

# ThinkSystem SN550

## The orchestration platform for conducting business



### Infrastructure Made Simple

The Flex System Enterprise Chassis now supports two new blades, incorporating powerful second-generation Intel® Xeon® Processor Scalable family CPUs: the two-processor ThinkSystem SN550 and the four-processor ThinkSystem SN850. The chassis was engineered to support high-speed networking and multiple generations of Intel Xeon processors.

With twice the memory of the previous generation server, increased memory bandwidth, and faster and larger storage capacity, the SN550 is powerful enough for most key data center workloads, such as cloud, server virtualization, departmental databases, and virtual desktop infrastructure (VDI), as well as consolidating older servers onto a single blade.

In addition, the SN550 is compatible with your current Flex System Enterprise Chassis, protecting your investment in your chassis infrastructure.

### Ever-Changing Workloads

Making your infrastructure more easily composable is what Flex System is all about. Teamed with the Lenovo XClarity management suite, you can compose compute, external storage, and networking resources to adapt to changing workload and capacity requirements.

This extreme agility gives you new levels of command over your resources:

- Faster virtual machine deployment and movement for easier orchestration
- Storage flexibility, from no drives to a choice of mix-and-match SAS/SATA HDDs/SSDs and U.2/NVMe
- Intel® Optane™ DC Persistent Memory - new flexible tier that 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.<sup>†</sup>
- NVMe drives, for ultra-fast read/write storage that can be tiered for caching and data analytics
- Choice of multiple boot devices, including dual-mirrored M.2

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 your staff to focus on innovation and new challenges.

SN550's two-CPU, 24 DIMM-slot design is perfect for memory intensive workloads. With more memory capacity and memory bandwidth than ever before, workloads will be able to solve your business requirements faster.

Lenovo™

## Efficient On Multiple Levels

The Flex System Enterprise Chassis houses up to 14 ThinkSystem SN550 blades—containing up to two second-generation Intel® Xeon® Platinum processors and 24 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

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 is a second-generation blade system that has helped customers streamline their infrastructure since 2012. The ability to run four generations of Intel® Xeon® processor-based blades concurrently in the same chassis makes Flex System ready for the future-defined data center.



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

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 all-new embedded management engine common in every ThinkSystem server. Designed for data centers who put a premium on precision and efficiency, it has a fresh and uncluttered graphical user interface, is built for ease of interoperability 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	Standard width blade for Flex System Chassis
Processor	Up to 2 second-generation Intel® Xeon® Processor Scalable family up to 165W
Memory	Up to 3TB in 24x slots, using 128GB DIMMs; 2666MHz / 2933MHz TruDDR4; supports Intel® Optane™ DC Persistent Memory
Expansion Slots	Up to 2x PCIe x16 mezzanine adapters
Internal Storage	Up to 2x 2.5" bays supporting SAS/SATA HDDs/SSDs, or NVMe/U.2 SSDs; plus 1x or 2x (mirrored) M.2 (SATA) fixed boot drives (optional RAID 1)
Network Interface	4x 10GbE LOM with fabric connector; or 2x 10GbE, 4x 10GbE, converged network mezzanine adapters, or 4x 25GbE or 2x 50GbE network mezzanine adapters
Power Supply	Contained in the chassis
Security and Availability Features	Lenovo ThinkShield, hot-swap 2.5" SAS/SATA/U.2 drives; operating temperature up to 40°C (with limitations)
RAID Support	SW RAID standard. (6Gbps SATA); optional HW basic RAID (12Gbps SAS/SATA); optional HW advanced RAID (12Gbps SAS/SATA 2GB flash-backed cache)
Systems Management	XClarity Controller, XClarity Administrator, XClarity Integrator plugins, and XClarity Energy Manager
OSes Supported	Microsoft Windows Server, Red Hat, SUSE, VMware vSphere. Visit <a href="http://lenovopress.com/osig">lenovopress.com/osig</a> for details
Limited Warranty	3-year customer replaceable unit and onsite service, next business day 9x5; optional service upgrades



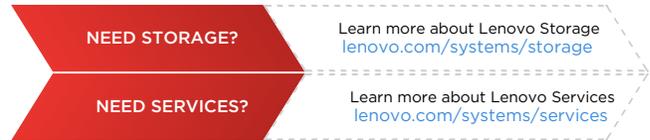
## About Lenovo

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.

Lenovo servers continue to be the industry's #1 most reliable†, with the industry's highest customer satisfaction§ rating.

## For More Information

To learn more about the ThinkSystem SN550 Compute Node, contact your Lenovo representative or Business Partner or visit [www.lenovo.com/thinksystem](http://www.lenovo.com/thinksystem) or consult the SN550 [Product Guide](#).



† Based on Intel internal testing, August 2018. \* 14x ThinkSystem SN550 nodes + 4x integrated switches = 10U; 14x 1U servers + 4x 1U switches = 18U. \*\* Compared to the prior-generation Lenovo Flex System x240 M5.

‡ [ITIC 2018 Global Reliability Report](#). § [TBR x86-based Servers Report 2018](#).

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