

New xSeries server models deliver leadership performance and price/performance with industry-standard benchmarks

November 4, 2002 ... IBM® has introduced even more powerful 4- and 8-way servers in the new models of the IBM eServer xSeries™ 360 and xSeries 440, which feature the Intel® Xeon™ Processor MP at speeds up to 2.0GHz and with L3 caches up to 2MB.

Benchmark leadership

IBM has solidified its reputation for leadership in the high-end Intel server market by delivering number-one performance results on a wide range of industry-standard benchmarks.

Lowest price/performance result recorded for an 8-way server on TPC-C online transaction processing benchmark

The xSeries 440 8-way server achieved performance of 111,024.39 tpmC and price/performance of \$6.76/tpmC with availability of March 31, 2003, for the priced configuration. This result sets a new TPC-C price/performance record for an 8-way server. The xSeries 440 server used eight 2.0GHz Xeon MP processors and ran Microsoft® SQL Server 2000 and Microsoft Windows.NET Datacenter Server 2003.

In a 4-way configuration, the x440 achieved performance of 74,206.27 tpmC and price/performance of \$5.75/tpmC with availability of March 31, 2003, for the priced configuration. This result sets a new TPC-C performance record for a 4-way IA-32 server. The x440 server achieved this result using four 2.0GHz Xeon MP processors, Microsoft SQL Server 2000 and Microsoft Windows .NET Enterprise Server 2003.

Leadership performance for an 8-way Intel processor-based server running the SAP applications

Running the two-tier SAP® Standard Application Sales and Distribution (SD) Benchmark, the x440 server achieved 690 SAP SD benchmark users with 1.95 seconds average dialog response time on a configuration of eight 2.0GHz Xeon MP processors, 8GB of main memory, 200GB of total disk space, DB2® UDB Version 7.2, and SuSE Linux 8.0 (Linux kernel 2.4.18), running SAP R/3® Release 4.6C. The measured throughput was 208,000 dialog steps per hour (or 69,330 fully processed order line items per hour), with an average CPU utilization of 97 percent for the central server. (1)

Best 4-way performance on SPECjbb2000

In SPECjbb2000 measurements, the powerful x360 achieved a result of 73,319 operations per second using four 2.0GHz Xeon MP processors with 2MB L3 cache, 8GB of memory and running Microsoft Windows 2000 Advanced Server and the IBM 32-Bit Runtime Environment for Windows, Java 2 Technology Edition, Version 1.4.0 -- delivering 15 percent better performance than the HP Server rx5670, which achieved a score of 63,414 operations per second using four 1GHz Itanium 2 processors 24GB of memory and HP-UX 11i v1.6 for Itanium 2 and Hotspot 1.3.1.08. (2)

Best 4-way SPECweb99_SSL performance on Linux

In SPECweb99_SSL measurements, the x360 achieved 1,643 simultaneous connections, using four 2.0GHz Xeon MP processors each with 2MB L3 cache, 8GB of memory and Red Hat Linux 7.3 and the Zeus V4.1R1 HTTPS software. This result surpasses the HP Server rx5670's score of 1,498 simultaneous connections on a configuration of four 1GHz Itanium 2 processors, 24GB of memory and running Red Hat Linux 7.3 and Zeus V4.1R4. (3)

More information on the TPC-C benchmark, along with all TPC results, can be found at the Transaction Processing Performance Council Web site at www.tpc.org. For the latest SAP results, visit www.sap.com/benchmark.

The SPECjbb2000 results for the xSeries 360 will complete SPEC review on November 28, 2002, and the SPECweb99_SSL results for the xSeries 360 will complete SPEC review on November 26, 2002. Upon completion of successful reviews, these results will be posted at www.spec.org. For the current SPECjbb2000 and SPECweb99_SSL results, visit www.spec.org.

Specific information about IBM and xSeries products, services and support is located at ibm.com/pc/ww/eserver/xseries.

Results referenced are current as of November 4, 2002.

(1) This benchmark fully complies with the SAP Benchmark Council regulations and has been audited and certified by SAP AG. Details can be obtained from IBM and SAP. The benchmark was performed at Research Triangle Park, North Carolina, USA, by IBM engineers.

(2) Competitive benchmark result used for comparison was taken from www.spec.org/osg/jbb2000/results/res2002q4 on November 4, 2002. The comparison is based on the best-performing 4-way server currently shipping by Hewlett-Packard Corporation.

(3) Competitive benchmark result used for comparison was taken from www.spec.org/osg/web99ssl/results/res2002q3 on November 4, 2002. The comparison is based on the best-performing 4-way server currently shipping by Hewlett-Packard Corporation.

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