

SAP SD Benchmark Result for System x3650 M5

Performance Benchmark Result (withdrawn product)

The powerful two-socket Lenovo System x3650 M5 2U rack server delivered a remarkable 2-processor benchmark result (1) on Windows with 27% performance improvement over the previous-generation system (2) using the Intel Xeon processor E5-2699 v4.

March 31, 2016 ... Today Lenovo announced a competitive 2-processor result on Windows on the two-tier SAP Sales and Distribution (SD) standard application benchmark (3).

The result was achieved on the Lenovo System x3650 M5, configured with two Intel Xeon processors E5-2699 v4, and running IBM DB2 10 and SAP enhancement package 5 for the SAP ERP application release 6.0.



Lenovo achieved the following certified results:

- Number of SAP SD benchmark users: 20270
- Average dialog response time: 0.99 second

Throughput:

- Fully processed order line items per hour: 2,213,330
- Dialog steps per hour: 6,640,000
- SAP Application Performance Standard (SAPS) values: 110,670

Average database request time (dialog/update): 0.007 sec / 0.011 sec

CPU utilization of central server: 95%

Software on the central server:

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

Configuration of the central server:

- Lenovo System x3650 M5
- 2 processors / 44 cores / 88 threads
- Intel Xeon Processor E5-2699 v4, 2.20 GHz
- 64 KB L1 cache and 256 KB L2 cache per core, 55 MB L3 cache per processor
- 256 GB main memory

The System x3650 M5 delivers fast application performance – processing speed that is 27% faster than previous-generation systems (2).

Optimized for big data and analytics, cloud computing, and business-critical enterprise workloads, the Lenovo x3650 M5 rack server offers excellent performance with some of the highest levels of memory capacity in the industry. It is part of the Lenovo converged infrastructure portfolio that delivers a diverse set of solutions from infrastructure applications to business-critical workloads.

Lenovo servers, including the x3650 M5, have consistently achieved the highest reliability of all x86 servers in the industry. Predictive Failure Analysis and light path diagnostics facilitate easy serviceability and reduced downtime and costs. Lenovo XClarity, a best-in-class enterprise tool, helps simplify and centralize discovery, monitoring, configuration, alert handling and other management functionality over the servers' lifecycle.

In addition, the x3650 M5 supports open industry standards, such as operating systems, networking and storage fabrics, virtualization, and system management protocols, to easily fit within existing and future data center environments.

Results referenced are current as of March 31, 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 2016007**). 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 27% percent improvement in performance is based on results on the two-tier SAP SD standard application benchmark achieved by the System x3650 M5 (2 processors / 36 cores / 72 threads) on the Intel Xeon Processor E5-2699 v3, 2.3 GHz, 64 KB L1 cache and 256 KB L2 cache per core, 45 MB L3 cache per processor (certification number 2014030). The server achieved 16000 SAP SD benchmark users; average dialog response time: 0.96 seconds; 1,751,330 fully processed order line items per hour; 5,254,000 dialog steps per hour; 87,570 SAPS; average database request time (dialog/update): 0.013 sec / 0.010 sec; CPU utilization of central server: 99 percent. The server was running Windows Server 2012 Standard Edition; 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:

- [2-Socket Rack Servers](#)
- [SAP Alliance](#)
- [SAP SD Benchmark Results](#)

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