ThinkSystem ST45 V3 Sets 4 World Records with New SPEC CPU Benchmark Result

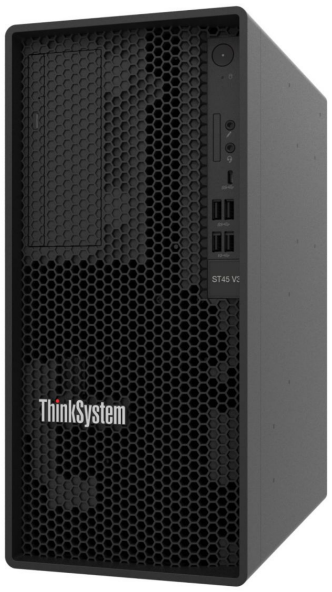
Performance Benchmark Result

The Lenovo ThinkSystem ST45 V3 server has set four performance world records for compute-intensive applications with new results of the SPEC CPU 2017 benchmark.

The benchmark world records are:

- Best overall SPECspeed2017_int_energy_base score on a 1-processor system
- Best SPECspeed2017_int_energy_base score
- Best overall SPECspeed2017_int_energy_peak score on a 1-processor system
- Best SPECspeed2017_int_energy_peak score

These new benchmark results, published in new SPEC reports on December 3, 2024, demonstrate that the ThinkSystem ST45 V3 continues Lenovo's leadership with outstanding performance for the server industry.



The ThinkSystem ST45 V3 achieved the following SPEC CPU 2017 scores:

- **SPECspeed2017_int_energy_base: 362** (1,2)
- **SPECspeed2017_int_energy_peak: 380** (3,4)

These results are both over 20% better than competitor's results using the same processor. (5)

SPECspeed2017 scores are ideal for measuring single-threaded compute-intensive applications, such as High Frequency Trading (HFT) and other financial industry workloads.

The Lenovo ThinkSystem ST45 V3 server was configured as follows:

- 1 x AMD EPYC 4344P processor - 8 cores, 3.80 GHz, 32 MB L3 cache
- 64 GB system memory
- SUSE Linux Enterprise Server 15 SP6

The results are current as of December 3, 2024. To view details of the results, see the following SPEC web pages:

(1) Best overall SPECspeed2017_int_energy_base score. Used SUSE 15SP6
https://spec.org/cpu2017/results/res2024q4/cpu2017-20241021-45069.html

(2) Best 1-CPU SPECspeed2017_int_energy_base score. Used SUSE 15SP6
https://spec.org/cpu2017/results/res2024q4/cpu2017-20241021-45069.html

(3) Best overall SPECspeed2017_int_energy_peak score. Used SUSE 15SP6
https://spec.org/cpu2017/results/res2024q4/cpu2017-20241021-45069.html

(4) Best 1-CPU SPECspeed2017_int_energy_peak score. Used SUSE 15SP6
https://spec.org/cpu2017/results/res2024q4/cpu2017-20241021-45069.html

(5) The Supermicro Mainstream A+ Server AS -1015A-MT (H13SAE-MF, AMD EPYC 4344P) has a SPECspeed2017_int_energy_base score of 301 and a SPECspeed2017_int_energy_peak score of 310. For more details, see:
https://www.spec.org/cpu2017/results/res2024q3/cpu2017-20240813-44515.html

To view all SPEC CPU 2017 results, go to
http://www.spec.org/cpu2017/results/

About the ThinkSystem ST45 V3

The Lenovo ThinkSystem ST45 V3 single-socket tower server is a compact-sized and affordable 1S entry tower design optimized for SOHO (Small Office/Home Office), educational institutions and retail office. The server supports one AMD EPYC 4004 Series processor and up to 64 GB of TruDDR5 5200MHz memory.

Target workloads such as: File server, Mail server, Print server, FTP server, Business Application, Near-side Data Backup.

About SPEC CPU 2017

SPEC CPU 2017 is SPEC's industry-standard suite of benchmarks for measuring and comparing compute intensive performance, stressing a system's processor, memory subsystem and compiler. This benchmark 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 ST45 V3 server, visit the ST45 V3 product web page:
https://www.lenovo.com/us/en/p/servers-storage/servers/towers/lenovo-thinksystem-st45-v3/len21ts0040

Related product families

Product families related to this document are the following:

- 1-Socket Tower Servers
- SPECcpu Benchmark Results
- ThinkSystem ST45 V3 Server

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