HP ProLiant DL580 G5 achieves #1 overall performance for SPECweb2005 benchmark

HP is the first to break 50,000 simultaneous sessions

HP Leadership

»The HP ProLiant DL580 G5 is the best in class platform for heavy web traffic, combining Intel's newest Xeon® processor technology, maximum scalability and high availability features. This four-socket server offers excellent flexibility and serviceability in a versatile, 4U rack-optimized form factor. Based on the latest industry standard technologies, the DL580 G5 provides the highest levels of performance demanded by today's compute intensive applications.

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.

Today, with web-based businesses requiring more peak performance and scalability to handle heavy user traffic while balancing cost and power concerns, the results from this benchmark are evidence of the clear value that HP Six-Core Intel Xeon processors offer an Internet business or any data center – the ultimate in perform-ance, reliability, and power efficiency.

HP leads the way for world record performance on the SPECweb2005 benchmark, demonstrating its reliable hardware with a leading application performance to drive distinct business advantages.

The record-breaking benchmark result of the HP ProLiant DL580 G5 processor demonstrates the outstanding performance and reliability HP solutions deliver to meet the increasingly high demands of web server users.

HP Lead Key Points

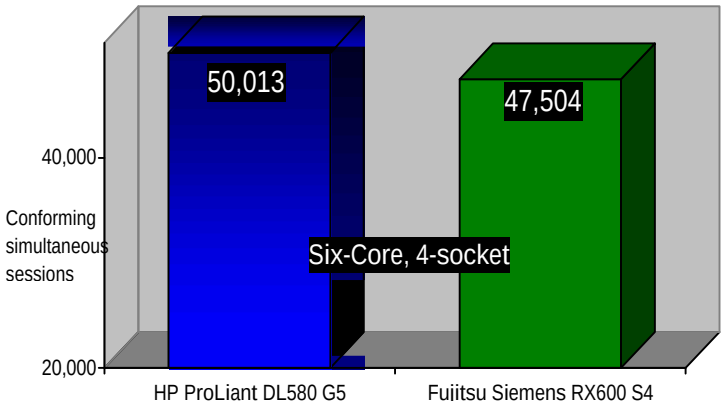
- HP ProLiant commands leadership by achieving the #1 OVERALL performance result on the SPECweb®2005 benchmark with the four-socket Six-Core ProLiant DL580 G5.
- The ProLiant DL580 G5 defeated a similarly-configured Fujitsu Siemens four-socket Six-Core server, the RX600 S4, with an 11.5% performance advantage.
- With Intel Xeon Six-Core processors, the HP ProLiant DL580 G5 showed an increase of 25% in performance from its previous Quad-Core result in this benchmark.

Leading the pack. Pushing the performance envelope. First to break new ground on web server performance . . . again.

As HP introduces new technology tuned for maximum performance, industry leading benchmarks from HP ProLiant servers are utilized as proof-points of HP's performance leadership.

And with the latest SPECweb2005 benchmark result, HP continues to lead the industry in web server performance. HP was the first to break 20,000 conforming simultaneous sessions, then 30,000, 40,000, and now 50,000 with the HP ProLiant DL580 G5.

Figure 1. Comparison of the simultaneous sessions of the HP ProLiant DL580 G5 Intel Xeon four-socket rack server to Fujitsu Siemens PRIMERGY RX600 S4 four-socket rack server on the SPECweb2005 benchmark. Test results as of 01/29/09.



Technology for better business outcomes.

The ProLiant advantage

HP proven performance

Proven performance is part of the reason that HP is #1 in server shipments. HP has posted hundreds of benchmark results on the most commonly used benchmarks on hundreds of ProLiant servers and blades, helping customers to identify reasons to be confident in HP.

Benchmark configurations and comparisons

The recent HP ProLiant DL580 G5 test results took the #1 four-socket performance record on the SPECweb2005 benchmark, utilizing Six-Core (24 core/4 chips/6 cores per chip) configuration with the Intel Xeon X7460 processor configured with 128GB (16x8GB) 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 two Intel 10GB Dual Port NICs and two HP Smart Array E500 Controllers connected to four Modular Smart Array 70 Enclosures with 100 x 36GB 15K RPM Small Form Factor (SFF) SAS hard drives.

Table 1. Configurations and result summaries of the HP ProLiant DL580 G5 rack servers compared to the four-socket Fujitsu Siemens competitor on the SPECweb2005 benchmark.

Configurations and results for HP ProLiant DL580 G5 and competitor Fujitsu Siemens RX600 S4 on the SPECweb2005 benchmark		
Server	ProLiant DL580 G5	Fujitsu Siemens RX600 S4
Web server configuration	Six-Core Intel Xeon X7460 2.66GHz 24 core/4 chips/ 6 cores per chip 128GB (16 x 8) memory; Red Hat Enterprise Linux (RHEL) 5.2 OS	Six-Core Intel Xeon X7460 2.667GHz 24 core/4 chips/6 cores per chip 64GB (16 x 4) memory; RHEL 5.1 OS
Simultaneous Sessions	50,013	47,504
HP Performance Advantage 11.5%!		

Table 2. ProLiant DL580 G5 Six-Core and Quad-Core scalability comparison on the SPECweb2005 benchmark.

ProLiant DL580 G5 performance scalability results and configurations	
ProLiant DL580 G5 Six-Core	ProLiant DL580 G5 Quad-Core
Six-Core Intel Xeon X7460 2.66GHz 24 core/4 chips/ 6 cores per chip 128GB (16 x 8) memory; Red Hat Enterprise Linux (RHEL) 5.2 OS	Quad-Core Intel Xeon X7350 2.93GHz 16 cores/4 chips/ 4 cores per chip 64GB (16 x 4) memory; RHEL 5
50,013	40,046
HP Scalability from Quad-Core to Six-Core Advantage is 25%	

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

HP Smart Array Controller E500

The HP Smart Array E500 is HP's first external connect only, entry level PCI Express (PCIe) SAS RAID controller. The full size card has 8 ports (2 x4 mini SAS external connectors) and utilizes DDR2-533 memory. The E500 offers RAID 0, 1, and 0+1 and can be upgraded with the battery-backed write cache (BBWC) module for RAID 5. This low-profile card is ideal for customers needing a low-cost external connect for HP ProLiant servers to tape, JBODs, and intelligent Modular Storage Arrays (MSA).

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 January 2009.

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

For more information

HP ProLiant DL580 G5 server: www.hp.com/proliant/servers/dl580g5

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

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