



ThinkSystem SR590

Balanced performance and scalability



Powerful and Balanced

Designed for rack environments that require peak two-socket performance and sizeable memory capacity, the Lenovo ThinkSystem SR590 can tackle cloud and Big Data environments for medium and large enterprises. The SR590 is a balanced, midrange rack server that also works well for small-scale virtualization, collaboration and productivity applications, as well as caching and logging.

Two second-generation Intel® Xeon® Scalable Family processors increase agility and manage data-rich, high-demand workloads with up to a 1.5x memory bandwidth increase over the previous generation. Intel® Optane™ DC Persistent Memory combined with up to 1TB of 2933MHz TruDDR4 memory capacity enable applications to run faster and more efficiently and boost business performance at a lower cost and higher overall value.

Flexible and Expandable

The SR590 supports up to 16 hot-swap 2.5" or 14 hot-swap or simple-swap 3.5" drive bays. Up to four of the 2.5" or 3.5" bays can be AnyBay, capable of supporting not only SAS/ SATA drives, but also direct-connect NVMe drives (which bypass the SAS bus) for the ultimate in storage performance. In addition, the SR590 supports SAS and SATA HDDs and SSDs with up to 12Gb SAS throughput, as well as up to two M.2 drives for faster, more secure OS boot.

The SR590 provides storage flexibility, NIC expansion in multiple form factors, including LOM, ML2, and PCIe, and replaceable I/O riser cards for varied adapter slot configurations.

Reliable and Secure

Lenovo servers have been the most reliable in the industry for several years. They were ranked #1 yet again in the latest ITIC survey of x86 server reliability.* The SR590 is no exception, including many features that contribute to the reliability and security of the server and your all-important data.

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. From the data center to the edge of the network our priority is protecting your business with each product.

Lenovo XClarity Controller is the embedded management engine in all 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.



These features result in an ideal server for proxy caching, cloud, CRM, security, virtualization, media streaming, Big Data, databases, database-driven Web serving, mail serving, and many other workloads.

Specifications

Form Factor	2U
Processors	Up to 2 second-generation Intel® Xeon® Platinum 150W, up to 26 cores per CPU
Memory	Up to 1TB of 2933MHz TruDDR4 memory in 16 slots
Expansion Slots	Up to 6x PCIe 3.0 on replaceable riser cards for multiple I/O configurations
Drive Bays	Up to 16x 2.5" or 14x 3.5" hot-swap or up to 8x 3.5" simple-swap; optional 4x AnyBay bays
Internal Storage	Up to: 168TB (3.5" SAS/SATA HDD); 107.6TB (3.5" SSD); 38.4TB (2.5" SAS/SATA); 122.9TB (2.5" SSD); 16TB (direct-connect 2.5" NVMe); up to 2x M.2 boot drives
Network Interface	2 GbE ports standard; LOM interface standard; optional ML2
NIC ports	2x GbE standard; 1x GbE dedicated management standard; optional up to 2x 1GbE, 2x 10GBase-T, or 2x 10GBase SFP+
Power Supply	Up to 2x hot-swap/redundant 550W/750W Platinum, 750W Titanium
High-Availability	Hot-swap HDDs/SSDs/NVMe, hot-swap PSUs and fans, light path diagnostics, PFA for all major components, ASHRAE A4 support (with limits), optional XClarity Pro with Call Home feature.
Security Features	ThinkShield, locking bezel; locking top cover; TPM 2.1 standard; optional TCM
RAID Support	HW RAID 0, 1, 10, 5, 50 standard on hot-swap models for 2.5"; SW RAID 0, 1, 10, 5 on simple-swap 3.5" models
Management	XClarity Administrator; XClarity Controller (embedded hardware); optional XClarity Pro
OS Support	Microsoft, SUSE, Red Hat, VMware. Visit lenovopress.com/osig for details.
Limited Warranty	1-year and 3-year customer replaceable unit and onsite service, next business day 9x5

For More Information

To learn more about the Lenovo ThinkSystem SR590, contact your Lenovo representative or Business Partner or visit www.lenovo.com/thinksystem. For detailed specifications, consult the [SR590 Product Guide](#).

* [ITIC Global Reliability Report](#).

© 2025 Lenovo. All rights reserved.

Availability: Offers, prices, specifications and availability may change without notice. Lenovo is not responsible for photographic or typographic errors. **Warranty:** For a copy of applicable warranties, write to: Lenovo Warranty Information, 1009 Think Place, Morrisville, NC, 27560. Lenovo makes no representation or warranty regarding third-party products or services. **Trademarks:** Lenovo, the Lenovo logo, AnyBay®, ThinkShield®, ThinkSystem®, and XClarity® are trademarks or registered trademarks of Lenovo. Intel® and Xeon® are trademarks of Intel Corporation or its subsidiaries. Microsoft® is a trademark of Microsoft Corporation in the United States, other countries, or both. Other company, product, or service names may be trademarks or service marks of others. Document number DS0016, published August 4, 2020. For the latest version, go to lenovopress.lenovo.com/ds0016.

