# IBM posts first score published for SPECvirt_sc2010 benchmark

*x3650 M3 delivers industry-leading performance for virtualization applications*

July 14, 2010 ... IBM® today announces a SPECvirt_sc2010 benchmark result for the IBM System x® 3650 M3 server. The x3650 M3 achieved an overall performance score of SPECvirt_sc2010 1169 @ 72 VMs. SPECvirt_sc2010 is the first-generation SPEC® benchmark for evaluating the virtualization performance of datacenter server consolidation.

The x3650 M3 was configured with the Intel® Xeon® Processor X5680 (3.33GHz with 256KB L2 cache per core and 12MB L3 cache per processor—2 chips/12 cores/6 cores per chip), 144GB of memory, ninety-six 73GB disk drives. The x3650 M3 ran Red Hat Enterprise Linux® 5.5, and Kernel-based Virtual Machine (KVM) hypervisor. (1)

The IBM System x3650 M3 is a 2U rack-optimized, 2-socket server built with innovative IBM X-Architecture® that leverages Intel's Quick Path Interconnect (QPI) technology. Featuring power-optimized, high performance with the latest Intel Xeon 5500 and 5600 Series multi-core processor technology, a large capacity of high-performing DDR3 memory, and a leadership, energy-efficient design with integrated advanced functionality, the x3650 M3 is designed to deliver leadership virtualization and systems management for business-critical workloads.

Results referenced are current as of July 14, 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 x3650 M3 model as configured for this benchmark is available as of Apr-2010.