

# PERFORMANCE BENCHMARK RESULT

## Lenovo posts leading 2-processor result on Windows on two-tier SAP SD standard application benchmark

*The Flex System x240 M5 Compute Node from Lenovo delivers leading 2-processor results on Windows with 63% performance improvement over previous-generation system (2)*

December 2, 2014 ... Today Lenovo® announced a new breakthrough 2-processor result on Windows on the two-tier SAP® Sales and Distribution (SD) standard application benchmark. The result was achieved on the **Flex System x240 M5 Compute Node**, configured with two Intel® Xeon® Processors E5-2699 v3, and running IBM DB2® 10 and SAP enhancement package 5 for the SAP ERP application Release 6.0.



The Flex System x240 M5 Compute Node achieved 15,640 SAP SD benchmark users with 0.90 seconds average dialog response time, 86,100 SAPS, measured throughput of 5,166,000 dialog steps per hour (or 1,722,000 fully business processed line items per hour), and an average CPU utilization of 99% for the central server. (1)

The Flex System x240 M5 Compute Node was configured with two Intel® Xeon® Processors E5-2699 v3 running at 2.3 GHz with 45 MB L3 cache per processor (2 processors/36 cores/72 threads), 256 GB memory, 64-bit DB2 10, Microsoft® Windows® Server 2012, and SAP enhancement package 5 for SAP ERP 6.0. The server accessed the database on an IBM FlashSystem 840.

The Flex System x240 M5 Compute Node delivers FAST application performance – processing speed that is 63% faster than previous-generation systems (2).

Engineered for Big Data and analytics, cloud computing, and business-critical enterprise workloads, Flex System offers outstanding 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. In addition, it 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 Dec. 2, 2014. 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 2014046). Details can be obtained from Lenovo and SAP. The benchmark was performed at Lenovo in Research Triangle Park, NC, USA, by Lenovo engineers.

(2) The claim of achieving 63% percent improvement in performance is based on results on the two-tier SAP SD standard application benchmark achieved by the IBM System x3650 M4 (2 processors / 24 cores / 48 threads) on the Intel Xeon Processor E5-2697 v2, 2.7 GHz, 64 KB L1 cache and 256 KB L2 cache per core, 30 MB L3 cache per processor (certification number 2013022). The server achieved 9615 SAP SD benchmark users; average dialog response time: 0.93 seconds; 1,055,670 fully processed order line items per hour; 3,167,000 dialog steps per hour; 52,780 SAPS; average database request time (dialog/update): 0.015 sec / 0.009 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.

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