



Record-breaking HP ProLiant DL785 G5 virtualization performance: first to achieve 126 Virtual Machines on VMmark!



HP Leadership

126 Virtual Machines



Virtualization Powerhouse



Customer Value

Key Points

- Highest VMmark score ever posted at **30.50@21 tiles**
- First server to break the 30 barrier on the VMmark benchmark
- #1 leadership score in the eight-socket/32-core category
- Beats IBM by a whopping 23.9% and Sun by 4.8%
- Result projects potential of over 750 virtual machines in a 42U rack
- 10.1% increase from previous DL785 G5 result (27.71@19 tiles)

Figure 1. VMmark benchmark comparison of HP, IBM, and Sun top results

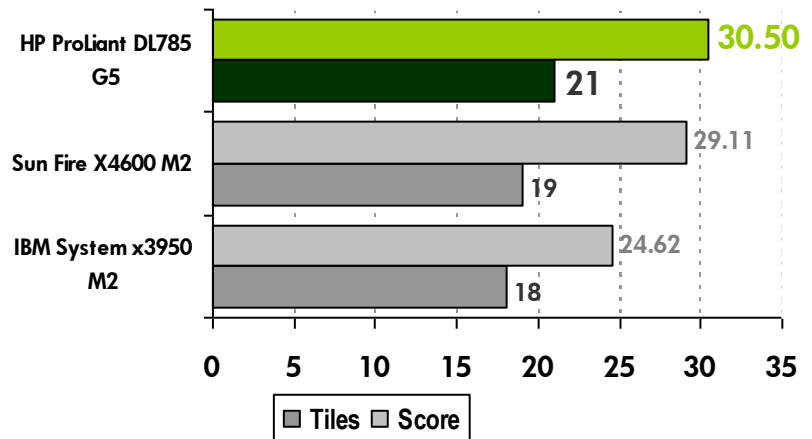
What are the benefits of using the HP ProLiant DL785 G5 for virtualization?



HP understands customers' business needs and is best equipped to deliver a consolidation solution to fit those needs. The industry's

8-socket workhorse, the DL785 G5, delivers leading expandability for x86 virtualization and enterprise applications. With the HP ProLiant DL785 G5, customers receive well-balanced 8-socket architecture for reducing cost through consolidation in a platform that provides ample I/O with 11 expansion slots and a large memory footprint of up to 512 GB RAM to support a very large number of virtual machines.

With this result, the ProLiant DL785 G5 achieved an unprecedented 126 virtual machines (21 tiles x 6 virtual machines), and projects the potential to achieve more than 750 virtual machines per 42U rack!



Results as of 04-22-09

Each tile is a collection of 6 diverse workloads each running its own virtual machine

Technology for Better Business Outcomes

Table 1. VMmark configuration for top HP, Sun, and IBM results

System Description	VMmark Version	Score	Published Date
HP ProLiant DL785 G5 Quad-Core AMD Opteron™ 8393SE 3.1GHz 8 sockets/32 cores/32 total threads 256 GB RAM	VMmark v 1.1 VMware ESX v4.0 Build 154785	30.50@21 tiles	04/22/09
Sun Fire X4600 M2 Quad-Core AMD Opteron 8384 2.7GHz 8 sockets/32 cores/32 total threads 128 GB memory	VMmark v 1.1 VMware ESX v3.5.0 Update 3 Build 123630	29.11@19 tiles	03/10/09
IBM System x3950 M2 Quad-Core Intel Xeon MP X7350 2.93 GHz 8 sockets/32 cores/32 total threads 128 GB RAM	VMmark v 1.1 VMware ESX v3.5.0 Update 2 Build 110181	24.62@18 tiles	10/02/08

Test results as of 04-22-09. For more details, please visit: <http://www.vmware.com/products/vmmark/results.html>

What VMmark measures

The VMmark benchmark is intended to measure the performance of virtualized servers on a system under test (SUT) so that customers can compare the capabilities of different platforms for virtualization. VMmark represents the performance of virtual machines within a server running VMware ESX and a set combination of operating systems and applications reflecting a typical datacenter environment. VMmark uses a collection of ‘sub-tests’ derived from commonly used load-generation tools as well as from benchmarks developed by the Standard Performance Evaluation Corporation (SPEC®). VMmark uses workloads that represent common applications in datacenters. It is important to note that VMmark is designed to benchmark the performance of the virtualization software and the hardware, and is not designed as a benchmark of any other software component.

For more information

HP ProLiant DL785 G5 server: www.hp.com/servers/dl785

HP VMware information: <http://www.hp.com/go/vmware>

An HP authored overview of the VMmark benchmark on HP ProLiant servers and server blades: ftp://ftp.compaq.com/pub/products/servers/benchmarks/VMmark_Overview.pdf

VMmark overview: <http://www.vmware.com/products/vmmark/overview.html>

© 2009 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.

For information about VMmark and the rules regarding its usage visit www.vmware.com/go/vmmark. VMware® VMmark™ is a product of VMware, Inc. VMmark utilizes SPECjbb2005® and SPECweb2005®, which are available from the Standard Performance Evaluation Corporation (SPEC). The competitive benchmark claim is based on having the best VMmark result out of all results published on www.vmware.com as of 04/22/09. April 2009

