



Cisco UCS XE130c M8 Compute Node

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Overview

Cisco Unified Edge brings together compute, storage, routing, switching, and security into a single configurable solution to help IT organizations simplify the deployment, operations, and lifecycle management of edge infrastructure at global scale. Cisco Unified Edge is a fully integrated, edge-optimized, AI-ready, and SaaS-managed platform, engineered to deliver a superior user experience with unprecedented visibility, consistency, and control for a host of edge use cases.

Cisco Unified Edge is a modular edge platform, with a 3 RU, short-depth, multi-mountable chassis with features to operate in extended temperature range (5 to 45°C), maintain a quiet acoustic profile (40s dBA at 25°C and 20% load), and offer protection against high particulate environments, allowing deployments in a wide range of physical spaces. The Cisco UCS® XE130c M8 is a family of 1 RU, half-width compute nodes; up to five Cisco UCS XE130c M8 Compute Nodes can be housed inside a Cisco UCS XE9305 Chassis. It delivers enterprise-class performance, versatility, and density but in a compact edge-optimized form factor. Powered by the Intel® Xeon® 6 SoC processors with Performance-cores (P-cores) and available in two configurations (“Storage-Optimized” and “IO-Optimized”), the Cisco UCS XE130c M8 offers industry-leading adaptability at the edge, supporting a wide range of PCIe accelerators (GPUs, DPUs, etc.) and adapters, and integrated dual 25 Gbps connectivity to the in-chassis network mid-plane. This versatility enables the Cisco UCS XE130c M8 as a building block in the deployment of a wide range of workloads, including bare-metal servers, virtualization, containers, and AI/ML.



Platform highlights

Simplify edge infrastructure and operations

- Modular edge-optimized solution, combining compute, storage, networking, and security into a single platform, significantly reducing complexity for IT teams. By integrating all these components, edge IT teams can streamline deployment and simplify infrastructure management.
- Zero-touch deployment, eliminating the need for skilled IT staff to be physically present at the edge with easy serviceability and remote deployment, and enabling IT teams to efficiently roll out new services and updates while reducing costly truck rolls.
- Centralized management, providing global consistency, repeatability, and control, and enabling the deployment of fleet blueprints, full-stack plug-and-play policies and settings at scale, leading to uniformity and ease of management across highly distributed edge locations.
- End-to-end visualization, offering global fleet visualization and cross-domain context visibility, improving operations for both server and network teams. This comprehensive view allows IT teams to monitor and manage their entire edge infrastructure effectively, enhancing operational efficiency and coordination across various domains.



Unify edge systems

- Unifying edge systems, by bringing together key technologies to meet the distinctive needs of edge environments, while assuring security, manageability, and performance.
- Unified platform, a modular edge-optimized AI-ready and SaaS-managed platform integrating compute, network, storage, and security so IT teams can streamline deployment and simplify lifecycle management.
- Optimized for edge environments, meeting unique edge requirements for power, cooling, acoustics, and space while supporting workloads of today and tomorrow.
- Integrated protection, extending advanced compute and networking platform-level physical and digital security across the entire system to protect edge operations. SaaS management platforms ensure that users are verified and authenticated before granting access, minimizing risks and protecting sensitive data.
- Streamline lifecycle management, reusing chassis power and cooling infrastructure across multiple generations or types of nodes, enhancing longevity, sustainability, and serviceability. The modular architecture lets organizations adopt technologies at their pace, simplifying lifecycle management with less risk.

Redefine edge solutions

- Redefining edge solutions for AI era, by integrating smoothly with existing edge environments, while delivering the accelerated performance required for AI applications. Cisco Unified Edge acts as a springboard to help organizations unlock new levels of data-powered efficiency and innovation.
- AI-ready system, with support for advanced processors and accelerators, helping ensure that IT teams can efficiently run evolving workload demands without compromising on performance or efficiency.
- Ecosystem integration, offering a choice of infrastructure software, such as Nutanix, Red Hat, VMware, and SUSE, provides flexibility to address any use case. This integration capability allows IT teams to tailor solutions to specific needs, for compatibility and optimized performance.
- Validated edge solutions, offering tested and certified solutions for vertical-specific use cases, ensuring reliability. IT teams can deploy with confidence, knowing that the solutions are tailored to meet the unique challenges of their specific industry.
- Continuous SaaS enhancements, offering advanced end-to-end visibility and remediation capabilities, allows IT teams to quickly identify and resolve issues, maintaining system integrity and performance over time.

Key features and benefits

Form factor	1 RU-high and half-width compute node with a sled-based design that is optimized for ease of serviceability and can be installed or removed without any tools.
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CPU	One (1) Intel Xeon 6 SoC with P-core processor, choice of 12, 20, or 32 physical cores at 2.0 GHz, equipped with a rich set of processor features including: Intel Integrated Ethernet (connectivity); Intel Turbo Boost (overclocking); Intel AVX-512 (AI and HPC workloads); Intel AMX (AI/ML workloads); Intel VT (virtualized workloads); and Intel Boot Guard, Intel TXT, Intel TDX, Intel SGX, Intel TME-MK (security); Intel QAT v2.2 (compression and cryptography); and Intel DSA (storage and networking performance).
Memory	Up to 768 GB of main memory with eight (8) 96 GB DDR5-6400 DIMMs.
GPU	Dedicated PCIe Gen5 GPU slot for one (1) 75-watt HH/HL GPU (optional).
Connectivity	- Two (2) rear-facing integrated 25 Gbps ports connecting via chassis mid-plane to the embedded switches on both Cisco UCS XE Chassis Management Controllers. - Two (2) front-facing integrated 10 Gbps RJ-45 host ports.
Storage	There are two types of flash storage options simultaneously available in the Cisco UCS XE130c M8 Compute Node: - Internal M.2 SSDs: Up to two (2) M.2 SSDs protected by hardware RAID 1 - Front-facing E3.S NVMe drives: “Storage-Optimized” configuration: up to four (4) E3.S NVMe drive slots “IO-Optimized” configuration: up to three (3) E3.S NVMe drive slots
Peripherals	One (1) HH/HL PCIe Gen5 slot supporting a range of peripherals, including PCIe NICs, DPUs, IPUs, etc. This is optional and requires the “IO-Optimized” configuration.
Storage	- Optional TPM 2.0 module for host OS - Built-in TPM 2.0 module for BMC

Models and specifications



Cisco UCS XE130c M8 Compute Node, storage-optimized configuration

Item	Specifications
Processors	One (1) Intel® Xeon® 6 SoC with P-core processor, with 12, 20, or 32 physical cores
Memory	4 memory channels and 8 DIMM slots: 2, 4, or 8 of 16, 32, 48, 64, or 96 GB DDR5 6400 MT/s RDIMMs
LOM	Two (2) rear-facing integrated 25 Gbps uplink ports connecting via chassis mid-plane to both Chassis Management Controllers Two (2) front-facing integrated 10 Gbps RJ45 host ports
Front-panel ports	One (1) KVM connector One (1) USB-C port

Item	Specifications
Storage	A mini storage module with two (2) M.2 SSDs, up to 960 GB each, protected by hardware RAID 1 Storage-optimized configuration: four (4) front-panel hot-swappable E3.S NVMe drives, up to 30 TB each IO-optimized configuration: three (3) front-panel hot-swappable E3.S NVMe drives, up to 30 TB each
GPU	One (1) dedicated PCIe Gen5 GPU slot for a 75-watt, HH/HL GPU, such as the NVIDIA L4
PCIe adapter	One (1) PCIe Gen5 slot for a HH/HL PCIe adapter, such as a NIC, DPU, IPU, etc.; requires IO-optimized configuration
Management	Cisco Intersight software (SaaS initially, Virtual Appliance and Private Virtual Appliance to follow)
Temperature: Operating*	23 to 113°F (5 to 45°C) (as altitude increases, maximum temperature decreases by 1°C per 300 m)
Temperature: Nonoperating*	-40 to 185°F (-40 to 85°C); maximum altitude is 40,000 ft
Humidity: Operating*	5% to 85% noncondensing

Item	Specifications
Humidity: Nonoperating*	5% to 93% noncondensing
Altitude: Operating*	0 to 10,000 ft (0 to 3000 m); maximum ambient temperature decreases by 1°C per 300 m
Altitude: Nonoperating*	40,000 ft (12,000 m)

*Pending finalization

Chassis

See Cisco UCS XE9305 Chassis Data Sheet

Ordering information

Part number	Description
UCSX-130C-M8-12	Cisco UCS XE130c M8 Compute Node with 12-core CPU and without storage or memory (ordered as a UCS XE9305 Chassis option)
UCSX-130C-M8-20	Cisco UCS XE130c M8 Compute Node with 20-core CPU and without storage or memory (ordered as a UCS XE9305 Chassis option)
UCSX-130C-M8-32	Cisco UCS XE130c M8 Compute Node with 32-core CPU and without storage or memory (ordered as a UCS XE9305 Chassis option)

Part number	Description
UCSX-130C-M8-12-U	Cisco UCS XE130c M8 Compute Node with 12-core CPU and without storage or memory (ordered as standalone)
UCSX-130C-M8-20-U	Cisco UCS XE130c M8 Compute Node with 20-core CPU and without storage or memory (ordered as standalone)
UCSX-130C-M8-32-U	Cisco UCS XE130c M8 Compute Node with 32-core CPU and without storage or memory (ordered as standalone)

For information about installing or upgrading your Cisco UCS XE130c M8 Compute Node, see the Hardware Installation guide. For ordering information, see the Cisco UCS XE130c M8 Compute Node spec sheet or the Cisco Unified Edge ordering guide.

Cisco Catalyst 9600 Series fans have a barometric sensor, which allows slower fan speed curves at lower altitudes. The fans also have individual Pulse-Wide Modulation (PWM) fine-tuning to reduce variability in fan revolutions per minute (rpm) under throttled conditions. The measured acoustic noise in a formal NEBS test environment is 77.7 LWAd (dB). The chassis are designed to accommodate fanless operation of up to 90 seconds to enable serviceability.

Warranty

The Cisco UCS XE130c M8 Compute Node has a three-year Next-Business-Day (NBD) hardware warranty and a 90-day software warranty.

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. Cisco 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 Cisco Smart Net Total Care portal. For more information, please refer to <https://www.cisco.com/c/en/us/support/services/smart-net-total-care/index.html>.

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 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. For more information, please refer to <https://www.cisco.com/c/en/us/services/technical/solution-support.html>.

Sustainability profile

Cisco is embedding sustainability into the product lifecycle—from manufacturing to end of use. Designed with consideration for [Circular Design Principles](#), our products feature both individual and portfolio-wide programs and innovations, including those that address efficient architecture design, power consumption, energy management, packaging sustainability, and takeback. These elements are pivotal in reducing operational costs and advancing net-zero greenhouse gas (GHG) emissions targets, and other sustainability-related ambitions.

Information about Cisco’s environmental, social, and governance (ESG) initiatives and performance is available in [Cisco’s Purpose Reporting Hub](#).

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
	Operating and nonoperating conditions	Table 1. Product specifications
	Regulatory compliance	Refer to UCS XE9305 chassis data sheet
Power	Power supply	Refer to UCS XE9305 chassis data sheet
	Thermal overview	Main features Table 1. Product specifications
Material	Product packaging weight and materials	Contact: environment@cisco.com
	Modular design	Benefits

Cisco and partner services

Cisco and our industry-leading partners deliver services that accelerate your transition to a Cisco Unified Edge solution. Cisco Unified Computing Services (UCS) 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>.

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