CHAPTER 1

Overview

This chapter provides an overview of the Cisco UCS C220 server features.

External Features Overview, page 1-1

Summary of Server Features, page 1-3

External Features Overview

The figures in this chapter show an overview of external server features.

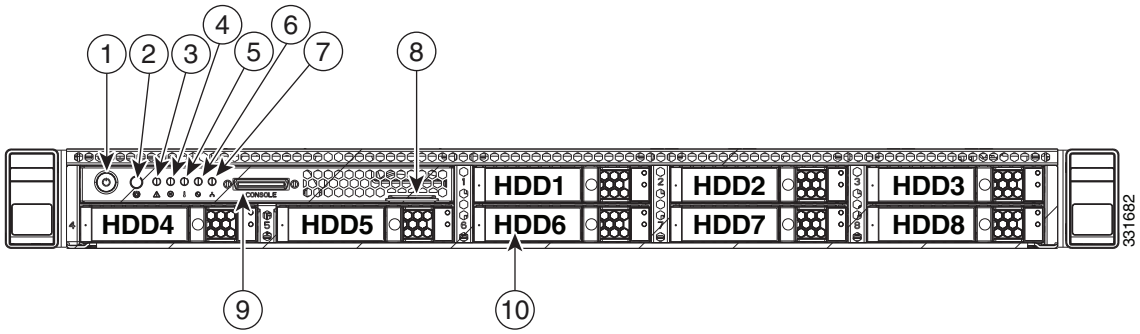
(Internal server features are illustrated in Figure 3-5 on page 3-9.)

The server is orderable in two different versions, each with one of two different front panel/backplane configurations:

- Cisco UCS C220 (small form-factor (SFF) drives, with 8-drive backplane.
  Holds up to eight 2.5-inch hard drives or solid state drives.
- Cisco UCS C220 (large form factor (LFF) drives, with 4-drive backplane).
  Holds up to four 3.5-inch hard drives.

Figure 1-1 shows the front panel features of the SFF drives version of the server.

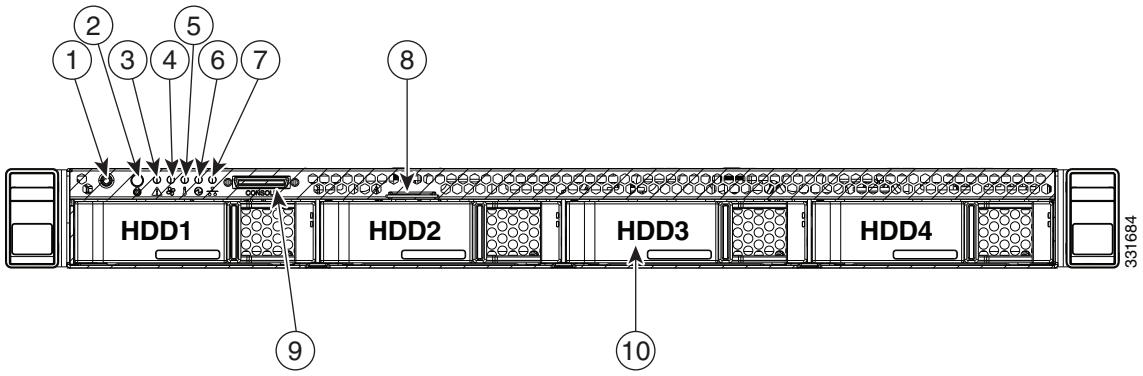
Figure 1-1 Cisco UCS C220 Server (Small Form Factor Drives) Front Panel Features



1	**Power button/Power status LED**	**6**	Power supply status LED
2	Identification button/LED	**7**	Network link activity LED
3	System status LED	**8**	Pull-out asset tag
4	Fan status LED	**9**	KVM connector (used with KVM cable that provides two USB, one VGA, and one serial connector)
5	Temperature status LED	**10**	Drives, hot-swappable (up to eight 2.5-inch drives)

Figure 1-2 shows the front panel features of the LFF drives version of the server.

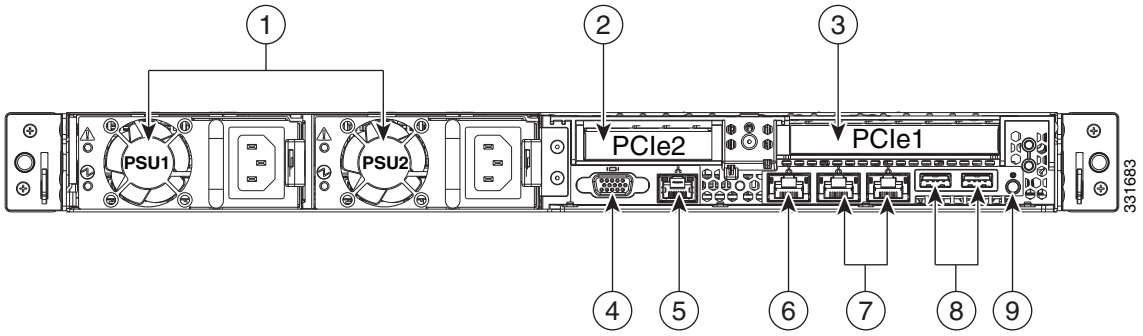
Figure 1-2 Cisco UCS C220 Server (Large Form Factor Drives) Front Panel Features



1	**Power button/Power status LED**	**6**	Power supply status LED
2	Identification button/LED	**7**	Network link activity LED
3	System status LED	**8**	Pull-out asset tag
4	Fan status LED	**9**	KVM connector (used with KVM cable that provides two USB, one VGA, and one serial connector)
5	Temperature status LED	**10**	Drives, hot-swappable (up to four 3.5-inch drives)

Figure 1-3 shows the rear panel features of the server (identical for both versions of the server).

Figure 1-3 Rear Panel Features



1	Power supplies (two)	**6**	1-Gb Ethernet dedicated management port
2	Low-profile PCIe slot 2 on riser (half-height, half-length, x8 lane)	**7**	Dual 1-Gb Ethernet ports (LAN1 and LAN2)
3	Standard-profile PCIe slot on riser (full-height, half-length, x16 lane)	**8**	USB ports
4	VGA video connector	**9**	Rear Identification button/LED
5	Serial port (RJ-45 connector)		–

Summary of Server Features

Table 1-1 lists the features of the server.

Table 1-1 Cisco UCS C220 Server Features

Chassis	One rack-unit (1RU) chassis.
Processors	Two Intel Xeon E5-2600 Series processors.
Memory	The server provides 16 DIMM[1] sockets on the motherboard. This provides a possible total of up to 512 GB of industry-standard DDR3[2] memory.
Multi-bit error protection	This server supports multi-bit error protection.
Baseboard management	BMC, running Cisco Integrated Management Controller (CIMC) firmware. Depending on your CIMC settings, the CIMC can be accessed through the 1-Gb Ethernet dedicated management port, the dual 1-Gb Ethernet LOM ports, or a Cisco virtual interface card.
Cooling	Five hot-swappable fan modules for front-to-rear cooling.
PCIe I/O	Two horizontal PCIe[3] expansion slots on risers. See Replacing a PCIe Card, page 3-35 for slot specifications.
InfiniBand	The bus slots in this server support the InfiniBand architecture.

Table 1-1 Cisco UCS C220 Server Features (continued)

Network and management I/O	The server provides these rear-panel connectors: • One 1-Gb Ethernet dedicated management port • Two 1-Gb Base-T Ethernet ports • One RS-232 serial port (RJ-45 connector) • One 15-pin VGA[4] connector • Two USB[5] 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	Up to two power supplies, both either 450W or 650W each. Redundant as 1+1. Do not mix power supply types in the server. See Power Specifications, page A-3 for more information on power supplies.
ACPI	This server supports the advanced configuration and power interface (ACPI) 4.0 standard.
Storage	Drives are installed into front-panel drive bays that provide hot-pluggable access. There are two versions of the server front panel and backplane: • Small Form Factor—The server can hold up to eight 2.5-inch SAS[6] or SATA[7] hard drives or solid state drives. • Large Form Factor—The server can hold up to four 3.5-inch SAS or SATA hard drives. The server also contains one internal USB 2.0 port on the motherboard that you can use with a USB thumb drive for additional storage.
Cisco Flexible Flash drives	The server can be ordered with up to two optional Cisco Flexible Flash drives (SD cards). 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 virtual drive on which you can install an OS or a hypervisor (see also Replacing a Cisco Flexible Flash Card, page 3-40). The two flash drives can be configured in a RAID 1 configuration to protect your hypervisor VD.
Disk Management (RAID)	For a list of supported RAID controller options, see RAID Controller Considerations, page C-1.
RAID Backup	There is one mounting point inside the chassis that can be used for a RAID backup unit when using an LSI MegaRAID card. This unit can be either of the following: • The optional LSI BBU that can be used with LSI MegaRAID cards. • The SuperCap Power Module that can be used with LSI MegaRAID-CV cards.
Video	Resolution up to 1600x1200, 16bpp at 60 Hz. Up to 256 MB of video memory.

1. DIMM = dual inline memory module
2. DDR3 = double data rate, type 3
3. PCIe = peripheral component interconnect express
4. VGA = video graphics array
5. USB = universal serial bus

6. SAS = serial attached SCSI
7. SATA = serial advanced technology attachment