IBM publishes world-record performance result for a non-clustered server on the TPC-H at 1000GB

IBM System x3850 X5 delivers world-record performance and price/performance for a non-clustered server on TPC-H 1000GB benchmark

April 6, 2011 ... IBM® has published the highest result achieved to date by a non-clustered server on the TPC-H® 1000GB benchmark, demonstrating the leadership performance that is possible with the combined power of IBM's exclusive eX5, the fifth-generation X-Architecture®, and the Intel® Xeon® E7-8800 series processor technology.

The IBM System x®3850 X5 server, leveraging IBM's exclusive fifth-generation X-Architecture and powered by the Intel Xeon Processor E7-8870, achieved 173,961.8 QphH @ 1000GB and $1.37 USD / QphH@1000GB on the TPC-H business intelligence benchmark. (1) The x3850 X5's performance QphH @ 1000GB is the highest achieved to date by a non-clustered server. (2) The x3850 X5's price per QphH @ 1000GB is the lowest achieved to date by a non-clustered server.

The x3850 X5 achieved this result using Microsoft® SQL Server 2008 R2 Enterprise x64 Edition and Microsoft Windows® Server 2008 R2 Enterprise Edition. The x3850 X5 server was configured with two 4U chassis, each with four processors. The x3850 X5 used eight Intel Xeon E7-8870 processors at 2.4GHz with 30MB shared L3 cache per processor (8 processors/80 cores/80 threads) and a total of 2TB of memory.

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. In addition to higher levels of function than its predecessors, the x3850 X5 offers up to 8-socket (80-core) SMP operations with powerful 6-, 8- and 10-core Intel Xeon MP Processors and up to 2TB of system memory in an 8-socket (80-core) complex. The optional IBM MAX5 for System x—a scalable, 1U, memory expansion drawer—provides an additional 32 DIMM slots with a memory controller for added performance and a node controller for x3850 scalability. The addition of two IBM MAX5 memory expansion units provides up to 3TB of system memory in an 8-socket (80-core) complex.

Results referenced are current as of April 6, 2011. To view all TPC-H results, visit:
http://www.tpc.org/tpch/results/tpch_results.asp

(1) The availability date for the configuration used to achieve these results is May 20, 2011.

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