



HP first to run Oracle PeopleSoft Enterprise Campus Solution 9 Benchmark with HP Integrity rx6600 and ProLiant BL460c server blade showing excellent performance results



HP Leadership



The HP Integrity rx6600 server is a highly expandable platform for workload consolidation and virtualization that redefines

the entry class. This next-generation HP Integrity server is capable of handling the business-critical workloads previously possible only with larger, more costly systems.



With features equal to standard 1U rack mount servers, the two-processor, multi-core ProLiant BL460c server blade continues to combine power-efficient compute power and high density with expanded memory and I/O for maximum performance.

Customer Value

What are the benefits of using HP servers and PeopleSoft Campus Solutions with Oracle?

PeopleSoft Campus Solutions is the world's leading student system and alumni development solution for higher education and is being used at over 800 campuses in more than 20 countries.

With HP Integrity and HP ProLiant servers and PeopleSoft Campus Solutions, customers are reassured of more flexibility to meet their unique needs without costly customization, more intuitive self-service functionality, and more choices in how they manage their institutional processes.¹

In addition, they receive better student and advisor collaboration to facilitate academic achievement, and increased user-empowerment to meet continually changing or unique requirements — all resulting in a lower total cost of ownership (TCO) over time.

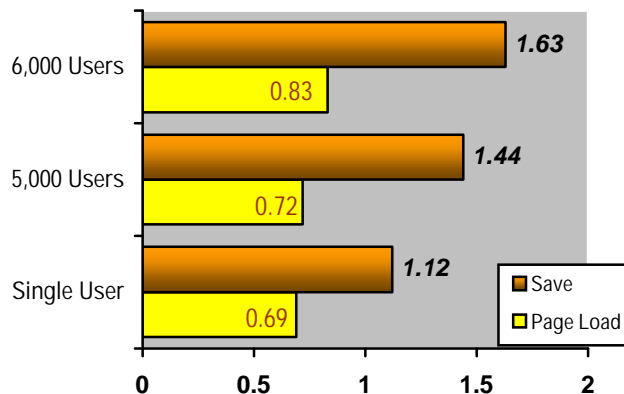
Key Points

The HP Integrity rx6600, used as the database server, and two HP ProLiant BL460c server blades, used as application and web servers, were utilized in an Oracle-conducted PeopleSoft Enterprise Campus Solution 9 Benchmark measuring the comparative online and batch performance of selected processes. Benchmark results showed, for 6,000 users, an average logon of 0.71 seconds, an average student load center of 0.91 seconds, an average page load of 0.83 seconds, and an average page save of 1.63 seconds.

In addition, 10,000 invoices and 10,000 transcripts were processed. For 5,000 users, the run time was 24.83 minutes and 17.07 minutes for invoices and transcripts, respectively; for 6,000 users, the run time was 26.37 minutes and 19.83 minutes for invoices and transcripts, respectively.

HP is the first vendor to run this benchmark.

Figure 1. HP Integrity and ProLiant server blades results on the PeopleSoft Enterprise Campus Solutions 9.0 Benchmark using Oracle 10g



HP servers deliver outstanding performance results on first ever PeopleSoft Enterprise Campus Solutions 9 Benchmark using Oracle 10g!

Technology for better business outcomes.

¹ Excerpted from http://www.oracle.com/applications/peoplesoft/campus_solutions/ent/index.html

Benchmark Profile

In May 2008, Oracle conducted a benchmark in Pleasanton, CA to measure the comparative online and batch performance of selected processes in Oracle's PeopleSoft Enterprise Campus Solutions 9 with Oracle 10g 10.2.0.3. A single 4-socket (8 cores total) HP Integrity rx6600 server was used for the database server, running HP-UX 11iv3 (11.31). Two 2-socket (8 cores total) HP ProLiant BL460c server blades were used as application servers running Red Hat Linux 2.6.9-42.Elsmp #1 SMP. A single 2-socket (4 cores total) ProLiant BL460c server blade was used as the Web Server. An HP Storage Works EVA8100 disk array was used for storage. Detailed configurations can be found in Appendix A of this document.

Table 1. Summary of results

PeopleSoft Enterprise Campus Solutions 9 Benchmark	Quick Test Client Timers		
	Single user	5,000 Users	6,000 Users
Average Logon	0.58 sec	0.58 sec	0.71 sec
Average Load Student Center	0.61 sec	0.65 sec	0.91 sec
Average Page Load	0.69 sec	0.72 sec	0.83 sec
Average Page Save	1.12 sec	1.44 sec	1.63 sec
Batch Throughput			
10,000 Invoices		24.83 min	26.37 min
Invoices Printed per hour		24,164	22,753
10,000 Transcripts		17.07 min	19.83 min
Transcripts/Hour		35,149	30,257

Test results as of 8-08-08. For more details about this benchmark, please visit:
http://www.oracle.com/applications/peoplesoft/campus_solutions/ent/index.html

What is the PeopleSoft Campus Solutions 9 Benchmark?

Campus Solutions is a comprehensive suite of software specifically designed for the changing needs of higher education institutions. In order to help higher education institutions effectively meet and adapt to the changing needs and expectations of all their constituents, Oracle works closely with a wide variety of types and sizes of colleges and universities, standards bodies, higher education associations, and education industry leaders to develop and deliver the most responsive and comprehensive student administration and alumni development systems available today.

What the benchmark measured

This benchmark measured the online performance for a large database model. Oracle defines a business transaction as a series of HTML pages that guide a user through a business process, such as creating a new business case. The eight PeopleSoft Enterprise Campus Solutions 9.0 self-service processes tested in this benchmark included:

- Accept/Decline Awards
- Calculate Tuition
- Drop Class
- Enrollment Backpack
- Add Class
- Load Student Center
- Make a Payment
- Schedule Planner Validation

The ProLiant Advantage

These stellar benchmark performance results were achieved using the HP Integrity rx6600 and the HP ProLiant BL460c server blade.

Integrity rx6600

The HP Integrity rx6600 server's balanced architecture is built around the innovative HP zx2 chipset and is combined with the powerful Dual-Core Intel Itanium processor. Broad application support across multiple operating environments gives customers the choice to deploy the right solution for their business needs. The HP Integrity rx6600 key benefits include:

- Significant ROI through consolidation
- Increased operating environment flexibility that protects customer investment
- Enhanced scalability that delivers maximum power with minimum resources
- Robust availability for every application, every user, every time
- A choice of storage

ProLiant BL460c server blade

The HP ProLiant BL460c server blade delivers maximum Dual-Core performance, enterprise manageability and availability, and superior server design to the datacenter, including:

- [Concentrated compute power](#)
- [Deployment versatility in an efficient dense form factor](#)
- [Industry-leading management and configuration tools](#)

The ProLiant BL460c server blade is designed for large enterprise data centers, mainstream/mid-sized data centers, and departments and branch offices.

The advantages of the partnership between HP and Oracle

Strategic partners for over 25 years, HP and Oracle have more than 140,000 joint customers. Our accomplishments together are numerous. Here are just a few:

- A strong breadth and depth of platform, software, and services offerings
- Joint development, testing, and optimization
- Performance and price/performance leadership validated by industry and Oracle Applications benchmarking
- Oracle's Database is the most popular database among HP-UX customers
- HP Consulting and Integration Services deliver solutions for Enterprise Integration and Service Oriented Architecture with Oracle Fusion Middleware
- HP is a leading Oracle Applications Infrastructure Partner
- There are 13 HP/Oracle solution and demo centers worldwide
- Oracle Fusion Middleware is showcased in HP's SOA Competency Centers around the world
- Oracle chose HP to be a key platform provider for its development of Itanium®-based databases for Linux, Unix, and Windows
- The partners provide executive alignment that starts at the top and runs through both organizations
- HP has developed reference architectures for Oracle E-Business Suite and JD Edwards for 25, 50, 100, and 200 users: www.hp.com/solutions/oracle/accelerate

HP and Oracle aim to address today's business challenges by enabling the synchronization of infrastructure, applications, services, and business processes – from suppliers through to customers – to help organizations reduce the cost of change, reduce total cost of ownership, simplify IT management complexity, and rapidly implement solutions that provide a competitive advantage.

HP ProLiant market leadership²

HP ProLiant servers and server blades are a vital part of the HP success story. For the 47th consecutive quarter, HP ProLiant is the x86 server market share leader in both factory revenue and units, shipping 1 out of every 3 servers in this market.³

- HP's x86 revenue share was 11.7 points higher than its nearest competitor, Dell.
- HP remains the leading provider of AMD Opteron processor-based servers and server blades, with a 35.8% of factory revenue share.

For the 24th consecutive quarter, 6 years, HP is the #1 vendor in worldwide server shipments. HP shipped 1 out of every 3 servers worldwide as HP captured 33.6 percent total unit shipment share.

- HP shipped over 165,000 more servers than #2 Dell.
- HP shipped over 400,000 more servers than #3 IBM and 8.1 times as many as #4 Sun.

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 Integrity and ProLiant servers and blades, helping customer to identify reasons to be confident in HP.

² Source: IDC Worldwide Quarterly Server Tracker May 2008

³ Includes Compaq ProLiant from Q196 through Q202 and HP ProLiant from Q302 through Q306.

Appendix A

Hardware configuration

Database Server

HP Integrity rx6600

- 4 x 1.6GHz Intel Itanium 9050 Dual-Core processors, each with 24MB of L3 write-back cache per CPU
- 32GB of Memory (less than 30GB used at peak load)
- 1 SAN-connected HP StorageWorks EVA8100 disk array with 4 Emulex 2GB PCI Host Bus Adapter (HBA) fibre-channel connections
- 2 x HP 4GB Dual-Port Fibre Channel Host Bus Adapters
- Less than 8TB of total disk space available (58 x 146GB + 4 x 72GB internal disk drives), approximately 512GB of RAID 1 storage used for this benchmark. Database size was less than 70GB.

Application Server

HP ProLiant BL460c server blade

- 2 x 3.16GHz Intel Xeon 5460 Quad-Core processors, each with 12MB of L2 write-back cache per CPU
- 16GB of Memory
- Less than 146GB of storage with an integrated Smart Array 5i Plus Controller

Web Server

HP ProLiant BL460c server blade

- 2 x 3.0GHz Intel Xeon 5160 Dual-Core processors, each with 64KB of Level 1 Cache, 4MB of L2 cache, and 1MB of L3 write-back cache per CPU
- 8GB of Memory
- Less than 72GB of storage with an integrated SmartArray 5i Plus Controller

Software

- Oracle's PeopleSoft Enterprise Campus Solutions 9
- Oracle's PeopleSoft Enterprise (PeopleTools) 8.48.13
- Oracle 10g 10.2.0.3

For more information

HP Integrity rx6600: www.hp.com/servers/integrityrx6600

HP ProLiant BL460c server blade: www.hp.com/servers/proliant/bl460c

HP and Oracle partnership: www.hp.com/go/oracle

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