



HP ProLiant DL165 G5 earns highest 2P performance result for SPECweb2005 benchmark



Defeats Sun, Fujitsu-Siemens, and IBM two-socket competitors

HP Leadership



»The new HP ProLiant DL165 G5 is designed for quality, performance, and flexible deployments to meet the needs of the High Performance Computing, SMB, and corporate scale-out market segments. The DL165 G5 offers 8 DIMM slots with DDR2 800MHz (on new processors), and up to four Large Form Factor (LFF) SAS or SATA hard drives. The New AMD Opteron 2300 series processors with 6MB of L3 cache greatly increase performance throughput.

Key Points

- HP ProLiant shatters all other two-socket performance records by achieving the #1 two-socket result on the SPECweb®2005 benchmark with the Quad-Core ProLiant DL165 G5.
- This result beat a similarly-configured Sun two-socket Quad-Core server, the Sun Fire X4240, with a 5% performance advantage while using the same memory footprint yet only HALF as many NICs.
- The HP ProLiant DL165 G5 also defeated Fujitsu Siemens and IBM two-socket competitors by a performance advantage of up to 66.6%!

Customer Value

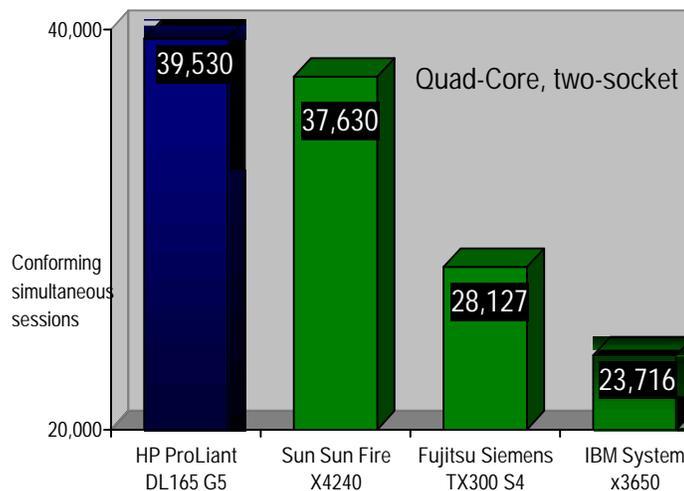
What are the customer benefits of using the HP ProLiant servers and the SPECweb2005 benchmark?

The SPECweb2005 benchmark measures a system's ability to act as a web server.

The results from this benchmark are evidence of the clear value that Quad-Core AMD Opteron processors offer an Internet business – or any data center that requires the ultimate in performance, reliability, and power efficiency.

The ProLiant DL165 G5 showed a performance advantage over other two-socket competitors by up to 66.6%. The record-breaking benchmark results of the HP ProLiant DL165 G5 demonstrates the outstanding performance and reliability HP solutions deliver to high-traffic computing environments in massive scale out and cloud computing environments.¹

Figure 1. Comparison of the simultaneous sessions of the HP ProLiant DL165 G5 AMD Opteron two-socket rack server to two-socket competitors on the SPECweb2005 Benchmark.



HP leads the way for two-socket performance on the SPECweb2005 benchmark.

Technology for better business outcomes.

Benchmark configurations and comparisons

The recent HP ProLiant DL165 G5 test results took the #1 two-socket performance record on the SPECweb2005 benchmark, utilizing Quad-Core (8 core/4 chips/2 cores per chip) configuration with the AMD Opteron 2384 processors with 2.7GHz processors configured with 32GB (8x4GB) memory running Red Hat Enterprise Linux 5.2 operating system and Rock Web Server v1.4.7 System Web Server software. The server ran with one Intel 10GB Dual Port NIC and one HP Smart Array 800 Controller connected to two Modular Smart Array 70 Enclosures with 50 x 36GB 15K RPM Small Form Factor (SFF) SAS hard drives.

Table 1. Configurations and result summaries of the HP ProLiant DL165 G5 rack server compared to the competitors' dual-socket servers on the SPECweb2005 benchmark.

Dual-socket configurations and results for HP ProLiant DL165 G5 and competitors Sun, Fujitsu Siemens, and IBM on the SPECweb2005 benchmark				
Server	ProLiant DL165 G5	Sun Sun Fire X4240	Fujitsu Siemens TX300 S4	IBM System X3650
Web server configuration	Quad-Core AMD Opteron 2384 2.7GHz 8 core/2 chips/ 4cores per chip 32GB (8 x 4) memory; RHEL 5.2 OS	Quad-Core AMD Opteron 2384 2.7GHz 8 core/2 chips/ 4 cores per chip 32GB (16 x 2) memory RHEL 5.2 OS	Quad-Core Intel Xeon X5460 3.16GHz 8 core/2 chips/4 cores per chip 64GB (16 x 4) memory RHEL 5.1 OS	Quad-Core Intel Xeon X5355 2.66GHz 8 core/2 chips/4 cores per chip 32GB memory RHEL 5
Simultaneous Sessions	39,530	37,630	28,127	23,716
	HP Performance Advantage	+5%	+40.5%	+66.6%!

Test results as of 01-29-09. For more details, please visit: www.spec.org/web2005.

HP Smart Array Controller P800



The HP Smart Array P800 is a 16 port, PCI-E SAS controller. It ships standard with 512MB cache, dual batteries and RAID 6 (ADG) support. This controller supports up to 108 hard drives and is the highest performing controller in the Smart Array portfolio.

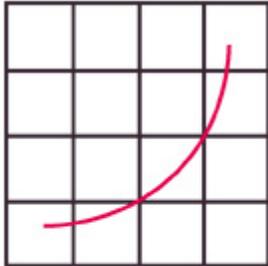
HP StorageWorks 70 Modular Smart Array



The HP StorageWorks 70 Modular Smart Array is an end-to-end flexible storage array, offering data availability, enhanced reliability, enhanced performance, and tiered storage capability with SAS and SATA drives and investment protection. Small and midrange business growing storage needs can be managed by deploying this low cost, flexible tiered storage system with up to 14.4TB capacity supporting SAS or SATA.

About SPECweb2005

This next-generation SPEC benchmark was designed by industry leading companies, including Hewlett-Packard, in order to evaluate the performance of state-of-the-art web servers. The three workloads, banking (https), e-commerce (https and http), and support (http) are designed to closely match today's real-world web server access patterns. Each workload measures simultaneous user sessions; however, the overall score of SPECweb2005 is unit-less. A server achieving a higher score represents a server with an overall better performance running all three workloads. SPEC, the SPEC logo, and the benchmark name SPECweb are registered trademarks of the Standard Performance Evaluation Corporation (SPEC). The SPEC logo is ©2009 Standard Performance Evaluation Corporation (SPEC), reprinted with permission. Herein two comparisons presented above are based on the top performing four-socket, two-socket, and all servers respectively. The competitive benchmark results stated herein reflect results published on www.spec.org as of February 3, 2009.



spec

For the latest SPECweb2005 benchmark results, please visit www.spec.org/web2005.

For more information

HP ProLiant DL165 G5 server: www.hp.com/proliant/servers/dl165

HP ProLiant storage solutions: <http://h18004.www1.hp.com/products/servers/platforms/storage.html>

ProLiant benchmarks: www.hp.com/servers/benchmarks

¹ Excerpted from AMD Press Release, "Quad-Core AMD Opteron(TM) Processors Deliver World-Record Web Performance", July 28, 2008. <http://biz.yahoo.com/bw/080728/20080727005037.html?v=1>

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