

# HP ProLiant BL685c G7 Server Blade earns #1 blade and #1 two-node AMD Opteron™ result on VMmark benchmark

Performance brief – November 2011



## Executive summary

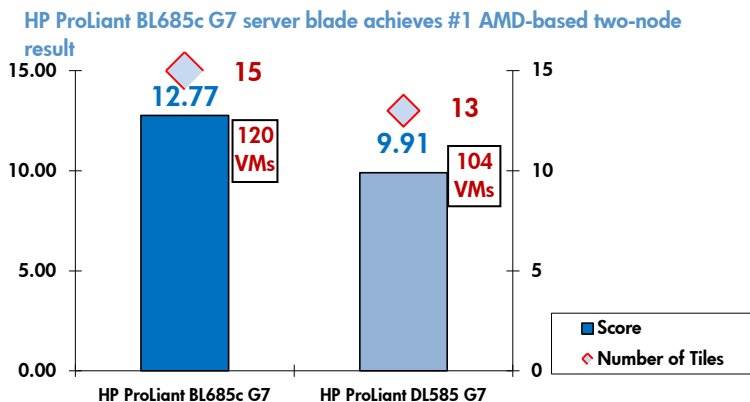
The HP ProLiant BL685c G7 Server Blade earns the #1 blade and #1 two-node AMD Opteron™ processor-based result on the VMmark® benchmark.

### Key Take Aways:

- Top blade result.
- Top 2-node result with AMD Opteron processors.
- Top 2-node result with blades.
- The first VMmark result using ESXi 5.0.0.
- Top VMmark result with AMD processors
- Top VMmark result with AMD-based blades
- 120 Virtual Machines
- More than 2X the VMs as compared to the leading IBM and Cisco blade results.
- 28.86% higher performance with lower clock speed AMD Opteron 6200 Series processors (2.3-GHz) than the HP ProLiant DL585 G7 result using AMD Opteron 6100 Series processors (2.5-GHz).
- Another proof point for the ability of HP ProLiant servers to lead the way in performance.

## A performance highlight: #1 two-node result with AMD Opteron processors

Figure 1. Top two VMmark 2.1 two-node results with AMD Opteron processors

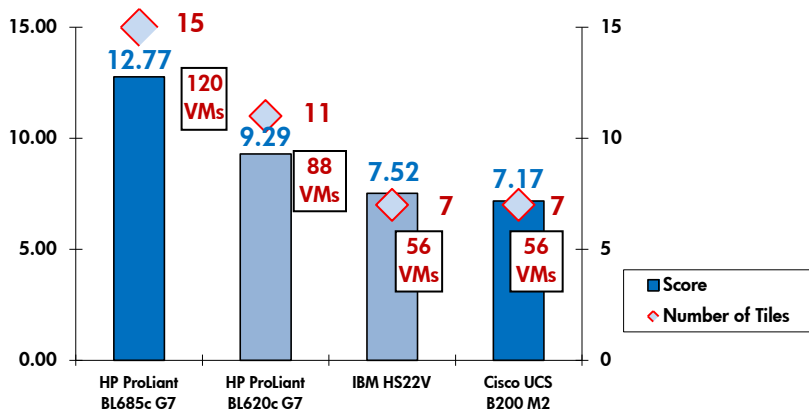


### BL685c results:

- The leading two-node AMD-based result and leading two-node blade result.
- 28.86% higher score than the previous top 2-node AMD Opteron-based result.
- Beats the blade competition by more than 2X the Virtual Machines.

Figure 2. Top VMmark 2.1 blade results

HP ProLiant BL685c G7 server blade achieves #1 blade result



## Business transformation with HP Converged Infrastructure and ProLiant servers

Available today, the HP Converged Infrastructure provides a blueprint for the data center of the future that eliminates costly and rigid IT silos so you can spend much more of your IT budget on business innovation. This is achieved by converging server, storage, and networks with facilities – all managed through a common management platform. The BL685c G7 is powered by the latest AMD Opteron™ 6200 Series processors each supporting up to 16 cores, 16MB L3 cache, and 85 or 115 watts per processor, 32 DIMM slots for up to 1 TB of memory, 96Gb of I/O bandwidth, and two hot-plug drive bays for up to 2 TB of internal storage. Also featuring two integrated dual-port HP 10Gb FlexFabric converged networking adapters, the BL685c G7 helps simplify network connections, lower infrastructure costs, and deliver the performance expected for demanding application workloads.

### About the VMmark benchmark

VMmark 2.x is the first standard methodology for comparing virtualized platforms. VMmark 2.x generates a realistic measure of virtualization platform performance by incorporating a variety of platform-level workloads such as dynamic VM relocation (vMotion) and dynamic datastore relocation (storage vMotion), in addition to traditional application-level workloads. The benchmark system in VMmark 2.x is comprised of a series of “sub-tests” that are derived from commonly used load-generation tools and commonly initiated virtualization administration tasks. The VMmark 2.x benchmark features a tile-based scheme for measuring application performance and provides a consistent methodology that captures both the overall scalability and individual application performance. The total number of tiles that a multi-host platform can accommodate and the performance of each individual workload within the tile determine the overall benchmark score. A tile is defined as 8 VMs to run the workload mix listed: Mail server (Microsoft Exchange), Standby server, web server for Social Networking application (Olio), database server for Social Networking application (Olio), 3 web servers for eCommerce application (DVD Store 2), and data base server for eCommerce application (DVD Store 2).

Test results as of 11-14-2011.

### For more information, check out:

HP ProLiant BL685c G7: [www.hp.com/servers/bl685c-g7](http://www.hp.com/servers/bl685c-g7)

HP Converged Infrastructure: <http://h18004.www1.hp.com/products/solutions/converged/overview.html>

VMware: <http://h18000.www1.hp.com/products/servers/vmware/index.html>

### Benchmark configuration

Table 1. Comparison of Top two-node AMD Opteron processor-based results on VMmark 2.1

System description	Software	Score	Published date
HP ProLiant BL685c G7, 2 hosts, 4 processors, 16-core, 2.3-GHz AMD Opteron 6276 (4/64/64 per node), 256 GB RAM	VMmark 2.1.1 VMware ESX 5.0.0 vCenter Server 5.0.0	<a href="#">12.77 @ 15 Tiles</a>	11-14-2011
HP ProLiant DL585 G7, 2 hosts, 4 processors, 10-core, 2.5-GHz AMD Opteron 6180 SE (4/48/48), 256 GB RAM	VMmark 2.1 VMware ESX 4.1.0 U1 vCenter Server 4.1.0	<a href="#">9.91 @ 13 tiles</a>	03-08-2011

Table 2. Comparison of Top blade results on VMmark 2.1

System description	Software	Score	Published date
HP ProLiant BL685c G7, 2 hosts, 4 processors, 16-core, 2.3-GHz AMD Opteron 6276 (4/64/64 per node), 256 GB RAM	VMmark 2.1.1 VMware ESX 5.0.0 vCenter Server 5.0.0	<a href="#">12.77 @ 15 Tiles</a>	11-14-2011
HP ProLiant BL620c G7, 2 hosts, 2 processors, 10-core, 2.40-GHz Intel Xeon E7-2870 (2/20/40 per node), 256 GB RAM	VMmark 2.1 VMware ESX 4.1.0 U1 vCenter Server 4.1.0	<a href="#">9.29 @ 11 tiles</a>	03-08-2011
IBM BladeCenter HS22V, 2 hosts, 2 processors, Quad-core, 2.27-GHz Intel Xeon E5520 (2/8/16 per node), 32 GB RAM	VMmark 2.1.1 VMware ESX 4.1.0 U1 vCenter Server 4.1.0	<a href="#">7.52 @ 7 tiles</a>	10-18-2011
Cisco UCS B200 M2, 2 hosts, 2 processors, 6-core, 3.46-GHz Intel Xeon X5690 (2/12/24 per node), 96 GB	VMmark 2.1.1 VMware ESX 4.1.0 vCenter Server 4.1.0	<a href="#">7.17 @ 7 tiles</a>	03-22-2011

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