# Cisco Compute Hyperconverged C220 M6 Node Family

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Cisco Compute Hyperconverged with Nutanix accelerates and simplifies the delivery of infrastructure and applications, at a global scale, through best-in-class cloud-operating models, industry-leading flexibility, and enhanced support and resiliency capabilities so you can power your hybrid multicloud future with the industry's most complete hyperconverged solution.

## Product overview

**Cisco Compute Hyperconverged with Nutanix**

Cisco and Nutanix have partnered to introduce the IT industry's most complete hyperconverged solution by integrating and validating Cisco® servers, storage, networking, and SaaS operations with the Nutanix hybrid multicloud platform. Cisco Compute Hyperconverged with Nutanix is built, managed, and supported holistically to deliver a more seamless experience, foster innovation, and accelerate customers' hybrid-cloud journeys.

**Cisco Compute Hyperconverged C220 M6 Node family**

Cisco Compute Hyperconverged C220 M6 Node family delivers performance, flexibility, and resiliency in a small footprint. Physically, nodes are deployed into clusters, with a cluster consisting of three or more Cisco Compute Hyperconverged C220 M6 All-Flash or C220 M6 All-NVMe nodes. These are integrated into a single system by a pair of Cisco UCS® 6400 Series fabric interconnects, creating clusters that support general-purpose deployments and mission-critical high-performance environments.

## Features and benefits

Cisco Compute Hyperconverged C220 M6 All-Flash and All-NVMe nodes with Intel® Xeon® Scalable Processors are excellent for a wide range of enterprise workloads, including cloud computing, Virtual Desktop Infrastructure (VDI), databases, and server virtualization.

**Table 1.** Summary of features and benefits of Cisco Compute Hyperconverged C220 M6 All-Flash Node and C220 M6 All-NVMe Node

| Feature | Benefits | | |
|---|---|---|---|
| **Memory** | • High memory capacity<br>• Up to 4 TB memory (32 x 128 GB DDR4 DIMMs) | | |
| **3rd Generation Intel Xeon Scalable Processors** | High performance<br>• 10-nanometer (nm) processor technology<br>• Massive processing power<br>• Top-of-the-line memory-channel performance<br>• Improved scalability and intercore data flow<br>• Intel Automated Vector Extensions 2 (AVX2) | Agility<br>• Supports highly dense virtual-machine deployments<br>• Offers flexible virtualization technology that optimizes performance for virtualized environments, including processor support for migration and direct I/O | Efficiency and security<br>• Low-power, high-speed DDR4 memory technology<br>• Automated energy efficiency reduces energy costs by automatically putting the processor and memory in the lowest available power state while delivering the performance required<br>• Hardware-assisted security advancements |

| Feature | Benefits | |
|---|---|---|
| **Unified network fabric** | • Low-latency, 4 x 10/25 Gigabit Ethernet connections<br>• Wire-once deployment model, eliminating the need to install adapters and re-cable racks and switches when changing I/O configurations<br>• Fewer interface cards, cables, and upstream network ports to purchase, power, configure, and maintain | |
| **Virtualization optimization** | • I/O virtualization and Intel Xeon Scalable Processor features, extending the network directly to virtual machines<br>• Consistent and scalable operational model<br>• Increased security and efficiency with reduced complexity | |
| **Cloud-based services and management** | Cisco Intersight® simplifies infrastructure operations across on-premises data centers, edge sites, and public clouds<br>• Use a software-as-a-service platform that bridges applications with infrastructure<br>• Correlate visibility and management across bare-metal servers, hypervisors, and application components<br>• Transform operations with artificial intelligence to reach needed scale and velocity | Nutanix Cloud Platform (NCP) includes Nutanix Cloud Infrastructure (NCI), Nutanix Cloud Management (NCM) and desktop services:<br>• NCI unifies compute, storage, and network, hypervisors and containers, in public or enterprise clouds<br>• NCM offers customers simplicity and ease of use to build and grow their cloud deployments and realize rapid ROI, by providing intelligent operations, self service and orchestration, visibility and governance.<br>• Desktop services offer hybrid-cloud infrastructure capabilities for on-premises Virtual Desktop Infrastructure (VDI) and Desktop-as-a-Service (DaaS) use cases. |
| **Storage** | • All-flash or all-NVMe configurations<br>Deliver high-capacity configurations for the Cisco Compute Hyperconverged platform capacity layer<br>• Nutanix Unified Storage provides software-defined, scale-out storage solutions for enterprise NAS and object workloads for unstructured data, block storage for structured data, and backup storage | |
| **Enterprise data protection** | • Synchronous and near-synchronous replication with option to use runbook automation<br>• Multisite asynchronous replication for disaster recovery<br>• Deduplication and compression<br>• Disaster recovery in cloud with Nutanix cloud clusters | |
| **Security** | • Data-at-rest encryption using self-encrypting drives and enterprise key management integration<br>• Trusted Platform Module (TPM), a chip (microcontroller) that can securely store artifacts, including passwords, certificates, and encryption keys, which are used to authenticate the platform (node). Supports TPM 2.0.<br>• Software based data-at-rest encryption and micro-segmentation | |
| **Software** | • Management software: Nutanix Cloud Infrastructure (NCI), Nutanix Cloud Management (NCM), desktop services<br>• Storage software: AOS Storage, Nutanix Unified Storage (files, objects, and volumes)<br>• Hypervisor: Nutanix Acropolis Hypervisor (AHV) and VMware vSphere | |

## Product specifications

**Table 2.** Common specifications for Cisco Compute Hyperconverged C220 M6 All Flash Node and C220 M6 All NVMe Node

| Feature | Common specifications across the Cisco Compute Hyperconverged C220 M6 node family |
|---|---|
| **Chassis** | • 1RU of rack space per node |
| **Processors** | • One or two 3rd Gen Intel Xeon Scalable Processors (Ice Lake)<br>• A 2-CPU configuration is required when using an all-NVMe system. |
| **Interconnect** | • 3 Intel UPI channels per processor, each capable of 10.4 gigatransfers per second (GTPS) |
| **Chip set** | • Intel C621A series |
| **Memory** | • 32 DDR4 DIMM slots: 16, 32, 64 and 128 GB up to 3200 MHz<br>• 4 TB using 32 x 128-GB DDR4 DIMMS<br>• Advanced error-correcting code (ECC) |
| **Storage** | • Specific drive options are available for Cisco Compute Hyperconverged C220 nodes:<br>• C220 All Flash Node: 1.9 TB, 3.8 TB, or 7.6 TB SSD disks (up to 10 drives per node)<br>• C220 All NVMe Node: 1.9 TB, 3.8 TB, 7.6 TB, or 15.3 TB NVMe disks (up to 10 drives per node )<br>• Dual M.2 SATA SSDs with HW RAID support |
| **PCIe** | • 3 PCIe 4.0 slots plus 1 dedicated 12-Gbps RAID controller slot and 1 dedicated mLOM slot |
| **Graphics Processing Units (GPUs)** | • NVIDIA T4 Tensor Core GPU card (optional) |
| **Network** | • Cisco UCS Virtual Interface Card 1467 (modular LAN on Motherboard)<br>• Quad 10/25 Gbps Ethernet VIC (Cisco UCS Virtual Interface Card 1455) (optional)<br>• Up to 256 I/O devices programmable on demand for hypervisor and virtual machine support |
| **Cisco Integrated Management Controller (IMC)** | • Integrated baseboard management controller (BMC)<br>• IPMI 2.0 compliant for management and control<br>• One 10/100/1000 Ethernet out-of-band management interface<br>• Command-line interface (CLI) and web GUI management tool for automated, lights-out management<br>• Keyboard, video, and mouse (KVM) console |
| **Advanced reliability, availability, and serviceability (RAS) features** | • Highly available and self-healing architecture<br>• Robust reporting and analytics<br>• Hot-swappable, front-accessible drives<br>• Dual-redundant fans and hot-swappable, redundant power supplies for enterprise-class reliability and a convenient latching lid for easy access to internal server<br>• Tool-free CPU insertion, enabling processor upgrades and replacements with less risk of damage<br>• Tool-free access to all serviceable items, and color-coded indicators to guide users to hot-pluggable and serviceable items<br>• Nondisruptive rolling upgrades |
| **Front-panel connector** | • 1 KVM console connector per node<br>(supplies 2 USB connectors, 1 VGA connector, and 1 serial connector) |
| **Front-panel locator LED** | • Helps direct administrators to specific servers in large data-center environments |

| Feature | Common specifications across the Cisco Compute Hyperconverged C220 M6 node family |
| --- | --- |
| **Additional rear connectors** | • 1 Gigabit Ethernet management port<br>• 2 x 10 Gigabit Ethernet ports<br>• 1 RS-232 serial port (RJ45 connector)<br>• 1 Video Graphics Array (VGA) video port (DB15 connector)<br>• 2 USB 3.0 ports |
| **Power and cooling** | • One or two hot-pluggable power supplies<br>• Second power supply provides 1+1 redundancy.<br>• 1050W, 1600W, or 2300W<br>• 8 hot-swappable fans |
| **Rail-kit options** | • Cisco ball-bearing rail kit with optional reversible cable-management arm<br>• Cisco friction rail kit with optional reversible cable-management arm |
| **Software** | • Management software: Nutanix Cloud Infrastructure, Nutanix Cloud Management, desktop services<br>• Storage software: AOS Storage, Nutanix Unified Storage (files, objects, and volumes)<br>• Hypervisor: Nutanix Acropolis Hypervisor (AHV) and VMware vSphere |

## Ordering information

For a complete list of part numbers, refer to the Cisco Compute Hyperconverged C220 M6 All Flash and All NVMe specifications sheet.

## Cisco Unified Computing Services

Cisco, Nutanix, and our industry-leading partners deliver services that accelerate your transition to Cisco Compute Hyperconverged systems. Professional services can help you create an agile infrastructure, accelerate time to value, reduce costs and risks, and maintain availability during deployment and migration. After you have deployed your system, our services can help you improve performance, availability, and resiliency as your business needs evolve.

## Product sustainability

Information about Cisco's Environmental, Social, and Governance (ESG) initiatives and performance is provided in Cisco's CSR and sustainability reporting.

**Table 3.** 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 product takeback and reuse program | Cisco Takeback and Reuse Program |
| | Sustainability inquiries | Contact: csr_inquiries@cisco.com |

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## Cisco Capital

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## Document history

| New or Revised Topic | Described In | Date |
|---|---|---|
| **Initial release** | Data Sheet | Aug 2023 |


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