ThinkSystem SR650

High-performance scalable server



For Compute-Intensive Workloads

For medium to large enterprises, and managed and cloud service providers, Lenovo ThinkSystem SR650 is the optimum 2U, two-socket server—the most widely used server type worldwide. It's engineered to deliver high performance with 205W CPUs, low-latency NVMe drives, and high-power GPUs.

With Lenovo's history of reliability, the highly flexible and configurable SR650 is the ideal platform for hyperconverged infrastructure (HCI) or software-defined storage (SDS). It provides a solid foundation for: 1) transforming physical resources into services, using validated designs for hybrid cloud; 2) performing analytics on streaming data, using validated designs for Big Data; and 3) increasing productivity of virtualized transactional systems, using validated designs for OLTP databases.

Versatile and Scalable

ThinkSystem SR650 supports Intel® Optane™ DC Persistent Memory and up to two next-generation Intel® Xeon® Processor Scalable family CPUs, with up to 36% total performance improvement compared to the previous generation.* It supports two 300W high-performance GPUs and ML2 NIC adapters with shared management. Unique Lenovo AnyBay technology provides the flexibility to mix-and-match SAS/SATA HDDs/SSDs and NVMe SSDs in the same drive bays. Support is now available for up to 24 NVMe drives.

Four direct-connect NVMe ports on the motherboard provide ultra-fast read/writes with NVMe drives and reduce costs by eliminating PCIe switch adapters.

Plus, storage can be tiered for greater application performance, to provide the most cost-effective solution. Optional mirrored M.2 drives ensure reliability and quick OS initialization. SR650 also features 80 PLUS Platinum and Titanium PSUs, as well as continuous operation at 45°C, to reduce energy costs.

Secure and Easily Managed

Lenovo ThinkShield is a comprehensive end-to-end approach to security that begins with development and continues through supply chain and the full life cycle of the device.

Lenovo XClarity Controller features an uncluttered graphical user interface, industry standard Redfish-compliant REST APIs, and enables booting in half the time of prior generation servers, with up to 6x faster firmware updates. Lenovo XClarity Administrator is a virtualized application that centrally manages ThinkSystem servers, storage, and networking. Via reusable patterns and policies, it ramps up and scales infrastructure provisioning and maintenance. It serves as a central integration point to extend your data center management processes to physical IT.

Running XClarity Integrators in external IT applications, or integrating through REST APIs, helps you further speed services provisioning, streamline IT management, and contain costs.

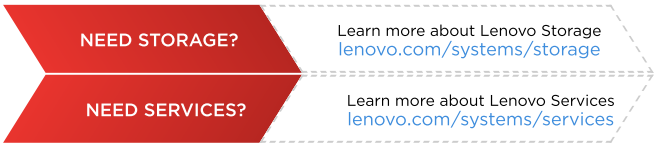
Lenovo servers continue to be the industry's #1 most reliable†.

Specifications

Form Factor/Height	2U rack server
Processors	Up to 2 second-generation Intel® Xeon® Platinum processors, up to 205W
Memory	Up to 7.5TB in 24x DIMM slots using 128GB DIMMs and Intel® Optane™ DC Persistent Memory; 2666MHz / 2933MHz TruDDR4
Expansion Slots	Up to 7x PCIe 3.0 via multiple riser options, including 1x dedicated PCIe slot for RAID adapter
Drive Bays	Up to 14x 3.5" or up to 24. 2.5" hot-swap bays (up to 12 AnyBay bays or up to 24 NVMe bays); up to 2x M.2 boot drives (RAID 1)
HBA/RAID Support	HW RAID (up to 24 ports) with flash cache; up to 16-port HBAs
Security and Availability Features	TPM 1.2/2.0; PFA; hot-swap/redundant drives, fans, and PSUs; 45°C continuous operation; light path diagnostic LEDs; front-access diagnostics via dedicated USB port
Network Interface	2/4-port 1GbE LOM; 2/4-port 10GbE LOM (Base-T or SFP+); 1x dedicated 1GbE management port
Power (Energy Star 2.0 compliant)	2x hot swap/redundant: 550W/750W/1100W/1600W 80 PLUS Platinum; or 750W 80 PLUS Titanium; or -48V DC 80 PLUS Platinum
Systems Management	XClarity Controller embedded management, XClarity Administrator centralized infrastructure delivery, XClarity Integrator plugins, and XClarity Energy Manager centralized server power management
OSes Supported	Microsoft, Red Hat, SUSE, VMware. Visit lenovopress.com/osig for details.
Limited Warranty	1-year and 3-year customer replaceable unit and onsite service, next business day 9x5; optional service upgrades

For More Information

To learn more about the Lenovo ThinkSystem SR650, contact your Lenovo representative or Business Partner or visit www.lenovo.com/thinksystem. For detailed specs, consult the SR650 Product Guide.



* Intel internal testing, August 2018. † ITIC Global Reliability Study.

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