# New World Record SPECpower_ssj2008 Benchmark Result for 2-Socket (14-node) ThinkSystem SN550

Performance Benchmark Result (withdrawn product)

November 8, 2017 ... The Lenovo ThinkSystem SN550 has set a new 2-socket (14-node) performance world record for the SPECpower_ssj 2008 benchmark. The ThinkSystem SN550 is the newest member of the Lenovo Flex System product family that provides integrated compute, power, cooling, and networking in an advanced chassis design.

The SPECpower_ssj 2008 benchmark is the first industry-standard benchmark that evaluates the power and performance characteristics of single server and multi-node servers.

Lenovo ThinkSystem SN550 delivered the following SPECpower_ssj2008 2-socket (14-node) world record performance result:
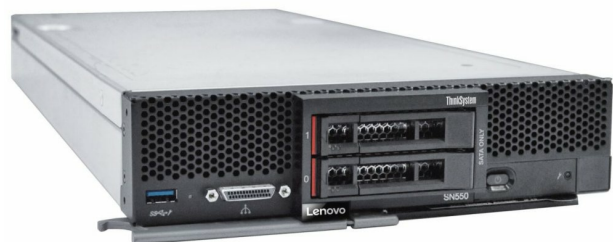
- **SPECpower_ssj2008 = 10,738 overall ssj_ops/watt**

The SN550 was configured as follows (per node):

- Intel® Xeon® Platinum 8176, 2.10 GHz with 38.5 MB L3 cache per processor (2 processors, 28 cores per processor).
- 192 GB of DDR4 memory.
- 1x 32GB M.2 SSD
- Microsoft® Windows Server® 2012 R2 DataCenter
- Oracle Java HotSpot 64-Bit Server VM (JVM)

Results referenced are current as of November 8, 2017.

This benchmark result can be found at the following web page:
https://www.spec.org/power_ssj2008/results/res2017q4/power_ssj2008-20171011-00794.html

To view all SPECpower_ssj 2008 results, see the following page:
https://www.spec.org/power_ssj2008/results/

About the ThinkSystem SN550

The Lenovo ThinkSystem SN550 is a high-performance server that offers enhanced security, efficiency, and reliability features to handle business-critical workloads.

The blade server incorporates Intel Xeon Processor Scalable Family of processors. The processors feature up to 28 cores each and use Lenovo TruDDR4 Memory, which runs at speeds up to 2666 MHz.

The SN550 is ideally suited for medium and large businesses. Suggested uses: database, virtualization, enterprise applications, collaboration and email, streaming media, Web, HPC, and cloud applications.

The SN550 offers the following features to boost performance, improve scalability, save energy.

Scalability and performance: Up to 14 SN550 servers can be installed in one Flex System Enterprise chassis. Improves productivity by offering superior system performance with up to 28-core processors, up to 38.5 MB of L3 cache, two 10.4 GT/s Ultra Path Interconnect links and a Thermal Design Power (TDP) rating of up to 165W.

Each processor has 6 memory channels with up 2 two DIMMs per channel running at up to 2666 MHz. Optional support for high-performance PCIe-attached NVMe Flash Storage solid-state drives (SSDs) can significantly improve I/O performance. Support for 40 Gb Ethernet, 16 Gb Fibre Channel, and FDR InfiniBand.

Energy efficiency: The component-sharing design of the Flex System chassis provides ultimate power and cooling savings. The Intel Xeon Processor Scalable Family of processors offer significantly better performance than previous generations of processors, while fitting into the same TDP limits.

Intel Intelligent Power Capability powers individual processor elements on and off as needed, which reduces power draw. Solid state drives (SSDs) use as much as 80% less power than traditional spinning 2.5-inch HDDs. The SN550 uses hexagonal ventilation holes, which can be grouped more densely than round holes providing more efficient airflow through the system.

For more product features and information, see the Lenovo Press product guide: https://lenovopress.com/lp0637-thinksystem-sn550-server
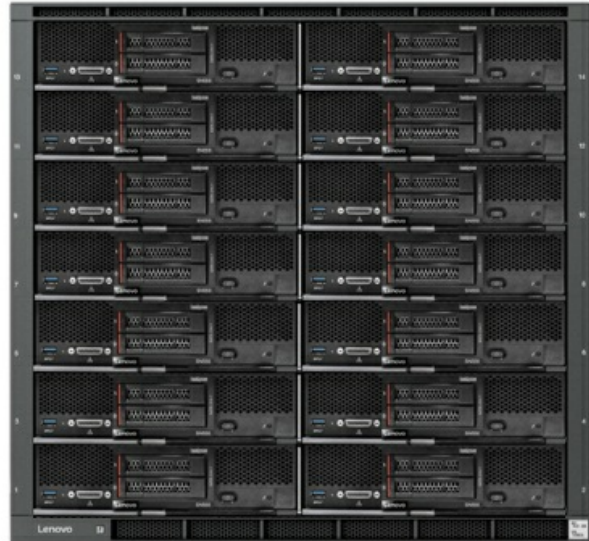
About SPECpower

The SPEC Power benchmark suite measures the power and performance characteristics of server-class computer equipment. It is used to compare power and performance among different servers and serves as a toolset for use in improving server efficiency. This benchmark is targeted for use by hardware vendors, IT industry, computer manufacturers, and governments.

Learn more

To learn more about power-efficient solutions for compute-intensive applications, please contact your Lenovo Sales Representative.

To find out more about SPEC, visit https://www.spec.org

To learn more about the Lenovo ThinkSystem SN550 server, visit the SN550 product web page.

Related product families

Product families related to this document are the following:

- Blade Servers
- SPECpower Benchmark Results
- ThinkSystem SN550 Server

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