



Cisco UCS C260 M2 Rack-Mount Server

At-A-Glance

Extended Memory for Demanding Workloads

The Cisco® UCS C260 M2 Rack-Mount Server is a high-performance, memory-intensive, two-socket, two-rack-unit (2RU) rack-mount server designed to increase performance and capacity for demanding virtualization and large-data-set workloads (Figure 1). The Cisco UCS C260 M2 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. This server also helps increase performance for large-data-set workloads, including Java-based workloads, database management systems, and modeling and simulation applications.

Figure 1. Cisco UCS C260 M2 Server



Unique Benefits in a Familiar Package

The Cisco UCS C260 M2 is one of the industry's highest-density two-socket rack-server platforms and is a critical new building block in the Cisco Unified Computing System™ portfolio that offers compact performance for enterprise-critical applications within the Cisco UCS architecture. It is well-suited for IT departments that are looking for ways to increase computing performance and memory or disk capacity while deriving optimal value from the available space in their data centers. It allows customers to avoid or reduce the need for costly per-socket licensing fees by increasing memory to high levels without requiring

the addition of more sockets. The Cisco UCS C260 M2 rack-mount server continues to extend data center technology in every dimension, including CPU improvements for better performance; expandability; security; and reliability, availability, and serviceability (RAS) features. The server also offers increased I/O performance, on-board storage capacity, and an exceptional memory footprint.

Available from Cisco and its data center network infrastructure (DCNI) partners, the server advances the rack-mount server market with the following features:

- **Cisco Extended Memory Technology:** This technology offers twice as much memory (up to 1 TB) as traditional two-socket servers, and a more economical 256 GB memory footprint. This technology may eliminate the need to upgrade to more expensive four-socket servers just to establish a large memory footprint. Cisco Extended Memory Technology, along with the use of Samsung 40-nm double-data-rate 3 (DDR3) memory, helps lower both capital expenditures (CapEx) and operating expenses (OpEx).
- **Flexible I/O and storage options:** With six PCI Express (PCIe) expansion slots, the server offers I/O flexibility and bandwidth, including the capability to integrate with traditional Gigabit Ethernet LANs and Fibre Channel SANs. The server hosts up to 16 internal Small Form-Factor (SFF) SAS or SATA II drives or solid-state drives (SSD), providing internal storage capacity approaching 10 TB.
- **10 Gigabit unified network fabric:** When equipped with converged network adapters (CNAs) or the Cisco UCS P81E Virtual Interface Card, the server integrates with a low-latency, lossless 10-Gbps

Ethernet and industry-standard Fibre Channel over Ethernet (FCoE) fabric. This technology enables a “wire-once” deployment model in which changing I/O configurations no longer means installing adapters and recabling racks and switches.

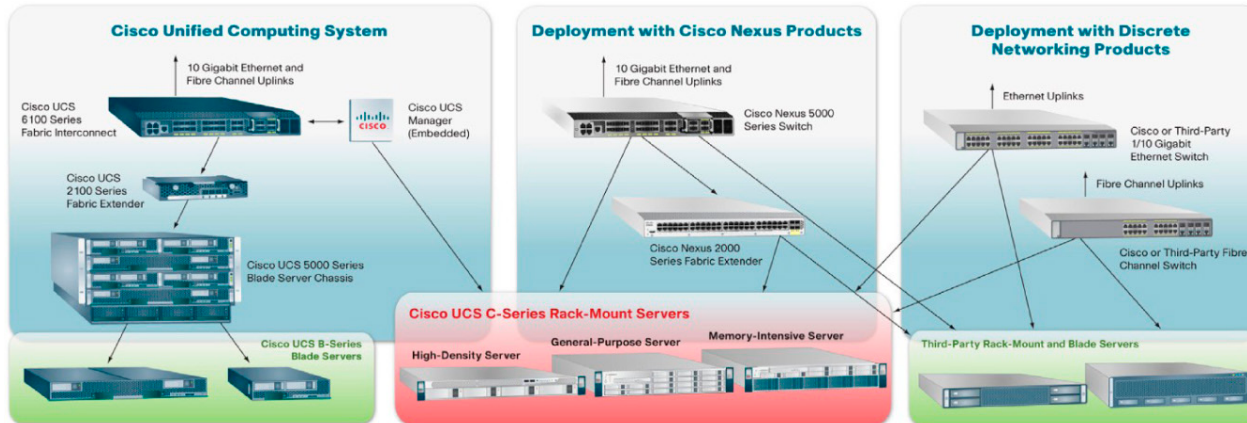
- **Virtualization optimization:** Cisco VN-Link technology, I/O virtualization, and Intel® Xeon® processor E7-2800 product family extend the network directly to virtual machines. This optimization enables a consistent and scalable operating model, helping increase security and efficiency while reducing complexity.
- **Unified management:** Management is uniquely integrated into all components of the Cisco Unified Computing System. When the server is integrated into the Cisco Unified Computing System, the entire solution can be managed as a single entity through Cisco UCS Manager, improving operational efficiency and flexibility.
- **Service profiles:** When the server is integrated into the Cisco Unified Computing System, Cisco UCS Manager implements role- and policy-based management using service profiles and templates. Service profiles help automate provisioning and increase business agility, allowing data center managers to provision applications in minutes instead of days.



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Figure 2. Cisco UCS C-Series Rack-Mount Servers Are Designed to Operate in a Wide Range of Data Center Environments, Including Those Using the Cisco Unified Computing System, Cisco Nexus® Family Products, and Discrete Ethernet and Fibre Channel Switches from Cisco and Third Parties



Additional Features of the Cisco UCS C260 M2 Server

- Up to two, 10-core Intel® Xeon® processor E7-2800s (Figure 3); these multicore processors automatically and intelligently adjust server performance according to application needs, increasing performance when needed and achieving substantial energy savings when not
- Up to 1 TB in 64 DIMM slots based on Samsung 40-nm DDR3 memory technology (Figure 4)
- Up to 16 internal SFF SAS or SATA-II drives or SSDs, for a total of up to 9.6 TB of storage
- RAID 0 and 1 support for up to sixteen SAS or SATA drives with up to two optional LSI MegaRAID PCIe Controller cards; and RAID 0, 1, 5, 6, 50, and 60 support for up to 16 SAS or SATA-II drives or SSDs
- Front-panel access and diagnostics: Power button and LED User ID (UID) button and LED Status indicators for system activity and health, and fault LEDs for processors, memory, and power supplies Dongle connector common to Cisco UCS blade servers

- Rear-panel features: DB15 video port Four USB 2.0 ports from host DB9 serial port, Two Enhanced Small Form-Factor Pluggable (SFP+) 10-Gbps interfaces, Two 10/100/1000BASE-T 1-Gbps LAN on motherboard (LOM) interfaces, Two 10/100BASE-T out-of-band management interfaces, Two redundant hot-pluggable 1200W power supplies) and six PCIe slots (two x16 full-height, half-depth; three x8 half-height, half-depth; and one x4 half-height, half-depth)

Figure 3. Intel® Xeon® processor E7-2800 Product Family

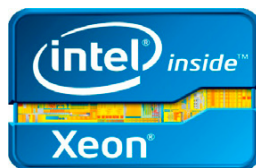


Figure 4. Samsung 40-nm, 1.35V High-Efficiency Green DDR3 Memory



Flexible I/O Options

One of the benefits of rack-mount servers is the capability to configure a range of I/O options to meet specific workload requirements. The Cisco UCS C260 M2 server offers a range of flexible I/O options through its six PCIe expansion slots. Cisco supports adapters through arrangements with original equipment manufacturers (OEMs).

- The Cisco UCS P81E Virtual Interface Card (VIC) delivers the full power of the Cisco Unified Computing System by providing up to 128 Ethernet or Fibre Channel virtual interfaces that are programmed on demand to meet the needs of both virtualized and non-virtualized environments. The dual-port card interfaces with a 10-Gbps unified fabric.
- CNAs from Emulex and QLogic present both Ethernet network interface cards (NICs) and Fibre Channel host bus adapters (HBAs) to the host operating system, consolidating traffic over a 10-Gbps unified fabric. Discrete I/O adapters further enhance customer flexibility and choice with Gigabit Ethernet, 10 Gigabit Ethernet, and 4-Gbps Fibre Channel interfaces from industry-leading vendors including Broadcom, Emulex, and QLogic.



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Cisco Unified Computing Services

Using a unified view of data center resources, Cisco and our industry-leading partners deliver services that accelerate your transition to a Cisco UCS C-Series Rack-Mount Server solution. Cisco Unified Computing Services help you quickly deploy the servers, optimize ongoing operations to better meet your business needs, and migrate to Cisco's unified computing architecture.

For more information, visit [Unified Computing Services](#).

Why Cisco?

The Cisco Unified Computing System continues Cisco's long history of innovation in delivering integrated systems for improved business results based on industry standards and using the network as the platform. Recent examples include IP telephony, LAN switching, unified communications, and unified I/O. Cisco began the unified computing phase of our Data Center 3.0 strategy several years ago by assembling an experienced team from the computing and virtualization industries to augment our own networking and storage-access expertise. As a result, Cisco delivered foundational technologies, including the Cisco Nexus Family, supporting unified fabric and server virtualization. The Cisco Unified Computing System completes this phase, delivering innovation in architecture, technology, partnerships, and services. Cisco is well positioned to deliver this innovation by taking a systems approach to computing that unifies network intelligence and scalability with innovative application-specific integrated circuits (ASICs), integrated management, and standard computing components.

For More Information

Please visit <http://www.cisco.com/go/unifiedcomputingservices>.