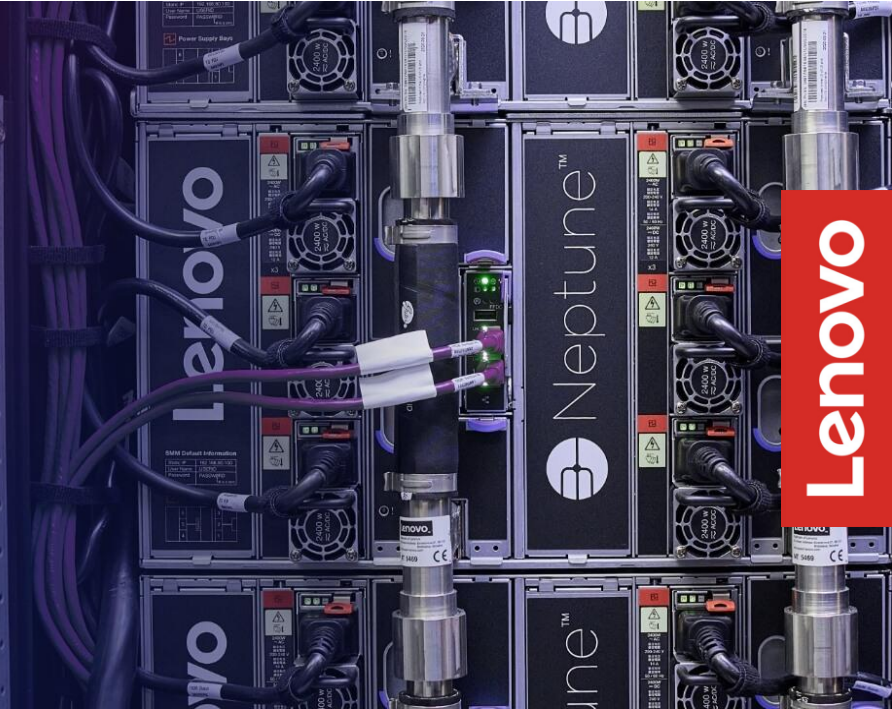


Power and Cooling Services



Why Lenovo Neptune™ Technology?

Superior Engineering for Optimal Performance

- Precise cooling: Optimized cold plates and low-pressure loops minimize temperature variations ($< 2^{\circ}\text{C}$) for consistent performance, surpassing competitors' $10\text{--}15^{\circ}\text{C}$ range.
- Chiller-free ready: High-efficiency designs handle warm inlet water (up to 45°C), eliminating chillers and reducing costs compared to competitor systems.

Unmatched Quality and Efficiency

- Durable, low-maintenance system: High-quality copper loops and low-viscosity water minimize downtime and energy consumption, reducing failure points compared to competitor systems.
- Eco-friendly operation: Uses non-toxic de-ionized water and consumes less power, avoiding harmful coolants like Polyethylene Glycol (PG25) and eliminating the need for chillers.

Comprehensive Support and Vertical Integration

- Single point of contact: Lenovo provides comprehensive support for all components, ensuring minimal downtime and seamless troubleshooting.
- Faster innovation: Vertical integration enables quicker development of efficient cooling solutions compared to competitors.

Lenovo Liquid cooling technologies

1 Direct Water Cooling

- Warm water cooling inside server
- Higher performance than air cooled servers
- Up to 40% reduction in power costs

2 Rear door heat exchanger

- Rack option takes heat out of data center in chilled water
- 3.5X more efficient than air only
- Saves enough power to run 4,000 LED bulbs

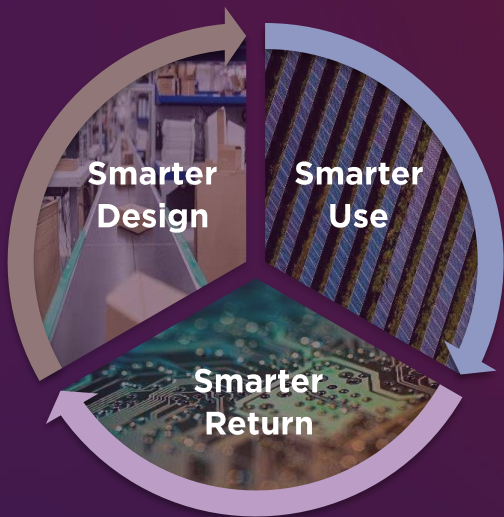
3 Liquid Assisted cooling

- Special heat sinks to transfer heat quickly
- Liquid to Air (L2A) Heat Exchangers
- Enabling higher perf processors and GPUs

4 Smart control software

- Minimizes power consumption for each workload with SW (Energy Aware Runtime "EAR" & XClarity software)

Power and Cooling Services



Run hot, stay cool, save energy

By using Lenovo’s 6th Gen Neptune cooling technology with our power and cooling services, your infrastructure will scale with rising power demands and support future servers over 1000W. This solution ensures high computational performance while maintaining energy efficiency, preparing your business for demanding tasks and a sustainable, high-performance future.

Leading with Lenovo Professional Services

| Datacenter/Facility Planning | | Enablement and Implementation | | Liquid Maintenance |
|--|---|---|---|---|
| Workshop | Assessment | Design | Implement | Support |
| <ul style="list-style-type: none">Provides an introduction into the Lenovo solution portfolioDelivers clear next steps to kick-start your business and digital transformation | <ul style="list-style-type: none">Leverage data-dependent tools-based analytical approachExperts analyze, assess and develop high-level architectures, execution strategies and timelines for delivering solutions | <ul style="list-style-type: none">High-level architectures are turned into low level designs and wiring diagrams, which are reviewed and approved prior to deployment | <ul style="list-style-type: none">Use design documents to enable a structured, consistent, and efficient deployment; accelerating time to productivity and maximizing ROI | <ul style="list-style-type: none">Personalize your service management with Lenovo Extended Services so you can focus on your core business needs |

Performance + efficiency + sustainability... Lenovo Neptune Want to know more?

Discover [Lenovo Neptune Online](#), reach out to your Lenovo representative or get in touch with us by clicking the link below and you’ll be contacted within 2 business days.

