

IBM delivers leadership 2-processor performance on industry-standard SPECjbb2005 benchmark

June 26, 2006 ... The IBM® System x™ 3650, using IBM Java™2 5.0 Runtime Environment, achieved 114,941 SPECjbb2005 business operations per second (SPECjbb2005 bops) and 114,941 SPECjbb2005 bops/JVM, demonstrating leadership performance for a 2-processor, or 4-core, server running SPECjbb2005 (Java Business Benchmark), SPEC's benchmark for evaluating the performance of server-side Java. (1)

The x3650 achieved these results using two Dual-Core Intel® Xeon® Processors 5160 at 3.00GHz with shared 4MB L2 cache, and 1333MHz Front-Side Bus (2 chips/4 cores/2 cores per chip), 8GB of memory, one 36.4GB disk drive, and running IBM J9 J2RE 5.0 (32-bit) using a 1.5GB heap, and Microsoft® Windows® Server 2003 Enterprise Edition (32-bit).

The x3650 server's score demonstrates the highest performance achieved to date by a 2-processor, or 4-core, server. The score is 14 percent higher than the score of 100,407 SPECjbb2005 bops and 100,407 SPECjbb2005 bops/JVM achieved by the Fujitsu Siemens Computers PRIMERGY BX620 S3, which used two Dual-Core Intel Xeon Processors 5160 at 3.00GHz with shared 4MB L2 cache, and 1333MHz FSB (2 chips/4 cores/2 cores per chip), 8GB of memory, and one 36GB disk drive, and ran BEA JRockit® 5.0 using a 3.7GB heap. (2)

Results referenced are current as of June 26, 2006. The SPECjbb2005 results have been submitted to SPEC for review. Upon successful review, the result will be posted at www.spec.org, which contains a complete list of published SPECjbb2005 results.

(1) Planned availability for the x3650 model is July 14, 2006.

(2) Statements of comparison made above are based on the best SPECjbb2005 scores for 2-processor systems using processors with 2 chips/4 cores/2 cores per chip. Competitive benchmark results stated above reflect results published on www.spec.org as of June 26, 2006.

About SPECjbb2005

On June 16, 2005, the Standard Performance Evaluation Corp. (SPEC) announced the release of SPECjbb2005, an updated benchmark for evaluating the performance of servers running typical Java business applications. The benchmark can be used across several versions of UNIX, Windows, Linux and other operating systems. The new benchmark is a major update to SPECjbb2000, and results from the two benchmarks cannot be compared.

SPECjbb2005 (Java Server Benchmark) is SPEC's benchmark for evaluating the performance of server-side Java. Like its predecessor, SPECjbb2000, SPECjbb2005 evaluates the performance of server-side Java by emulating a three-tier client/server system (with emphasis on the middle tier). The benchmark exercises the implementations of the JVM (Java Virtual Machine), JIT (Just-In-Time) compiler, garbage collection, threads and some aspects of the operating system. It also measures the performance of CPUs, caches, memory hierarchy and the scalability of shared memory processors (SMPs).

SPECjbb2005 provides a new enhanced workload, implemented in a more object-oriented manner to reflect how real-world applications are designed and introduces new features such as XML processing and BigDecimal computations to make the benchmark a more realistic reflection of today's applications.

SPECjbb2005 simulates a wholesale company with warehouses that serve different districts. It mimics customer operations such as placing orders or requesting the status of an existing order,

and operations within the company, such as processing orders for delivery, entering customer payments, checking stock levels, and requesting a report on recent activity by a given customer.

The benchmark measures throughput of the underlying Java platform, which is the rate at which business operations are performed per second. It steps through increasing amounts of work, providing a graphical view of scalability. Performance is assessed by two metrics: *bops* (business operations per second), which measures overall throughput for all of the JVMs in a benchmark run, and *bops/JVM*, which measures the performance and scaling of a single JVM.

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