

ThinkSystem SR650 V3 Sets Best in Class Result with New SAP SD Two-Tier Benchmark Result Performance Benchmark Result

The Lenovo ThinkSystem SR650 V3, using two Intel Xeon Platinum 8490H processors, demonstrates best performance in the industry in the SAP SD 2-tier standard application benchmark on Windows, as compared to other systems with two Intel processors.

The SAP Standard Application SD (Sales and Distribution) Benchmark is an ERP business test that represents the critical tasks performed in real-world ERP business environments, is indicative of full business workloads of complete order processing and invoice processing, and demonstrates the ability to run both the application and database software on a single system.



The benchmark result was published on January 10, 2023. The result was achieved on the ThinkSystem SR650 V3, configured with two Intel Xeon Platinum 8490H processors, and running IBM Db2 11.5 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: 65,208**

Throughput:

- Fully processed order line items per hour: 7,139,670
- Dialog steps per hour: 21,419,000
- SAPS: 356,980
- Average database request time (dialog/update): 6 ms / 9 ms

The benchmark result was a 44% performance gain over a similar two-tier SAP Sales and Distribution Standard Application Benchmark (2) completed on a Lenovo ThinkSystem SR650 V2 server with previous-generation Intel Xeon Platinum processors.

Configuration of the central server:

- ThinkSystem SR650 V3
- Two Intel Xeon Platinum 8490H processors (1.90 GHz core frequency, 120 total cores, 240 total threads)
- Cache: 80 KB L1 cache and 2048 KB L2 cache per core, 112.5 MB L3 cache per processor
- 1024 GB main memory

Software platform:

- Operating system, central server: Microsoft Windows Server 2019
- RDBMS: IBM Db2 11.5
- SAP Business Suite software: SAP enhancement package 5 for SAP ERP 6.0

Results referenced are current as of January 10, 2023. 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. Details are available at <https://www.sap.com/dmc/benchmark/2023/Cert23002.pdf>. The benchmark was performed at Lenovo Infrastructure Solutions Group Performance Lab in Research Triangle Park, NC, USA, by Lenovo engineers.

(2) This benchmark fully complies with the SAP Benchmark Council regulations and has been audited and certified by SAP SE. Details are available at <https://www.sap.com/dmc/benchmark/2021/Cert21052.pdf>. The benchmark was performed at Infrastructure Systems Performance Lab, Lenovo in Research Triangle Park, NC, USA, by Lenovo engineers.

About the ThinkSystem SR650 V3

The Lenovo ThinkSystem SR650 V3 is an ideal 2-socket 2U rack server, based on the new 5th generation Intel Xeon Scalable processor family. The SR650 V3 is for small business up to large enterprises that need industry-leading reliability, management, and security, as well as maximizing performance and flexibility for future growth. The server offers a broad selection of drive and slot configurations and offers numerous high performance features. Outstanding reliability, availability, and serviceability (RAS) and high-efficiency design can improve business operation and help save operational costs.

SR650 V3 offers the low-latency, high capacity performance necessary to keep up with the workloads of today. It's designed to handle a wide range of workloads, such as databases, virtualization and cloud computing, virtual desktop infrastructure (VDI), infrastructure security, systems management, enterprise applications, collaboration/email, streaming media, web, and HPC.

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 following page: <https://www.lenovo.com/us/en/data-center/solutions/sap/>

To learn more about the Lenovo ThinkSystem SR650 V3 server, visit the SR650 V3 product web page: <https://www.lenovo.com/us/en/p/servers-storage/servers/racks/thinksystem-sr650-v3/len21ts0013>

Related product families

Product families related to this document are the following:

- [IBM Alliance](#)
- [IBM Db2](#)
- [SAP Alliance](#)
- [SAP SD Benchmark Results](#)
- [ThinkSystem SR650 V3 Server](#)

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This document, LP1685, was created or updated on January 11, 2023.

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