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 out of 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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<th>Feature</th>
<th>Technical Specifications**</th>
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<td>Processor</td>
<td>Two 4th Generation Intel Xeon Scalable processors with up to 56 cores per processor</td>
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| Memory                       | • 32 DDR5 DIMM slots, supports RDIMM 4 TB max, speeds up to 4800 MT/s  
                                • Supports registered ECC DDR5 DIMMs only |
| GPU                          | • 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          | • Internal boot: Boot Optimized Storage Subsystem (NVMe BOSS-N1): HWRAID 1, 2 x M.2 SSDs  
                                • Software RAID: S160 |
| Drive bays                   | Front Bays  
                                • Up to 8 x 2.5-inch NVMe/SAS/SATA SSD drives max 122.88 TB  
                                • Up to 16 x E3.5 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                         | • 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        | • 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          | • iDRAC9  
                                • iDRAC Direct  
                                • iDRAC RESTful API with Redfish  
                                • iDRAC Service Module |
| Bezel                        | Optional LCD bezel or security bezel |
| OpenManage Software          | • CloudIQ for PowerEdge plug in  
                                • OpenManage Enterprise  
                                • OpenManage Service plugin |
| OpenManage Integrations      | • BMC Truesight  
                                • Microsoft System Center  
                                • OpenManage Integration with ServiceNow |
| Security                     | • Cryptographically signed firmware  
                                • Data at Rest Encryption (SEDS with local or external key mgmt)  
                                • Secure Boot  
                                • Secure Component Verification (Hardware integrity check)  
                                • 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  
                                • 1 x iDRAC Direct (Micro-AB USB) port  
                                • 1 x USB 2.0  
                                • 1 x VGA  
                                Rear ports  
                                • 1 x USB 2.0  
                                • 1 x USB 3.0  
                                • 1 x VGA  
                                • 1 x RJ45 iDRAC9 ethernet port |
| Operating Systems and Hypervisors | • Canonical Ubuntu Server LTS  
                                • Red Hat Enterprise Linux*** |
| OEM-ready version available  | For specifications and interoperability details, see Dell.com/OSsupport. |

** Indicates Additional features coming soon.

*** RHEL currently unsupported by AMD Instinct MI300X accelerators

NOTE: For more information, visit Dell.com > Solutions > OEM Solutions.