

ThinkSystem SR655 Sets World Record with SAP SD Two-Tier Benchmark Result

Performance Benchmark Result

The Lenovo ThinkSystem SR655 server, using an AMD EPYC 7742 64-core processor running at 2.25 GHz, demonstrates best performance in the industry with the SAP SD 2-tier standard application benchmark.

Lenovo announces a world record result on Microsoft Windows for the two-tier SAP Sales and Distribution (SD) standard application benchmark.

The result was achieved on the Lenovo ThinkSystem SR655, configured with one AMD EPYC 7742 processor, using IBM Db2 10.5 and SAP enhancement package 5 for the SAP ERP application release 6.0.



Lenovo delivered the following certified result (1):

- **Number of SAP SD benchmark users: 31,650**

Throughput:

- Fully processed order line items per hour: 3,477,330
- Dialog steps per hour: 10,432,000
- SAPS: 173,870
- Average database request time (dialog/update): 7 ms / 16 ms

Configuration of the central server:

- Lenovo ThinkSystem SR655
- Processor: One AMD EPYC 7742 processor, 64 cores, 240W, 2.25 GHz core frequency
- Cache: 64 KB L1 cache and 512 KB L2 cache per core, 256 MB L3 cache per processor
- 512 GB main memory

Software platform:

- Operating system, central server: Microsoft Windows Server 2016 Datacenter
- RDBMS: IBM Db2 10.5
- SAP Business Suite software: SAP enhancement package 5 for SAP ERP 6.0

Results referenced are current as of September 30, 2019. For the latest SAP benchmark results, visit: <https://www.sap.com/about/benchmark.html>.

(1) This benchmark fully complies with the SAP Benchmark Council regulations and has been audited and certified by SAP SE, [Certification number: 2019049](#). The benchmark was performed at the Lenovo Data Center Performance Lab in Research Triangle Park, NC, USA, by Lenovo engineers.

About the ThinkSystem SR655

The Lenovo ThinkSystem SR655 with the next generation AMD EPYC architecture delivers outstanding TCO for virtualization, big data, analytics, and scale up software defined deployments. It offers two-socket performance in a 2U, single-socket design, featuring higher core, and storage density; increased I/O throughput with less latency; along with built-in system security.

With the enterprise class AMD EPYC 7002 Generation processor, the world's first 7nm data center CPU, the SR655 features up to an unprecedented 64 cores with 128 PCIe Gen4 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, providing faster data transfer and analytics without sacrificing memory capacity or I/O with PCIe Gen4 support and faster memory speeds up to 3200 MHz.

Key features of the SR655 include:

- Multi-GPU optimized rack server, providing support for up to 6 single-wide GPUs that offer more workload acceleration in AI Inference and virtualized desktop infrastructure (VDI).
- 64 cores to handle heavy-lift virtualization workloads; provides cutting edge application efficiency in health care applications such as EMR, PACS, and medical imaging or electronic trading platforms for financial services applications.
- Support for up to 32 NVMe solid-state drives; when paired with high speed networking, make the system an excellent choice for workloads that need large amounts of low-latency high-bandwidth storage, including virtualized clustered SAN solutions, software-defined storage (SDS), and applications leveraging NVMe over Fabrics.

About SAP SD

SAP SD benchmark is a test for standard sale and distribution business components on SAP ERP, which is indicative of the performance of the application and database on a specific hardware environment. For more information about the benchmark, go to <https://www.sap.com/about/benchmark/appbm/erp.html>.

Learn more

To learn more about SAP solutions on Lenovo servers visit the [SAP-Lenovo Alliance page](#).

To learn more about the Lenovo ThinkSystem SR655 server, visit the SR655 product web page: <https://www.lenovo.com/us/en/data-center/servers/racks/ThinkSystem-SR655-Server/p/77XX7SRSR75>

Related product families

Product families related to this document are the following:

- [1-Socket Rack Servers](#)
- [IBM Alliance](#)
- [IBM Db2](#)
- [SAP SD Benchmark Results](#)
- [SAP Alliance](#)
- [ThinkSystem SR655 Server](#)

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