New and Changed Information for This Release

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New in Release 4.3(2c)

Cisco UCS X410c M7 Compute Node

The Cisco UCS X410c M7 Compute Node is the first 4-socket 4th Gen Intel® Xeon® Scalable Processors computing device to integrate into the Cisco UCS X-Series Modular System. Up to four compute nodes or two compute nodes and two GPU nodes can reside in the 7-rack-unit (7RU) Cisco UCS X9508 Server Chassis, offering high performance and efficiency gains for a wide range of mission-critical enterprise applications, memory-intensive applications and bare-metal and virtualized workloads.

The Cisco UCS X410c M7 Compute Node provides these main features:

- CPU: Four 4th Gen Intel Xeon Scalable Processors with up to 60 cores per processor

- Memory: Up to 16TB of main memory with 64x 256 GB DDR5-4800 Memory DIMMs

- Storage: Up to six hot-pluggable solid-state drives (SSDs), or non-volatile memory express (NVMe) 2.5-inch drives with a choice of enterprise-class RAID or passthrough controllers, up to two M.2 SATA drives with optional hardware RAID

- mLOM virtual interface cards:

    - Cisco UCS VIC 15420 occupies the server's modular LAN on motherboard (mLOM) slot, enabling up to 50 Gbps of unified fabric connectivity to each of the chassis's intelligent fabric modules (IFMs) for 100 Gbps connectivity per server.

    - Cisco UCS VIC 15231 occupies the server's modular LAN on motherboard (mLOM) slot, enabling up to 100 Gbps of unified fabric connectivity to each of the chassis's intelligent fabric modules (IFMs) for 100 Gbps connectivity per server.

    - Cisco UCS VIC 15230 (with secure boot feature) occupies the server's modular LAN on motherboard (mLOM) slot, enabling up to 100 Gbps of unified fabric connectivity to each of the chassis's intelligent fabric modules (IFMs) for 100 Gbps connectivity per server.

- Optional mezzanine card:

- Cisco UCS 5th Gen VIC 15422 can occupy the server's mezzanine slot at the bottom rear of the chassis. This card's I/O connectors link to Cisco UCS X-Fabric technology. An included bridge card extends this VIC's 2x 50 Gbps of network connections through IFM connectors, bringing the total bandwidth to 100 Gbps per fabric (for a total of 200 Gbps per server).

    - Cisco UCS PCI Mezz card for Cisco UCS X-Fabric can occupy the server's mezzanine slot at the bottom rear of the chassis. This card's I/O connectors link to Cisco UCS X-Fabric modules and enable connectivity to the Cisco UCS X440p PCIe Node.

    - All VIC mezzanine cards also provide I/O connections from the X410c M7 compute node to the X440p PCIe node.

- Security: The server supports an optional trusted platform module (TPM). Additional features include a secure boot FPGA and ACT2 anti-counterfeit provisions.

Cisco UCS VIC Cards

Following Cisco UCS VIC Cards are supported from release 4.3(2c) onwards:

- Cisco UCS VIC 15427—The Cisco UCS VIC 15427 is a Quad Port CNA MLOM, 4 x 10/25/50G with Secure Boot for Cisco UCS C-Series M6 and M7 servers.

- Cisco UCS VIC 15230—The Cisco UCS VIC 15230 is a MLOM with Secure Boot for Cisco UCS X210c M6, X210c M7, and X410c M7 servers.

- Cisco UCS VIC 15237 MLOM—The Cisco UCS VIC 15237 MLOM is a MLOM, 2x40/100/200G with Secure Boot for Cisco UCS C-Series M6 and M7 servers.

New in Release 4.3(2b)

Cisco UCS X210c M7 Compute Node

The Cisco UCS X210c M7 Compute Node is the second generation of compute node to integrate into the Cisco UCS X-Series Modular System. It delivers performance, flexibility, and optimization for deployments in data centers, in the cloud, and at remote sites. This enterprise-class server offers market-leading performance, versatility, and density without compromise for workloads. Up to eight compute nodes can reside in the 7-rack-unit (7RU) Cisco UCSX-9508 Chassis, offering one of the highest densities of compute, I/O, and storage per rack unit in the industry.

The Cisco UCS X210c M7 Compute Node provides these main features:

- CPU: Up to 2x 4th Gen Intel® Xeon® Scalable Processors with up to 60 cores per processor and up to 2.625 MB Level 3 cache per core and up to 112.5 MB per CPU.

- Memory: Up to 8TB of main memory with 32x 256 GB DDR5-4800 DIMMs.

- Storage: Up to six hot-pluggable, solid-state drives (SSDs), or non-volatile memory express (NVMe) 2.5-inch drives with a choice of enterprise-class redundant array of independent disks (RAIDs) or passthrough controllers, up to two M.2 SATA and M.2 NVMe drives with optional hardware RAID.

- Optional front mezzanine GPU module: The Cisco UCS front mezzanine GPU module is a passive PCIe Gen 4.0 front mezzanine option with support for up to two U.2 NVMe drives and two HHHL GPUs.

- mLOM virtual interface cards:

- Cisco UCS Virtual Interface Card (VIC) 15420 occupies the server's modular LAN on motherboard (mLOM) slot, enabling up to 50 Gbps of unified fabric connectivity to each of the chassis intelligent fabric modules (IFMs) for 100 Gbps connectivity per server.

- ◦ Cisco UCS Virtual Interface Card (VIC) 15231 occupies the server's modular LAN on motherboard (mLOM) slot, enabling up to 100 Gbps of unified fabric connectivity to each of the chassis intelligent fabric modules (IFMs) for 100 Gbps connectivity per server.

- Optional mezzanine card:

  - Cisco UCS 5th Gen Virtual Interface Card (VIC) 15422 can occupy the server's mezzanine slot at the bottom rear of the chassis. This card's I/O connectors link to Cisco UCS X-Fabric technology. An included bridge card extends this VIC's 2x 50 Gbps of network connections through IFM connectors, bringing the total bandwidth to 100 Gbps per fabric (for a total of 200 Gbps per server).

  - Cisco UCS PCI Mezz card for X-Fabric can occupy the server's mezzanine slot at the bottom rear of the chassis. This card's I/O connectors link to Cisco UCS X-Fabric modules and enable connectivity to the Cisco UCS X440p PCIe Node.

  - All VIC mezzanine cards also provide I/O connections from the X210c M7 compute node to the X440p PCIe Node.

- Security: The server supports an optional trusted platform module (TPM). Additional features include a secure boot FPGA and ACT2 anti-counterfeit provisions.

Cisco UCS X210c M6 Compute Node

The Cisco UCS X210c M6 Compute Node is the first computing device to integrate into the Cisco UCS X-Series Modular System. Up to eight compute nodes can reside in the 7-Rack-Unit (7RU) Cisco UCS X9508 Chassis, offering one of the highest densities of compute, I/O, and storage per rack unit in the industry.

The Cisco UCS X210c M6 Compute Node provides these main features:

- CPU: Up to 2x 3rd Gen Intel® Xeon® Scalable Processors with up to 40 cores per processor and 1.5 MB Level 3 cache per core

- Memory: Up to 32x 256 GB DDR4-3200 DIMMs for up to 8 TB of main memory. Configuring up to 16x 512-GB Intel Optane™ persistent memory DIMMs can yield up to 12 TB of memory.

- Storage: Up to 6 hot-pluggable, solid-state drives (SSDs), or non-volatile memory express (NVMe) 2.5-inch drives with a choice of enterprise-class redundant array of independent disks (RAIDs) or pass-through controllers with four lanes each of PCIe Gen 4 connectivity and up to 2 M.2 SATA drives for flexible boot and local storage capabilities

- Optional front mezzanine GPU module: The Cisco UCS Front Mezzanine GPU module is a passive PCIe Gen 4 front mezzanine option with support for up to two U.2 NVMe drives and two GPUs.

- mLOM virtual interface cards:

  - Cisco UCS Virtual Interface Card (VIC) 14425 occupies the server's modular LAN on motherboard (mLOM) slot, enabling up to 50 Gbps of unified fabric connectivity to each of the chassis intelligent fabric modules (IFMs) for 100 Gbps connectivity per server.

  - Cisco UCS VIC 15231 occupies the server's modular LAN on motherboard (mLOM) slot, enabling up to 100 Gbps of unified fabric connectivity to each of the chassis intelligent fabric modules (IFMs) for 100 Gbps connectivity per server.

- Cisco UCS VIC 15420 occupies the server's modular LAN on motherboard (mLOM) slot, enabling up to 100 Gbps of unified fabric connectivity to each of the chassis intelligent fabric modules (IFMs) for 100 Gbps connectivity per server.

- Optional mezzanine card:

  - Cisco UCS VIC 14825 can occupy the server's mezzanine slot at the bottom rear of the chassis. This card's I/O connectors link to Cisco UCS X-Fabric technology. An included bridge card extends this VIC's 2x 50 Gbps of network connections through IFM connectors, bringing the total bandwidth to 100 Gbps per fabric (for a total of 200 Gbps per server).

  - Cisco UCS VIC 15422 X-Series mezz (UCSX-ME-V5Q50G) 4x25G can occupy the server's mezzanine slot at the bottom rear of the chassis. This card's I/O connectors link to Cisco UCS X-Fabric technology. An included bridge card extends this VIC's 2x 50 Gbps of network connections through IFM connectors, bringing the total bandwidth to 100 Gbps per fabric (for a total of 200 Gbps per server).

  - Cisco UCS PCI Mezz card for X-Fabric can occupy the server's mezzanine slot at the bottom rear of the chassis. This card's I/O connectors link to Cisco UCS X-Fabric modules and enable connectivity to the X440p PCIe Node.

- Security: The server supports an optional trusted platform module (TPM). Additional features include a secure boot FPGA and ACT2 anti-counterfeit provisions

Cisco UCS C240 M7 Server

The Cisco UCS C240 M7 Server is well-suited for a wide range of storage and I/O-intensive applications such as big data analytics, databases, collaboration, virtualization, consolidation, and high-performance computing in its two-socket, 2RU form factor. It incorporates the 4th Gen Intel® Xeon® Scalable Processors with up to 60 cores per socket.

In addition to the advanced features, the server is also equipped with the PCIe Gen 5.0 for high-speed I/O, a DDR5 memory bus, and expanded storage capabilities (up to 32 DDR5 DIMMs for up to 8 TB of capacity using 128 GB DIMMs (16 DIMMs per socket)) and delivers sigficant performance and efficiency gains that will improve your application performance.

You can deploy the Cisco UCS C-Series Rack Servers as standalone servers or as part of the Cisco Unified Computing System managed by Cisco Intersight or Intersight Managed Mode.

Cisco UCS C220 M7 Server

The Cisco UCS C220 M7 Server is a versatile general-purpose infrastructure and application server. This high-density, 1RU, 2-socket rack server delivers industry-leading performance and efficiency for a wide range of workloads, including virtualization, collaboration, and bare-metal applications. It incorporates the 4th Gen Intel® Xeon® Scalable Processors, with up to 52 cores per socket. With advanced features such as Intel Advanced Matrix Extensions (AMX), Data Streaming Accelerator (DSA), In-Memory Analytics Accelerator (IAA), and QuickAssist Technology (QAT), the server offers significant performance improvements.

In addition to the advanced features, the server is also equipped with the PCIe Gen 5.0 for high-speed I/O, a DDR5 memory bus, and expanded storage capabilities (up to 32 DDR5 DIMMs for up to 4 TB of capacity using 128 GB DIMMs (16 DIMMs per socket)).

You can deploy the Cisco UCS C-Series rack servers as standalone servers or as part of the Cisco Unified Computing System™ with the Cisco Intersight Infrastructure Service cloud-based management platform.

These computing innovations help reduce Total Cost of Ownership (TCO) and increase their business agility. These improvements deliver significant performance and efficiency gains that improve your application performance.

Intelligent Fabric Module (IFM for Cisco UCS X-Series Servers)

Beginning with release 4.3(2a), Cisco UCS Manager supports Cisco UCS X9508 server chassis with Cisco UCS X-Series servers. Cisco UCS X-Series servers support Intelligent Fabric Modules (IFM), which function similarly to the Input/Output Module (IOM) in Cisco UCS B-Series servers. This guide uses the term IOM to refer both IOM and IFM.

New Cisco UCS VIC Cards

Following new Cisco VIC cards are supported in this release:

- Cisco UCS VIC 15425
- Cisco UCS VIC 15235
- Cisco UCS VIC 15420
- Cisco UCS VIC 15231
- Cisco UCS VIC 14425
- Cisco UCS VIC 15422
- Cisco UCS VIC 14825