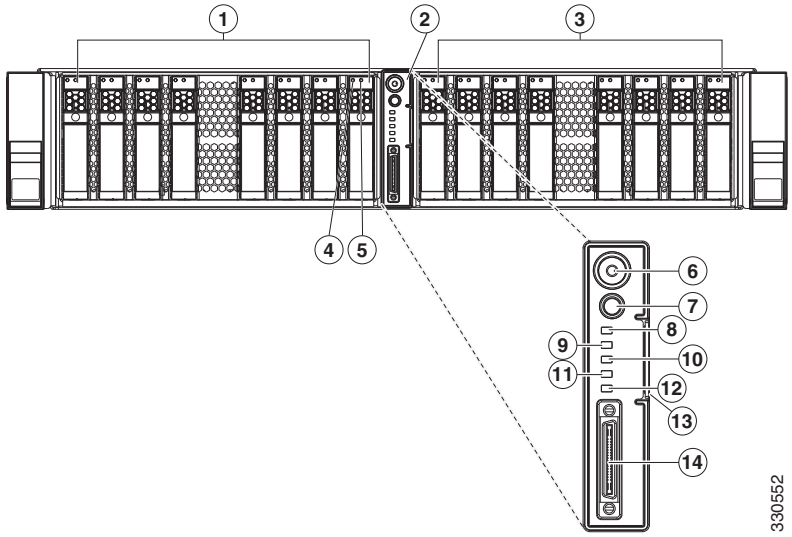
CHAPTER 1

Overview

This server is a high-performance, memory-intensive, 2RU rack-mount server designed to increase performance and capacity for demanding virtualization and large data-set workloads. This server uses Cisco Extended Memory Technology to increase the overall memory footprint as well as reduce the cost of smaller memory footprints through the use of lower-cost, lower-density memory. The system is built for standalone applications, virtualized workloads in enterprise data centers, service provider environments, and virtual desktop hosting.

The figures in this chapter show an overview of external server features. Internal server features are illustrated in Figure 3-5 on page 3-9. Figure 1-1 shows the front panel features of the server.

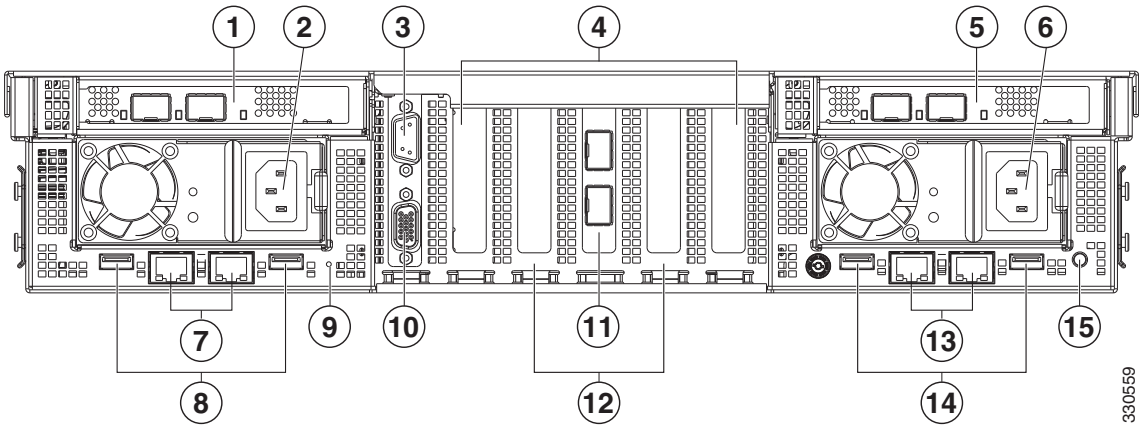
Figure 1-1 Front Panel Features



1	Modular drive bay 1	**8**	System status LED
2	Operations panel	**9**	Fan status LED
3	Modular drive bay 2	**10**	Temperature status LED
4	Hard drive fault LED	**11**	Power supply status LED
5	Hard drive activity LED	**12**	Network link activity LED
6	Power button/LED	**13**	Asset tag (serial number)
7	Identification button/LED	**14**	KVM console connector (used with KVM cable that provides two USB, one VGA, and one serial connector)

Figure 1-2 shows the rear panel features.

Figure 1-2 Rear Panel Features



1	Horizontal PCIe slot on riser card (standard-profile, half-length, x16)	**9**	Reset button
2	Power supply 1	**10**	VGA video connector
3	RS-232 serial connector	**11**	10-Gb SFP+ LOM ports (2, supported with optional card in designated PCIe slot 4)
4	PCIe slots on motherboard (5) (4 low-profile, half-length, x8 slots and 1 low-profile, half-length, x4 slot)	**12**	RAID controller cards (up to 2, supported in designated PCIe slots 3 and 5)
5	Horizontal PCIe slot on riser card (standard-profile, half-length, x16)	**13**	1-Gb Base-T LOM ports (2, RJ-45)
6	Power supply 2	**14**	USB 2.0 ports (2)
7	10/100 dedicated management Ethernet ports (2, RJ-45)	**15**	Rear Identification button/LED
8	USB 2.0 ports (2)		–

Table 1-1 lists the features of the server.

Table 1-1 Cisco UCS C260 Server Features

Chassis	Two rack-unit (2RU) chassis.
Processors	Two Intel Xeon E7-2800 Series processors.
Memory	The server provides 16 memory riser sockets and two memory riser options: • When using the standard Intel chipset memory risers, the 16 risers can each hold 2 DIMMs[1]. This provides a possible total of up to 32 DIMMs and 512 GB of industry-standard DDR3[2] memory. • When using the optional memory risers that have a memory-expansion ASIC, the 16 risers can each hold 4 DIMMs. This provides a possible total of up to 64 DIMMs and 1024 GB of industry-standard DDR3 memory.
Multi-bit error protection	This server supports multi-bit error protection.
Storage	Drives are installed into configurable (one or two) drive bay modules that provide hot-pluggable front-panel access. Each drive bay module can hold up to eight 2.5in SAS[3] or SATA[4] hard drives or solid state drives, for a total of 16 drives.
Cisco FlexFlash drives	The server includes one internal Cisco FlexFlash drive (SD card). This drive is pre-loaded with four virtual drives. The four virtual drives contain, respectively, the Cisco Server Configuration Utility, the Cisco Host Upgrade Utility, the Cisco C-Series server drivers set, and a blank VD on which you can install an OS or a hypervisor. **Note** At this time, dual Cisco FlexFlash cards are not supported.
Disk Management	Factory-configured RAID[5] support options: • The LSI MegaRAID SAS 9261-8i controller provides RAID 0, 1, 5, 6, 10, 50, and 60 support for up to 8 SAS or SATA drives. Support for up to 16 maximum drives can be achieved in two ways: – The server supports installation of two of these cards, which can be connected to two nonexpander-style transition cards. – You can control up to 16 drives with one of these cards, if connected to an expander-style transition card. See Replacing a Modular Drive Bay Assembly, page 3-14 for more information about transition cards. There are also two mounting points inside the chassis for the optional LSI RAID battery backup units that can be used with the controller cards.
PCIe I/O	Seven PCIe[6] expansion slots (see Figure 3-26 on page 3-45 for details): • Two standard-profile, half-length, x16 horizontal slots on riser cards • Four low-profile, half-length, x8 slots on motherboard • One low-profile, half-length, x4 slot (x8-length connector) on motherboard The card length is the supported length because of internal clearance.
InfiniBand	The bus slots in this server support the InfiniBand architecture.

Table 1-1 Cisco UCS C260 Server Features (continued)

Network and management I/O	The server provides these rear-panel connectors: • Two 10/100 dedicated management Ethernet ports • Two 1-Gb Base-T Ethernet ports • Two 10-Gb SFP+ Ethernet ports (on optional modular card) • One RS-232 serial connector • One 15-pin VGA[7] connector • Four USB[8] 2.0 connectors • 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.
Power	Two power supplies, 1200 W each. Redundant as 1+1.
ACPI	This server supports the advanced configuration and power interface (ACPI) 4.0 standard.
Cooling	Six fan modules, hot-swappable, redundant. In addition, there is 1 fan in each power supply.
Baseboard management	Pilot II BMC, running Cisco Integrated Management Controller (CIMC) firmware. Depending on your CIMC settings, the CIMC can be accessed through the 10/100 dedicated management ports, the 1-Gb LOM ports, the optional 10-Gb SFP+ ports, or a Cisco P81E virtual interface card.
Video	The server CIMC chip includes a Matrox G200 core. The first 8 MB of memory are allocated to the video core.

1. DIMM = dual inline memory module
2. DDR = double data rate (transfer mode)
3. SAS = serial attached SCSI
4. SATA = serial advanced technology attachment
5. RAID = redundant array of independent disks
6. PCIe = peripheral component interconnect express
7. VGA = video graphics array
8. USB = universal serial bus