



HP ProLiant BL460c takes #1 performance on Siebel CRM Release 8.0 Benchmark Industry Applications running Linux, Oracle



HP first to run benchmark with Oracle Enterprise Linux

HP Leadership



» The HP ProLiant BL460c server blade continues to provide enterprise-class features for high performance and reliability without compromising energy efficiency or density.

Customer Value

What are the customer benefits of using HP ProLiant servers and the Siebel benchmark running Oracle and Linux?

The test simulated real-world requirements of a large organization, consisting of 5,000 concurrent, active users in a call center organization. Test conditions simulated service representatives running Siebel Financial Services Call Center and partner organizations running Siebel Partner Relationship Management (Web Sales and Web service).

The test system demonstrated to customers that Oracle's Siebel Customer Relationship Management (CRM) Release 8.0 architecture, HP ProLiant BL460c server blades, and HP Integrity servers form very powerful business solutions.

Siebel on HP servers. This benchmark showed the versatility and flexibility of HP server hardware. The servers supporting Siebel Application components ran Oracle Enterprise Linux, while the server supporting the Oracle 10gR2 DB ran HP-UX 11iv3.

Low network utilization. The Siebel CRM Release 8.0 Smart Web Architecture and Smart Network Architecture efficiently managed the network, consuming only 3.94 Kbps per user.

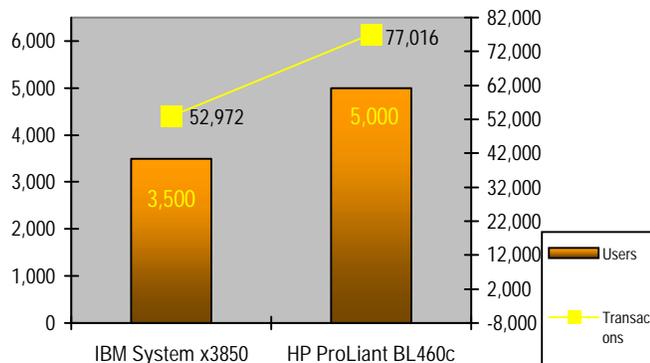
Vertical scalability. The Siebel CRM Release 8.0 Application Server showed excellent scalability on an HP BL460c server. Many users can be supported with minimal hardware.

Oracle Enterprise Linux is primed for business advantage. The strategic alliance between Oracle and HP provides customers the assurance that their choices will work together smoothly when they select from validated options.

Key Points

- HP ProLiant leadership with Siebel continues with the BL460c server blade holding the #1 result on Siebel CRM Release 8.0 Benchmark Industry Applications with 5,000 users.
- This benchmark is the first and only Siebel CRM 8.0 benchmark running Oracle Enterprise Linux.
- This result shows the highest number of users on a Linux benchmark on a single two-socket, 8 core HP ProLiant BL460c server.
- The ProLiant BL460c defeated the IBM System x3850 by 42.8% more number of users than IBM!

Figure 1. Comparison of performance results of the HP ProLiant BL460c dual-processor Quad-Core server blade to the IBM x3850 four-processor Dual-Core server in the Oracle Siebel CRM Release 8.0 Benchmark Industry Applications.



The HP ProLiant BL460c outperformed the IBM x3850 by 1,500 more users (42.8%) and 22,280 more transactions (45.3%)!

Efficient use of the database server — Siebel CRM Release 8.0 Smart Database Connection Pooling and Multiplexing allowed the database to service 5,000 concurrent users and the supporting Siebel CRM Release 8.0 server application services with only 386 database connections.

Technology for better business outcomes.

HP sets the standard

HP, in conjunction with Linux and Oracle Corp., completed the Siebel CRM 8.0 benchmarks on infrastructures designed to deliver a high-performance and cost-effective solution for mid-sized users of Siebel software. The tested configurations were built on HP infrastructures running, for the first time on this benchmark, Oracle Enterprise Linux, and Oracle backend database. Completed as part of the CRM 8.0 Platform Sizing and Performance Program (PSPP), this benchmark, validated by Oracle Corp., demonstrated that enterprises requiring up to 5,000 concurrent CRM application users can confidently deploy their CRM software in a complete HP server infrastructure and gain the advantage of an easily-managed, cost-effective infrastructure solution optimized for efficiency and change. This PSPP benchmark is an excellent indication of the capacity of the HP ProLiant BL460c server blade and the HP Integrity rx6600 in a controlled environment and an important data point in assisting HP in sizing real customer environments.

Benchmark comparison

Table 1. Result summary of the HP ProLiant BL460c server blade to the IBM System X3850 on the Siebel CRM Applications Release 8.0

Application server	ProLiant BL460c	IBM x3850
Configuration	2 x 3.16GHz Intel Xeon Quad-Core (8 CPU Cores); 32GB RAM; Oracle Enterprise Linux Release 4 Update 5, Oracle 10gR2 Database Client v10.2.0.1	4 x 3.0GHz Intel Xeon MP Dual-Core (8 CPU Cores); 32GB RAM; Red Hat Enterprise Linux 4 AS U2, 32-bit, Hyperthreading enabled; Oracle 10gR2 Database Client v10.2.0.2.0
No. of users	5,000	3,500
Business Transactions Throughput/Hour	77,016	52,972
Projected Daily Transactions	616,128	423,776

All results as of 9-10-08. For details on all configurations, see:

http://www.oracle.com/apps_benchmark/html/white-papers-siebel.html

HP ProLiant BL460c White Paper: http://www.oracle.com/apps_benchmark/doc/HP-Siebel8-5000-PSPP-on-OEL.pdf

IBM System x3850 White Paper: http://www.oracle.com/apps_benchmark/doc/IBM_Siebel8_3500_PSPP_On_Linux_Final.pdf

What makes it work

ProLiant BL460c server blade: The Siebel CRM 8.0 Industry Applications performance result was achieved with one HP ProLiant BL460c server blade configured as the application tier with 2 x 3.16GHz Intel Xeon Quad-Core processors with 32GB memory, maintaining a CPU utilization of 86.6% while running Oracle Enterprise Linux Release 4 Update 5, 32-bit, and Oracle 10gR2 Database Client v 10.2.0.1. One HP Integrity rx6600 with 4 x 1.6GHz Intel Itanium 2 Dual-Core processors with 64GB of memory was used as the database server, running the Oracle 10gR2 Database v10.2.0.2.0. One HP ProLiant BL460c server blade was used as the web server with 2 x 3.16GHz Intel Xeon X5460 Quad-Core processors. This compact enterprise solution demonstrates outstanding throughput, processing 77,016 complex business transactions per hour. Complete configuration details are listed in Appendix A.

The ProLiant Advantage



The HP ProLiant BL460c server blade continues to provide enterprise-class features for high performance and reliability without compromising energy efficiency or density. With features equal to standard 1U rack mount servers, the two-processor, multi-core HP ProLiant BL460c server blade combines power-efficient compute power and high density with expanded memory and I/O for maximum performance. The ProLiant BL460c server blade now features the latest models of Intel Xeon 5200, 5300, and 5400 series processors with optional hot-plug hard drives, mirrored memory, online spare memory, memory interleaving, and much more to ensure high availability. The BladeSystem c7000 enclosure supports up to 16 BL460c server blades with Intel Xeon processors, 2 more servers than the IBM BladeCenter.

The ProLiant BL460c server blade key benefits include:

- [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

The Oracle Applications Standard Benchmark is focused on ERP applications and represents a mixed workload intended to model the most common transactions operating on the most widely-used enterprise application modules. Definitions of transactions that compose the benchmark load were obtained through collaboration with functional consultants and are representative of typical customer workloads, with batch transactions representing 25% of the total workload. HP, unlike several competitors, uses this real-world benchmark to focus on customer core transactions.

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
- 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
- The partners provide executive alignment that starts at the top and runs through both organizations

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.

Partnership between HP and Linux

HP and Oracle Enterprise Linux

The strategic alliance between HP and Oracle stems from over a quarter century of close cooperation. Together we have over 100,000 joint customers and 13 joint solution demo centers around the globe. Our targeted HP Consulting and Integration service offerings for customers encompass enterprise integration and Service Oriented Architecture. As key partner in the Oracle Validated Configurations program, HP tests a variety of configurations and scenarios for Oracle products on HP server and storage platforms. This provides customers the assurance that their choices will work together smoothly when they select from the validated options.

Partnership between HP and Siebel

HP is the leading platform provider for customers implementing Siebel applications. HP and Oracle understand what drives your business. With Oracle's Siebel System applications, we focus on deploying flexible CRM solutions for your environment and fine-tuning them, while providing the best performance with your infrastructure. The HP and Oracle's Siebel Applications enable you to increase the lifetime value of your customers, decrease your total cost of ownership, and leverage your existing technologies and business assets – allowing you to respond quickly to ever-changing customer needs.

Recognizing the bottom-line benefits of being customer-driven, today's chief executives are focusing their IT investments on Customer Relationship Management (CRM) applications to enable their organizations to deliver a superior customer experience. Siebel Systems offers best-in-class software for customer relationship management, derived from more than 3,500 customer deployments, and has documented hundreds of industry-specific best practices for more than 20 industries and industry segments and embedded them directly into Siebel eBusiness Applications.

HP market leadership¹

HP ProLiant servers and server blades are a vital part of the HP success story.

For the 48th 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.²

- HP's x86 revenue share was 9.2 points higher than its nearest competitor, Dell.

For the 25th consecutive quarter, more than 6 years, HP is the #1 vendor in worldwide server shipments. HP shipped 1 out of every 3 servers worldwide as HP captured 33.1 percent total unit shipment share.

- HP shipped over 133,000 more servers than #2 Dell.
- HP shipped over 410,000 more servers than #3 IBM and 7.4 times as many as #4 Sun.

¹ Source: IDC Worldwide Quarterly Server Tracker August 2008

² Includes Compaq ProLiant from Q196 through Q202 and HP ProLiant from Q302 through Q306.

HP extended the lead in the blade server market, with a 53.3% revenue share, and a 50.3% units, growing faster than the market in both revenue and units.

- HP grew blade revenue 59.2%, year over year, gaining 6.2 points of revenue market share while IBM lost 7.6 points of revenue share to fall to 24.8%, more than 28 points behind HP.
- HP grew blade units 65.1%, year over year, gaining 4.2 points of unit market share while IBM lost 5.3 points of share to fall to 27.7%, more than 22 points behind HP.
- Dell, a distant third in blade units, 9.1%, and revenue, 8.4%, lost more than 40 points behind HP in both.

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 customer to identify reasons to be confident in HP.

For more information

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

HP ProLiant IBM System x3850: www.ibm.com/servers/x3850

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

HP performed the benchmark project at the HP Enterprise Solutions Partner Labs in Houston, TX. Performance and solutions engineers from HP, Linux, and Siebel participated in the benchmark efforts. For full technical details and disclosure:

http://www.siebel.com/products/performance_benchmark/index.shtm

For complimentary sizing and configuration support from HP, please contact the HP Siebel Solutions Center at siebel.hp@hp.com.

For further information on HP and Siebel Systems working together to deliver industry-leading solutions, please visit: <http://www.hp.com/go/siebel>

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Appendix A

The following configurations were used in this benchmark:
ProLiant BL460c server blade benchmark:

PSPP Components

- Siebel CRM Release 8.0 Industry Applications
- Oracle Enterprise Linux Release 4 Update 5
- HP-UX 11iv3
- Oracle 10gR2 Database Server v10.2.0.2.0

Gateway/Application Server

- 1x2-way HP ProLiant BL460c configured with:
 - 2 x 3.16GHz Intel Xeon (X5460) Quad-Core CPUs (8 CPU Cores)
 - 32GB RAM
 - Oracle Enterprise Linux Release 4 Update 5, 32-bit
 - Oracle 10gR2 Database Client v 10.2.0.1
 - Siebel CRM 8.0 SIA [20204] ENU

Database Server

- 1x4-way HP Integrity rx6600 server configured with:
 - 4 x 1.6GHz Intel Itanium 2 Dual-Core CPUs (8 CPU Cores)
 - 64GB RAM
 - HP-UX 11iv3, 64-bit, Hyperthreading enabled
 - Oracle 10gR2 Database Server v10.2.0.2.0

Web Server

- 1x2-way HP ProLiant BL460c configured with:
 - 2 x 3.16GHz Intel Xeon (X5460) Quad-Core CPUs (8 CPU Cores)
 - 32GB RAM
 - Oracle Enterprise Linux Release 4 Update 5, 32-bit
 - Oracle HTTPD Server (OHS) Version 10.1.3.0.0
 - Siebel CRM 8.0 SIA [20204] ENU

HP LoadRunner Controller

- 1x HP ProLiant DL360 G4 configured with:
 - 2 x 2.8GHz Intel Xeon Dual-Core CPUs
 - 4GB RAM
 - Microsoft Windows Server 2003 Enterprise Edition SP1
 - LoadRunner version 8.1

HP LoadRunner Host

- 2x HP ProLiant DL360 G4 configured with:
 - 1 x 2.8GHz Intel Xeon Dual-Core CPUs
 - 2GB RAM
 - Microsoft Windows Server 2003 Enterprise Edition SP1
 - LoadRunner version 8.1