

# Lenovo ThinkSystem SR650a V4

Optimize GPU density and performance for scalable, AI workloads



## Performance Optimized for GPU-Intensive Workloads

The Lenovo ThinkSystem SR650a V4 is designed to accelerate GPU-intensive workloads like AI, deep learning, and HPC. Powered by Intel® Xeon® 6 processors, it delivers exceptional GPU density, advanced storage, and PCIe Gen5 connectivity for peak performance. It supports up to 4x double-width or 8x single-width GPUs and offers up to 8x E3.S NVMe drives for fast, low-latency data access.

Built for scalability and reliability, the SR650a V4 handles demanding GPU workloads with ease. It provides unrivaled I/O bandwidth with up to 14x PCIe Gen5 slots and 2x OCP 3.0 slots, while Lenovo XClarity offers AI-driven management and predictive analytics to reduce downtime.

## AI-Driven Intelligence Meets GPU Density – Smarter AI Everywhere

Lenovo ThinkSystem SR650a V4 servers with XClarity One provide fast, secure deployment of AI workloads across on-prem, co-located, or cloud infrastructures. XClarity One simplifies scalability, security, and management, while XClarity Controller enables remote infrastructure management. AI-driven predictive analytics help prevent downtime by monitoring SSD failures and GPU workloads.

The SR650a V4 is built for high-performance AI workloads, offering GPU density and efficiency to accelerate innovation. Features like SSD Predictive Failure Analysis reduce downtime, while enhanced security with federated directory simplify access and protect infrastructure.

## Engineered for Sustainability in GPU Workloads from Design to Disposal

The Lenovo ThinkSystem SR650a V4 balances performance with sustainability, optimizing GPU workloads while minimizing environmental impact. It supports GPU-dense configurations and advanced cooling, reducing energy use and achieving up to 3:1 rack consolidation with Intel® Xeon® 6 processors.

With its energy-efficient platforms meet ENERGY STAR® standards, and optional innovative liquid cooling via Lenovo Neptune®, it helps organizations meet sustainability goals while delivering high performance for AI and HPC workloads.

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## Specifications

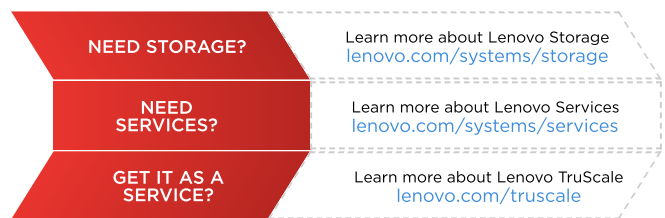
Form Factor/Height	2U rack server
Processors	Up to 2x Intel® Xeon® 6 processors, up to 86 cores and 350W TDP
Drive Bays	<ul style="list-style-type: none"> <li>• Front: Up to 8x 2.5" SAS/SATA/NVMe, 8x E3.S NVMe drives</li> <li>• Bootable Device: Up to 2x M.2 SATA/NVMe drives with RAID support, optional hot swap</li> <li>• Supports Direct NVMe, VROC/VMD</li> </ul>
Memory	Up to 32x TruDDR5 3DS/RDIMMs with speeds up to 6400MHz; up to 16x TruDDR5 MRDIMMs with speeds up to 8000MHz. Maximum capacity up to 8TB.
Expansion Slots	<ul style="list-style-type: none"> <li>• Up to 14x PCIe Gen5 slots</li> <li>• 2x OCP 3.0 slots for flexible networking options</li> </ul>
GPUs	Up to 8x single-width GPUs, or 4x double-width GPUs, or 2x 600W double-width GPUs
Network Interface	<ul style="list-style-type: none"> <li>• OCP adapter installed in the OCP 3.0 slot</li> <li>• Networking PCIe adapters</li> </ul>
Ports	<ul style="list-style-type: none"> <li>• Front: <ul style="list-style-type: none"> <li>◦ Optional 2x USB 3.0 with XClarity Mobile support and 1x mini DP</li> <li>◦ Optional 1x external diagnostics handset port</li> </ul> </li> <li>• Rear: <ul style="list-style-type: none"> <li>◦ 2x USB 3.0 G1</li> <li>◦ 1x VGA</li> <li>◦ 1x 1GbE RJ-45 dedicated management port</li> <li>◦ Optional 2nd 1GbE management port in OCP slot location</li> <li>◦ Optional 1x Serial port</li> </ul> </li> </ul>
HBA/RAID Support	VROC for NVMe SW RAID (0,1,5,10); common building blocks including standard and internal PCIe RAID/HBA adapters
Cooling Solution	Lenovo Neptune® Core and Neptune® Air technology
Power	Dual Redundant AC & DC (multiple wattages); Platinum & Titanium rated PSUs
Systems Management	Lenovo XClarity Controller
OS Support	Microsoft, SUSE, Red Hat, VMware. Visit <a href="https://lenovopress.com/osig">lenovopress.com/osig</a> for details.
Limited Warranty	1-year and 3-year customer replaceable unit and onsite service, next business day 9x5; optional service upgrades

## About Lenovo

Lenovo (HKSE: 992) (ADR: LNVGY) is a US\$83 billion revenue global technology powerhouse, ranked #196 in the Fortune Global 500, employing 77,000 people around the world, and serving millions of customers every day in 180 markets. Focused on a bold vision to deliver smarter technology for all, Lenovo is expanding into new growth areas of infrastructure, mobile, solutions and services. This transformation is building a more inclusive, trustworthy, and sustainable digital society for everyone, everywhere.

## For More Information

To learn more about the Lenovo ThinkSystem SR650a V4, contact your Lenovo representative or Business Partner or visit [www.lenovo.com/thinksystem](https://www.lenovo.com/thinksystem). For detailed specs, consult the [SR650a V4 Product Guide](#)



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