IBM sets new world record for 8-way Intel processor-based system performance on TPC-C benchmark

May 31, 2005 ... IBM® continues to set the pace for leadership performance in the high-end Intel® processor-based server market. The new IBM @server® xSeries® 460 server, using the latest 64-bit Intel Xeon™ Processor MP, and 64-bit IBM DB2® UDB have delivered the highest performance result to date for an 8-way Intel processor-based server on the industry-standard TPC-C benchmark.

The x460 server and DB2 UDB achieved 250,975 tpmC on the TPC-C online transaction processing benchmark. (1) This result demonstrates the benefits of an IBM 64-bit hardware/software solution for enterprise OLTP applications. Built on the IBM eServer™ X3 Architecture, the x460's TPC-C benchmark performance is 60 percent higher than IBM's second-generation Enterprise X-Architecture™ 8-way server. (2)

The x460 server's TPC-C benchmark performance result surpasses that achieved by the NEC Express 5800/1160Xe. The NEC system achieved 247,650 tpmC using eight Intel Itanium® 2 processors at 1.6GHz with 9MB L3 cache and was configured with 256GB of memory. (3)

For this benchmark, the x460 server used eight 64-bit Intel Xeon Processors MP at 3.33GHz with 8MB L3 cache and was configured with 128GB of memory — half the amount used by NEC — and ran IBM DB2 Universal Database 8.2 (64-bit) and Microsoft® Windows® Server 2003 Enterprise x64 Edition.

Results referenced are current as of May 31, 2005. To view all TPC results, visit www.tpc.org.

About the x460 Server

The x460 is the second in a new family of High Performance xSeries servers based on the IBM eServer X3 Architecture, the third generation of Enterprise X-Architecture. Models of the xSeries 460 server are powered with the 64-bit Intel Xeon Processor MP at up to 3.33 GHz with 8MB L3 cache. The xSeries 460 server contains advanced technology that combines scalable SMP-capable power, the IBM XA-64e™ third-generation Enterprise X-Architecture chipset powering XpandOnDemand™ up to 32-way, Peripheral Component Interconnect-X (PCI-X) expansion, high availability, and substantial internal data storage capacity.

With the power of third-generation Enterprise X-Architecture, the x460 establishes a new standard in the market for modular XpandOnDemand scalability with increased performance, memory availability, system manageability, and simultaneous support for 32-bit and 64-bit applications with x86-64-bit extensions.

For information about the x460 server, visit www.ibm.com/eserver/x460.

About DB2 UDB

IBM DB2 UDB continues to improve the performance and scalability of the information management infrastructure on the Windows platform. With V8.2, DB2 UDB delivers the power of full 64-bit database solutions for Microsoft Windows Server 2003 x64 Editions. DB2 UDB 64-bit support overcomes limitations to take full advantage of system memory and to scale Windows-based database applications to new levels. DB2 UDB also leverages Windows-specific capabilities to achieve the maximum performance, including SMP exploitation, processor affinity, raw I/O, and hyperthreading. With the delivery of full 64-bit support for the x86-based server platforms on Windows, DB2 continues to improve price/performance and deliver lower total cost of ownership for customers looking for advanced information-management solutions.

For information about DB2 UDB, visit www.ibm.com/db2.

(1) Price/performance of $5.74/tpmC and total solution availability of November 30, 2005.

(2) IBM eServer xSeries 445 with eight Intel Xeon Processor MP at 3.0GHz with 4MB L3 cache: 156,105 tpmC, $4.31/tpmC, availability of August 31, 2004.
(3) NEC Express 5800/1160Xe: 247,650 tpmC, $5.48/tpmC, availability of July 24, 2005.