World Record SAP SD Benchmark Result on Windows for Lenovo 4-processor Two-Tier ThinkSystem SR950

Performance Benchmark Result (withdrawn product)

The Lenovo ThinkSystem SR950 server, using four Intel Xeon Platinum 8180 processors, delivers world record results with 49% performance improvement (1) over the previous-generation Lenovo system (2) for the SAP SD 2-tier standard application benchmark in a Microsoft Windows environment.

November 8, 2017 ... Today, Lenovo announces leading the two-tier SAP Sales and Distribution (SD) standard application benchmark.

The results were achieved on the Lenovo ThinkSystem SR950 on Microsoft Windows, configured with four Intel Xeon 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 (2):

- **Number of SAP SD benchmark users: 60,701**

Throughput:

- Fully processed order line items per hour: 6,653,000
- Dialog steps per hour: 19,959,000
- SAPS: 332,650
- Average database request time (dialog/update): 20 ms/ 17 ms

Configuration of the central server:

- Lenovo ThinkSystem SR950
- Processor: Intel Xeon Platinum 8180M 28C 205W 2.5GHz processor
- Cache: 64 KB L1 cache and 1024 KB L2 cache per core, 38.5 MB L3 cache per processor
- System memory: 1536 GB

Software platform:

- Operating system, central server: Windows Server 2012 Standard Edition R2
- RDBMS: IBM Db2 10.5
- SAP Business Suite software: SAP enhancement package 5 for SAP ERP 6.0

Results referenced are current as of November 8, 2017. For the latest SAP benchmark results, visit: http://www.sap.com/benchmark.

(1) The claim of achieving 49% percent improvement in performance is based on results on the two-tier SAP SD standard application benchmark achieved by Lenovo System x3850 X6 (4 processors / 96 cores /

192 threads, Intel Xeon Processor E7-8890 v4, 2.20 GHz, 64 KB L1 cache and 256 KB L2 cache per core, 60 MB L3 cache per processor (certification number 2016027). The Lenovo System x3850 X6 achieved 40,650 SAP SD benchmark users with 0.99 seconds average dialog response time, 221,870 SAP Application Performance Standard (SAPS) values, measured throughput of 13,312,000 dialog steps per hour (or 4,437,330 fully business processed line items per hour), and an average CPU utilization of 98% for the central server.

(2) This benchmark fully complies with the SAP Benchmark Council regulations and has been audited and certified by SAP SE (**certification number 2017042**). Details can be obtained from Lenovo and SAP. The benchmark was performed at Data Center Performance Lab, Lenovo in Research Triangle Park, NC, USA, by Lenovo engineers.

About the ThinkSystem SR950

Lenovo ThinkSystem SR950 is designed for your most demanding, mission-critical workloads, such as in-memory databases, large transactional databases, batch and real-time analytics, ERP, CRM, and virtualized server workloads.

The powerful 4U ThinkSystem SR950 can grow from two to eight Intel Xeon Scalable Family processors, and with 96 DIMM sockets, supports up to 12 TB of high-speed memory without having to replace the server enclosure or upgrade to a physically larger design. The modular design of SR950 speeds upgrades and servicing with easy front or rear access to all major subsystems to maximize server availability.

The SR950 packs numerous fault-tolerant and high-availability features into a high-density design. The SR950 offers enterprise scalability and advanced RAS features to support the most demanding mission-critical applications that require 24x7 operations. The new 4U rack optimized design reduces the space needed to support massive network computing operations and simplifies servicing.

Lenovo XClarity Controller is an all-new hardware embedded management engine common in every ThinkSystem server. XClarity Controller features an uncluttered graphical user interface, industry standard Redfish-compliant REST APIs, and enables booting in half the time of prior generation servers, with up to 6x faster firmware updates.

Lenovo XClarity Administrator is a virtualized application that centrally manages ThinkSystem servers, storage, and networking. Via reusable patterns and policies, it ramps up and scales infrastructure provisioning and maintenance. It serves as a central integration point to extend your data center management processes to physical IT. Running XClarity Integrators in external IT applications, or integrating through REST APIs, helps you further speed services provisioning, streamline IT management, and contain costs.

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/

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

To learn more about the Lenovo ThinkSystem SR950 server, visit the SR950 product web page:
https://www.lenovo.com/us/en/data-center/servers/mission-critical/Lenovo-ThinkSystem-SR950/p/77XX7HSSR95

Related product families

Product families related to this document are the following:

- 4-Socket Rack Servers
- IBM Alliance
- IBM Db2
- Large Memory Capacity Servers
- SAP Alliance
- SAP SD Benchmark Results
- ThinkSystem SR950 Server

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