

## SAP SD Benchmark Result for System x3850 X6 Performance Benchmark Result

*Lenovo's powerful 4-socket x3850 X6 server using Intel Xeon E7-8890 v4 processors on Windows delivers more than 33% performance improvement (1) over the previous-generation Lenovo system (2) for the SAP SD 2-tier standard application benchmark.*

June 6, 2016 ... Today Lenovo announced a new 4-processor result (1) on Windows on the two-tier SAP Sales and Distribution (SD) standard application benchmark (3).

The result was achieved on the Lenovo System x3850 X6, configured with 4 Intel Xeon processors, using IBM DB2 10.1 and SAP enhancement package 5 for the SAP ERP application release 6.0.



Lenovo delivered the following certified results:

- Number of SAP SD benchmark users: 40,650
- Average dialog response time: 0.99 seconds

Throughput:

- Fully processed order line items per hour: 4,437,330
- Dialog steps per hour: 13,312,000
- SAPS: 221,870

Average database request time (dialog/update): 0.009 sec / 0.015 sec

CPU utilization of central server: 98%

Software platform:

- Operating system, central server: Windows Server 2012 Standard Edition R2
- RDBMS: DB2 10.1
- SAP Business Suite software: SAP enhancement package 5 for SAP ERP 6.0

Configuration of the central server:

- Central server: Lenovo System x3850 X6, 4 processors / 96 cores / 192 threads,
- Intel Xeon Processor E7-8890 v4 24C 2.2GHz 165W
- 64 KB L1 cache and 256KB L2 cache per core, 60 MB L3 cache per processor
- 1024 GB main memory using Lenovo TruDDR4 memory

The System x3850 X6 is a 4U, 4-socket rack server that delivers maximum performance and availability for business-critical applications and databases. The X6 solution provides a powerful platform for mission-critical SAP Business Suite applications, one that is ideal for customers who are looking for reliability, manageability, and scalability with the flexibility to run Windows or Linux.

With system support for up to 96 processor cores, 6TB of system memory, and over >85TB of flash storage, the x3850 X6 not only is known for its leadership performance, but also for its ability to scale in order to power traditional databases as well as new in-memory database and analytics solutions. Now customers can achieve leadership solution performance by virtualizing high performance databases and applications on the same server.

X6 platforms are the sixth generation of enterprise X Architecture (EXA) technology and represent more than 15 years of investment and innovation to exceed industry standards.

Results referenced are current as of June 6, 2016. For the latest SAP benchmark results, visit: <http://www.sap.com/benchmark>.

(1) This benchmark fully complies with the SAP Benchmark Council regulations and has been audited and certified by SAP SE ([certification number 2016027](#)). 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.

(2) The claim of achieving 33% 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/72 cores/144 threads) on the Intel Xeon Processor E7-8890 v3, 2.5 Ghz, 45 MB L3 cache per processor ([certification number 2015010](#)). The server achieved 30,501 SAP SD benchmark users; average dialog response time: 0.97 seconds; 3,336,670 fully processed order line items per hour; 10,010,000 dialog steps per hour; 166,830 SAPS; CPU utilization of central server: 99%. The server was running Windows Server 2012 Standard Edition; IBM DB2 10; and SAP enhancement package 5 for SAP ERP 6.0.

(3) SAP SD Benchmark is a test for Standard ERP Sale and Distribution business application on SAP which is indicative of the performance of the application and database on a specific hardware environment.

## Related product families

Product families related to this document are the following:

- [Mission-Critical Rack Servers](#)
- [SAP SD Benchmark Results](#)
- [4-Socket Rack Servers](#)
- [SAP Alliance](#)

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This document, LP0530, was created or updated on June 6, 2016.

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