IBM posts leadership 2-processor performance result on new TPC-E benchmark

IBM BladeCenter HS21 XM delivers top 2-processor performance on next-generation OLTP benchmark

August 13, 2007 ... IBM® has published a leadership 2-processor performance result on TPC Benchmark™ E (TPC-E), the next-generation OLTP benchmark launched by the Transaction Processing Performance Council (TPC) in March 2007.

The business model for TPC-E is that of a brokerage firm, for which the database schema, data population, transactions, and implementation rules have been designed to be broadly representative of modern OLTP systems. This new benchmark is designed to enable clients to more objectively measure and compare performance and price of various OLTP systems.

The system under test was a single IBM BladeCenter® HS21 XM, used as the database server running Microsoft® SQL Server 2005 Enterprise x64 Edition SP2. The HS21 XM blade achieved a performance result of 169.59 tpsE (transactions per second E) at price/performance of $1,897.66 USD / tpsE, with total solution availability of August 10, 2007.

The HS21 XM blade server used the Dual-Core Intel® Xeon® Processor 5160 at 3.00GHz with a 4MB L2 cache and 1333 MHz front-side bus (2 processors/4 cores/4 threads) and Microsoft Windows® Server 2003 R2 Enterprise x64 Edition.

About TPC-E

The TPC-E benchmark is the successor to TPC-C, the long-time, popular standard for comparing On-Line Transaction Processing (OLTP) performance on various hardware and software configurations. TPC-E is designed to more closely reflect the technology and transaction complexity that is typical of today's client application environments.

The TPC-E benchmark models a brokerage firm with customers who generate transactions related to trades, account inquiries and market research. The brokerage firm in turn interacts with financial markets to execute orders on behalf of the customers and updates relevant account information. The TPC-E benchmark is scalable, meaning that the number of customers defined for the brokerage firm can be varied to represent the workloads of different-size businesses.

The benefits of TPC-E include a:

- Familiar business model that is easy to understand
- Balanced mixture of disk input/output and processor usage
- Sophisticated database schema that reflects the complexity found in modern applications
- Workload that is representative of a broad segment of real-world OLTP systems

The TPC-E metrics are tpsE (transactions per second E) and $/tpsE. The tpsE metric is the number of trade-result transactions the server can sustain over a period of time. The price/performance metric, $/tpsE, is the total system cost for hardware, software, and maintenance, divided by the performance.

Results referenced are current as of August 13, 2007. To view all TPC results, visit www.tpc.org.