

IBM posts highest score for SPECvirt_sc2010 benchmark

IBM System x3850 X5 demonstrates leadership performance for virtualization applications with highest SPECvirt score achieved to date

December 15, 2010 ... IBM® continues to demonstrate leadership performance on the SPECvirt_sc2010 benchmark with the publication of the first result for the IBM System x® 3850 X5 server. The x3850 X5 achieved a milestone result with an overall performance score of SPECvirt_sc2010 5466 @ 336 VMs. SPECvirt_sc2010 is the first-generation SPEC® benchmark for evaluating the virtualization performance of datacenter server consolidation.

The x3850 X5 was configured with the Intel® Xeon® Processor X7560 (2.26GHz with 24MB L3 cache per processor—8 chips/64 cores/8 cores per chip), 2TB of memory, five-hundred seventy-six (576) 73GB disk drives. The x3850 X5 ran Red Hat Enterprise Linux® 6, and Kernel-based Virtual Machine (KVM) hypervisor. (1)

The IBM System 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. With higher levels of function than its predecessors, the x3850 X5 offers up to 8-socket (64-core) SMP operations with powerful 4-, 6-, and 8-core Intel Xeon MP processors and, with the addition of IBM MAX5 memory expansion, up to 3TB of system memory in an 8-socket (64-core) complex. This system is ideal for clients who require additional SMP capability or greater scalability for future growth.

Result referenced is current as of December 15, 2010. This SPECvirt_sc2010 result has been accepted by SPEC and is posted at http://www.spec.org/virt_sc2010/results/. View all results for SPEC benchmarks at <http://www.spec.org>.

About the benchmark

SPECvirt_sc2010 comprises a set of component workloads that represent common application categories typical of virtualized environments for server consolidation. These component workloads are used to drive relatively low load levels against sets of six virtualized servers (VMs) that include a database server and an application server, a Web and a file server, and a mail server, and an idle server. These 6 VMs are referred to as a *tile*. The VMs in the tile support modified versions of the SPECweb@2005, SPECjAppServer@2004, and SPECmail2008 workloads, and a new SPECpoll workload (for idle server and active idle). The SPECvirt Client Harness coordinates the load drivers used by the underlying component workloads, collects measurement data as the test runs, post-processes the data at the end of the run, validates the results, and generates the test report.

The benchmark supports three categories of results, each with its own primary metric. Results may be compared only within a given category; however, the benchmark sponsor has the option of submitting results from a given test to one or more categories. The first category is Performance-Only; its metric is SPECvirt_sc2010, which is expressed as SPECvirt_sc2010 <Overall_Score> @ <6*Number_of_Tiles> VMs on the reporting page. The overall score is calculated by taking each component workload in each tile and normalizing it against its theoretical maximum for the pre-defined load level. The three normalized throughput scores for each tile are averaged to create a per-tile submetric; the submetrics for all tiles are added to get the overall performance metric.

(1) The IBM System x3850 X5 model as configured for this benchmark is generally available.

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