



HP ProLiant BL460c with ProLiant BL680c G5 earn world performance record on Siebel CRM Release 8.0 Benchmark Industry Applications running Microsoft Windows 2008



HP first to run benchmark with Microsoft Windows 2008, Microsoft SQL Server 2008

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.



» The HP ProLiant BL680c G5 server blade delivers no-compromise performance and expansion in an Intel Xeon 4-Core to 6-Core 4P BladeSystem Server.

Customer Value

What are the customer benefits of using HP ProLiant server blades and the Siebel benchmark running Microsoft?

The test simulated real-world requirements of a large organization, consisting of 12,000 concurrent, active users in a call center organization. Test conditions replicated 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 and ProLiant BL680c G5 server blades form very powerful business solutions.

Low network utilization. The Siebel CRM Release 8.0 Smart Web Architecture and Smart Network Architecture efficiently managed the network, consuming only 9.5 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.

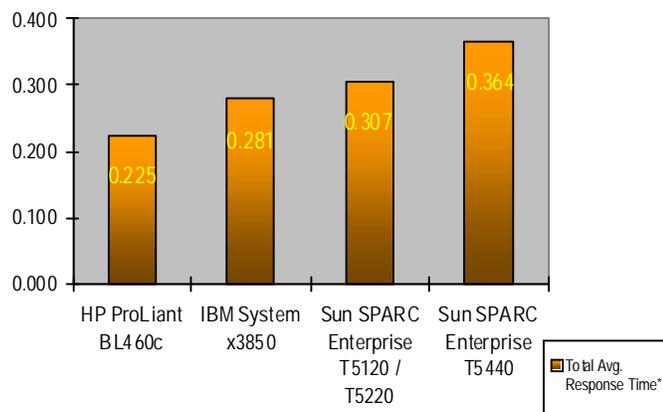
Oracle is primed for business advantage. The strategic alliance between Oracle and HP provides customers the assurance that their choices will work together smoothly when they select from validated options.

Efficient use of the database server. Siebel CRM Release 8.0 Smart Database Connection Pooling and Multiplexing allowed the database to service 12,000 concurrent users and the supporting Siebel CRM Release 8.0 server application services with only 701 database connections.

Key Points

- HP ProLiant servers running Siebel maintain their world performance leadership with the BL460c and BL680c G5 server blades holding the #1 result on Siebel CRM Release 8.0 Benchmark Industry Applications running Microsoft Windows with 12,000 users.
- This benchmark is the first and only Siebel CRM 8.0 benchmark running Microsoft Windows 2008 and Microsoft SQL Server 2008.
- This result shows the fastest response time* on a Microsoft Windows benchmark on a single two-socket, 8-core HP ProLiant BL460c server.
- The ProLiant BL460c defeated the Sun SPARC Enterprise T5440, T5120 and T5220 servers and the IBM System x3850 with a faster response time* of up to 38%!

Figure 1. Comparison of total average response* time results of the HP ProLiant BL460c dual-processor Quad-Core server blade to the Sun SPARC Enterprise servers and the IBM x3850 server in the Oracle Siebel CRM Release 8.0 Benchmark Industry Applications.



The HP ProLiant BL460c has up to 38% faster response time*, demonstrating its efficiency in real customer environments.

Technology for better business outcomes.

HP sets the standard

HP, in conjunction with Microsoft 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, Microsoft Windows 2008 Server and Microsoft SQL Server 2008. 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 12,000 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 and the HP ProLiant BL680c G5 server blades in a controlled environment and an important data point in assisting HP in sizing real customer environments.

Benchmark comparison

Table 1. Result summaries of the HP ProLiant BL460c server blade to Sun and IBM competitors on the Siebel CRM Applications Release 8.0

Application server	ProLiant BL460c	Sun SPARC Enterprise T5440	Sun SPARC Enterprise T5120/T5220	IBM x3850
Configuration	2 x 3.16GHz Intel Xeon Quad-Core (8 CPU Cores); 32GB RAM; Microsoft Windows 2008 Server Enterprise Edition, 32-bit, Hyperthreading disabled; Microsoft SQL Server 2008 Native Client v.9	4 x 1.4GHz UltraSPARC T2 Plus (8 CPU Cores); 128GB RAM; Sun Solaris 10 5/08, 64-bit; Oracle 10g R2 Database Server v10.2.0.3.0; Sun Java System Web Server 6.1 SP10, 32-bit	1 x 4GHz UltraSPARC T2 (8 CPU Cores); 32GB RAM; Sun Solaris 10 SP8; Siebel CRM 8.0 SIA (20204) ENU; Oracle 10gR2 Database Server v10.2.0.1.0	4 x 3.0GHz Intel Xeon MP Dual-Core (8 CPU Cores); 32GB RAM; Microsoft Windows 2008 Server Enterprise Edition, 32-bit, Hyperthreading enabled; Oracle 10gR2 Database Client v10.2.0.1.0
Total Average Response Time*	.225	.364	.307	.281
No. of users	12,000	14,000	10,000	3,900
Business Transactions Throughput/Hour	185,977	200,137	142,061	58,924

All results as of 11-11-08. For details on all configurations, see: http://www.oracle.com/apps_benchmark/html/white-papers-siebel.html

* Average of the Financial Services Call Center, Partner Relationship Management and EAI – Web Services response times
 HP ProLiant BL460c White Paper: http://www.oracle.com/apps_benchmark/doc/hp-siebel8-12000-pspp-on-windows-white-paper.pdf
 IBM System x3850 White Paper: http://www.oracle.com/apps_benchmark/doc/IBM_Siebel8_3900_PSPP_Windows_Final.pdf
 Sun SPARC Enterprise T5440: http://www.oracle.com/apps_benchmark/doc/sun-siebel-8-14000-pspp-on-solaris-benchmark-white-paper.pdf
 Sun SPARC Enterprise T5120/T5220: http://www.oracle.com/apps_benchmark/html/white-papers-siebel.html

What makes it work

ProLiant BL460c and ProLiant BL680c G5 server blades: The Siebel CRM 8.0 Industry Applications performance result was achieved with three HP ProLiant BL460c server blade configured as the application tier with 2 x 3.16GHz Intel Xeon X5460 Quad-Core processors with 32GB memory, maintaining a CPU utilization of 69, 70 and 75% on these servers while running Microsoft Windows 2008 Server Enterprise Edition, 32-bit, Hyperthreading Disabled, and Microsoft SQL Server Native Client v9. One HP ProLiant BL680c G5 with 4 x 2.4GHz Intel Xeon E7330 Quad-Core processors with 32GB of memory was used as the database server, running Microsoft Windows 2008 Server Enterprise Edition, 32-bit, Hyperthreading disabled, and Microsoft SQL Server 2008 Enterprise x64 Edition. One HP ProLiant BL460c server blade was used as the web server with 2 x 3.0GHz Intel Xeon Quad-Core processors. This compact enterprise solution demonstrates outstanding throughput, processing 185,977 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.

HP ProLiant BL680c G5



Designed to keep pace with strenuous computing demands, the HP ProLiant BL680c G5 server blade is equipped with outstanding 4P processing power and expansion capabilities, enterprise-class availability features, and industry-leading management tools that make it easy to deploy and maintain.

With up to four Intel Xeon 7300 or 7400 series processors, 24 processor cores, 128GB of fully buffered memory, two bays supporting hot-plug serial attached SCSI (SAS) and serial ATA (SATA) hard drives, integrated HP Smart Array RAID controller, four embedded Gigabit Ethernet adapters, and three I/O expansion slots, the HP ProLiant BL680c G5 delivers the density customers want with the performance they need to handle the most demanding enterprise class applications.

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 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 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 BL680c G5 server blade: www.hp.com/servers/proliant/bl680c

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. Performance and solutions engineers from HP, Microsoft, 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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November 2008

Appendix A

The following HP configurations were used in this benchmark:

PSPP Components

- Siebel CRM Release 8.0 Industry Applications
- Microsoft Windows 2008 Server Enterprise Edition
- Microsoft SQL Server 2008

Gateway/Application Server

- 1x2-way HP ProLiant BL460c configured with:
 - 2 x 3.16GHz Intel Xeon Quad-Core X5460 CPUs (8 CPU Cores)
 - 32GB RAM
 - Microsoft Windows 2008 Server Enterprise Edition, 32-bit, Hyperthreading Disabled
 - Microsoft SQL Server Native Client v9
 - Siebel CRM 8.0 SIA (20204) ENU

Application Server

- 3x2-way HP ProLiant BL460c configured with:
 - 2 x 3.16GHz Intel Xeon Quad-Core X5460 CPUs (8 CPU Cores)
 - 32GB RAM
 - Microsoft Windows 2008 Server Enterprise Edition, 32-bit, Hyperthreading Disabled
 - Microsoft SQL Server Native Client v9
 - Siebel CRM 8.0 SIA (20204) ENU

Database Server

- 1x4-way HP ProLiant BL680c G5 blade server configured with:
 - 4 x 2.4GHz Intel Xeon E7330 Quad-Core CPUs (16 CPU Cores)
 - 32GB RAM
 - Microsoft Windows 2008 Server Enterprise, x64 Edition, Hyperthreading Disabled
 - Microsoft SQL Server 2008 Enterprise, x64 Edition

Web Server

- 1x2-way HP ProLiant BL460c configured with:
 - 2 x 3.0GHz Intel Xeon Quad-Core CPUs (8 CPU Cores)
 - 4GB RAM
 - Microsoft Windows 2008 Server, Enterprise Edition, 32-bit, Hyperthreading Disabled
 - Microsoft IIS 7.0
 - 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
 - 16GB RAM
 - Microsoft Windows Server 2003 Enterprise Edition
 - LoadRunner version 8.1

HP LoadRunner Host

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