ThinkSystem SN550

The orchestration platform for conducting business

Infrastructure Made Simple

The Flex System Enterprise Chassis now supports two new blades, incorporating powerful 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 or U.2/NVMe
- 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.

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ThinkSystem

intel® XEON® PLATINUM inside™

Efficient On Multiple Levels

The Flex System Enterprise Chassis houses up to 14 ThinkSystem SN550 blades—containing up to two Intel® Xeon® Platinum processors and 24 DIMM slots—and up to four integrated switches. This integration produces up to 80 percent 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 helps save 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. And, Lenovo servers continue to be the industry's #1 most reliable‡, with the industry's highest customer satisfaction§ rating.

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 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.

Specifications

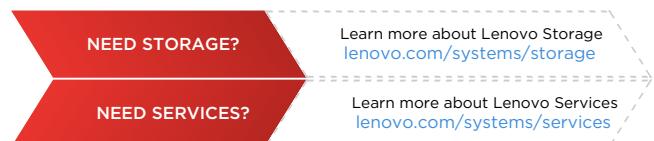|	
Form Factor	Standard width blade for Flex System Chassis
Processor	1x or 2x Intel® Xeon® processor Scalable family up to 165W
Memory	Up to 3TB in 24x slots, using 128GB DIMMs; 2666MHz TruDDR4
Expansion Slots	Up to 2x PCIe x16 mezzanine adapters
Internal Storage	Up to 2x 2.5-inch storage bays supporting SAS/SATA HDDs/SSDs, or NVMe/U.2 SSDs; plus 1x or 2x (mirrored) M.2 (SATA) fixed boot drives (opt. RAID 1)
Network Interface	4x 10GbE LOM with fabric connector; or 2x 10GbE, 4x 10GbE or converged network mezzanine adapters
Power Supply	Contained in the chassis
Hot-Swap Components	2.5-inch SFF SAS/SATA/NVMe/U.2 storage drives
RAID Support	Software RAID std. (6Gbps SATA); optional hardware basic RAID (12Gbps SAS/SATA); optional hardware advanced RAID (12Gbps SAS/SATA 2GB flash-backed cache)
Systems Management	XClarity Controller embedded management, XClarity Administrator centralized infrastructure delivery, XClarity Integrator plugins, and XClarity Energy Manager centralized server power management
Operating Systems Supported	Microsoft Windows Server, Red Hat, SUSE, VMware vSphere. Visit lenovopress.com/osig for details
Limited Warranty	3-year customer replaceable unit and onsite service, next business day 9x5; optional service upgrades

Featured Options

64GB TruDDR4 2666MHz (4Rx4 1.2V) LRDIMM	U.2 1.92TB Mainstream NVMe PCIe 3.0 Hot-Swap SSD	Flex System CN4054S 4-port 10Gb Virtual Fabric Adapter with FCoE
7X77A01305	7N47A00096	01CV790
Larger capacity TruDDR4 DIMM to improve the performance of your workloads	High-performance, low-latency drive optimized for mixed intensive workloads	Converged network adapter that can support Ethernet, FCoE and iSCSI protocols

Why Lenovo

Lenovo is a global Fortune 500 company and a leader in providing innovative consumer, commercial, and enterprise technology. Lenovo enterprise systems deliver industry-leading performance, reliability, and security in virtualized and cloud environments for analytics, database, virtual desktop, infrastructure, and web workloads. Lenovo also offers simplified and extensible systems management tools so you can manage your infrastructure on your own terms. The Lenovo enterprise server, storage, and networking portfolio provides the hardware for businesses that never stand still.

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 or consult the SN550 Product Guide.

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

* 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. ‡ 2016-2017 Global Hardware, Server OS Reliability Report, ITIC; October 2016; and ITIC Reliability Study 2016 – 2017 Mid-year Update , May 2017. § 2H16 Corporate IT Buying Behavior and Customer Satisfaction Study, TBR; July 2017.