

Lenovo ThinkSystem SN550 V2

The orchestration platform for
conducting business



Infrastructure Made Simple

Lenovo ThinkSystem SN550 V2 is the latest 2-socket server to join the world's most reliable x86 server portfolio. As the newest building block in the Flex System family, SN550 V2 is optimized for performance, efficiency and security. SN550 V2 can tackle business-critical workloads such as cloud, server virtualization, departmental databases, and virtual desktop infrastructure (VDI).

This blade server incorporates up to two third-generation Intel® Xeon® Scalable processors with memory speeds up to 3200 MHz, plus increased application throughput and VM density the addition of Intel® Optane™ DC persistent memory 200 Series modules.

In addition, the SN550 V2 is compatible with your current Flex System Enterprise Chassis, which is engineered to support high-speed networking and multiple generations of the Intel® Xeon® Platinum processor in your blade systems, whether from SN550 V2 or from Lenovo's four-processor blade server SN850.

Ever-Changing Workloads

Flex System makes infrastructure more composable and customizable. Teamed with Lenovo XClarity management suite, businesses can compose compute, external storage, and networking resources to adapt to changing workload and capacity requirements.

This extreme agility provides new levels of command over resources:

- Faster virtual machine deployment and movement for easier orchestration with support for up to 205W processors (up to 250W with special bid)
- Storage flexibility, from no drives to a choice of mix-and-match SAS/SATA HDDs/SSDs and U.2/NVMe. SN550 V2 alternitvely supports up to six EDSFF form-factor NVMe drives, maximizing the storage capabilities within a single half-width, two-socket node.
- Intel® Optane™ DC persistent memory 200 Series offers an unprecedented combination of high capacity, affordability, and persistence for a reduction of restart times, 1.2x virtual machine density, dramatically improved data replication with 14x lower latency and 14x higher IOPS, and greater security for persistent data built into hardware.
- NVMe drives can be tiered for caching and data analytics
- Choice of multiple boot devices, including dual-mirrored M.2

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These are merely a few of the incorporated technologies and features that deliver an extremely agile blade architecture and provide automated infrastructure control that enables IT staff to focus on innovation and new challenges.

SN550 V2's two-CPU, 16 DIMM-slot design is perfect for CPU and memory intensive workloads. With more CPU and memory bandwidth than ever before, workloads will be able to solve business requirements faster.

Tiered Efficiency

The Flex System Enterprise Chassis houses up to 14 ThinkSystem SN550 V2 blades—containing up to two third-generation Intel® Xeon® Scalable processors and 16 DIMM slots—and up to four integrated switches. This integration produces up to 80% greater density than 1U two-processor rack servers and switches, with the added bonus of reducing the number of cables (and cabling complexity) by nearly half. The chassis design creates efficiency via:

- Simplified, flexible, and fast deployment and management with Lenovo XClarity Administrator software, for future-defined data centers
- Up to four integrated networking switches, for improved throughput and reduced cable count
- Zoned adaptive cooling that varies system fan speeds as needed, to reduce energy costs
- Energy-efficient components, including 80 PLUS Platinum hot-swap/redundant power supplies



The Flex System Enterprise Chassis houses up to 14 SN550 V2 compute nodes, delivering high density.

Flex System saves time and money by greatly reducing your costs for energy, floor/rack-space, and by simplifying management. Reduced complexity enables your infrastructure to become a powerful tool—ready for the future—instead of a drain on resources.

A Proven Platform

Flex System has enabled customers to streamline infrastructure since 2012.

Redundancy is prevalent throughout, including switches, management modules, blades, power supplies and cooling systems. There is no single point of failure in Flex System. It also features:

- Enterprise-class CPU RAS—such as MCA Recovery, Memory Post Package Repair, and Fatal Error Handling—to keep systems running.
- Cable-free blades, which accelerate servicing and reduce upgrade times
- The XClarity mobile app, which allows remote diagnostics and management from a credentialed mobile device or smart phone
- Worldwide Lenovo service and support, available in more than 140 countries

ThinkSystem Server Deployment and Management

Lenovo XClarity Controller is an embedded management engine common to all ThinkSystem servers. Designed for data centers that put a premium on precision and efficiency, is built for ease of inter-operability with Redfish-compliant REST APIs, and delivers up to two times faster server boot times to operating system screens than the prior generation server, and up to six times faster firmware updates.

Lenovo XClarity Administrator is a virtualized software application to centrally manage ThinkSystem servers, storage, and networking. It delivers discovery and inventory management, software-based configuration patterns, policy-based firmware management, and installation of operating systems and hypervisors to multiple systems. It also serves as a centralized point of integration to extend your existing standardized data center processes. Running XClarity integrators from your external IT applications, or integrating with open REST APIs, allows administrators to use their familiar tools and consoles to deploy and manage Lenovo infrastructure.

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

Specifications

Form Factor/Height	Standard width blade; up to 14x supported in the Flex Enterprise Chassis
Processors	Up to 2x 3rd generation Intel® Xeon® Scalable processors up to 205W (up to 250W with Special Bid)
Memory	Up to 2TB in 16x slots using 128GB DIMMs; Memory operates at 3200MHz; supports Intel® Optane™ DC persistent memory 200 Series module (PMem)
Expansion Slots	Up to 2x PCIe 4.0 x16 mezzanine slots for Ethernet and Fibre Channel adapters
Internal Storage	Either 6x EDSFF bays supporting NVMe SSDs, 2x 2.5" bays supporting SAS/SATA drives, or 2x 2.5" bays supporting NVMe/SATA drives; plus 2x M.2 SATA/NVMe boot drives (optional RAID 0,1)
Network Interface	2x slots for adapters, 2-port or 4-port 10GbE, 4-port 25GbE or 2-port 50GbE; FCoE/iSCSI support
RAID Support	Onboard RAID with Intel® VROC for NVMe and SATA; optional basic RAID adapter (12Gbps SAS/SATA); optional advanced RAID adapter (12Gbps SAS/SATA with 2GB flash-backed cache)
Power	Hot-swap/redundant power supplies housed in the chassis
Systems Management	Lenovo XClarity Controller, XClarity Administrator, XClarity Integrator plugins, and XClarity Energy Manager
Security and Availability Features	Lenovo ThinkShield; operating temperature up to 40°C (with limitations)
OSes Supported	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; optional service upgrades

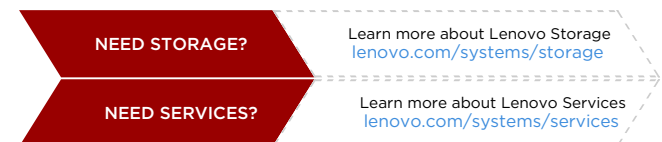
‡ [ITIC Global Reliability Report](#) Lenovo servers continue to be the industry's #1 most reliable.

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 SN550 V2 Compute Node, contact your Lenovo representative or Business Partner or visit www.lenovo.com/thinksystem or consult the [SN550 V2 Product Guide](#)



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