Lenovo ThinkSystem SR850 V2

Calculated efficiency, optimized for growth

Optimized for Growth

The Lenovo ThinkSystem SR850 V2 delivers a high performance, reliable, and versatile system that effortlessly tackles the workloads the keep your organization and enabling you to quickly respond to the expansion of your data infrastructure needs.

Built for standard workloads such as general business applications and server consolidation projects, the SR850 V2 also accommodates high-growth areas of your business such as database and virtualization efforts. The versatile design of the system enables you to rapidly upgrade its capabilities with more CPUs, memory, and storage capacity to help you keep pace with growing IT needs.

Intelligently Agile Design

The ThinkSystem SR850 V2 has intelligent design aspects that allow affordable and seamless scalability in a standard x86 server platform to address growing workload areas. The system has the capability to scale from two to four 3rd Generation Intel® Xeon® Processor Scalable family CPUs that offers a simple "pay as you grow" upgrade for both processors and memory, resulting in greater system performance to handle growing next-generation workloads.

The data critical nature of today's IT environments stresses the data processing capabilities of any modern organization. The high CPU density of the SR850 V2, featuring up to four 3rd Generation Intel® Xeon® Scalable CPUs in just 2U of rack space, provides an efficient use of data center space. Additionally, numerous configuration options including the ability to expand internal storage capabilities, varied I/O connectivity options, and support for Intel® Optane™ Persistent Memory 200 Series suits a wide range of enterprise applications.

Enable Next-Generation Workloads

The combination of up to four 250W 3rd Generation Intel® Xeon® Scalable CPUs configured with a mesh topology combines with the following technologies to provide tremendous value and performance with the SR850 V2:

- Direct connect NVMe storage speeds database response times, reducing latency and eliminating storage as the throughput bottleneck in I/O-intensive applications such as transactional processing, HPC, and Big data applications, providing tight compliance windows for backup and replication and helping improve VM density and migration.

ThinkSystem

intel® XEON® PLATINUM inside™

- The latest Intel® Optane™ Persistent Memory 200 Series accelerates performance for in-memory databases and applications, reducing downtime and increasing the availability.

- High I/O bandwidth coupled with a generous number of PCIe expansion slots provides the additional connectivity scalability as your business and workload demands increase.

- One or two (mirrored) 7mm rear drives provide rapid OS boot that's faster and more secure than either USB keys or SD cards, and free up drive bays for data storage.

These are merely a few of the incorporated technologies that create the exceptional performance, scalability, and value needed for enterprise-class workloads, both today and into the future.

Reliability You Can Trust

Because your business depends on your systems, you need servers built for reliability. The ThinkSystem SR850 V2 delivers multiple layers of reliability from the processors up, so you can have the confidence that you're running your workloads on a platform built to stay up and running.

Lenovo servers are so dependable that they continue to be rated the industry's #1 most reliable.

- Enterprise-class CPU reliability, availability, and serviceability (RAS) features

- Predictive Failure Analysis—Identifies a failing component prior to failure, to enable scheduled parts replacement—rather than reacting after a failure—and minimize or avoid downtime. PFA alerts are available for all major components, including CPUs, DIMMs, adapter slots, fans, PSUs, storage devices, and voltage regulators.

- Light path diagnostics—Onboard component LEDs to instantly identify components needing replacement (based on PFA alerts), for faster serviceability and reduced downtime

- TPM 2.0—Secures and authenticates the system to prevent unauthorized intrusion

With reliability and security designed into the system, the SR850 V2 builds on industry-standard technologies to deliver an economical, dependable platform for the most demanding users and applications.

Server Deployment, Management and Security

Lenovo XClarity Controller is the embedded management engine in ThinkSystem servers that is designed to standardize, simplify, and automate foundation server management tasks.

Lenovo XClarity Administrator is a virtualized application that centrally manages ThinkSystem servers, storage, and networking, which can reduce provisioning time up to 95% versus manual operation. Running XClarity Integrator helps you streamline IT management, speed provisioning, and contain costs by seamlessly integrating XClarity into an existing IT environment.

ThinkShield is a comprehensive approach to security designed to secure the data center, from the foundation of your infrastructure to the network's edge and guard against a security breach. ThinkShield protects your business with each offering, from development through disposal.
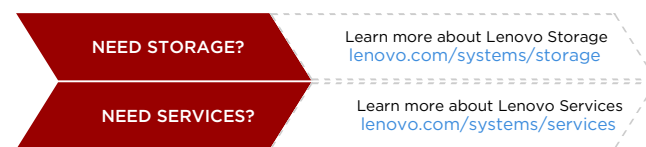
Specifications

Form Factor	2U
Processors	Two or four 3rd-generation Intel® Xeon® Processor Scalable family CPUs, up to 250W; Mesh topology with 6x UPI links
Memory	Up to 12TB of TruDDR4 memory in 48x slots; Memory speeds up to 3200MHz at 2 DIMMs per channel; Supports Intel® Optane™ Persistent Memory 200 Series
Expansion	Up to 7x PCIe 3.0 expansion slots Front: VGA, 1x USB 3.1, 1x USB 2.0 Rear: 2x USB 3.1, Serial port, VGA port, 1GbE dedicated management port
Internal Storage	Up to 24x 2.5-inch drives; Supports up to 24x NVMe drives (16x with 1:1 connection); 2x 7mm drives for boot.
Network Interface	Dedicated OCP 3.0 slot supporting 1GbE, 10GbE or 25GbE
Power	2x Platinum or Titanium hot-swap power supplies; N+N redundancy supported
High Availability	TPM 2.0; PFA; hot-swap/redundant drives and power supplies; redundant fans; internal light path diagnostic LEDs; front-access diagnostics via dedicated USB port; optional diagnostic LCD panel
RAID Support	Onboard SATA with SW RAID; Support for ThinkSystem PCIe RAID/HBA cards
Management	Lenovo XClarity Controller; Redfish support
OS Support	Microsoft, Red Hat, SUSE, VMware. Visit lenovopress.com/osig for more information
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$45 billion Fortune 500 company and a global technology leader in driving Intelligent Transformation. Lenovo's data center solutions (ThinkSystem, ThinkAgile) are creating the capacity and computing power that are changing business and society.

For More Information

To learn more about the ThinkSystem SR850 V2, contact your Lenovo representative or Business Partner or visit: lenovo.com/thinksystem. For detailed specifications, consult the SR850 V2 Product Guide.

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