



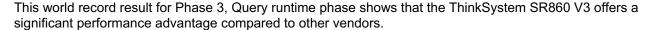
# ThinkSystem SR860 V3 Sets World Record with New SAP BW Edition for SAP HANA (7.8B Records) Benchmark Result

**Performance Benchmark Result** 

The Lenovo ThinkSystem SR860 V3 server, using Intel Xeon Platinum 8490H processors, delivers world record performance for complex query KPI (phase 3) for SAP Business Warehouse, edition for SAP HANA® Standard Application Benchmark Version 3 with 7.8 billion (7.8B) initial records in a single-node setup.

The benchmark refers to the SAP Business Warehouse (SAP BW) application running on the SAP HANA platform. The benchmark consists of three phases and the SR860 V3 server achieved the following performance results (1):

- Phase 1: Data load phase = 8,722 (Runtime of last Data Set in seconds)
- Phase 2: Query throughput phase
   = 10,814 (Query Executions per Hour)
- Phase 3: Query runtime phase = 83 (Total Runtime of complex query phase in seconds) (World Record)



The SR860 V3 was configured as follows:

- Four Intel Xeon Platinum 8490H processors, 1.90 GHz
  - 240 total cores / 480 total threads
  - 80 KB L1 cache and 2048 KB L2 cache per core
  - 112.5 MB L3 cache per processor
- 4096 GB DRAM system memory
- SUSE Linux Enterprise Server 15 SP4
- SAP HANA 2.0
- SAP NetWeaver® 7.50

Results referenced are current as of August 15, 2023. For the latest SAP BW benchmark results, visit: https://www.sap.com/dmc/exp/2018-benchmark-directory/#/bwh.



(1) This benchmark fully complies with the SAP Benchmark Council regulations and has been audited and certified by SAP SE (certification number 2023036). Details can be obtained from Lenovo and SAP. The benchmark was performed in Bucharest, Romania, by Lenovo engineers. Configuration: ThinkSystem SR860 V3 with 4 processor / 240 cores / 480 threads, Intel Xeon Platinum 8490H processors, 1.90 GHz, 80 KB L1 cache and 2048 KB L2 cache per core, 112.5 MB L3 cache per processor, 4096 GB DRAM.

## About the ThinkSystem SR860 V3

The Lenovo ThinkSystem SR860 V3 mission-critical server provides the speed and reliability you require today with the scalability and workload versatility you'll need to manage the explosive growth of data for tomorrow. Purpose-built to deliver affordable scalability in an industry-standard x86 platform, the SR860 V3 is ideal for mission critical workloads such as SAP HANA in-memory computing, transactional databases, analytics, big data, and enterprise resource planning tasks.

The Lenovo ThinkSystem SR860 V3 is a 4-socket server that features a 4U rack design, providing technology advances, including 4th Gen Intel® Xeon® Scalable processors, 4800 MHz DDR5 memory, large internal storage, and PCle Gen 5 slots with support for up to eight high-performance GPUs, offering considerable adaptability to match system configurations to projected workloads. The system has the capability to scale from two to four 4th Gen Intel® Xeon® Scalable processor family CPUs that offers a simple "pay as you grow" upgrade for both processors and memory, resulting in greater system performance to handle growing next-generation workloads.

Server reliability, availability, and serviceability (RAS) are crucial issues for modern enterprise IT shops that deliver mission-critical applications and services, and application delivery failures can be extremely costly per hour of system downtime. Intel Xeon Scalable processors running on ThinkSystem servers continue to be at the top of the industry in regards to RAS features. For further information on the importance of RAS and a comprehensive list of the key RAS features of the Lenovo ThinkSystem servers with Intel Xeon Scalable processors, read RAS Features of the Lenovo ThinkSystem Intel Servers .

#### About the SAP BW edition for SAP HANA Benchmark

The SAP BW, edition for SAP HANA Standard Application Benchmark, Version 3, is the latest addition to the list of benchmarks for SAP Business Warehouse. It utilizes the capabilities of SAP HANA to process the benchmark workload. Allowed data volumes are a multiple of 1.3 billion initial records and can be run in single-node and multi-node setups. This benchmark was released in July 2018.

The benchmark scenario represents typical mid-size customer scenario and volumes for SAP BW running on SAP HANA. The benchmark simulates a variety of users with different analytical requirements and measures the key performance indicator (KPI) relevant to each of the three benchmark phases.

The three benchmark phases are as follows:

- 1. Data load phase, testing data latency and load performance
- 2. Query throughput phase, testing query throughput with moderate complex queries
- 3. Query runtime phase, testing the performance of running very complex queries

For more information about the benchmark, go to https://www.sap.com/about/benchmark.html.

#### Learn more

To learn more about business warehouse and data analytics solutions for SAP applications running on Lenovo Servers visit, <a href="http://www.lenovo.com/sap/hana">http://www.lenovo.com/sap/hana</a> or contact your Lenovo Customer Representative.

To learn more about the Lenovo ThinkSystem SR860 V3 server, visit the SR860 V3 product web page: https://www.lenovo.com/us/en/p/servers-storage/servers/mission-critical/thinksystem-sr860-v3/7d931000na

# Related product families

Product families related to this document are the following:

- 4-Socket Rack Servers
- SAP Alliance
- SAP BW Benchmark Results
- ThinkSystem SR860 V3 Server

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