

Installing the System

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Installing the System

This chapter describes how to install the system, and it includes the following sections:

• Unpacking and Inspecting the System, on page 2
• Preparing for System Installation, on page 2
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• Initial System Setup, on page 10
• NIC Modes and NIC Redundancy Settings, on page 18
• System BIOS and Cisco IMC Firmware, on page 18

Note Before you install, operate, or service a system, review the Regulatory Compliance and Safety Information for Cisco UCS S-Series Servers for important safety information.

Warning **IMPORTANT SAFETY INSTRUCTIONS**

This warning symbol means danger. You are in a situation that could cause bodily injury. Before you work on any equipment, be aware of the hazards involved with electrical circuitry and be familiar with standard practices for preventing accidents. Use the statement number provided at the end of each warning to locate its translation in the translated safety warnings that accompanied this device. Statement 1071

Unpacking and Inspecting the System

Caution This system weighs approximately 190 pounds (86 kilograms) when fully loaded with components. We recommend that you use a mechanical lift when lifting the system. Attempting this procedure alone could result in personal injury or equipment damage. Consider removing components such as hard drives temporarily while you move the system.

Caution When handling internal system components, wear an ESD strap and handle modules by the carrier edges only.

Note The chassis is thoroughly inspected before shipment. If any damage occurred during transportation or any items are missing, contact your customer service representative immediately.

1. Remove the system from its cardboard container and save all packaging material.
2. Compare the shipment to the equipment list provided by your customer service representative. Verify that you have all items.
3. Check for damage and report any discrepancies or damage to your customer service representative. Have the following information ready:
   - Invoice number of shipper (see the packing slip)
   - Model and serial number of the damaged unit
   - Description of damage
   - Effect of damage on the installation

Preparing for System Installation

This section provides information about preparing for system installation, and it includes the following topics:

- Installation Guidelines, on page 3
- Rack Requirements, on page 4
- Equipment Requirements, on page 4
- Slide Rail Adjustment Range, on page 4

Installation Guidelines

Warning **To prevent the system from overheating, do not operate it in an area that exceeds the maximum recommended ambient temperature of: 35° C (95° F).** Statement 1047

Warning **The plug-socket combination must be accessible at all times, because it serves as the main disconnecting device.** Statement 1019

Warning **This product relies on the building's installation for short-circuit (overcurrent) protection. Ensure that the protective device is rated not greater than: 250 V, 15 A.** Statement 1005

Warning **Installation of the equipment must comply with local and national electrical codes.** Statement 1074

When you are installing a system, use the following guidelines:

- Plan your site configuration and prepare the site before installing the system. See the Cisco UCS Site Preparation Guide for the recommended site planning tasks.
- Ensure that there is adequate space around the system to allow for servicing the system and for adequate airflow. The airflow in this system is from front to back.
- Ensure that the air-conditioning meets the thermal requirements listed in the System Specifications System Specifications, page A-1.
- Ensure that the cabinet or rack meets the requirements listed in the Rack Requirements, on page 4 Rack Requirements, page 2-4.
- Ensure that the site power meets the power requirements listed in the System Specifications System Specifications, page A-1. You can use an uninterruptible power supply (UPS), if available, to protect against power failures.

Rack Requirements

This section provides the requirements for the standard open racks, assuming an external ambient air temperature range of 41°F to 95°F (5°C to 35°C).

The rack must be of the following type:

- A standard 19-in. (48.3-cm) wide, four-post EIA rack, with mounting posts that conform to English universal hole spacing, per section 1 of ANSI/EIA-310-D-1992.
- The rack post holes can be square 0.38-inch (9.6 mm), round 0.28-inch (7.1 mm), #12-24 UNC, or #10-32 UNC when you use the supplied slide rails.
- The minimum vertical rack space per system must be four RUs, equal to 7 in. (17.78 cm).
- There must be a minimum of 48 inches clearance at the front of the rack.

Equipment Requirements

The slide rails supplied by Cisco Systems for this system do not require tools for installation if you install them in a rack that has square 0.38-inch (9.6 mm), round 0.28-inch (7.1 mm), or #12-24 UNC threaded holes.

Slide Rail Adjustment Range

The slide rails for this system have an adjustment range of 26 to 36 inches (660 to 914 mm).

Cable Management Arm Dimensions

The optional cable management arm (CMA) adds additional length requirements:

- The additional distance from the rear of the chassis to the rear of the CMA is 6.8 inches (173 mm)
- The total length of the chassis from front rack post to the rear of the CMA is 38.3 inches (973 mm).
- The total length of the chassis including front handles and CMA is 40.3 inches (1024 mm).

Installing the System in a Rack

This section contains the following topics:

- Installing the Slide Rails, on page 5
- Installing the Cable Management Arm (Optional), on page 7
- Reversing the Cable Management Arm (Optional), on page 9

Warning **To prevent bodily injury when mounting or servicing this unit in a rack, you must take special precautions to ensure that the system remains stable. The following guidelines are provided to ensure your safety: This unit should be mounted at the bottom of the rack if it is the only unit in the rack. When mounting this unit in a partially filled rack, load the rack from the bottom to the top with the heaviest component at the bottom of the rack. If the rack is provided with stabilizing devices, install the stabilizers before mounting or servicing the unit in the rack**. Statement 1006

Installing the Slide Rails

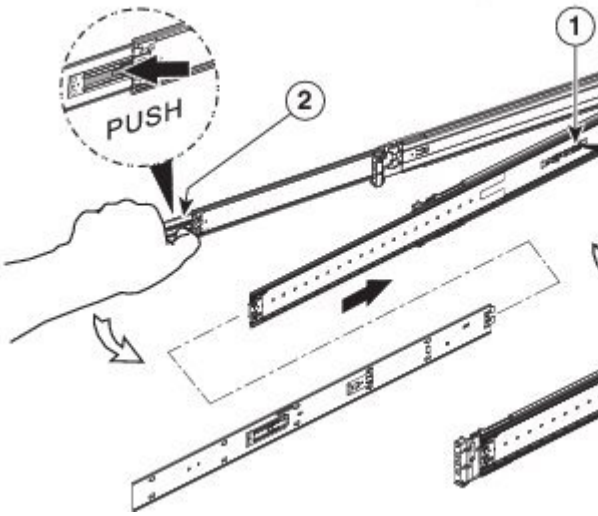
Caution This system weighs approximately 190 pounds (86 kilograms) when fully loaded with components. We recommend that you use a mechanical lift when lifting the system. Attempting this procedure without a lift could result in personal injury or equipment damage. Although not required, consider temporarily removing components such as hard drives while you move the system.

SUMMARY STEPS

1. Remove the inner rail from the slide-rail assembly (see Figure 2-1):
2. Attach the inner rails to the sides of the chassis (see Figure 2-2):
3. Install the slide rails into the rack (see Figure 2-3):
4. Pull the intermediate slide rails on each assembly out toward the rack front until they hit the internal stops and lock in place (see Figure 2-4).
5. Insert the chassis with inner rails into the intermediate rails:
6. (Recommended) Secure the chassis in the rack more permanently by using the two screws provided with the slide rails. For example, you can install these screws if you plan to move the rack with systems installed.

DETAILED STEPS

Procedure

	Command or Action	Purpose
Step 1	Remove the inner rail from the slide-rail assembly (see Figure 2-1): **Option** / **Description** 1 Rail release latch (close-up view) / 2 Inner rail release clip	***Figure 1: Figure 2-1 Removing the Inner Rail From the Assembly*** 
Step 2	Attach the inner rails to the sides of the chassis (see Figure 2-2):	**Note** The inner rails are not identical: there is a left rail and a right rail (as viewed from the chassis front). The inner rails are marked with “L” for left or “R” for right.
Step 3	Install the slide rails into the rack (see Figure 2-3):	**Note** The slide rail assemblies are not identical; there is a left rail and a right rail (as viewed from the rack front). The assemblies are marked with “L” for left or “R” for right. The bottom of the slide rail assembly lines up with the intended bottom of the rack unit (RU).
Step 4	Pull the intermediate slide rails on each assembly out toward the rack front until they hit the internal stops and lock in place (see Figure 2-4).	
Step 5	Insert the chassis with inner rails into the intermediate rails:	**Caution** This system weighs approximately 190 pounds (86 kilograms) when fully loaded with components. We recommend that you use a mechanical lift when lifting the system. Attempting this procedure without a lift could result in personal injury or equipment damage. Although not required, consider temporarily removing components such as hard drives while you move the system. **Note**

	Command or Action	Purpose
		The rack rail channels are fragile to side loads. Install the chassis gently to avoid damaging the rails.
Step 6	(Recommended) Secure the chassis in the rack more permanently by using the two screws provided with the slide rails. For example, you can install these screws if you plan to move the rack with systems installed.	With the chassis fully pushed into the slide rails, open a hinged slam-latch lever on the front of the system and insert the screw through the hole that is under the lever. The screw threads into the static part of the rail on the rack post and prevents the chassis from being pulled out. Repeat for the opposite slam latch. **Caution** When you pull the chassis outward from the rack, it stops at internal locking stops. Do not depress the release clips on the inner rails (see Figure 2-4) unless you intend to slide the chassis back into the rack or to fully remove the chassis from the rack. Depressing the release clips on the inner rails allows the chassis to slide all the way out of the intermediate rails and could result in injury or equipment damage. It is recommended that when you test pulling the chassis out from the rack for the first time that you place the mechanical lift under the chassis to avoid an accidental drop.

Installing the Cable Management Arm (Optional)

Note The internal drives and cooling fans in the system are hot-swappable and are accessed by opening the top covers. When you rack and cable the system, be sure to allow enough slack in the power cable and other cables so that the system can be pulled out on the slide rails far enough to allow clearance for opening the top covers.

The CMA is reversible left to right. To reverse the CMA, see Reversing the Cable Management Arm (Optional), before installation.

SUMMARY STEPS

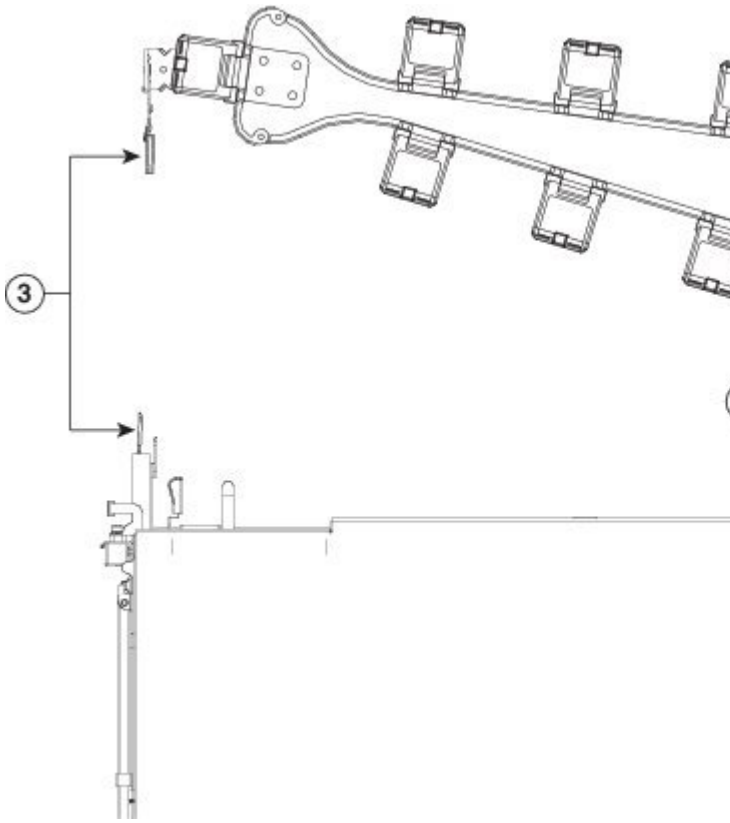
1. With the system pushed fully into the rack, slide the CMA tab of the CMA arm that is farthest from the system onto the end of the stationary slide rail that is attached to the rack post (see Figure 2-5). Slide the tab over the end of the rail until it clicks and locks.
2. Slide the CMA tab that is closest to the system over the end of the inner rail that is attached to the system (see Figure 2-5). Slide the tab over the end of the rail until it clicks and locks.
3. Pull out the width-adjustment slider that is at the opposite end of the CMA assembly until it matches the width of your rack (see Figure 2-5).
4. Slide the CMA tab that is at the end of the width-adjustment slider onto the end of the stationary slide rail that is attached to the rack post (see Figure 2-5). Slide the tab over the end of the rail until it clicks and locks.

5. Open the hinged flap at the top of each plastic cable guide and route your cables through the cable guides as desired.

DETAILED STEPS

Procedure

	Command or Action	Purpose
Step 1	With the system pushed fully into the rack, slide the CMA tab of the CMA arm that is farthest from the system onto the end of the stationary slide rail that is attached to the rack post (see Figure 2-5). Slide the tab over the end of the rail until it clicks and locks.	
Step 2	Slide the CMA tab that is closest to the system over the end of the inner rail that is attached to the system (see Figure 2-5). Slide the tab over the end of the rail until it clicks and locks.	
Step 3	Pull out the width-adjustment slider that is at the opposite end of the CMA assembly until it matches the width of your rack (see Figure 2-5).	
Step 4	Slide the CMA tab that is at the end of the width-adjustment slider onto the end of the stationary slide rail that is attached to the rack post (see Figure 2-5). Slide the tab over the end of the rail until it clicks and locks.	

	Command or Action	Purpose
Step 5	Open the hinged flap at the top of each plastic cable guide and route your cables through the cable guides as desired.	***Figure 5: Figure 2-5 Attaching the Cable Management Arm to the Rear of the Slide Rails*** 

1	CMA tab on arm farthest from system and end of stationary outer slide rail	3	CMA tab on width-adjustment slider and end of stationary outer slide rail
2	CMA tab on arm closest to the system and end of inner slide rail attached to system	4	Rear of system

Reversing the Cable Management Arm (Optional)

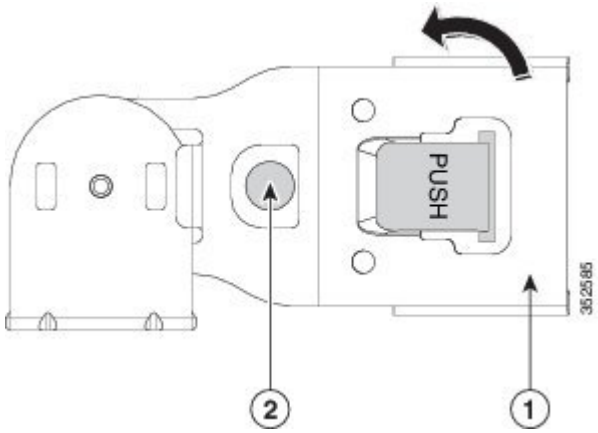
SUMMARY STEPS

1. Rotate the entire CMA assembly 180 degrees. The plastic cable guides must remain pointing upward.
2. Flip the tabs at the end of each CMA arm so that they point toward the rear of the system.

3. Pivot the tab that is at the end of the width-adjustment slider. Depress and hold the metal button on the outside of the tab and pivot the tab 180 degrees so that it points toward the rear of the system.

DETAILED STEPS

Procedure

	Command or Action	Purpose
Step 1	Rotate the entire CMA assembly 180 degrees. The plastic cable guides must remain pointing upward.	
Step 2	Flip the tabs at the end of each CMA arm so that they point toward the rear of the system.	
Step 3	Pivot the tab that is at the end of the width-adjustment slider. Depress and hold the metal button on the outside of the tab and pivot the tab 180 degrees so that it points toward the rear of the system.	*Figure 6: Figure 2-6 Reversing the CMA*  1 CMA tab on end of width-adjustment slider; 2 Metal button for rotating

Initial System Setup

The following is a high-level summary of the setup steps and the sections in this doc for each step.

1. Be aware of the default networking settings before you begin:

   Default Networking Settings, on page 11

2. Be aware of the requirement to set as many as five IP addresses:

   System IP Addresses, on page 11

3. If you plan to use a DHCP server, be aware of the requirements:

   DHCP Requirements, on page 12

4. Connect cables and power on the system, then start the Cisco IMC Configuration Utility:

Connecting the System and Opening the Setup Utility, on page 12

5. Make networking settings using the Cisco IMC Configuration Utility:

   Setting Up the System Using the Cisco IMC Configuration Utility, on page 14

6. Static IPs only—Set CMC and BMC IP addresses using the Cisco IMC management interface:

   Setting Static CMC and BMC Internal IP Addresses, on page 16

Default Networking Settings

The system is shipped with these settings:

- The default NIC mode is Cisco Card. The QSFP ports on either SIOC are used to access the Cisco Integrated Management Controller (Cisco IMC) interface.

  If you want to use the 10/100/1000 dedicated management port to access the Cisco IMC, you can connect to the system and change the NIC mode to Dedicated as described in Setting Up the System Using the Cisco IMC Configuration Utility, on page 14.

- The default NIC redundancy is active-active.
- DHCP is enabled by default.
- IPv4 is enabled by default.

System IP Addresses

A Cisco UCS S3260 system can have up to five IP addresses:



Note All controllers present in the system must have IP addresses assigned in order to communicate with each other. All IP addresses can be assigned by your DHCP server, or you can assign static IP addresses.

- Management IP—This is the overall system virtual IP address. You log into this address when you access the system's Cisco IMC interface via your LAN connection to the active chassis management controller in SIOC 1 or SIOC 2 (see Overview of Cisco UCS S3260 Architecture.
- SIOC 1 CMC IP—This is the internal address for the chassis management controller (CMC) in SIOC 1. This address can be assigned by your DHCP server, or you can set a static address by using the Cisco IMC interface.
- SIOC 2 CMC IP—This is the internal address for the CMC in SIOC 2 (if installed). This address can be assigned by your DHCP server, or you can set a static address by using the Cisco IMC interface.
- Server 1 BMC IP—This is the internal address for the board management controller (BMC) in server node 1. This address can be assigned by your DHCP server, or you can set a static address by using the Cisco IMC interface.
- Server 2 BMC IP—This is the internal address for the BMC in server node 2 (if installed). This address can be assigned by your DHCP server, or you can set a static address by using the Cisco IMC interface.

Note The IP addresses for the management IP, the SIOC CMC IPs, and the server BMC IPs must all be configured on the same subnet.

DHCP Requirements

To configure the system remotely, you must have a DHCP server on the same network as the system. Your DHCP server must be preconfigured with the range of MAC addresses for the chassis management controller (CMC) in the system I/O controller (SIOC). Each SIOC has a range of six MAC addresses assigned. The MAC address printed on the label defines the beginning of the range of six contiguous MAC addresses.

The MAC address is printed on a label on the SIOC top cover.

Connecting the System and Opening the Setup Utility

This procedure instructs you how to assign the management IP address that you use to manage the whole system. It also walks through initial settings in the Cisco IMC Configuration Utility.

Note If you use a 40G-to-10G splitter cable, you must configure the four 10G ports connected to the cable on the uplink switch side as part of a single static port-channel. It is possible to use less than four ports, if all used 10G ports are part of the same static port-channel. You must also set "spanning-tree port type edge trunk" on the port channel to eliminate STP transition time.

SUMMARY STEPS

1. Attach a power cord to each power supply in your system, and then attach each power cord to a grounded AC power outlet. Wait for approximately five minutes to let the server nodes boot to standby power during the first bootup.
2. Connect a KVM cable (Cisco PID N20-BKVM) to the KVM connector on either server node at the rear of the system.
3. Connect a USB keyboard and a VGA monitor to the KVM cable.
4. Connect QSFP cables to the QSFP connectors on both SIOCs.
5. Press and hold the front panel power button for four seconds to boot the system.
6. Open the Cisco IMC Configuration Utility:
7. Continue with Setting Up the System Using the Cisco IMC Configuration Utility, on page 14

DETAILED STEPS

Procedure

	Command or Action	Purpose
Step 1	Attach a power cord to each power supply in your system, and then attach each power cord to a grounded AC power outlet. Wait for approximately five minutes to let the server nodes boot to standby power during the first bootup.	You can verify system power status by looking at the system Power Status LED on the front panel (see Figure 1-1). The system is in standby power mode when the LED is amber.
Step 2	Connect a KVM cable (Cisco PID N20-BKVM) to the KVM connector on either server node at the rear of the system.	
Step 3	Connect a USB keyboard and a VGA monitor to the KVM cable.	
Step 4	Connect QSFP cables to the QSFP connectors on both SIOCs.	**Note** If you plan on changing the NIC mode to use the dedicated management port to manage the server, also attach an RJ-45 Ethernet cable to the management port on the SIOCs.
Step 5	Press and hold the front panel power button for four seconds to boot the system.	

Step 6	Open the Cisco IMC Configuration Utility:	**Note** The first time that you enter the Cisco IMC Configuration Utility, you are prompted to change the default password. The default password is password.
		
		The following are the requirements for a strong password:
		• The password can have minimum 8 characters; maximum 14 characters.
		• The password must not contain the user's name.
		• The password must contain characters from three of the following four categories:
		  • English uppercase letters (A through Z).
		  • English lowercase letters (a through z).
		  • Base 10 digits (0 through 9).
		  • Non-alphabetic characters !, @, #, $, %, ^, &, *, -, _, =, ‘‘

Step 7	Continue with Setting Up the System Using the Cisco IMC Configuration Utility, on page 14	

Setting Up the System Using the Cisco IMC Configuration Utility

The following procedure is performed after you connect to the system and open the Cisco IMC Configuration Utility by pressing F8 during boot.

SUMMARY STEPS

1. Set NIC mode and NIC redundancy:
2. Select whether to use IPv4 (default) or IPv6.
3. Choose whether to keep DHCP enabled (default), or to disable and then enter static network settings.
4. Optional: Use this utility to make VLAN settings.
5. Press F1 to go to the second settings window, then continue with the next step.
6. Optional: Set a host name.
7. Optional: Enable dynamic DNS and set a dynamic DNS (DDNS) domain.
8. Optional: The Factory Default check box has two options:
9. Optional: Set port properties for the 10/100/1000 dedicated management port on the SIOCs if you do not want the port to use the auto-negotiation feature.
10. Optional: Reset port profiles and the port name.
11. Press F1 to go to the third settings window, then continue with the next step.
12. Optional: Set the port speed for the SIOC QSFP ports to either 40 Gbps or 4x10 Gbps.
13. Press F5 to refresh the settings you made. You might have to wait about 45 seconds until the new settings appear and the message Network settings configured is displayed before you reboot the server node in the next step.
14. Press F10 to save your settings and reboot the server node.
15. Remove the KVM cable from the server node.
16. This step only for setting static IPs (DHCP disabled)—Set the CMC and BMC internal IP addresses by using the Cisco IMC interface, as described in Setting Static CMC and BMC Internal IP Addresses, on page 16.

DETAILED STEPS

Procedure

	Command or Action	Purpose
Step 1	Set NIC mode and NIC redundancy:	**Note** The NIC modes and NIC redundancy refer to the ports on the SIOCs. They do not refer to the 1-Gb LOM port on an S3260 M5 server node.
Step 2	Select whether to use IPv4 (default) or IPv6.	If you select to use IPv6, the IPv4 details are hidden because of space constraints on the screen.
Step 3	Choose whether to keep DHCP enabled (default), or to disable and then enter static network settings.	**Note** If you use a DHCP server and you already have QSFP cables attached to the SIOCs, the management IP address and network settings are already filled in. If you disable DHCP, you must set your own static management IP address and network settings.

	Command or Action	Purpose
		The static IPv4 and IPv6 settings include: • The Management IP address (the address that you use to access the Cisco IMC interface). • The prefix/subnet. For IPv6, valid values are 1–127. **Note** The IP addresses for the management IP, the SIOC CMC IPs, and the server BMC IPs must all be configured on the same subnet. • The gateway. For IPv6, if you do not know the gateway, you can set it as none by typing :: (two colons). • The preferred DNS server address. For IPv6, you can set this as none by typing :: (two colons).
Step 4	Optional: Use this utility to make VLAN settings.	**Note** Save your changes by pressing F10 before switching windows.
Step 5	Press F1 to go to the second settings window, then continue with the next step.	From the second window, you can press F2 to switch back to the first window.
Step 6	Optional: Set a host name.	
Step 7	Optional: Enable dynamic DNS and set a dynamic DNS (DDNS) domain.	
Step 8	Optional: The Factory Default check box has two options:	• Server Controller Configuration: the selected server node is set back to its factory default state and the selected server/host reboots. • Chassis Controller Configuration: Both CMCs in the SIOCs are set to the factory default state.
Step 9	Optional: Set port properties for the 10/100/1000 dedicated management port on the SIOCs if you do not want the port to use the auto-negotiation feature.	
Step 10	Optional: Reset port profiles and the port name.	**Note** Save your changes by pressing F10 before switching windows.
Step 11	Press F1 to go to the third settings window, then continue with the next step.	From the third window, you can press F2 to switch back to the first window.

	Command or Action	Purpose
Step 12	Optional: Set the port speed for the SIOC QSFP ports to either 40 Gbps or 4x10 Gbps.	"Adapter-1" refers to SIOC 1 and "Adapter-2" refers to SIOC 2, if present. **Note** If your system is running Cisco IMC 2.0(9) or later, the default setting is Auto, which automatically adjusts to your network installation. **Note** If you use a 40G-to-10G splitter cable, you must configure the four 10G ports connected to the cable on the uplink switch side as part of a single static port-channel. It is possible to use less than four ports, if all used 10G ports are part of the same static port-channel. You must also set "spanning-tree port type edge trunk" on the port channel to eliminate STP transition time.
Step 13	Press F5 to refresh the settings you made. You might have to wait about 45 seconds until the new settings appear and the message Network settings configured is displayed before you reboot the server node in the next step.	
Step 14	Press F10 to save your settings and reboot the server node.	**Note** If you chose to leave DHCP enabled, the dynamically assigned IP and MAC addresses are displayed on the console screen during bootup.
Step 15	Remove the KVM cable from the server node.	**Note** Each CMC in the SIOCs and each BMC in the server nodes must have an internal IP address assigned in order for the system to operate (see System IP Addresses). If DHCP is enabled, your DHCP server assigns these addresses and no further steps are required.
Step 16	This step only for setting static IPs (DHCP disabled)—Set the CMC and BMC internal IP addresses by using the Cisco IMC interface, as described in Setting Static CMC and BMC Internal IP Addresses, on page 16.	

Setting Static CMC and BMC Internal IP Addresses

Note If you left DHCP enabled, your DHCP server sets the CMC and BMC IP addresses and so these steps are not required. Perform the following procedure only if you are setting static IP addresses manually.

SUMMARY STEPS

1. Use a browser and the system management IP address to connect to the Cisco IMC management interface.
2. Log in at the login page. The default user name for the system is admin. The default password is password.
3. Click the menu button at the upper-left corner and select Admin > Networking. The Networking/Network Settings page opens.
4. Scroll down to the Individual Settings area.
5. Fill in your static IP addresses for CMC1, CMC2, BMC1, and BMC2.

DETAILED STEPS

Procedure

	Command or Action	Purpose
Step 1	Use a browser and the system management IP address to connect to the Cisco IMC management interface.	
Step 2	Log in at the login page. The default user name for the system is admin. The default password is password.	The Chassis/Summary page opens. The Management IP Address is displayed. The IP address for each CMC is displayed at this point only if a DHCP server assigned them.
Step 3	Click the menu button at the upper-left corner and select Admin > Networking. The Networking/Network Settings page opens.	
Step 4	Scroll down to the Individual Settings area.	
Step 5	Fill in your static IP addresses for CMC1, CMC2, BMC1, and BMC2.	**Note** All available component IP addresses must be set together to complete the configuration. Partial settings result in an error and the partial settings are not saved. **Note** The IP addresses for the management IP, the SIOC CMC IPs, and the server BMC IPs must all be configured on the same subnet. This task can be completed using the management GUI or CLI interfaces. For more information see Cisco UCS C-Series Integrated Management Controller GUI Configuration Guide for S3260 Servers or the Cisco UCS C-Series Integrated Management Controller CLI Configuration Guide for S3260 Servers here: Configuration Guides.

NIC Modes and NIC Redundancy Settings

Note The NIC modes and NIC redundancy refer to the ports on the SIOCs. They do not refer to the 1-Gb LOM port on an S3260 M5 server node.

NIC Modes

You can choose from the following NIC mode settings:

- Cisco Card (default)—The QSFP ports on the active SIOC are used to access Cisco IMC. You must select a NIC redundancy setting.
- Dedicated—The dedicated RJ-45 management port of either SIOC is used to access the Cisco IMC. The only NIC redundancy setting for this NIC mode is None.

NIC Redundancy

You can choose from the following NIC redundancy settings:

- Active-active (default)—All QSFP ports are utilized simultaneously. This setting can be used only with the Cisco Card NIC mode.
- Active-standby—If an active QSFP port fails, traffic fails over to a standby port. This setting can be used only with the Cisco Card NIC mode.
- None—The ports operate independently and do not fail over if there is a problem. This setting can be used only with the Dedicated NIC mode.

System BIOS and Cisco IMC Firmware

This section includes information about the system BIOS and it includes the following topics:

- Updating the BIOS and Cisco IMC Firmware, on page 18
- Accessing the System BIOS, on page 19

Updating the BIOS and Cisco IMC Firmware

Caution When you upgrade the BIOS firmware, you must also upgrade the Cisco IMC firmware to the same version or the system will not boot. Do not power on the system until the BIOS and Cisco IMC firmware match or the system will not boot.

The system uses firmware that is obtained from and certified by Cisco. Cisco provides release notes with each firmware image.

The recommended method is to use the Cisco Host Upgrade Utility to simultaneously upgrade the Cisco IMC, BIOS, and other component firmware to compatible levels.

See the Cisco Host Upgrade Utility Quick Reference Guide for your firmware level.

Accessing the System BIOS

Note Details about the BIOS settings are displayed in the BIOS windows.

SUMMARY STEPS

1. Enter the BIOS setup utility by pressing the F2 key when prompted during bootup.
2. Use the arrow keys to select the BIOS menu page.
3. Use the arrow keys to highlight the field to be modified.
4. Press Enter to select the field that you want to change, and then modify the value in the field.
5. Press the right arrow key until the Exit menu screen is displayed.
6. Follow the instructions on the Exit menu screen to save your changes and exit the setup utility (or press F10). You can exit without saving changes by pressing Esc.

DETAILED STEPS

Procedure

	Command or Action	Purpose
Step 1	Enter the BIOS setup utility by pressing the F2 key when prompted during bootup.	**Note** The version and build of the current BIOS are displayed on the Main page of the utility.
Step 2	Use the arrow keys to select the BIOS menu page.	
Step 3	Use the arrow keys to highlight the field to be modified.	
Step 4	Press Enter to select the field that you want to change, and then modify the value in the field.	
Step 5	Press the right arrow key until the Exit menu screen is displayed.	
Step 6	Follow the instructions on the Exit menu screen to save your changes and exit the setup utility (or press F10). You can exit without saving changes by pressing Esc.	