

IBM Sets New Performance Record in Industry Benchmark with Solid State Drives

IBM SSDs deliver energy-efficient, record-setting performance

ARMONK, NY – June 3, 2009 – IBM today announced that the IBM System Storage EXP12S with Solid State Drive (SSD) technology has set a new performance record based on the Storage Performance Council's new extension to SPC Benchmark 1C (SPC-1C).

The SPC benchmark extension, announced today, provides new insight into the performance and energy benefits of storage products such as SSDs. The SPC's new industry-standard SPC-1C/E benchmark extension consists of the complete set of SPC-1C performance measurements and reporting, combined with measurement and reporting of energy use. IBM supports SPC-1C/E as one way to help businesses evaluate the effectiveness of solid-state flash technology, as well as to help develop greener data centers by reducing energy usage.

Flash memory technology in the form of SSD's offers the potential for significant, order-of-magnitude advances in both storage device throughput and the energy efficiency of delivering the throughput. In the SPC-1C/E Result released today, IBM's System Storage EXP12S delivers on that potential with a record-setting throughput of 45,000.20 SPC-1C IOPS[1]. In addition, SPC-1C/E includes the reporting of energy use for the first time in an industry standard storage benchmark. The efficiency of the System Storage EXP12S was 121.31 IOPS/watt, a level of energy efficiency made possible by the extraordinary throughput of the tested system.

"IBM has achieved a significant milestone with its solid state drive technology," said Walter E. Baker, administrator for the Storage Performance Council. "IBM's commitment to supporting independent industry benchmarks, including today's SPC-1C/E, is important to customers and businesses seeking objective and verified benchmark results to help them with their business and datacenter decisions."

IBM has a strong commitment to solid-state drive technology. In 2007, IBM's BladeCenter family of x86 servers became the first blades in the industry with SSD options. It recently announced a further expansion to include Power systems, as well as additional SSD options on its System x servers, and its System Storage DS8000. IBM is the first to offer a suite of Smart Data Management software tools that allow a system administrator to move frequently accessed, or hot data, to SSDs, while moving cold data to traditional hard drives, helping to maximize the value of a company's initial investment in SSDs. This approach recognizes that most customers will have a hybrid environment using both SSDs and traditional disks.

The IBM System Storage EXP12S was introduced in January, 2008 and expands SAS disk capacity for IBM systems built with IBM POWER6 or POWER5 technology. It offers a high-density 2U, 19-inch rack-mountable drive enclosure supporting up to twelve 3.5-inch disk drives, and now alternatively supporting up to eight SSDs. An IBM POWER6 server provided the PCI slots to hold the powerful 1.5GB cache SAS RAID adapter that controlled the SSD in the EXP12S for this benchmark. IBM Power Systems excel in providing transaction processing, such as ERP and CRM applications, delivering both high performance and high reliability.

About SPC

The SPC is a non-profit corporation founded to define, standardize and promote vendor neutral storage benchmarks and to disseminate objective, verifiable storage performance data to the computer industry and its customers. The organization's strategic objectives are to empower storage vendors to build better products as well as to stimulate the IT community to more rapidly trust and deploy multivendor storage technology. For a complete list of SPC Results, visit <http://www.storageperformance.org/results>

About IBM

For more information about IBM, visit <http://www.ibm.com/storage>.

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[1] Results current as of 6/03/09. The IBM System Storage EXP12S used in the SPC-1C/E audit included eight 69 GB solid state drives operating with an IBM Power 6 server, AIX operating system, 8 CPUs and 16 GB, a PCI-X SAS RAID adapter and SAS cable. Audit identifier: E00001. For additional information on today's benchmark results, please go to http://www.storageperformance.org/benchmark_results_spc1c#e00001
The configuration is available immediately from IBM.

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