



PowerEdge XE9680

Experience extreme acceleration for Generative AI and ML/DL training with Dell's first 8-way GPU server

No compromise AI infrastructure

The Dell XE9680 6U server is Dell's first 8x GPU platform. It is engineered to significantly enhance application performance by driving the most complex GenAI, Machine Learning, Deep Learning (ML/DL) and High Performance Computing workloads (HPC). This server features up to 56-core 4th generation Intel Xeon processors and offers the highest GPU memory capacity and bandwidth currently available, making it capable of managing extremely large and complex models and datasets.

Tailor your configuration with your choice of GPU modules

- Offering either eight NVIDIA H100 SXM5 700W GPUs fully interconnected with NVLink, or eight NVIDIA A100 SXM4 500W GPUs fully interconnected with NVLink, or eight AMD Instinct MI300X 750W OAM GPUs fully interconnected with Infinity Fabric links.
- Improve generative AI training performance with GPU-GPU communication and up to 1.5TB* shared coherent GPU memory integrated into these offers.

Accelerated I/O throughput

- Deploy latest generation technologies including DDR5, PCIe Gen 5.0, and NVMe SSDs to push the boundaries of data flow and computing possibilities.
- Up to 10 front-facing PCIe Gen 5 slots and up to 16 drives enable optimal expansion for high-performance real-time AI operations.
- Dell Validated Designs for Generative AI and comprehensive Dell Services offerings take the guesswork of out infrastructure and workflow integration

Cyber Resilient Architecture for Zero Trust IT environment & operations

Security is integrated into every phase of the PowerEdge lifecycle, including protected supply chain and factory-to-site integrity assurance. Silicon-based root of trust anchors end-to-end boot resilience while Multi-Factor Authentication (MFA) and role-based access controls ensure trusted operations.

Increase efficiency and accelerate operations with an autonomous infrastructure

The Dell OpenManage™ systems management portfolio delivers a secure, efficient, and comprehensive solution for PowerEdge servers. Simplify, automate and centralize one-to-many management with the OpenManage Enterprise console and iDRAC.

Sustainability

From recycled materials in our products and packaging, to thoughtful, innovative options for energy efficiency, the PowerEdge portfolio is designed to make, deliver, and recycle products to help reduce the carbon footprint and lower your operation costs. We even make it easy to retire legacy systems responsibly with Dell Technologies Services.

Rest easier with Dell Technologies Services

Maximize your PowerEdge Servers with comprehensive services ranging from [Consulting](#), to [ProDeploy](#) and [ProSupport suites](#), [Data Migration](#) and more – available across 170 countries and backed by our 60K+ employees and partners.

*AMD Instinct MI300X only

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The Dell PowerEdge XE9680 is a high-performance server designed and optimized for AI training & HPC use cases like

- Large language Models
- Recommendation engines
- Molecular Dynamics and Genome Sequencing

Feature	Technical Specifications**	
Processor	Two 4th Generation Intel Xeon Scalable processors with up to 56 cores per processor	
Memory	<ul style="list-style-type: none"> 32 DDR5 DIMM slots, supports RDIMM 4 TB max, speeds up to 4800 MT/s Supports registered ECC DDR5 DIMMs only 	
GPU	<ul style="list-style-type: none"> 8 NVIDIA HGX H100 80GB 700W SXM5 GPUs, fully interconnected with NVIDIA NVLink technology or 8 NVIDIA HGX A100 80GB 500W SXM4 GPUs, fully interconnected with NVIDIA NVLink technology or 8 AMD Instinct MI300X 192GB 750W OAM accelerator with AMD Infinity Fabric connectivity** 	
Storage controllers	<ul style="list-style-type: none"> Internal boot: Boot Optimized Storage Subsystem (NVMe BOSS-N1): HWRAID 1, 2 x M.2 SSDs Software RAID: S160 	
Drive bays	Front Bays <ul style="list-style-type: none"> Up to 8 x 2.5-inch NVMe/SAS/SATA SSD drives max 122.88 TB Up to 16 x E3.S NVMe direct drives max 122.88 TB 	
Power Supplies	2800W Titanium 200-240 VAC or 240 VDC, hot swap redundant	
Cooling Options	Air cooling	
Chipset	Intel® C741 chipset	
PCIe	Up to 10 x16 Gen5 (x16 PCIe) full-height, half-length	
Embedded NIC	2 x 1 GbE	
Network Options	1 x OCP 3.0 (x8 PCIe lanes)	
Fans	<ul style="list-style-type: none"> Up to six high performance (HPR) gold grade fans installed in mid tray Up to ten high performance (HPR) gold grade fans installed on the rear of the system All are hot swap fans 	
Dimensions and weight	<ul style="list-style-type: none"> Height — 263.2 mm (10.36 inches) Width — 482.0 mm (18.97 inches) Depth — 1008.77 mm (39.71 inches) with bezel — 995 mm (39.17 inches) without bezel Weight — 113.3 kg (249.78 pounds) 	
Form Factor	6U rack server	
Embedded Management	<ul style="list-style-type: none"> iDRAC9 iDRAC Direct iDRAC RESTful API with Redfish iDRAC Service Module 	
Bezel	Optional LCD bezel or security bezel	
OpenManage Software	<ul style="list-style-type: none"> CloudIQ for PowerEdge plug in OpenManage Enterprise OpenManage Service plugin 	<ul style="list-style-type: none"> OpenManage Power Manager plugin OpenManage Update Manager plugin
OpenManage Integrations	<ul style="list-style-type: none"> BMC Truesight Microsoft System Center OpenManage Integration with ServiceNow 	<ul style="list-style-type: none"> Red Hat Ansible Modules Terraform Providers VMware vCenter and vRealize Operations Manager
Security	<ul style="list-style-type: none"> Cryptographically signed firmware Data at Rest Encryption (SEDs with local or external key mgmt) Secure Boot Secured Component Verification (Hardware integrity check) 	<ul style="list-style-type: none"> Secure Erase Silicon Root of Trust System Lockdown (requires iDRAC9 Enterprise or Datacenter) TPM 2.0 FIPS, CC-TCG certified, TPM 2.0 China NationZ
Ports	Front ports <ul style="list-style-type: none"> 1 x iDRAC Direct (Micro-AB USB) port 1 x USB 2.0 1 x VGA 	Rear ports <ul style="list-style-type: none"> 1 x USB 2.0 1 x USB 3.0 1 x VGA 1 x RJ45 iDRAC9 ethernet port
Operating Systems and Hypervisors	<ul style="list-style-type: none"> Canonical Ubuntu Server LTS Red Hat Enterprise Linux*** For specifications and interoperability details, see Dell.com/OSsupport .	
OEM-ready version available	From bezel to BIOS to packaging, your servers can look and feel as if they were designed and built by you. For more information, visit Dell.com > Solutions > OEM Solutions.	

NOTE: ** indicates Additional features coming soon.

*** RHEL currently unsupported by AMD Instinct MI300X accelerators

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