

ThinkSystem SR635 Sets World Record with New 1-Socket SPECcpu Result Performance Benchmark Result

The Lenovo ThinkSystem SR635 server delivers world-record single-socket performance for compute-intensive applications with a new result of the SPEC CPU2017 benchmark.

The ThinkSystem SR635 with one processor achieved the following SPEC CPU2017 scores:

- **SPECspeed2017_fp_base: 133**

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



The ThinkSystem SR635 was configured as follows:

- 1x AMD EPYC 7742 processor - 64 cores, 2.25 GHz, 256 MB L3 cache per processor
- 256MB of TruDDR4 memory
- SUSE Linux Enterprise Server 12 SP4

The result is current as of August 7, 2019.

To view the details of this result, go to:

- SPECspeed2017_fp_base
<http://spec.org/cpu2017/results/res2019q3/cpu2017-20190723-16391.html>

To view all SPEC CPU2017 results, go to

<http://www.spec.org/cpu2017/results/>

About the ThinkSystem SR635

The Lenovo ThinkSystem SR635 with the next generation AMD EPYC architecture is ideal for I/O intensive workloads, from databases and analytics, to virtualized environments (VDI) and hybrid cloud solutions. This 1U, single socket rack server is right-sized to offer the balanced processor power, performance, memory and I/O of a 2-socket server at the value and total cost of ownership of a 1-socket server.

With the enterprise class AMD EPYC 7002 Generation processor, the world's first 7nm data center CPU, the SR635 features up to an unprecedented 64 cores with 128 PCIe lanes in a single socket to reduce bottlenecks and increase server utilization.

Compared to the previous processor generations, ThinkSystem servers with AMD architecture deliver up to 2X performance and 4X floating point capability with PCIe Gen4 support and faster memory speeds up to 3200 MHz, providing faster data transfer and analytics without sacrificing memory capacity or I/O.

Key features of the SR635 include:

- High capacity storage, with support for up to 16x2.5" drives. When the server is outfitted with 16 low-latency NVMe drives, the server is an ideal platform for OLTP, Analytics, software-defined and HPC storage.
- Up to three single-wide GPUs to provide workload acceleration for AI inference and VDI applications.
- Full support PCIe Gen4 to achieve up to 16 GT/s for accelerated data transfer speeds. This new technology enables the next-generation of technology for grid-computing and high-frequency trading analytics in the financial services sector, and capacity planning and supply chain optimization in both the telco and manufacturing industries.

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 SR635 server, visit the SR635 product web page: <https://www.lenovo.com/us/en/data-center/servers/racks/ThinkSystem-SR635-Server/p/77XX7SRSR35>

Related product families

Product families related to this document are the following:

- [1-Socket Rack Servers](#)
- [SPECcpu Benchmark Results](#)
- [ThinkSystem SR635 Server](#)

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