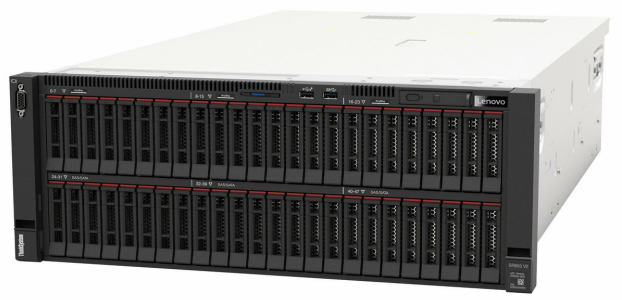
Lenovo ThinkSystem SR860 V2

Scalable power, superior adaptability



Straightforward Scalability

The Lenovo ThinkSystem SR860 V2 provides the speed and reliability you require today, with the scalability and workload versatility to you'll need to manage the explosive growth of data. Data centers have to 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 V2 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 V2 offers considerable adaptability in order to match system configurations to projected workloads. 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.

In addition, the SR860 V2 supports copious amounts of ultra-fast memory, considerable on-board storage capabilities with support for up to 48 2.5-inch drives, up to 24 NVMe drive support for latency-sensitive applications, and even up to 4 double-wide 300W GPUs.

Capabilities for a Next-Gen Workloads

The combination of up to four 250W 3rd Generation Intel® Xeon® Scalable CPUs configured with a mesh topology pair with up to four enterprise-class GPUs in order to position the SR860 V2 to tackle compute-intensive applications, such as machine learning, artificial intelligence, analytics, 3D modeling, and others that once required supercomputers.

Lenovo

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's both high-performing and flexible. The SR860 V2 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.
- 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 or M.2 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 SR860 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 SR860 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	4U
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 14x 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 48x 2.5-inch drives; Supports up to 24x NVMe drives (16x with 1:1 connection); 2x 7mm or 2x M.2 drives for boot.
GPU Support	Up to 4x double-wide 300W GPUs (NVIDIA V100S) or 8x single-wide 70W GPUs (NVIDIA T4)
Network Interface	Dedicated OCP 3.0 slot supporting 1GbE, 10GbE or 25GbE
Power	Up to 4x Platinum or Titanium hot-swap power supplies; N+N and N+1 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 integrated 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 SR860 V2, contact your Lenovo representative or Business Partner or visit: lenovo.com/thinksystem. For detailed specifications, consult the SR860 V2 Product Guide.