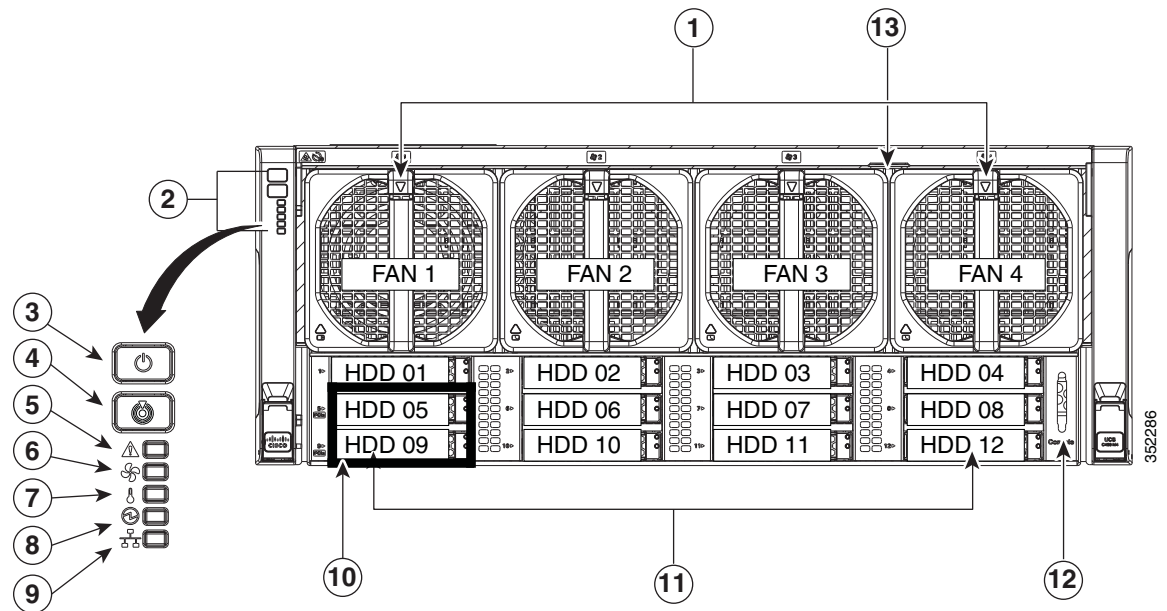# Overview

This chapter provides an overview of the Cisco UCS C460 M4 server.

Front Panel Features

Figure 1-1 shows the front panel features of the server.
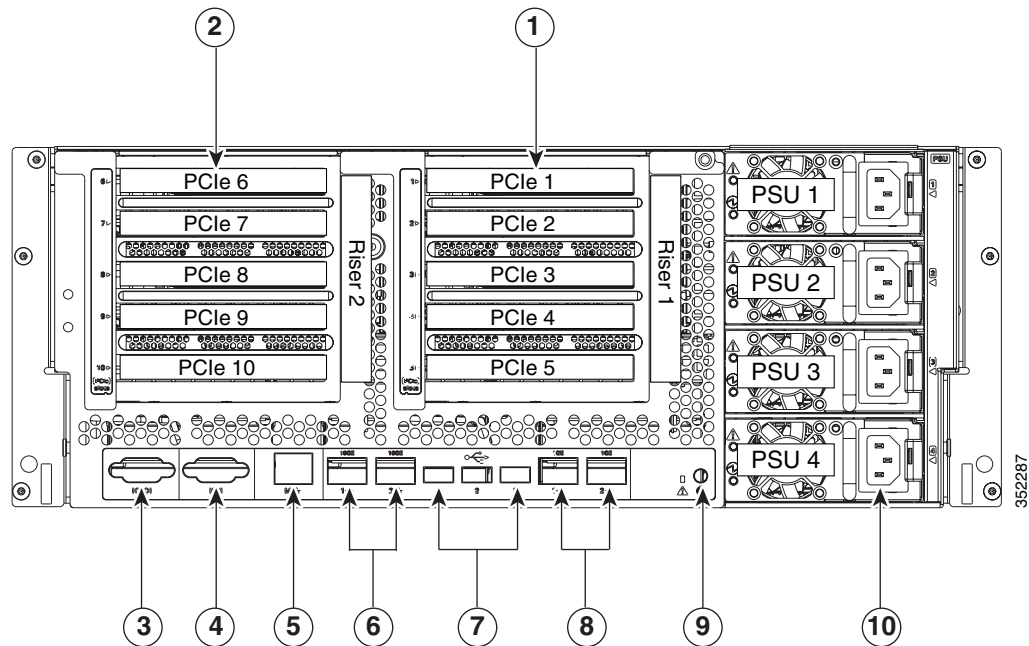
Figure 1-1 **Front Panel Features**

1	Cooling fans (hot-swappable and accessible from the front panel)	**8**	Power supply status LED
2	Operations panel	**9**	Network link activity LED
3	Power button/LED	**10**	Drive bays 5 and 9 support NVMe PCIe solid state drives (SSDs) and SAS/SATA drives.
4	Identification button/LED	**11**	Drive bays 1–12 support SAS/SATA drives.
5	System status LED	**12**	KVM console connector (used with a KVM cable that provides two USB, one VGA, and one serial connector)
6	Fan status LED	**13**	Pull-out asset tag
7	Temperature status LED	**–**	

Rear Panel Features

Figure 1-2 shows the rear panel features of the server.

Figure 1-2   Rear Panel Features
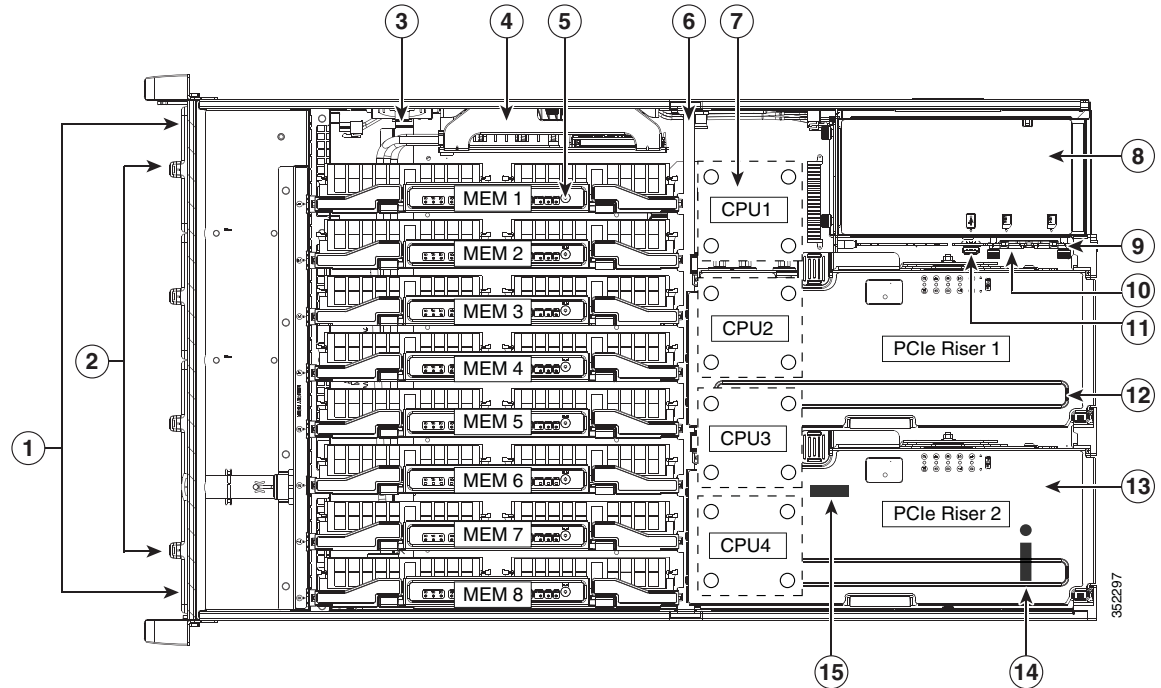

1	PCIe riser 1 (slots 1–5)	**6**	10 Gb Ethernet ports (two)
	See PCIe Slots, page 3-51 for slot specifications.		
2	PCIe riser 2 (slots 6–10)	**7**	USB 2.0 ports (three)
3	Serial port (DB-9 connector)	**8**	1 Gb Ethernet ports (two)
4	VGA video port (DB-15 connector)	**9**	Rear identification LED/button
5	1 Gb Ethernet dedicated management port M1	**10**	Power supplies 1–4 (hot-swappable, redundant as 2+2)

Replaceable Component Locations

This section shows the locations of the components that are discussed in this chapter. The view in Figure 1-3 is from the top down with the top cover removed.

Figure 1-3   *Replaceable Component Locations*

1	Drive bays (up to 12 2.5-inch drives) • All 12 bays support SAS/SATA drives. • Bays 5 and 9 support NVMe PCIe SSD drives and SAS/SATA drives.	9	Media riser card (includes two bays for Cisco Flexible Flash drives, an internal USB port, and the DIP switches)
2	Fan modules (four, hot-swappable and front-accessible)	10	Cisco Flexible Flash drive (SD card) bays (two on the media riser card)
3	RAID backup unit (supercap power module) mounting bracket on chassis wall	11	Internal, vertical USB 2.0 port (on the media riser card)
4	RAID controller card socket (dedicated internal PCIe socket)	12	PCIe riser 1 (PCIe slots 1–5)
5	Memory risers with DIMMs (up to 8 risers with 12 DIMM sockets each)	13	PCIe riser 2, optional (PCIe slots 6–10)
6	Chassis mid-brace	14	TPM socket and screw hole (on motherboard, not visible under riser in this view)
7	CPUs and heat sinks (two or four) The CPUs and their heat sinks are below the memory risers and PCIe risers.	15	RTC battery (on motherboard, not visible under riser in this view)
8	Power supplies (two or four, redundant as 2+2) Power supplies are hot-swappable.		

Server Features Overview

Table 1-1 lists the features of the server.

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Table 1-1   Cisco UCS C460 M4 Server Features

Feature	Description
Chassis	Four rack-unit (4RU) chassis.
Processors	Different versions of CPUs are available: • Two or four Intel Xeon E7-4800 **v2** or E7-8800 EX **v2** Series processors. • Two or four Intel Xeon E7-4800 **v3** or E7-8800 EX **v3** Series processors. • Two or four Intel Xeon E7-4800 **v4** or E7-8800 EX **v4** Series processors.
Memory	The server has up to 8 hot-pluggable memory risers that each have 12 DIMM slots, for a total of 96 DIMM slots. Each CPU can control 2 memory risers (up to 24 DIMMs). Memory risers are hot-pluggable.[1] [2] ✎ **Note** See the release notes for your operating system and your Cisco IMC/BIOS release for details and restrictions on hot-plugging: Cisco IMC Release Notes.
Multi-bit error protection	This server supports multi-bit error protection.
Storage	The server can hold up to 12 drives: • All 12 drive bays support SAS and SATA drives. • Drive bays 5 and 9 also support NVMe PCIe SSD drives that are compliant with the Non-Volatile Memory Express (NVMe) protocol. SAS and SATA drives are hot-swappable[3]; PCIe drives are hot-pluggable.[4]
Disk Management	For a list of supported RAID controller options, see RAID Controller Considerations, page C-1. There is one dedicated motherboard slot for a RAID controller card. **Note**: At this time, the RAID controller can control only 8 of the 12 drive bays. See Replacing SAS/SATA Hard Drives or Solid State Drives, page 3-14. **Note**: The RAID controller cannot control PCIe drives.
RAID Backup	The optional supercap power module (SCPM) mounts to a bracket on the chassis wall.
PCIe I/O	One or two PCIe risers with five horizontal PCIe slots each. See PCIe Slots, page 3-51 for slot specifications.
InfiniBand	The bus slots in this server support the InfiniBand architecture.

Table 1-1   Cisco UCS C460 M4 Server Features (continued)

Feature	Description
Network and management I/O	The server provides these rear panel connectors: • One 10/100/1000 dedicated management Ethernet port • Two 1-Gb BASE-T Ethernet ports • Two 10-Gb BASE-T Ethernet ports • One RS-232 serial port (DB-9 connector) • One VGA video port (DB-15 connector) • Three USB 2.0 connectors The server also has one front-panel KVM connector that is used with the included KVM cable, which provides two USB, one VGA, and one serial connector.
WoL	The 1-Gb BASE-T Ethernet LAN ports support the wake-on-LAN (WoL) standard.
Cisco Flexible Flash drive	Up to two Cisco Flexible Flash drives in the SD card slots that are on the media riser.
Internal USB	The server includes one internal USB 2.0 slot on the internal media riser.
Power	Four power supplies, 1400 W each. Hot-swappable and redundant as 2+2.
ACPI	This server supports the advanced configuration and power interface (ACPI) 4.0 standard.
Cooling	Four fan modules, hot-swappable and front-accessible. In addition, there is 1 fan in each power supply.
Baseboard management	Cisco Integrated Management Controller (Cisco IMC) firmware. Depending on your settings, the Cisco IMC can be accessed through the 10/100/1000 dedicated management ports, the 1-Gb LOM ports, or a Cisco virtual interface card.
Video	Resolution up to 1600 x1200, 16 bpp at 60 Hz. Up to 256 MB of video memory.

1. Hot-pluggable = Software shutdown of the component is required before removing while the server is powered on.

2. Memory hot-plug requires an operating system that supports this feature.

3. Hot-swappable = No preconditioning of the component is required before removal while the server is powered on.

4. Hot-pluggable = The component must be shut down in the operating system before removal while the server is powered on.