Leadership SPECvirt Benchmark Result for System x3850 X6

Performance Benchmark Result (withdrawn product)

Lenovo System x3850 X6 demonstrates leadership enterprise class performance for virtualization environments with #1 SPECvirt_sc2013 result.

November 8, 2016 ... Lenovo delivers leadership server consolidation performance on the SPECvirt_sc2013 virtualization benchmark with the publication of the leadership 4-socket score.

The Lenovo System x3850 X6 delivered the following overall SPECvirt_sc2013 performance score:

- **4377 @ 247 VMs**

SPECvirt_sc2013 is the second-generation SPEC benchmark for evaluating the virtualization performance of datacenter server consolidation, including enterprise class workloads such as virtualized SMP application server VMs and SMP database VMs, as well as dynamic workload levels across many workload types and VM instances.

The Lenovo System x3850 X6 server was configured with the new generation Intel Xeon Processor E7-8890 v4 (2.2 GHz with 60 MB L3 cache per processor—4 chips/96 cores/24 cores per chip), 2048 GB (2 TB) of TruDDR4 memory, and four Intel X520 Dual Port 10GbE SFP+ Ethernet adapters. The operating system was Red Hat Enterprise Linux 7.2 and Kernel-based Virtual Machine (KVM) hypervisor.

The Lenovo System x3850 X6 is a 4-socket server, designed for maximum performance and uptime for business-critical applications and cloud deployments. The x3850 X6 solution provides a powerful platform for mission-critical applications. Integrating hardware, software and memory advancements, X6 enterprise servers are designed to be FAST, AGILE AND RESILIENT.

With system support for up to 96 CPU cores, 6 TB of system memory, and greater than 100 TB of flash storage, the x3850 X6 is designed to deliver leadership performance and scalability to power traditional databases as well as new in memory database and analytic solutions. Its scalable design enables customers to virtualize both high performance databases and applications on the same server to deliver leadership solution performance.

X6 servers deliver FAST application performance – with the latest generation Intel Xeon processors and TruDDR4 memory, X6 system consistently deliver world record and leadership performance across multiple recognized industry benchmarks.

The adaptive modular rack design of x3850 X6 is AGILE. It enables the design of fit-for-purpose solutions and the ability to realize infrastructure cost savings by hosting multiple generations of technology in a single platform—without compromising performance or capacity.

X6 platforms enable customers to:

- Configure the server to fit the unique requirements of specific applications and workloads and add, modify or upgrade X6 platforms easily with selectable modular book components;
- Scale capacity and performance across compute, storage and IO, without having to derack the system. Delivering nearly twice the performance for growing applications without creating IT sprawl;
- Capitalize on agile system design that provides the ability to host multiple generations of technology in a single server.

X6 enterprise platforms are RESILIENT. Through differentiated X6 self-healing technology, the x3850 X6 maximizes uptime by proactively identifying potential failures and transparently taking necessary corrective actions. Unique Lenovo features proactively protect applications from corrupt pages in memory; allow the platform to maintain access to networking and storage and server management during a processor failure; enable concurrent updating of the system firmware with no impact on application performance or availability; and enable the creation and management of policies to maintain high availability of virtual machines. These built-in technologies drive the outstanding system availability and help ensure the uninterrupted application performance needed to host business-critical applications.

The result of more than 15 years of innovation beyond industry standards, X6 platforms help reduce costs and complexity and deliver the breakthrough performance and capacity that enterprise applications demand.

Results referenced are current as of September 28, 2016. Result summary available at http://spec.org/virt_sc2013/results/res2016q3/virt_sc2013-20160913-00063-perf.html

To view all SPECvirt_sc2013 performance results visit the SPEC results page at http://www.spec.org/virt_sc2013/results/specvirt_sc2013_perf.html

Related product families

Product families related to this document are the following:

- 4-Socket Rack Servers
- Large Memory Capacity Servers
- SPECvirt Benchmark Results

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