

Lenovo ThinkSystem SR860 V3

Scalable power, superior adaptability



Straightforward Scalability

The Lenovo ThinkSystem SR860 V3 provides the speed and reliability you require today with the scalability and workload versatility you'll need to manage the explosive growth of data for tomorrow. Data centers must respond quickly to the inevitable expansion of their data landscapes; However, the individual components of that data center environment will determine how effective your response will be.

Budget constraints coupled with an inflexible, legacy, or proprietary ecosystem make growth painful from a cost, deployment, and management standpoint. A forward-thinking organization shouldn't have to face the choice between prioritizing progress and their budget.

The ThinkSystem SR860 V3 is purpose-built to deliver affordable scalability in an industry-standard x86 platform, ideal for mission critical workloads such as SAP HANA in-memory computing, transactional databases, analytics, big data, and enterprise resource planning tasks.

Agile Design

The design of the ThinkSystem SR860 V3 offers considerable adaptability to match system configurations to projected workloads. The system has the capability to scale from two to four 4th Gen Intel® Xeon® Scalable processor 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.

In addition, the SR860 V3 supports copious amounts of ultra-fast DDR5 memory, considerable on-board storage capabilities with support for up to 48 2.5" drives, up to 24 direct link NVMe drive support for latency-sensitive applications, and even up to four double-width 350W or eight single-width GPUs.

Capabilities for a Next-Gen Workloads

The combination of up to four 350W 4th Gen Intel® Xeon® Scalable processors configured with a mesh topology pair with up to four enterprise-class GPUs to position the SR860 V3 to tackle compute-intensive applications that once required supercomputers, such as machine learning, artificial intelligence, analytics, and 3D modeling.

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The thousands of processor cores and parallel architecture make GPUs ideal for next-generation workloads in today's data-critical world, but also require support from additional storage and networking that is both high-performing and flexible.

The SR860 V3 provides tremendous flexibility in component selection to meet these workload requirements:

- 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.
- High I/O bandwidth coupled with a generous number of PCIe expansion slots provides additional connectivity as your business and workload demands increase.
- One or two (mirrored) 7mm rear or M.2 internal drives provide rapid OS boot that is faster and more secure than either USB keys or SD cards and frees 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 SR860 V3 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.
- Root of Trust (RoT) module includes Platform Firmware Resiliency (PFR), Trusted Platform Module (TPM) 2.0 or TCM for PRC, which further enhances key platform subsystem protections by detecting unauthorized firmware updates, recovering corrupted images to a known-safe image, and monitoring firmware to ensure it has not been compromised. Secures and authenticates system to prevent unauthorized access.

With reliability and security designed into the system, the SR860 V3 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

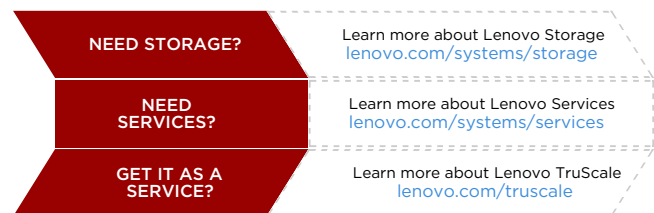
Form Factor	4U
Processors	Two or four 4th Gen Intel® Xeon® Scalable processors, up to 350W Mesh topology with 3x UPI links; With Up to 4x QAT, DLB, IAA and DSA Accelerators
Memory	Up to 16TB of TruDDR5 memory in 64x slots Memory speeds up to 4800MHz
Expansion	Up to 16x (12x Gen5 + 4x Gen4) or up to 18x Gen4 or 4x Gen4 PCIe 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 48x 2.5" drives; Supports up to 24x direct connection NVMe drives; 2x 7mm or 2x M.2 drives for boot
GPU Support	Up to 4x double-width 350W GPUs or 8x single-width 75W GPUs
Network Interface	2 Dedicated OCP 3.0 slot supporting 1GbE, 10GbE, 25GbE or 100GbE
Power	Up to 4x Platinum or Titanium hot-swap power supplies; N+N redundancy supported
High Availability	PFA; hot-swap/redundant drives and power supplies; redundant fans; internal light path diagnostic LEDs; front-access diagnostics via dedicated USB port; optional External Diagnostics Panel Handset with LCD display
Security	Root of Trust (RoT) module includes Platform Firmware Resiliency (PFR), Trusted Platform Module (TPM) 2.0 or TCM for PRC and optional Chassis Intrusion Switch. Secures and authenticates the system to prevent unauthorized intrusion.
RAID Support	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\$62 billion revenue global technology powerhouse, ranked #171 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 SR860 V3, contact your Lenovo representative or Business Partner or visit www.lenovo.com/thinksystem. For detailed specs, consult the [SR860 V3 Product Guide](#)



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