HP ProLiant DL380 G7 posts #1 12-core result and the first result with power metric on SPECvirt_sc2010® benchmark

Server scores SPECvirt_sc2010 1221@78 VMs
SPECvirt_sc2010_PPW 0.2934@78VMs
SPECvirt_sc2010_ServerPPW 3.414@78 VMs

November 2010

Executive summary
The HP ProLiant DL380 G7 has posted the #1 12-core result as well as the first result with the power metric on the SPECvirt_sc2010 benchmark.

Key Take Aways:
▸ HP ProLiant DL380 G7 is an industry leader in virtualized server consolidation.
▸ HP ProLiant DL380 G7 took the #1 performance spot for 12-core servers with two Intel Xeon X5680 processors.
▸ HP ProLiant DL380 G7 posted the first result on this new benchmark with a power metric, showing the HP commitment to customer needs for performance and power efficiency information.
▸ Excellent proof point for industry-leading virtualized server consolidation and power efficiency.

Figure 1. Top 12-core results with Intel Xeon X5680 processors on the SPECvirt_sc2010 benchmark

Delivering the data center of the future with Converged Infrastructure
Industry is at an inflection point where our technology is coming together to help our clients build the data center of the future; and it will be based on a Converged Infrastructure. Over the next 90 days, HP will accelerate innovation, with new standards based solutions in every core area of the data center and beyond. These innovations will deliver a new level of simplicity, integration and automation to enable our clients to focus on meeting business demands.
Benchmark Configurations

The HP ProLiant DL380 G7 was set up as a system with two Intel Xeon X5680 processors configured as 3.33GHz 6-Core (2 processors/12 cores/6 cores per chip) with 12MB L3 cache, and 196GB main memory (12 x 16GB 2Rx4 PC3L-1333 MHz Samsung DIMMs). The server was running VMware Inc.’s ESX v 4.1. See Table 1 for more hardware configuration details. System availability date is November 4, 2010.

Bottom line

We believe that HP is the only company that has everything it takes to deliver a converged infrastructure that enables exponentially improved server efficiency while increasing performance. We have the intellectual property, we have the open integration, and we have the expertise to make it happen. The HP ProLiant DL380 G7 performance on the SPECvirt_sc2010 benchmark is just one of many proof points.

Table 1. Configuration details for top two 12-core results on the SPECvirt_sc2010 benchmark

<table>
<thead>
<tr>
<th>System Description</th>
<th>SPECvirt_sc2010 @VMs</th>
<th>Virtualization Vendor / Product</th>
<th>Hardware Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>HP ProLiant DL380 G7</td>
<td>1221@78 VMs</td>
<td>VMware Inc. / ESX 4.1</td>
<td>Intel Xeon X5680 3.33 GHz 6-core, 2/6/12 ; 192 GB (12 x 16 GB PC3L-10600R) ; 1 x StorageWorks 82Q dual-port 8 Gb FC HBA ; 132 x146 GB LFF SAS + 24 x 72 GB SFF SAS</td>
</tr>
<tr>
<td>IBM System x3650 M3</td>
<td>1169@72 VMs</td>
<td>Red Hat Enterprise Linux 5 US / KVM</td>
<td>Intel Xeon L5680, 3.33 GHz 6-core, 2/6/12 ; 144 GB (18 x 8GB @ 800 MHz) ; 1 x Dual-port Qlogic Corp ISP2432 4 Gb FC HBA ; 96 x 73 GB SAS</td>
</tr>
</tbody>
</table>

About the SPECvirt_sc2010 benchmark

SPECvirt_sc2010 is SPEC’s first benchmark addressing performance evaluation of datacenter servers used in virtualized server consolidation. SPECvirt_sc2010 measures the end-to-end performance of all system components including the hardware, virtualization platform, and the virtualized guest operating system and application software. The benchmark supports hardware virtualization, operating system virtualization, and hardware partitioning schemes. The benchmark utilizes several SPEC workloads representing applications that are common targets of virtualization and server consolidation. We modified each of these standard workloads to match a typical server consolidation scenario of CPU resource requirements, memory, disk I/O, and network utilization for each workload. These workloads are modified versions of SPECweb2005, SPECjAppServer2004, and SPECmail2008. The client-side SPECvirt_sc2010 harness controls the workloads. Scaling is achieved by running additional sets of virtual machines, called “tiles”, until overall throughput reaches a peak. All VMs must continue to meet required quality of service (QoS) criteria.

The benchmark also includes options for measuring power consumption and power/performance relationships. Based on SPECpower methodology, power measurement requires the use one of the accepted power analyzers. Being a Standard Performance Evaluation Corporation (SPEC) benchmark, SPECvirt_sc2010 is a peer-reviewed benchmark that provides a way for server vendors to compare benchmark results in a fair manner. More information about SPECvirt_sc2010 results can be found at the following Web page: http://www.spec.org/virt_sc2010. Results as of 11-04-2010.

For more information check out:

HP ProLiant DL380 G7: http://www.hp.com/servers/dl380

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