

IBM publishes world-record, 4-processor performance result on TPC-E benchmark

IBM® System x® 3850 X5 delivers leadership performance on TPC-E

June 7, 2010 ... IBM has published the highest 4-processor result ever achieved on the TPC-E benchmark, demonstrating the leadership performance that is possible with the combined power of IBM's exclusive eX5, the fifth-generation X-Architecture®, and the new Intel® Xeon® 7500 Series processor technology.

The IBM System x3850 X5 server achieved 2,022.64 tpsE (transactions per second E) at \$355.02 USD / tpsE. (1) This level of performance is easily more than twice that of the highest-scoring, previous-generation 4-processor system, the IBM System x3850 M2. (2) Compared to the Unisys ES7000 Model 7600R Enterprise Server, which required 16 processors to achieve a similar result, the IBM System x3850 X5 weighs in at roughly one-third the price per transaction. (3)

The x3850 X5 achieved this tpsE result using Microsoft® SQL Server 2008 R2 Enterprise x64 Edition and Microsoft Windows® Server 2008 R2 Enterprise x64 Edition. The x3850 X5 server was configured with four Intel Xeon X7560 processors at 2.26GHz with 256KB L2 cache per core and 24MB shared L3 cache per processor (4 processors/32 cores/64 threads).

The x3850 X5 server leverages fifth-generation IBM Enterprise X-Architecture, delivering innovation with enhanced reliability and availability features to enable optimal performance for databases, enterprise applications, and virtualized environments. The x3850 X5 is a versatile 4-socket, 4U rack-optimized scalable enterprise server that supports up to 1TB of memory. With higher levels of function than its predecessors, the x3850 X5 offers up to 8-socket (64-core) SMP operations with powerful 4-, 6-, and 8-core Intel Xeon MP processors and up to 3TB of system memory in an 8-socket (64-core) complex. This system is ideal for clients who require additional SMP capability or greater scalability for future growth.

The TPC Benchmark E (TPC-E) is an On-Line Transaction Processing (OLTP) workload that uses a mixture of read-only and update-intensive transactions that simulate the activities of complex OLTP application environments. The metric is tpsE, which is the total number of trade-result transactions per second that the server can sustain over a period of time. The TPC-E benchmark, launched by the Transaction Processing Performance Council in March 2007, is designed to enable clients to more objectively measure and compare performance and price of various OLTP systems.

Results referenced are current as of June 7, 2010. To view all TPC results, visit www.tpc.org. See the Executive Summary for this result:
http://www.tpc.org/results/individual_results/IBM/ibm.x3850X5.tpc-e.1.9.0-es.033010_v2.pdf

- (1) The x3850 X5 server is generally available. The total solution availability for the entire TPC-E benchmark configuration is July 30, 2010.
- (2) IBM System x3850 M2 with the Intel Xeon Processor X7460 2.66GHz (4 processors/24 cores/24 threads), 729.65 tpsE, \$457.27 USD / tpsE, total solution availability of October 10, 2008.
- (3) Unisys ES7000 Model 7600R Enterprise Server (16s) with the Intel Xeon Processor X7460 2.66GHz (16 processors/96 cores/96 threads), 2,012.77 tpsE, \$958.23 USD / tpsE, total solution availability of May 6, 2010.

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