

Best in Class SAP SD Benchmark Result for Lenovo ThinkSystem SR650 V2

Performance Benchmark Result

The Lenovo ThinkSystem SR650 V2 using two Intel Xeon Platinum 8380 processors demonstrates best performance in the industry with the SAP® SD 2-tier standard application benchmark in a Microsoft Windows environment, 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.

This document summarizes the benchmark result published on July 15, 2021. The result was achieved on the ThinkSystem SR650 V2, configured with two Intel Xeon Platinum 8380 processors, 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: 43,325**

Throughput:

- Fully processed order line items per hour: 5,009,330
- Dialog steps per hour: 15,028,000
- SAPS: 250,470
- Average database request time (dialog/update): 6 ms / 7 ms

Configuration of the central server:

- ThinkSystem SR650 V2
- Two Intel Xeon Platinum 8380 processors, 80 cores / 160 threads, 2.30 GHz
- Cache: 80 KB L1 cache per core, 1280 KB L2 cache per core, and 60 MB L3 cache per processor
- 1024 GB main memory

Software platform:

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

Results referenced are current as of July 15, 2021. 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/2021/Cert21052.pdf>. The benchmark was performed at Lenovo Infrastructure Solutions Group Performance Lab in Research Triangle Park, NC, USA, by Lenovo engineers.

About the ThinkSystem SR650 V2

The Lenovo ThinkSystem SR650 V2 server is a multi-purpose server with the right balance of reliability, performance and scalability optimized for data-intensive workload acceleration to tackle the most demanding environments. From medium to large enterprises, and managed and cloud service providers, this 2U, two-socket form factor is the most widely used server type worldwide.

Expand and optimize application performance with support for up to two 3rd generation Intel Xeon Scalable processors, Intel Optane persistent memory 200 series modules, high-powered GPUs, and up to 40x 2.5" drives including support for low-latency NVMe drives.

Key features:

- Multi-socket core count density, up to 40 cores within each of two processors, provides enhanced performance and throughput to tackle data-intensive, multi-threaded applications such as CRM and virtualization workloads
- Maximize local data analytics and deliver larger scale virtual solutions with more than 2X the memory capacity of the previous generation platform
- Support for up to 32 NVMe solid-state drives with NVMe switch adapters; 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 (NVMeOF)
- Configurable to be a multi-GPU optimized rack server, providing support for up to 8 single-wide GPUs, facilitates increased computational performance, time for parallel paths and faster insights
- Higher I/O bandwidth with up to 8x PCI 4.0 slots to accelerate data transfer and computing for high frequency trading, high performance computing and AI workloads

The Lenovo XClarity family of software helps to deliver peak efficiency and precision management including ThinkShield Security. The ThinkSystem SR650 V2 features single sign-on support for XClarity Administrator, enhanced Platform Firmware Resiliency (PFR) and Hardware Root of Trust, transport layer security and IP Address blocking.

With Lenovo ThinkSystem best-in-class reliability, the highly flexible and configurable SR650 V2 is the ideal platform for hyper-converged infrastructure (HCI) or software-defined storage (SDS). It provides a solid foundation for:

- Transforming physical resources into services, using validated designs for hybrid cloud
- Performing analytics on streaming data, using validated designs for Big Data
- Increasing productivity of virtualized transactional systems, using validated designs for OLTP

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 V2 server, visit the SR650 V2 product web page:

[http:// https://www.lenovo.com/us/en/data-center/servers/racks/ThinkSystem-SR650-V2/p/77XX7SR65V2](http://https://www.lenovo.com/us/en/data-center/servers/racks/ThinkSystem-SR650-V2/p/77XX7SR65V2)

Related product families

Product families related to this document are the following:

- [IBM Alliance](#)
- [IBM Db2](#)
- [SAP Alliance](#)
- [SAP SD Benchmark Results](#)
- [ThinkSystem SR650 V2 Server](#)

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