



HP ProLiant DL585 G5 earns #1 four-processor performance result on two-tier SAP® Sales and Distribution Standard Application Benchmark with SAP Enhancement Package 4 for SAP ERP 6.0



HP leadership with ProLiant servers



The latest HP ProLiant DL585 G5 rack server is highly manageable, rack optimized, four-socket server designed for maximum performance in an industry standard architecture. The large 256GB footprint and nine expansion slots provide the memory and I/O scalability customers need to support multiple applications or virtual machines on a single physical server. The large memory capacity also provides an ideal platform for EDA, financial, and petrochemical applications that demand lots of memory.

With this highly scalable feature set, the ProLiant DL585 G5 is an ideal choice for the growing enterprise class database, consolidation, and virtualization environments seeking to improve server utilization and reduce server sprawl, while continuing to leverage all the familiar and easy-to-use ProLiant management tools and options.

Customer value



What are the benefits of using HP ProLiant servers and SAP applications?

SAP Standard Application Benchmarks test the hardware and database performance of SAP applications and components.

As one of the largest technology partners for SAP, HP is a global technology partner, software solution partner, global alliance support partner, global services partner, and global hosting partner. HP ProLiant servers consistently earn leading results on the two-tier SAP SD Standard Application Benchmark.

HP ProLiant servers have proven to be reliable and cost-effective. HP servers host almost 50% of all installations of SAP solutions, with more than 60,000 installations and 25,000 customers.

HP's strong technology capabilities are demonstrated through the results of these benchmarks.

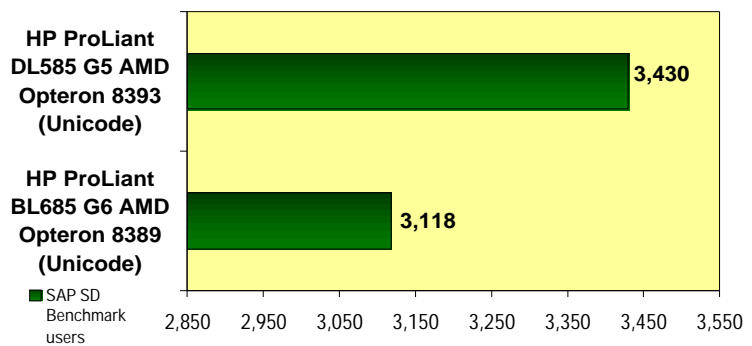
All results as of 04-27-2009. Details can be found at <http://www.sap.com/benchmark>.

Technology for better business outcomes.

Key Points

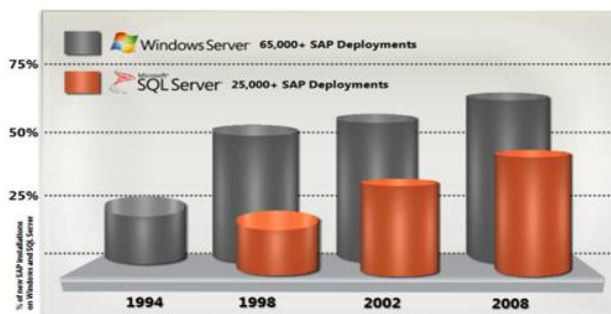
- The HP ProLiant DL585 G5 earned a #1 four-processor performance result on the two-tier SAP® Sales and Distribution (SD) Standard Application Benchmark running on the SAP enhancement package 4 for the SAP ERP application Release 6.0 on Windows, achieving 3,430 SAP SD Benchmark users with 18,730 SAPs.
- The HP ProLiant DL585 G5 is also the first four-processor rack server result with the SAP enhancement package 4 for SAP ERP 6.0. All results as of 04-27-09. Details in Appendix A.

Figure 1. Current four-processor results on two-tier SAP® SD Standard Application Benchmark for servers running SAP enhancement Package 4 for SAP ERP 6.0¹



The Market Leadership Advantage of Solutions from HP and SAP

In 2008, more than half of all new systems running SAP solutions were installed with Microsoft Windows. And more than half of the new installations of SAP applications on Windows were installed on Microsoft SQL Server. HP servers host more than 50% of all installations of SAP solutions, with more than 60,000 installations and 25,000 customers. These figures show that HP, with SAP, has a leading market share with SAP solutions on Microsoft Windows and Microsoft SQL Server.



What's New

The SAP SD Standard Application Benchmark was performed in Houston, Texas, on the HP ProLiant DL585 G5 rack server with the new SAP enhancement package to the SAP SD Standard Application Benchmark and the usage of Microsoft Windows Server 2008 Enterprise Edition and Microsoft SQL Server 2008 Enterprise Edition. In addition, the benchmark used the ProLiant DL585 G5 with the latest AMD Opteron processors at 3.1GHz.

SAP Enhancement Package 4 for SAP ERP 6.0

On January 1, 2009, SAP upgraded the SAP SD Standard Application Benchmark to the SAP enhancement package 4 for SAP ERP 6.0, part of SAP Business Suite 7 software. These enhancements make the SAP SD Standard Application Benchmark more resource intensive, which has a direct impact on the benchmark results, according to SAP. The steps of the benchmark scenario remain unchanged. The updates include utilizing a Unicode codepage, a change in the subsecond response time to below one second, use of the new general ledger, and the activation of credit limit check functionality that marks a date of change for the SAP ERP benchmarks.¹

Interpreting the performance results

ProLiant server testing configurations

HP received certification from SAP AG of the results on the two-tier SAP SD Standard Application Benchmark for the ProLiant DL585 G5 (Certification #2009008).

The ProLiant DL585 G5 rack server was set up as a four-processor system with four 3.1GHz Quad-Core AMD Opteron 8393 SE Processors (4 processors/16 cores/16 threads), with 128KB L1 cache and 512KB L2 cache per core, 6MB L3 cache per processor, and 64GB (16 x 4 GB) DDR2 800MHz main memory. The server was running Microsoft Windows Server 2008 Enterprise Edition operating system, Microsoft SQL Server 2008 Enterprise Edition database, and the SAP enhancement package 4 for SAP ERP 6.0 (Unicode). The HP ProLiant DL585 G5 achieved 3,430 SAP SD Benchmark users, equivalent to a throughput of 374,670 fully processed order line items per hour or 18,730 SAPS.

All results as of 04-27-2009; details can be found at <http://www.sap.com/benchmark>.

The HP difference

HP provides all of the tools and services required for customers to plan their deployment of the SAP ERP application as well as the best practices and experience to help implement the application successfully without disruption to business operations. Thousands of deployments of SAP solutions worldwide run mission-critical environments on HP servers.

Unlike many other service providers, HP Services shares with customers its solid expertise in HP technology for flexible management, virtualization, consolidation, and integration of SAP solution-based environments.

In addition, HP is a global SAP partner offering leading support for SQL implementations. HP's SAP Consulting and Integration services practice also has strong expertise with SAP solution-based deployments, and hundreds of successful customer implementations.

¹ <http://www.sap.com/solutions/benchmark/pdf/January2009newsfaq.pdf>

The HP ProLiant Advantage



The ProLiant DL585 G5 improves on its reputation for performance with faster processors, more memory, and additional storage options to deliver more value than ever before. Combined with industry-leading management and support options, the DL585 G5 is a great choice for today's demanding enterprise applications and virtualization projects. The ProLiant DL585 G5 now includes:

- Support for AMD's latest Opteron 8300 series processors for improved performance, price/performance, and TCO.
- Support for 8GB PC2-6400 Registered DIMMs on select models.
- Support for the AMD Opteron 8393 SE and 8381 HE for maximum flexibility.

SAP and HP Partnership



HP has been partnering with SAP AG for over 20 years and is one of the largest SAP customers in the world. In fact, SAP selected HP output management technology. Together, SAP and HP created a remarkable legacy providing world-class business solutions to global clients. They offer a unique combination of open, flexible technologies and broad expertise. That's why nearly half of the worldwide implementations of SAP applications run on HP infrastructure.

- HP servers host nearly half of all SAP solution-based installations with more than 60,000+ installations and more than 25,000 customers.
- HP is a worldwide leader in SAP solution-based operations, with 250+ outsourcing customers managing over 850,000 users.
- We integrate, certify, and optimize new solutions by utilizing:
 - Six SAP Solutions Centers located in Atlanta, Georgia and Houston, Texas, USA; and in Asia in Singapore, India, China, and Korea and one SAP Competency Center in Walldorf, Germany.
 - 24x7 support through globally connected support centers in support of SAP solutions in more than 15 countries worldwide.
 - Four engineering labs located in Walldorf, Germany; Houston, Texas, USA; Marlborough, MA., USA; and Redmond, Washington, USA.

For more information

HP ProLiant DL585 G5: www.hp.com/servers/proliantdl585

HP ProLiant BL685c G6: www.hp.com/servers/proliantbl685-g6

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

SAP benchmark details: <http://www.sap.com/benchmark>

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Appendix A

¹Configuration details from Figure 1

HP ProLiant DL585 G5 results on the two-tier SAP SD Standard Application Benchmark. The HP ProLiant DL585 G5 (Certification #2009008) was configured as a four-processor server with four 3.1-GHz Quad-Core AMD Opteron 8393 SE Processors (4 processors/16 cores/16 threads), with 128 KB L1 cache and 512 KB L2 cache per core, 6MB L3 cache per processor, and 64 GB (16 x 4 GB) Registered DDR2 main memory. The server was running Microsoft Windows Server 2008 Enterprise Edition operating system, Microsoft SQL Server 2008 Enterprise Edition database, and the SAP enhancement package 4 for SAP ERP 6.0 (Unicode). The HP ProLiant DL585 G5 achieved 3,430 SAP SD Benchmark users, equivalent to a throughput of 374,670 fully processed order line items per hour or 18,730 SAPS.

HP ProLiant DL685 G6 results on the two-tier SAP SD Standard Application Benchmark. The ProLiant BL685c G6 server blade (Certification #2009007) was set up as a four-processor system with four 2.9GHz Quad-Core AMD Opteron Model 8389 processors (4 processors/16 cores/16 threads), with 128 KB L1 cache and 512 KB L2 cache per core, 6MB L3 cache per processor, and 64 GB (16 x 4 GB) Registered DDR2 main memory. The server was running Microsoft Windows Server 2008 Enterprise Edition operating system, Microsoft SQL Server 2008 Enterprise Edition database, and the SAP enhancement package 4 for SAP ERP 6.0 (Unicode). The HP ProLiant BL685c G6 achieved 3,118 SAP SD Benchmark users, equivalent to a throughput of 341,000 fully processed order line items per hour or 17,050 SAPS.

All results as of 04-27-2009; details can be found at <http://www.sap.com/benchmark>.