

Cisco UCS C220 M6 Rack Server

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The Cisco UCS C220 M6 Rack Server delivers record-breaking performance for space-constrained environments.

Product overview



The Cisco UCS C220 M6 Rack Server is a 2-socket, 1-Rack-Unit (1RU) rack server offering industry-leading performance and expandability. It delivers industry-leading performance and efficiency for a wide range of workloads, including virtualization, collaboration, and bare-metal applications. Cisco UCS C-Series M6 Rack Servers can be deployed as standalone servers, as part of a Cisco Unified Computing System (Cisco UCS) managed environment, and now with Cisco Intersight to take advantage of Cisco's standards-based unified computing innovations that help reduce customers' Total Cost of Ownership (TCO) and increase their business agility.

In response to ever-increasing computing and data-intensive real-time workloads, the enterprise-class Cisco UCS C220 M6 server extends the capabilities of the Cisco UCS portfolio in a 1RU form factor. It incorporates 3rd Generation Intel Xeon Scalable processors, supporting up to 40 cores per socket and 33 percent more memory versus the previous generation.

The C220 M6 rack server brings many new innovations to the UCS rack server portfolio. With the introduction of PCIe Gen4 for high speed I/O, DDR4 memory bus, and expanded storage capabilities, the server delivers significant performance and efficiency gains that will improve your application performance.

- Supports the third-generation Intel Xeon Scalable CPU, with up to 40 cores per socket
- Up to 32 DDR4 DIMMs for improved performance including higher density DDR4 DIMMs (16 DIMMs per socket)
- 16x DDR4 DIMMs + 16x Intel Optane persistent memory modules for up to 10 TB of memory
- Up to 3 PCIe 4.0 slots plus a modular LAN on Motherboard (mLOM) slot
- Support for Cisco UCS VIC 1400 Series adapters as well as third-party options
- Up to 10 SAS/SATA or NVMe disk drives
 - Support for 12-Gbps SAS modular RAID controller in a dedicated slot, leaving the remaining PCIe Generation 4.0 slots available for other expansion cards
 - Option for 10 direct-attach NVMe drives at PCIe Gen4 x4 each

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- M.2 boot options
 - Up to 960 GB with optional hardware RAID
 - Up to three GPUs supported
 - Modular LAN-On-Motherboard (mLOM) slot that can be used to install a Cisco UCS Virtual Interface Card (VIC) without consuming a PCIe slot, supporting quad port 10/40 Gbps or dual port 40/100 Gbps network connectivity
 - Dual embedded Intel x550 10GBASE-T LAN-On-Motherboard (LOM) ports
 - Modular M.2 SATA SSDs for boot

Powering Next-Generation Applications

The Cisco UCS C220 M6 Rack Server is well-suited for a wide range of workloads, including:

- IT and web infrastructure
- High-performance virtual desktops
- Medium-sized and distributed databases
- Middleware
- Collaboration
- Public cloud

C220 M6 servers can be deployed as standalone servers, part of a Cisco UCS managed environment, or via Cisco Intersight. When used in combination with Cisco Intersight, the C220 M6 brings the power and automation of unified computing to enterprise applications, including Cisco SingleConnect technology, drastically reducing switching and cabling requirements.

Cisco Intersight leverages the familiar capabilities of UCS Manager with service profiles, templates, and policy-based management to enable rapid deployment and help ensure deployment consistency. It also enables end-to-end server visibility, management, and control in both virtualized and bare-metal environments.

The Cisco Integrated Management Controller (IMC) delivers comprehensive out-of-band server management with support for many industry standards, including:

- Redfish Version 1.11.1 (2021.1 schema0)
- Intelligent Platform Management Interface (IPMI) v2.0
- Simple Network Management Protocol (SNMP) v2 and v3
- Syslog
- Simple Mail Transfer Protocol (SMTP)
- Key Management Interoperability Protocol (KMIP)
- cKVM (all new Cisco KVM)
- Command-Line Interface (CLI)
- XML API

Management Software Development Kits (SDKs) and DevOps integrations exist for Python, Microsoft PowerShell, Ansible, Puppet, Chef, and more. For more information about integrations, see Cisco DevNet (<https://developer.cisco.com/site/ucs-dev-center/>).

Product specifications

Table 1 lists the specifications for the Cisco UCS C220 M6 Rack Server.

Table 1. Specifications

| Item | Specifications |
|--|--|
| Form factor | 1RU rack server |
| Processors | 3 rd Generation Intel Xeon Scalable processors (1 or 2) |
| Memory | 32 DDR4 DIMM slots: 16, 32, 64 and 128 GB up to 3200 MHz Support for the Intel Optane DC Persistent Memory (128G, 256G, 512G) |
| PCIe expansion | 3 PCIe 4.0 slots plus 1 dedicated 12-Gbps RAID controller slot and 1 dedicated mLOM slot |
| RAID controllers | <ul style="list-style-type: none"> Internal controllers: Cisco 12-Gbps Modular RAID Controller (PCIe 4.0) with 4-GB Flash-Backed Write Cache (FBWC), providing enterprise-class data protection for up to 10 SAS and SATA Hard Disk Drives (HDDs), SSDs, or NVMe PCIe SSDs; or Cisco 12-Gbps Modular SAS Host Bus Adapter (HBA) External controller: Cisco 12-Gbps 9500-8e SAS HBA |
| Internal storage | Backplane options: <ul style="list-style-type: none"> Up to 10 x 2.5-inch SAS and SATA HDDs and SSDs and up to 4 NVMe PCIe drives Up to 10 x 2.5-inch NVMe PCIe SSDs (All direct attach Gen4 x4) |
| Embedded Network Interface Cards (NICs) | Dual 10GBASE-T Intel x550 Ethernet ports |
| mLOM | Dedicated mLOM slot that can flexibly accommodate 10/25/40, and 100-Gbps adapters |
| Power supplies | Hot-pluggable, redundant 1050W AC, 1050W DC, 1600W AC, and 2300W AC |
| Other storage | <ul style="list-style-type: none"> Dedicated Baseboard Management Controller (BMC) FlexMMC for utilities (on board) Dual M.2 SATA SSDs with HW Raid support |
| Management | <ul style="list-style-type: none"> Cisco Intersight Cisco Integrated Management Controller (IMC) Cisco UCS Manager |
| Rack options | Cisco ball-bearing rail kit with optional reversible cable management arm |
| Hardware and software interoperability | See the Cisco Hardware and Software Interoperability List for a complete listing of supported operating systems and peripheral options. |

System requirements

Table 2 lists system requirements for the server.

Table 2. System requirements

| Item | Requirements |
|------------------------------|-------------------------|
| Cisco UCS Manager (optional) | Release 4.2(1) or later |
| Cisco IMC | Release 4.2(1) or later |

Ordering information

Table 3. Ordering information

| Part # | Product description |
|---------------|--|
| UCSC-C220-M6S | C220 M6 1RU standard server with up to 10x SFF drive bays |
| UCSC-C220-M6N | C220 M6 1RU NVMe optimized server with up to 10x NVMe drive capability |

For information about installing or upgrading your server, see the [Cisco UCS C220 M6 Server Installation and Service Guide](#).

For ordering information, see [Cisco UCS C220 M6 SFF rack server specifications sheet](#).

Warranty information

The Cisco UCS C220 M6 server has a three-year, Next-Business-Day (NBD) hardware warranty and a 90-day software warranty.

Cisco support

Augmenting the Cisco Unified Computing System (Cisco UCS) warranty, Cisco Smart Net Total Care and Cisco Solution Support services are part of Cisco's technical services portfolio. Smart Net Total Care combines Cisco's industry-leading and award-winning foundational technical services with an extra level of actionable business intelligence that is delivered to you through the smart capabilities in the Smart Net Total Care portal. Learn more about [Smart Net Total Care](#).

Cisco Solution Support includes both Cisco product support and solution-level support, resolving complex issues in multivendor environments on average 43 percent more quickly than with product support alone. Cisco Solution Support is a critical element in data center administration, helping to rapidly resolve any issue encountered while maintaining performance, reliability, and return on investment.

This service centralizes support across your multivendor Cisco environment for both our products and solution partner products that you have deployed in your ecosystem. Whether there is an issue with a Cisco product or with a solution partner product, just call us. Our experts are the primary point of contact and own the case from first call to resolution. Learn more about [Cisco Solution Support](#).

Product sustainability

Information about Cisco’s Environmental, Social, and Governance (ESG) initiatives and performance is provided in Cisco’s Corporate Social Responsibility (CSR) and sustainability [reporting](#).

Table 4. Cisco environmental sustainability information

| Sustainability topic | | Reference |
|----------------------|--|---|
| General | Information on product-material-content laws and regulations | Materials |
| | Information on electronic waste laws and regulations, including our products, batteries, and packaging | WEEE compliance |
| | Information on our product takeback and reuse program | Cisco Takeback and Reuse Program |
| | Sustainability inquiries | Contact: csr_inquiries@cisco.com |
| | Operating and nonoperating conditions | Product specifications |
| Material | Product packaging weight and materials | Contact: environment@cisco.com |

Product environmental information

Product environmental information for users per Commission Regulation (EU) 2019/424
<https://www.cisco.com/web/dofc/22545320.pdf>

Cisco and partner services

Cisco and our industry-leading partners deliver services that can accelerate your transition to a Cisco UCS X-Series Modular System solution. Cisco Unified Computing Systems Services can help you create an agile infrastructure, accelerate time to value, reduce costs and risks, and maintain availability during deployment and migration. After deployment, our services can help you improve performance, availability, and resiliency as your business needs evolve and help you further mitigate risk. For more information, visit <https://www.cisco.com/go/unifiedcomputingservices>.

Cisco Capital

Flexible payment solutions to help you achieve your objectives

Cisco Capital makes it easier to get the right technology to achieve your objectives, enable business transformation and help you stay competitive. We can help you reduce the total cost of ownership, conserve capital, and accelerate growth. In more than 100 countries, our flexible payment solutions can help you acquire hardware, software, services and complementary third-party equipment in easy, predictable payments. [Learn more](#).

Document history

| New or Revised Topic | Described In | Date |
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