navigate to the directory containing the installation ISO image.

Step 10   Select the ISO image file and click **Open**.

Step 11   In the **Client View** area, check the check box in the **Mapped** column associated with the ISO file, then wait for mapping to complete.

> **Tip**   Click **Details** to see the mapping progress.

What to Do Next

Install the OS as described in the installation procedure that matches the OS you are installing.

Configuring the Server Boot Order Using the KVM Console

Note   If you want to configure the boot order using CIMC GUI or CIMC CLI, see the GUI or CLI *Cisco Integrated Management Controller Configuration Guide* for the version of CIMC that you are using. The configuration guides are available at the following URL: http://www.cisco.com/en/US/products/ps10739/products_installation_and_configuration_guides_list.html

Procedure

Step 1   If it is not already open, launch the **KVM Console**.

Step 2   Reboot the server.

Step 3   In the **KVM** tab of the **KVM Console**, watch the boot messages and press F2 when prompted to enter BIOS setup.

> **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. It displays the utility only after initialization is complete.

Step 4   On the BIOS setup utility screen, click the **Boot Options** tab.

Step 5   Perform the following steps based on how your system is configured:

Install Type	Description
Internal install on a single hard drive system	**1** Select **Boot Option #1** and press Enter. **2** In the pop-up menu, select the installation-target drive and press Enter.

Install Type	Description
Internal install on a multiple hard drive system	1 On the **Boot Options** tab, select **Hard Disk Order** and press Enter. 2 On the **Hard Disk Order** tab, select **Boot Option #1** and press Enter. 3 In the pop-up menu, select the installation-target drive and press Enter. 4 Press Esc to return to the main **Boot Options** tab.
Install on a Bootable SAN LUN	1 On the **Boot Options** tab, select **Hard Disk Order** and press Enter. 2 On the **Hard Disk Order** tab, select **Boot Option #1** and press Enter. 3 In the pop-up menu, select the installation target SAN LUN and press Enter. 4 Press Esc to return to the main **Boot Options** tab.

Step 6   Press F10 to save your changes and reboot the server.

C H A P T E R **2**

VMware vSphere ESX Installation

This chapter includes the following sections:

Installing VMware vSphere ESX on an Internal Drive

This procedure describes how to install VMware vSphere ESX 4 and required drivers on an internal drive using CIMC GUI and the **KVM Console**.

Before You Begin

- Make sure you have completed the prerequisites described in Installation Prerequisites Checklist, on page 2.
- If you are installing VMware on a Cisco UCS C200 M1 Server or Cisco UCS C250 M1 Server, make sure that the server is using an LSI 1064-based controller mezzanine card for RAID configuration. The VMware server software does not support integrated software RAID with the ICH10R controller.

Procedure

Step 1 If you are installing the OS or drivers from virtual media, launch the **KVM Console** and mount the media as described in Mounting the Installation ISO Image, on page 3.

Step 2 Power cycle the server using one of the following methods:

- In the **KVM Console**, go to the **KVM** tab and select **Macros** > **Ctrl-Alt-Del**.
- In CIMC GUI, click **Summary** in the **Navigation** pane, then click **Power Cycle Server** in the **Actions** area of the **Server Summary** tab.
- On the physical server, press the Power button.

Step 3 (Optional) If you want to set the boot order that the server will use after the OS is installed, watch the boot messages and press F2 when prompted to enter BIOS setup, then set the boot order.

For details, see Configuring the Server Boot Order Using the KVM Console, on page 4.

Step 4 To override the normal boot order and boot from the installation media, in the **KVM** tab of the **KVM Console**, watch the boot messages and press F6 when prompted to enter the Boot Menu.

Step 5 On the **Boot Menu** screen, do one of the following:

- If you are using an ISO image, select **Cisco Virtual CD/DVD** and press Enter.

- If you are using a physical install disk, select the disk drive in which that disk resides and press Enter.

The server reboots from the selected device and begins installing the OS from the image or disk.

Step 6 (Optional) If you are experiencing slow response times when using the KVM window, you can change the mouse acceleration:

a) In the **KVM** tab in the **KVM Console**, select **Tools** > **Session Options**.

b) Select the **Mouse** tab.

c) In the **Mouse Acceleration** field, select **Linux**.

d) Click **OK** to apply your changes.

Step 7 When the installer displays the **Custom Drivers** window, do one of the following:

- If you do not need to install any custom drivers, click **No**. When you are prompted to load the system drivers, click **Yes**.

- If you need to install custom drivers:

  1 Click **Yes**.

  2 Click **Add**.

  3 When you are prompted to insert the driver CD, return to the **VM** tab or **Virtual Media Session** dialog box in the **KVM Console**.

  4 Because you can only have one virtual CD/DVD mapped at a time, unmap any existing virtual CD/DVD connections by clearing the check box associated with that connection.

  Tip To verify that you can create a new connection, look at the **Details** table. The first line should show that the **Virtual CD/DVD** is not mapped.

  5 Click **Add Image** and navigate to the directory containing the driver ISO image you downloaded from VMware.com.

  6 Select the ISO image file and click **Open**.

  7 In the **Client View** area, check the check box in the **Mapped** column associated with the ISO file, then wait for mapping to complete.

  8 Return to the ESX installation prompt in the **KVM** tab.

  9 Click **OK** at the prompt and select the driver you want to load.

  10 If you want to add another custom driver, click **Add** and select the driver. Repeat this process until you have selected all of the required custom drivers.

  11 When you are done adding drivers, click **Next** in the **Custom Drivers** window.

  12 When prompted to install the system drivers, click **Yes**.

  13 When you are prompted to insert the ESX installation CD, return to the **VM** tab or **Virtual Media Session** dialog box in the **KVM Console**.

14 Clear the check box next to the driver ISO file and check the check box next to the installation ISO file.

15 Wait until mapping completes, then return to the installer in the **KVM** tab.

Step 8 When the installer prompts you to select the location where you want to install the OS, select the installation-target drive and click **Next**.
All non-RAID drives are listed by name. Volumes created by a RAID controller are listed as logical drives.

Step 9 Complete the installation according to the requirements and standards of your company by continuing to monitor the installation progress and answering prompts as required.
After the installation is complete, the installer software ejects any physical disks, unmaps any virtual drives, and reboots the server again. The installation target that is first in the boot order is booted with the OS.

For information about customizing the OS, see your OS documentation.

Installing VMware vSphere ESX on a Bootable SAN LUN

This procedure describes how to install VMware ESX 4 on a bootable SAN LUN logical disk or RAID volume using CIMC GUI and the **KVM Console**.

Before You Begin

- Make sure you have completed the prerequisites described in .

- 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 or the onboard Intel ICH10R controller, see for more information.

- If you are installing VMware on a Cisco UCS C200 M1 Server or Cisco UCS C250 M1 Server, make sure that the server is using an LSI 1064-based controller mezzanine card for RAID configuration. The VMware server software does not support integrated software RAID with the ICH10R controller.

Procedure

Step 1 If you are installing the OS or drivers from virtual media, launch the **KVM Console** and mount the media as described in .

Step 2 Power cycle the server using one of the following methods:

- In the **KVM Console**, go to the **KVM** tab and select **Macros** > **Ctrl-Alt-Del**.

- In CIMC GUI, click **Summary** in the **Navigation** pane, then click **Power Cycle Server** in the **Actions** area of the **Server Summary** tab.

- On the physical server, press the Power button.

Step 3   (Optional) If you want to set the boot order that the server will use after the OS is installed, watch the boot messages and press F2 when prompted to enter BIOS setup, then set the boot order.
For details, see Configuring the Server Boot Order Using the KVM Console, on page 4.

Step 4   To override the normal boot order and boot from the installation media, in the **KVM** tab of the **KVM Console**, watch the boot messages and press F6 when prompted to enter the Boot Menu.

Step 5   On the **Boot Menu** screen, do one of the following:

- If you are using an ISO image, select **Cisco Virtual CD/DVD** and press Enter.

- If you are using a physical install disk, select the disk drive in which that disk resides and press Enter.

The server reboots from the selected device and begins installing the OS from the image or disk.

Step 6   When the ESX splash screen displays, press Enter to install ESX in graphical mode.

Step 7   (Optional) If you are experiencing slow response times when using the KVM window, you can change the mouse acceleration:

a) In the **KVM** tab in the **KVM Console**, select **Tools** > **Session Options**.
b) Select the **Mouse** tab.
c) In the **Mouse Acceleration** field, select **Linux**.
d) Click **OK** to apply your changes.

Step 8   When the installer prompts you to select the location where you want to install the OS, select the installation-target LUN and click **Next**.

Step 9   When the installer displays the **Custom Drivers** window, do one of the following:

- If you do not need to install any custom drivers, click **No**. When you are prompted to load the system drivers, click **Yes**.

- If you need to install custom drivers:

    1   Click **Yes**.

    2   Click **Add**.

    3   When you are prompted to insert the driver CD, return to the **VM** tab or **Virtual Media Session** dialog box in the **KVM Console**.

    4   Because you can only have one virtual CD/DVD mapped at a time, unmap any existing virtual CD/DVD connections by clearing the check box associated with that connection.

    Tip   To verify that you can create a new connection, look at the **Details** table. The first line should show that the **Virtual CD/DVD** is not mapped.

    5   Click **Add Image** and navigate to the directory containing the driver ISO image you downloaded from VMware.com.

    6   Select the ISO image file and click **Open**.

    7   In the **Client View** area, check the check box in the **Mapped** column associated with the ISO file, then wait for mapping to complete.

    8   Return to the ESX installation prompt in the **KVM** tab.

    9   Click **OK** at the prompt and select the driver you want to load.

10 If you want to add another custom driver, click **Add** and select the driver. Repeat this process until you have selected all of the required custom drivers.

11 When you are done adding drivers, click **Next** in the **Custom Drivers** window.

12 When prompted to install the system drivers, click **Yes**.

13 When you are prompted to insert the ESX installation CD, return to the **VM** tab or **Virtual Media Session** dialog box in the **KVM Console**.

14 Clear the check box next to the driver ISO file and check the check box next to the installation ISO file.

15 Wait until mapping completes, then return to the installer in the **KVM** tab.

Step 10 Complete the installation according to the requirements and standards of your company by continuing to monitor the installation progress and answering prompts as required.
After the installation is complete, the installer software ejects any physical disks, unmaps any virtual drives, and reboots the server again. The installation target that is first in the boot order is booted with the OS.

For information about customizing the OS, see your OS documentation.

C H A P T E R **3**

VMware vSphere ESXi Installation

This chapter includes the following sections:

Installing VMware vSphere ESXi on an Internal Drive

This procedure describes how to install VMware ESXi and required drivers on an internal drive using CIMC GUI and the **KVM Console**.

Before You Begin

- Make sure you have completed the prerequisites described in Installation Prerequisites Checklist, on page 2.

- If you are installing VMware on a Cisco UCS C200 M1 Server or Cisco UCS C250 M1 Server, make sure that the server is using an LSI 1064-based controller mezzanine card for RAID configuration. The VMware server software does not support integrated software RAID with the ICH10R controller.

Procedure

Step 1 If you are installing the OS or drivers from virtual media, launch the **KVM Console** and mount the media as described in Mounting the Installation ISO Image, on page 3.

Step 2 Power cycle the server using one of the following methods:

- In the **KVM Console**, go to the **KVM** tab and select **Macros** > **Ctrl-Alt-Del**.

- In CIMC GUI, click **Summary** in the **Navigation** pane, then click **Power Cycle Server** in the **Actions** area of the **Server Summary** tab.

- On the physical server, press the Power button.

Step 3 (Optional) If you want to set the boot order that the server will use after the OS is installed, watch the boot messages and press F2 when prompted to enter BIOS setup, then set the boot order.

For details, see Configuring the Server Boot Order Using the KVM Console, on page 4.

Step 4   To override the normal boot order and boot from the installation media, in the **KVM** tab of the **KVM Console**, watch the boot messages and press F6 when prompted to enter the Boot Menu.

Step 5   On the **Boot Menu** screen, do one of the following:

- If you are using an ISO image, select **Cisco Virtual CD/DVD** and press Enter.

- If you are using a physical install disk, select the disk drive in which that disk resides and press Enter.

The server reboots from the selected device and begins installing the OS from the image or disk.

Step 6   Wait until the ESXi **Welcome** screen displays, then press Enter to start the installation process.

Tip   If the installation disk or an installed network adapter cannot be detected, make sure that you are using the ESXi installation image that VMware has customized for Cisco as described in Installation Prerequisites Checklist, on page 2.

Step 7   (Optional) If you are experiencing slow response times when using the KVM window, you can change the mouse acceleration:

a) In the **KVM** tab in the **KVM Console**, select **Tools** > **Session Options**.
b) Select the **Mouse** tab.
c) In the **Mouse Acceleration** field, select **Linux**.
d) Click **OK** to apply your changes.

Step 8   When the installer prompts you to select the location where you want to install the OS, select the installation-target drive and click **Next**.
All non-RAID drives are listed by name. Volumes created by a RAID controller are listed as logical drives.

Step 9   When the installer displays the **Confirm Install** screen, press F11 to confirm your selections and start the installation process.

Step 10 When the installer displays the **Installation Complete** screen:

- If you installed from an ISO installation image, go back to the **VM** tab or the **Virtual Media Session** dialog box in the **KVM Console** and unmap the installation ISO by clearing the check box in the **Mapped** column.

- If you installed from physical disk, eject the disk and remove it from the server.

Step 11 Press Enter to boot the installation-target drive with ESXi.
For information about customizing ESXi, see your VMware ESXi documentation.

Installing VMware vSphere ESXi on a Bootable SAN LUN

This procedure describes how to install VMware ESXi on a bootable SAN LUN logical disk or RAID volume using CIMC GUI and the **KVM Console**.

Before You Begin

- Make sure you have completed the prerequisites described in Installation Prerequisites Checklist, on page 2.

- 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 or the onboard Intel ICH10R controller, see RAID Controller Considerations, on page 19 for more information.

- If you are installing VMware on a Cisco UCS C200 M1 Server or Cisco UCS C250 M1 Server, make sure that the server is using an LSI 1064-based controller mezzanine card for RAID configuration. The VMware server software does not support integrated software RAID with the ICH10R controller.

Procedure

Step 1 If you are installing the OS or drivers from virtual media, launch the **KVM Console** and mount the media as described in Mounting the Installation ISO Image, on page 3.

Step 2 Power cycle the server using one of the following methods:

- In the **KVM Console**, go to the **KVM** tab and select **Macros** > **Ctrl-Alt-Del**.

- In CIMC GUI, click **Summary** in the **Navigation** pane, then click **Power Cycle Server** in the **Actions** area of the **Server Summary** tab.

- On the physical server, press the Power button.

Step 3 (Optional) If you want to set the boot order that the server will use after the OS is installed, watch the boot messages and press F2 when prompted to enter BIOS setup, then set the boot order.
For details, see Configuring the Server Boot Order Using the KVM Console, on page 4.

Step 4 To override the normal boot order and boot from the installation media, in the **KVM** tab of the **KVM Console**, watch the boot messages and press F6 when prompted to enter the Boot Menu.

Step 5 On the **Boot Menu** screen, do one of the following:

- If you are using an ISO image, select **Cisco Virtual CD/DVD** and press Enter.

- If you are using a physical install disk, select the disk drive in which that disk resides and press Enter.

The server reboots from the selected device and begins installing the OS from the image or disk.

Step 6 Wait until the ESXi **Welcome** screen displays, then press Enter to start the installation process.
Tip If the installation disk or an installed network adapter cannot be detected, make sure that you are using the ESXi installation image that VMware has customized for Cisco as described in Installation Prerequisites Checklist, on page 2.

Step 7 (Optional) If you are experiencing slow response times when using the KVM window, you can change the mouse acceleration:

a) In the **KVM** tab in the **KVM Console**, select **Tools** > **Session Options**.
b) Select the **Mouse** tab.
c) In the **Mouse Acceleration** field, select **Linux**.

d) Click **OK** to apply your changes.

Step 8   When the installer prompts you to select the location where you want to install the OS, select the installation-target LUN and click **Next**.

Step 9   When the installer displays the **Confirm Install** screen, press F11 to confirm your selections and start the installation process.

Step 10   When the installer displays the **Installation Complete** screen:

- If you installed from an ISO installation image, go back to the **VM** tab or the **Virtual Media Session** dialog box in the **KVM Console** and unmap the installation ISO by clearing the check box in the **Mapped** column.

- If you installed from physical disk, eject the disk and remove it from the server.

Step 11   Press Enter to boot the installation-target drive with ESXi.
For information about customizing ESXi, see your VMware ESXi documentation.

APPENDIX **A**

Installation Driver Information

This appendix includes the following sections:

APPENDIX B

RAID Controller Considerations

This appendix includes the following sections:

RAID Controller Options

Cisco UCS C200 M1 Server and C210 M1 Server

These servers have the following options:

- There is an Intel ICH10R onboard SATA controller on the motherboard. This controller supports RAID 0 and 1 for up to four SATA drives. This controller must be enabled in the system BIOS before you can use it, as described in Enabling the ICH10R Onboard Controller, on page 20.

- You can add an LSI 1064-based controller mezzanine card. This card provides RAID 0, 1, and 1E support for up to four SAS or SATA drives.

Cisco UCS C250 M1 Server

You can add an LSI 3081-based controller card. This card provides RAID 0 and 1 support for up to eight SAS or SATA drives.

All Other UCS C-Series Servers

You can add an LSI MegaRAID controller card. These cards provide RAID 0, 1, 5, 6, 10, 50, and 60 support for up to twenty four SAS or SATA drives, depending on the LSI MegaRAID controller supported by your UCS server.

🔍

Tip   If you do not have a record of which option is used in the server, you can check the **Inventory** tabs in the CIMC GUI or you can reboot the server and watch the messages displayed as the system boots.

Enabling the ICH10R Onboard Controller

☞

Important   The Intel ICH10R SAS controller is installed in Cisco UCS C200 and C210 servers only.

Procedure

Step 1   In the **KVM** tab of the **KVM Console**, watch the boot messages and press F2 when prompted to enter BIOS setup.
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. It displays the utility only after initialization is complete.

Step 2   Go to the **Advanced** tab of the BIOS Setup utility.

Step 3   Select **Mass Storage Controller Configuration** and press Enter.

Step 4   Ensure that the **Onboard SATA Controller** option is set to **Enabled**.

Step 5   Select **SATA Mode** and press Enter.

Step 6   Select **SW RAID** and press Enter.

Step 7   Press F10 to save your changes.

Step 8   Press Enter to confirm your changes and reboot the server.

Launching Option ROM-Based Controller Utilities

To alter the RAID configurations on your hard drives, you can use your host-based utilities that you install on top of your host OS, or you can use the LSI option ROM-based utilities that are installed on the server.

✎

Note   Cisco has also developed the Cisco Server Configuration Utility for C-Series servers, which can assist you in setting up some RAID configurations for your drives. For details, see the user documentation for the appropriate release of this utility at the following URL: http://www.cisco.com/en/US/products/ps10493/products_user_guide_list.html

Procedure

Reboot the server and watch for the appropriate prompt during boot.

- The prompt for LSI controller card utility is Ctrl-H.

- The prompt for the onboard Intel ICH10R controller utility is Ctrl-M.

For details, see the documentation for your controller.

Additional LSI Documentation Resources

For basic information on RAID and how to use the LSI utilities, see the documentation included with the utility.

You can also access the following LSI documentation on Cisco.com:

- *LSI MegaRAID SAS Software User Guide*. For LSI MegaRAID. Document number 80-00156-01, Rev. I, June 2010.

  http://www.cisco.com/en/US/docs/unified_computing/ucs/3rd-party/lsi/mrsas/userguide/LSI_MR_SAS_SW_UG.pdf

- *LSI Fusion-MPT Device Management User's Guide*. For LSI 3081E. Document number DB15-000186-02, Version 1.3, January 2007.

  http://www.cisco.com/en/US/docs/unified_computing/ucs/3rd-party/lsi/fmpt/userguide/LSI_FusionMPT_DevMgrUG.pdf

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Important   Cisco makes these versions available for your convenience only. You should always use the latest documentation for your LSI product.