ThinkSystem SR950 Sets World Record with Four New 6-Socket SPECcpu Benchmark Results

Performance Benchmark Result (withdrawn product)

The Lenovo ThinkSystem SR950 server delivers world-record six-processor performance for compute-intensive applications with four new results of the SPEC CPU2017 benchmark.

The SPECspeed2017_int_base / SPECspeed2017_fp_base scores are ideal for measuring single-threaded compute-intensive applications, such as High Frequency Trading (HFT) and other financial industry workloads.

SPECrate2017_int_base / SPECrate2017_fp_base scores are ideal for measuring multi-threaded compute-intensive applications, such as High Performance Computing (HPC) workloads.

The ThinkSystem SR950 with six processors achieved the following SPEC CPU2017 scores:

- **SPECspeed2017_int_base: 9.29**
- **SPECspeed2017_fp_base: 161**
- **SPECrate2017_int_base: 854**
- **SPECrate2017_fp_base: 777**

The ThinkSystem SR950 was configured as follows:

- 6x Intel Xeon Platinum 8180 processors
  - 2.5 GHz, 38.5 MB L3 cache per processor
  - 6 processors with a total of 168 cores, 28 cores per processor
- 2.25 TB of TruDDR4 memory
- Red Hat Enterprise Linux Server 7.5 (SPECspeed2017_fp_base)
- SUSE Linux Enterprise Server 12 SP2 (other 3 benchmarks)

The result is current as of September 4, 2018.

To view details of these results, go to:

- SPECspeed2017_int_base result:
  https://www.spec.org/cpu2017/results/res2018q3/cpu2017-20180820-08578.html
- SPECspeed2017_fp_base result:
  https://www.spec.org/cpu2017/results/res2018q3/cpu2017-20180820-08576.html
- SPECrate2017_int_base result:
  https://www.spec.org/cpu2017/results/res2018q3/cpu2017-20180820-08575.html

- SPECrate2017_fp_base result:
  https://www.spec.org/cpu2017/results/res2018q3/cpu2017-20180820-08577.html

To view all SPEC CPU2017 results, go to
http://www.spec.org/cpu2017/results/

About the ThinkSystem SR950

Lenovo ThinkSystem SR950 is designed for your most demanding, mission-critical workloads, such as in-memory databases, large transactional databases, batch and real-time analytics, ERP, CRM, and virtualized server workloads.

The powerful 4U ThinkSystem SR950 can grow from two to eight Intel Xeon Scalable Family processors, and with 96 DIMM sockets, supports up to 12 TB of high-speed memory without having to replace the server enclosure or upgrade to a physically larger design. The modular design of SR950 speeds upgrades and servicing with easy front or rear access to all major subsystems to maximize server availability.

The SR950 packs numerous fault-tolerant and high-availability features into a high-density design. The SR950 offers enterprise scalability and advanced RAS features to support the most demanding mission-critical applications that require 24x7 operations. The new 4U rack optimized design reduces the space needed to support massive network computing operations and simplifies servicing.

Lenovo XClarity Controller is an all-new hardware embedded management engine common in every ThinkSystem server. XClarity Controller features an uncluttered graphical user interface, industry standard Redfish-compliant REST APIs, and enables booting in half the time of prior generation servers, with up to 6x faster firmware updates.

Lenovo XClarity Administrator is a virtualized application that centrally manages ThinkSystem servers, storage, and networking. Via reusable patterns and policies, it ramps up and scales infrastructure provisioning and maintenance. It serves as a central integration point to extend your data center management processes to physical IT. Running XClarity Integrators in external IT applications, or integrating through REST APIs, helps you further speed services provisioning, streamline IT management, and contain costs.

About SPEC CPU2017

SPEC CPU 2017 is SPEC's next-generation, industry-standardized, CPU intensive suite of benchmarks for measuring and comparing compute intensive performance, stressing a system's processor, memory subsystem and compiler. This benchmarks provides a comparative measure of compute-intensive performance using workloads developed from real user applications.

The SPEC CPU 2017 benchmark suite measures server performance in the following ways:

- SPECspeed 2017 is to compare time for a computer to complete single tasks
- SPECrate 2017 is to measure the throughput or work per unit of time.

This benchmark is targeted for use by hardware vendors, IT industry, computer manufacturers, and government.

Learn more

To learn more about 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 SR950 server, visit the SR950 product web page: https://www.lenovo.com/us/en/data-center/servers/mission-critical/Lenovo-ThinkSystem-SR950/p/77XX7HSSR95

Related product families

Product families related to this document are the following:

- 4-Socket Rack Servers
- Large Memory Capacity Servers
- SPECcpu Benchmark Results
- ThinkSystem SR950 Server

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