



## PowerEdge XE9680

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

### No compromise AI infrastructure

Turbocharge your application performance with Dell's first 8-way GPU platform in the XE9680 6U server, designed to drive the latest cutting-edge AI, Machine Learning and Deep Learning Neural Network applications.

- Combined with **high core count of up to 56 cores** in the new generation of Intel Xeon processors and the **most GPU memory and bandwidth** available today to break through the bounds of today's and tomorrow's AI computing.
- Choose between 8 **NVIDIA H100** 700W SXM5 for extreme performance or 8 **NVIDIA A100** 500W SXM4 GPUs for a balance of performance and power, fully interconnected with NVIDIA NVLink technology.
- Improve training performance with up to 900GB/s bandwidth for GPU-GPU communication, **1.5x** more than the previous generation.
- Host multi-tenant environments using **virtualization options like NVIDIA Multi-Instance GPU (MIG)** capability.

### Accelerated I/O throughput

- Deploy latest generation technologies including DDR5, NVLink, 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.
- Supports NVIDIA GDS (GPUDirect® Storage), a direct data path for direct memory access (DMA) transfers between GPU memory and storage, increasing system bandwidth and decreasing latency and utilization load on the CPU
- **NVIDIA-Certified** System capable to maximize operations with NVIDIA GPUs.

### 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.

NOTE: \* indicates Coming soon.

### PowerEdge XE9680

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"> <li>32 DDR5 DIMM slots, supports RDIMM 4 TB max, speeds up to 4800 MT/s</li> <li>Supports registered ECC DDR5 DIMMs only</li> </ul>	
GPU	<ul style="list-style-type: none"> <li>8 NVIDIA HGX H100 80GB 700W SXM5 GPUs or</li> <li>8 NVIDIA HGX A100 80GB 500W SXM4 GPUs, fully interconnected with NVIDIA NVLink technology</li> </ul>	
Storage controllers	<ul style="list-style-type: none"> <li>Internal boot: Boot Optimized Storage Subsystem (NVMe BOSS-N1): HWRAID 1, 2 x M.2 SSDs</li> <li>Software RAID: S160</li> </ul>	
Drive bays	Front Bays <ul style="list-style-type: none"> <li>Up to 8 x 2.5-inch NVMe SSD drives max 122.88 TB</li> </ul>	
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"> <li>Up to 6 High performance (HPR) gold grade fans installed in mid tray</li> <li>Up to 10 High performance (HPR) gold grade fans installed on the rear of the system</li> <li>All are hot swap fans</li> </ul>	
Dimensions and weight	<ul style="list-style-type: none"> <li>Height — 263.2 mm (10.36 inches)</li> <li>Width — 482.0 mm (18.97 inches)</li> <li>Depth — 1008.77 mm (39.71 inches) with bezel — 995 mm (39.17 inches) without bezel</li> <li>Weight — 107 kg (235.89 pounds)</li> </ul>	
Form Factor	6U rack server	
Embedded Management	<ul style="list-style-type: none"> <li>iDRAC9</li> <li>iDRAC Direct</li> <li>iDRAC RESTful API with Redfish</li> <li>iDRAC Service Module</li> </ul>	
Bezel	Optional LCD bezel or security bezel	
OpenManage Software	<ul style="list-style-type: none"> <li>CloudIQ for PowerEdge plug in</li> <li>OpenManage Enterprise</li> <li>OpenManage Enterprise Integration for VMware vCenter</li> <li>OpenManage Integration for Microsoft System Center</li> </ul>	<ul style="list-style-type: none"> <li>OpenManage Integration with Windows Admin Center</li> <li>OpenManage Power Manager plugin</li> <li>OpenManage Service plugin</li> <li>OpenManage Update Manager plugin</li> </ul>
OpenManage Integrations	<ul style="list-style-type: none"> <li>BMC Truesight</li> <li>Microsoft System Center</li> <li>OpenManage Integration with ServiceNow</li> </ul>	<ul style="list-style-type: none"> <li>Red Hat Ansible Modules</li> <li>Terraform Providers</li> <li>VMware vCenter and vRealize Operations Manager</li> </ul>
Security	<ul style="list-style-type: none"> <li>Cryptographically signed firmware</li> <li>Data at Rest Encryption (SEDs with local or external key mgmt)</li> <li>Secure Boot</li> <li>Secured Component Verification (Hardware integrity check)</li> </ul>	<ul style="list-style-type: none"> <li>Secure Erase</li> <li>Silicon Root of Trust</li> <li>System Lockdown (requires iDRAC9 Enterprise or Datacenter)</li> <li>TPM 2.0 FIPS, CC-TCG certified, TPM 2.0 China NationZ</li> </ul>
Ports	Front ports <ul style="list-style-type: none"> <li>1 x iDRAC Direct (Micro-AB USB) port</li> <li>1 x USB 2.0</li> <li>1 x VGA</li> </ul>	Rear ports <ul style="list-style-type: none"> <li>1 x USB 2.0</li> <li>1 x USB 3.0</li> <li>1 x VGA</li> <li>1 x RJ45 iDRAC9 ethernet port</li> </ul>
Operating Systems and Hypervisors	<ul style="list-style-type: none"> <li>Canonical Ubuntu Server LTS</li> <li>Red Hat Enterprise Linux</li> </ul> For specifications and interoperability details, see <a href="https://www.dell.com/osupport">Dell.com/OSsupport</a> .	
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 <a href="https://www.dell.com">Dell.com</a> > Solutions > OEM Solutions.	

NOTE: \*\* indicates Additional features Coming Soon.

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