

HP ProLiant BL685c takes #1 Windows performance on Siebel CRM Release 8.0 Benchmark Industry Applications

Defeats IBM System x3850 in performance



The HP Difference

The test system demonstrated that Oracle's Siebel CRM Release 8.0 architecture and HP ProLiant BL685c / ProLiant BL465c/Integrity rx6600 servers form a very powerful business solution.



The ProLiant BL685c server blade delivers no-compromise performance and expansion in the densest four processor server blade form factor available.

Key results at a glance:

- ProLiant leadership with the #1 Windows result on Oracle's Siebel CRM Release 8.0 Benchmark with the ProLiant BL685c server blades achieving 4,700 users.
- HP beat the IBM System x3850 by 20% more users.
- This benchmark demonstrated the versatility and flexibility of HP server hardware. The benchmark started with the HP ProLiant BL465c and BL685c and one HP Integrity rx6600. The servers supporting Siebel Application components ran Microsoft Windows 2003 Server EE, while the server supporting the Oracle 10gR2 DB ran HP-UX 11iv3.
- The Siebel CRM Release 8.0 Smart Web Architecture and Smart Network Architecture efficiently managed the network with low network utilization — consuming only 4.45 Kbps per user.
- The Siebel CRM Release 8.0 Smart Database Connection Pooling and Multiplexing allowed the database to efficiently service 4,700 concurrent users and the supporting Siebel CRM Release 8.0 server application services with only 462 database connections.

The HP Advantage

The ProLiant BL685c server blade achieved superior results when compared to the IBM x3850 in each of the following key measurements:

- 20% more users than IBM
- 23% more business transactions than IBM

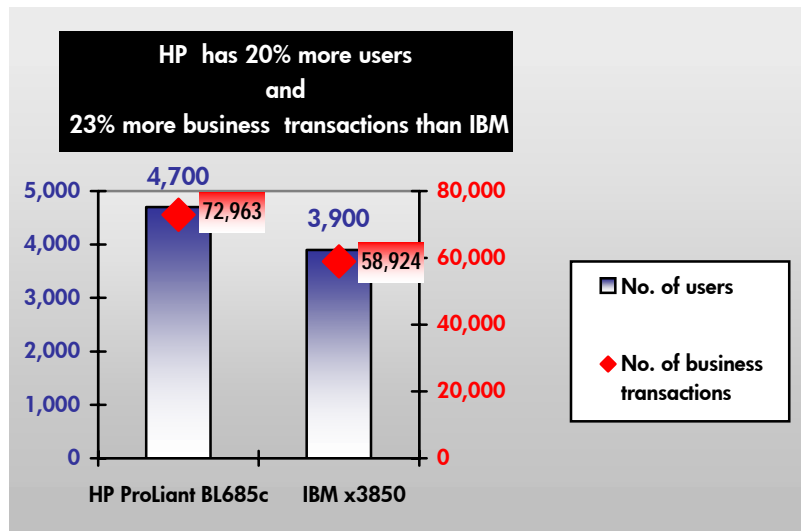


Figure 1. Comparison of performance results of the HP ProLiant BL685c four-processor dual-core server blade to the IBM x3850 four processor dual-core server in the Oracle Siebel CRM Release 8.0 Benchmark Industry Applications.

HP takes #1 performance

HP, in conjunction with Microsoft and Oracle Corp., has completed a Siebel 8.0 benchmark on an infrastructure designed to deliver a high-performance and cost-effective solution for midsized users of Siebel software. The tested configuration was built on an HP BladeSystem infrastructure running Windows Server 2003 EE operating system and an 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 4,700 concurrent CRM application users can confidently deploy their CRM software in a complete HP BladeSystem infrastructure and gain the advantage of an easily-managed, cost-effective infrastructure solution optimized for efficiency and change. HP BladeSystem infrastructures provide a complete, self-contained environment for Siebel applications, integrating multiple, modular components including blade servers, storage, and virtual LAN networking within a shared, intelligent infrastructure and powered by common, adaptive management.

The PSPP benchmark is an excellent indication of the capacity of the BL685c server 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 BL685c compared to the IBM System X3850 on the Siebel CRM Applications Release 8.0

Summary of results for HP ProLiant BL685c server blade vs. IBM x3850 on Oracle's Siebel Customer Relationship Management (CRM) Applications Release 8.0		
	ProLiant BL685c	IBM x3850
Application server configuration	ProLiant BL685c 4 x AMD Opteron Processor Model 8222 (3.0 GHz); 32GB RAM; Microsoft Windows Server EE, 32-bit; Oracle 10gR2 Database Server v10.2.0.2	IBM System x3850 4 x 3.0GHz Intel Xeon MP Dual-Core (8 CPU Cores); 32GB RAM; Microsoft Windows 2003 Server EE, 32-bit; Hyperthreading Enabled; Oracle 10gR2 Database Server v10.2.0.1.0
No. of users	4,700	3,900
Business Transactions Throughput/Hour	72,963	58,924
Projected Daily Transactions	583,704	471,392
% CPU Utilization (Application)	88	86
Memory (GB) Utilization (Application)	24	32
Network Utilization for Browser Traffic	20.43 Mbps/4000 users	11.36 Mbps/3900 users
Network Utilization per user	4.45 Kbps	2.98 Kbps

All results as of 5-19-08. For details on all configurations, see:

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

HP White Paper: http://www.oracle.com/apps_benchmark/doc/hp-siebel8-4700-pspp-on-windows-white-paper.pdf

IBM White Paper: http://www.oracle.com/apps_benchmark/doc/IBM_Siebel8_3900_PSPP_Windows_Final.pdf

What makes it work

The CRM 8.0 performance results were achieved with an HP ProLiant BL685 for the Siebel Application Server, HP ProLiant BL465 for the Siebel Web Server, and an HP rx6600 server configured at the database tier. A single HP ProLiant BL685c blade server with four dual-core AMD Opteron processors Model 8222 (3.0GHz) and 32 GB memory was used as application server. The application server used 24 GB of memory and maintained CPU utilization of 88%. One HP ProLiant BL465c blade server was used as web server with two dual-core AMD Opteron processors Model 2218 (2.6GHz) and 4 GB memory. The Web and Application Server platforms ran Microsoft Windows Server 2003 Enterprise Edition. An HP rx6600 server was used as the database server and had four Itanium 1.6GHz Intel Itanium 2 Dual-Core processors. This compact enterprise solution demonstrates outstanding throughput, processing almost 73,000 complex business transactions per hour.

The ProLiant Advantage

The HP ProLiant BL685c server blade delivers no-compromise performance and expansion in the densest four processor server blade form factor available. With up to four AMD Opteron™ 8000 Series processors, 64GB of DDR2 memory, two hot plug serial hard-drives, four embedded Gigabit NICs and three I/O expansion slots, the HP ProLiant BL685c delivers the density you want with the performance you need to handle the most demanding enterprise class applications.

The ProLiant BL685c server blade key benefits include:

- [4P performance and expansion in a server blade](#)
- [Design and availability features you can depend on](#)
- [Industry-leading management and configuration tools](#)

The ProLiant BL685c server blade is designed for large enterprise data centers, mainstream/mid-sized data centers and departments and branch offices, and is ideal for Multi-tiered enterprise applications such as SAP, PeopleSoft, Siebel, Oracle, and JDE, server consolidation, large database applications, ERP, CRM, mail and messaging and business integration applications, and High Performance Computing (HPC) applications that require a large memory footprint and 64-bit software capability; EDA, petrochemical, life and material science 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.

For more information

HP ProLiant BL685c server blade: www.hp.com/servers/bl685c

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>

Appendix A

The following configurations were used in this benchmark:

PSPP Components

- Siebel CRM Release 8.0 Industry Applications
- Microsoft Windows 2003 Server Enterprise Edition
- HP-UX 11iv3
- Oracle 10gR2 Database Server v10.2.0.2.0

Gateway/Application Server

1x4-way HP BL685c

- 4 x AMD Opteron Processor Model 8222 (3.0 GHz) CPUs (dual-core, 8 CPU Cores)
- 32GB RAM
- Microsoft Windows 2003 Server EE, 32-bit, Hyperthreading Enabled
- Oracle 10gR2 Database Client v 10.2.0.2
- Siebel CRM 8.0 SIA [20204] ENU

Database Server

1x8-way HP rx6600 Server

- 4 x 1.6GHz Intel Itanium 2 Dual-Core CPUs (4 CPU Cores)
- 32GB RAM
- HP-UX 11iv3, 64-bit, Hyperthreading Enabled
- Oracle 10gR2 Database Server v10.2.0.2.0

Web Server

1x2-way HP BL465c

- 2 x AMD Opteron Processor Model 2218 (2.6 GHz) CPUs (dual-core, 4 CPU Cores)
- 4 GB RAM
- Microsoft Windows 2003 Server EE, 32-bit, Hyperthreading Enabled
- Microsoft IIS 6.0
- Siebel CRM 8.0 SIA [20204] ENU

HP LoadRunner Controller

1x HP DL360 G4

- 2 x 2.8GHz Intel Xeon Dual-Core CPUs
- 4GB RAM
- Microsoft Windows Server 2003 EE SP1
- LoadRunner version 8.1

HP LoadRunner Host

1x HP DL360 G4

- 2 x 2.8GHz Intel Xeon Dual-Core CPUs
- 4GB RAM
- Microsoft Windows 2003 Server EE SP1
- LoadRunner version 8.1

© 2008 Hewlett-Packard Development Company, L.P. The information contained herein is subject to change without notice. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein. AMD-8111, AMD-8131, AMD-8132, and AMD-8151 are trademarks of Advanced Micro Devices, Inc. HyperTransport is a licensed trademark of the HyperTransport Technology Consortium. Windows is a registered trademark of Microsoft Corporation in the U.S. and other jurisdictions. Intel is a trademark or registered trademark of Intel Corporation or its subsidiaries in the United States and other countries. Xeon is a trademark or registered trademark of Intel Corporation in the U.S. and other countries and is used under license. Linux is a U.S. registered trademark of Linus Torvalds. Microsoft and Windows are U.S. registered trademarks of Microsoft Corporation. May 2008