Cisco Compute-Only C220 M8 Node Family

Contents

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 multi cloud 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. Modern workloads require modern flexibility. Traditional hyperconverged solutions require scaling compute and storage together. When you need to scale compute capacity without adding storage, Cisco Compute-Only (CO) nodes provide that critical capability – empowering you to design clusters that match your exact requirements.

Product overview

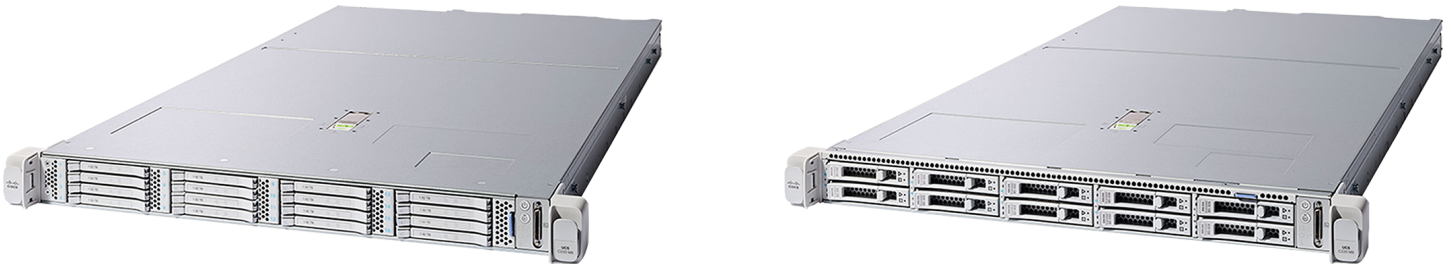


Figure 1. Cisco Compute-Only C220 M8 Node family

Expanding Cisco Compute Hyperconverged node cluster with Cisco Compute-Only nodes

The Cisco Compute-Only node solution enables you to expand the compute resources of Cisco hyperconverged clusters running Nutanix by adding Cisco UCS®-certified servers without additional storage. These storage-less, compute-only servers certified by Cisco integrate seamlessly into your existing or new hyperconverged Nutanix cluster, allowing organizations to efficiently support compute-intensive applications by scaling compute resources independently of storage infrastructure.

Key benefits

- Cost-effective scaling for compute-heavy workloads
- Flexibility in cluster design

Table 1. Minimum cluster requirements for Cisco Compute-Only nodes

Cluster attributes	Hyperconverged (HCI) node with Cisco Compute-Only node
Number of nodes	Minimum of 3 HCI nodes and minimum of 2 CO nodes
Nodes ratio	Nutanix recommends the following nodes ratio: **1 CO :** 2 HCI (default) **1 CO :** 1 HCI (This is supported only when the total number of VMs is less than or equal to 128 times the number of HCI nodes.)
Hypervisor	Hyperconverged node: Nutanix Acropolis Hypervisor (AHV) only Compute-Only node: Nutanix Acropolis Hypervisor (AHV) only
Management	Cisco Intersight® Managed Mode (IMM)
Licensing	NCI licenses on a per-core basis. For more information about NCI licenses, see NCI section in Nutanix Cloud Platform Software Options
Nutanix Cloud Platform software	The same as Cisco Compute Hyperconverged with Nutanix

Cisco Compute-Only nodes connected to Everpure Flash Array (FlashStack with Nutanix)

Everpure FlashArray//X and FlashArray//XL deliver mission-critical performance with the efficiency and resiliency that is missing from legacy arrays. FlashArray//X and FlashArray//XL pack more IOPS, ultra-consistent latency, and greater scale into a smaller footprint. Nondisruptive upgrades, always-on availability, and built-in data protection help ensure that workloads are always running while cutting risk. FlashArray//XL is designed to provide the highest performance density with a level of operational and management simplicity. FlashArray//C delivers a balanced all-flash storage solution optimized for file services and general-purpose workloads. With predictable performance, streamlined operations, and built-in cyber resiliency, it keeps applications consistently secure and positions organizations to outperform capacity-optimized, all-flash, and hybrid storage alternatives.

Nutanix Cloud Platform (NCP) consolidates computing, storage, and networking into a unified pool. It uses Nutanix Acropolis Operating System (AOS) for storage, Nutanix Acropolis Hypervisor (AHV) for virtualization, and Nutanix Prism Central for centralized management across environments.

The Cisco Compute-Only node with Nutanix Cloud Platform (NCP) and Everpure FlashArray solution delivers a disaggregated infrastructure architecture that enables independent scaling of compute and storage resources. This solution combines industry-standard Cisco Compute-Only node servers running Nutanix AHV and AOS connected to external Everpure FlashArray. This architecture leverages Everpure technology, which is optimized for enterprise workloads. The FlashStack solution with Nutanix integration provides organizations with the agility to adapt infrastructure resources dynamically while maintaining enterprise-level reliability and performance.

Key benefits

- **Independent scalability:** scale compute and storage resources separately based on workload demands
- **Enterprise-grade protection:** utilize built-in data protection and disaster recovery capabilities
- **Hybrid-cloud readiness:** seamlessly extend operations across on-premises and cloud environments
- **Investment protection:** use Nutanix Cloud Platform with existing external storage

Table 2. [Need caption]

Attributes	Cisco Compute-Only (CO) node connected to Everpure FlashArray
Cisco Compute-Only nodes	Nutanix Foundation allocates the following minimum resources to the CVM: CVM logical cores: 16 CPU physical cores per socket: 16 vRAM (in GiB): 32 (Please leverage Nutanix Sizer for all customer workload sizing.) M.2 boot drives with M.2 RAID controller (A minimum of 480 GB is required.) Storage protocol: NVMe over Fabric (NVMeoF) over TCP A 25Gb Ethernet network connection is recommended between Cisco Nutanix Compute cluster and Everpure FlashArray. (10Gb will be supported.) A minimum of 3 CO nodes
Hypervisor	Nutanix AHV only
Management	Cisco Intersight Managed Mode (IMM)
Everpure	FlashArray//, FlashArray//XL, FlashArray//C
Nutanix Cloud Platform software	Supported Nutanix software: - Nutanix Cloud Infrastructure (NCI) - Nutanix Cloud Manager (NCM) - Nutanix Cloud Platform (NCP) - Nutanix Kubernetes Platform (NKP)
Licensing	Nutanix Cloud Infrastructure (NCI) licenses on a per-core basis Nutanix Cloud Infrastructure: Compute (NCI-C) (2000 cores minimum) For more information about NCI licenses, see NCI section in Nutanix Cloud Platform Software Options

The Cisco Compute-Only C220 M8 Node family incorporates the Intel® Xeon® 6 processors. It improves security, performance, and efficiency while helping achieve sustainability goals with built-in accelerators such as Intel Trust Domain Extensions (TDX), Intel Data Streaming Accelerator (DSA), Intel QuickAssist Technology (QAT), Intel Advanced Matrix Extensions (AMX), and Intel In-Memory Analytics Accelerator (IAA).

The Cisco Compute-Only C220 M8 Node can be repurposed as HCI node by adding drive controller and drives. For more information, please refer to specification document Cisco Compute Hyperconverged and Compute-Only with Nutanix-220 M8 All-NVMe E3.S Server or Cisco Compute Hyperconverged and Compute-Only with Nutanix-220 M8 All-Flash Server.

These servers can be interconnected and managed in:

- **Intersight Managed mode:** The nodes are connected to a pair of Cisco UCS 6400 Series, a pair of Cisco UCS 6500 Series, or a pair of Cisco UCS 6600 fabric interconnects that are entirely managed from Intersight (SaaS, PVA, or CVA). All servers are connected to the same pair of fabric interconnects.

Features

Table 3. Summary of features of Cisco Compute-Only C220 M8 Node

Feature	Benefits
Memory	• High memory capacity • Up to 8 TB memory (32 x 256 GB DDR5 DIMMs)
Processors	• 6th Generation Intel Xeon Scalable Processors (Granite Rapids) • Massive processing power with up to 86 cores per socket • Improved performance with AI-accelerated features and new virtual machine security features • High speed DDR5 memory technology for up to 6400 MT/s • Multiple built-in accelerators for new functional capabilities across AI, analytics, security, and storage
Unified network fabric	• Wire-once deployment model, eliminating the need to install adapters and re-cable racks and switches when changing I/O configurations • Fewer interface cards, cables, and upstream network ports to purchase, power, configure, and maintain

Feature	Benefits	
Cloud-based services and management	Cisco Intersight simplifies infrastructure operations across on-premises data centers, edge sites, and public clouds • Use a software-as-a-service platform that bridges applications with infrastructure • Correlate visibility and management across bare-metal servers, hypervisors, and application components • Transform operations with artificial intelligence to reach needed scale and velocity	Nutanix Cloud Platform (NCP) includes Nutanix Cloud Infrastructure (NCI or NCI-C), Nutanix Cloud Management (NCM), and desktop services: • NCI unifies compute, storage, and network, hypervisors, and containers, in public or enterprise clouds • 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
Security	• 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. • Software-based data-at-rest encryption and microsegmentation	

Product specifications

Table 4. Specifications for Cisco Compute-Only C220 M8 Node

Feature	Common specifications across the Cisco Compute-Only C220 M8 Node family
Chassis	1RU of rack space per node
Processors	One or two 6th Gen Intel Xeon 6700P or 6500P processors (Granite Rapids)
Memory	32 DIMM slots (16 DIMMS per CPU): • 16, 32, 48, 64, 96,128, 256 GB DDR5 at up to 6400 MT/s for up to 8 TB of memory • 32, 64 GB MRDIMMs at up to 8000 MT/s
Boot drives	• Dual M.2 SATA SSDs with HW RAID support • 480GB M.2 SATA SSD

Feature	Common specifications across the Cisco Compute-Only C220 M8 Node family
PCIe	• Up to 3 PCIe 5.0 half-height slots or up to 2 PCIe 5.0 full-height slots and 1 dedicated mLOM/OCP 3.0 slot
Graphics processing units (GPUs)	• Up to three single-wide GPUs supported. For complete list refer to spec sheet
Network	• Cisco UCS Virtual Interface Card 15238 or 15427 (modular LAN on Motherboard) • Quad 10/25/50 G or dual 40/100 G Ethernet VIC (Cisco UCS Virtual Interface Card 15425 or 15235) (optional)
Management	• Cisco Intersight • Cisco Integrated Management Controller (CIMC)
Advanced reliability, availability, and serviceability (RAS) features	• Robust reporting and analytics • Dual-redundant fans and hot-swappable, redundant power supplies for enterprise-class reliability and a convenient latching lid for easy access to internal server • Tool-free CPU insertion, enabling processor upgrades and replacements with less risk of damage • Tool-free access to all serviceable items, and color-coded indicators to guide users to hot-pluggable and serviceable items • Nondisruptive rolling upgrades using Nutanix Life-Cycle Manager (LCM)
Front-panel connector	• 1 KVM console connector per node (Each connector 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
Power and cooling	• Hot-pluggable, redundant platinum, and titanium options: • Platinum: 1050W DC and 1600W AC • Titanium: 1200W AC and 2300W AC
Rail-kit options	• Cisco ball-bearing rail kit with optional reversible cable-management arm

Ordering information

For a complete list of part numbers, refer to the Cisco Compute-Only node spec sheet.

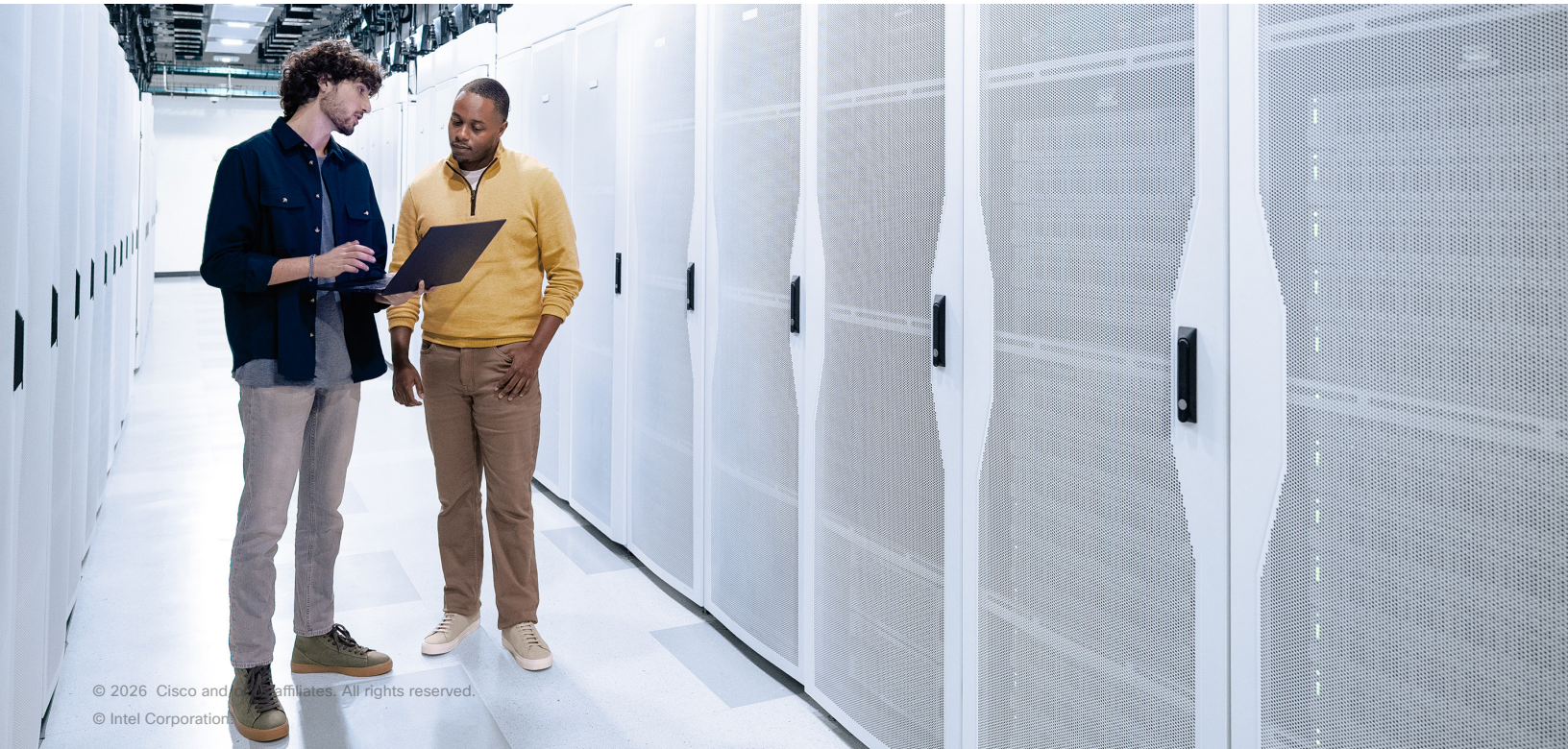
Ordering information

Table 5. Ordering information

Part #	Product description
HCI-M8-NTNX-MLB	Cisco Compute Hyperconverged with Nutanix M8 rack server MLB
HCONX220C-M8E3S	Cisco Compute-Only C220 M8 1RU NVMe-optimized server with up to 16x E3.S NVMe drive bays (Drives are optional.)
HCONX220C-M8S	Cisco Compute-Only C220 M8 1RU All-Flash server with up to 10x SAS/SATA SSD drive bays (Drives are optional.)

Cisco 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 Corporate Social Responsibility (CSR) and sustainability reporting.

Table 6. 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

Cisco makes the packaging data available for informational purposes only. It may not reflect the most current legal developments, and Cisco does not represent, warrant, or guarantee that it is complete, accurate, or up to date. This information is subject to change without notice.

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
Cisco Compute-Only (CO) C220 M8 Node	Data sheet	April 2026

C78-6058118-00 04/26