

AI and HPC – With Air or Liquid Cooling

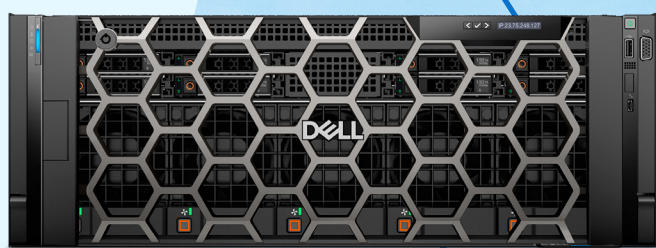
Dell PowerEdge XE8640 and XE9640 servers provide options

Looking for the most efficient cooling options to run complex workloads in your data center? With exciting advancements in generative artificial intelligence (GenAI) and high performance computing (HPC), you can accelerate compute to power AI, machine and deep learning models and HPC-intensive workloads. Unlock your data value to accelerate insights.

Air or liquid? You have a choice.

Two of our GPU-accelerated servers in the XE portfolio – Dell PowerEdge XE8640 and XE9640 – deliver advanced performance and smart cooling in different configurations.

Dell PowerEdge XE8640 Server



- Air-cooled server
- 4U form factor
- Intelligent air flow

Dell PowerEdge XE9640 Server



- Liquid-cooled server
- 2U form factor
- Exceptional density



Air cooling benefits:

- Multi-vector cooling intelligently directs the right amount of cooling to the right locations.
- Conveniently monitor and set system parameters with power and thermal management.
- Intelligent cooling controls help ensure high efficiency and low power utilization effectiveness (PUE) for air-cooled systems.
- Optimize system designs inside the server with cutting-edge CFD airflow simulations.
- Latest fan and heat-sink innovations expand the number of components that can be air-cooled over previous generations.



Direct liquid cooling (DLC) benefits:

- Reduced energy consumption and lower TCO reduces energy costs up to 45%.¹
- Utilize 100% of rack and data center spaces.
- Gain 3.1X ROI within four years.²
- Future-ready data center meets performance and sustainability initiatives.
- Leak-sensing technology intelligently detects and alerts you to issues.
- Support up to 25% more cores per rack.³

Harness AI more sustainably

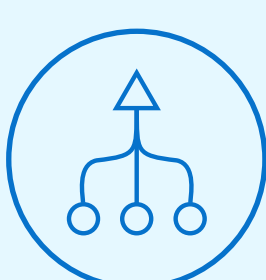
Liquid-cooled GPUs from NVIDIA® enhance your data center sustainability efforts even further. Liquid cooling in the GPU reduces both energy consumption and water use. Fan use is reduced. And you can recycle small amounts of fluids in closed systems focused on key hot spots, which reduces the water demands associated with evaporative air cooling.

Dell PowerEdge XE9640 and XE8640 servers are purpose-built for scalability, optimization and performance.



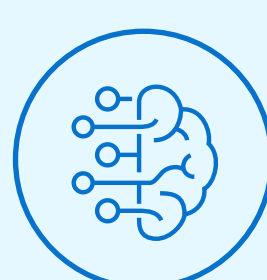
Accelerate insights

Run AI, HPC, modeling and simulation operations at the speed of business.



Simplify operations

Boost AI infrastructure automation with full control and management.



Trusted AI

Reduce risks and save time with a trustworthy, high-quality solution infrastructure.

Two great options for your accelerated workloads

Dell Technologies makes finding the right server for your workload and your data center easier than ever. With both air- and liquid-cooled configurations, you're well on your way to powering GenAI and HPC workloads more efficiently and sustainably.

Learn more.

Contact your Dell sales representative or visit [PowerEdge XE Servers – Enterprise Servers](#).

¹ Based on Dell internal analysis, comparing hypothetical air-cooled data center with a cooling PUE of 0.62 to a hybrid data center with a cooling PUE of 0.34. A PUE of 0.21 was assigned to all overhead not attributed to cooling. Operating costs and other factors will cause results to vary. RS Means industry standards cost basis was used to measure typical cooling infrastructure costs and determine projected savings, March 2021.

² The cost of pairing DLC with existing Dell PowerEdge cooling tower infrastructure typically breaks even within 1.3 years and yields a 3.1X payback within four years.

³ Supports up to 2x GPU core density per rack.