

IBM System x and DB2 achieve more than 3 million transactions per minute on TPC-C benchmark—building on their industry record for x86-64 performance

IBM System x3850 X5 and DB2 deliver highest x86-64 performance score ever achieved on TPC-C benchmark

July 11, 2011 ... IBM® has published the highest TPC-C performance result ever achieved by an x86-64 processor-based server. This new result demonstrates the leadership performance that is possible with the combined power of IBM's exclusive fifth-generation X-Architecture®, DB2® 9.7, and the latest Intel® Xeon® E7 processor technology.

The IBM System x®3850 X5 server achieved 3,014,684 tpmC (transactions per minute C) at \$.59 USD / tpmC. (1) This TPC-C result ranks fifth in the TPC-C Top Ten Performance Results for Non-Clustered systems and is in the TPC-C Top Ten Price/Performance Results for Non-Clustered systems. Notably, the entire system configuration used to achieve these results was housed in a single, space-saving 42U rack.

The x3850 X5 achieved this tpmC result using DB2 9.7 and SUSE Linux® Enterprise Server 11 (SP1). The x3850 X5 was configured with four Intel Xeon E7-8870 processors at 2.40GHz with 30MB shared L3 cache per processor (4 processors/40 cores/80 threads), and a total of 3TB of memory (2TB in the server and 1TB in the IBM MAX5 for System x). The x3850 X5 also was configured with solid state drive (SSD) storage helping to enable faster database access. (2)

The x3850 X5 server leverages fifth-generation IBM Enterprise X-Architecture (eX5), 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 2TB of memory. 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 6TB of system memory in an 8-socket (80-core) complex with the optional IBM MAX5 for System x. The MAX5 is a scalable, 1U, memory expansion drawer that provides an additional 32 DIMM slots with a memory controller for added performance and a node controller for x3850 scalability.

DB2 is uniquely designed to exploit the advanced optimizations of both IBM eX5 technology and the latest Intel processor architecture. IBM System x enterprise servers set new standards for memory capacity, storage flexibility, proactive system management and system reliability. DB2, together with IBM eX5 technology and the Intel Xeon processor E7 family, enables clients to benefit from even greater levels of leadership performance, scalability and reliability for mission-critical, enterprise-class workloads. The result is a powerful solution that helps businesses lower costs while delivering greater value.

Results referenced are current as of July 11, 2011. To view all TPC results, visit www.tpc.org. See the details for this result at: http://www.tpc.org/tpcc/results/tpcc_perf_results.asp?resulttype=noncluster&version=5%¤cyID=0

- (1) The total solution availability for this TPC-C benchmark result is September 22, 2011.
- (2) Solid state drive storage with LSI enclosures and SMART Modular SSDs.

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