

# Cisco UCS Delivers the Best 2-Socket Server Performance and Best Overall Price/Performance on the TPC-H Benchmark at the 1000-GB Scale Factor



Performance Brief  
August 2014

## Highlights

### Best Price/Performance Ratio Anywhere

- The Cisco UCS® C240 M3 Rack Server captures the number-one spot for price/performance on the TPC-H benchmark at the 1000-GB scale factor, with a price/performance ratio of \$0.73 USD per QphH@1000GB. This result beats on HP's best TPC-H 1000-GB result for Microsoft SQL Server by 60 percent.

### Best 2-Socket Server Performance for Microsoft SQL Server 2014

- Cisco demonstrates 304,362 queries per hour (QphH@1000GB), making it the fastest 2-socket server running Microsoft SQL Server, surpassing HP's best performance at the 1000-GB scale factor by 38 percent.

### Dramatic Single-System Scalability for Decision Support

- The Cisco UCS C240 M3's combination of computing power, I/O bandwidth, and storage capacity makes it an excellent platform for Microsoft SQL Server 2014.

### A Tradition of Performance Leadership

- Cisco has established a tradition of performance leadership on industry benchmarks, with more than 90 world records since the system was introduced only five years ago.

The Cisco UCS® C240 Rack Server is the fastest two-socket server running Microsoft SQL Server 2014. It delivers the best price/performance ratio of any server on the TPC-H Benchmark at the 1000-GB scale factor—60 percent better than the HP DL980 G7 server.

### Industry-Leading Performance for Decision Support

Timely decision support depends on the performance and scalability of the server, and on the capability of the operating system and database software to exploit the underlying system hardware efficiently. [Cisco's newest TPC-H result](#) offers a vivid illustration of the power of Cisco UCS servers to deliver overall price/performance benefits in concert with Microsoft SQL Server 2014. This newest result affirms Cisco's leadership, with Cisco's solution exceeding the [HP DL980 G7 server result](#) at 1000 GB for Microsoft SQL Server performance by 38 percent, while providing a 60 percent lower price/performance ratio (Table 1 and Figure 1).

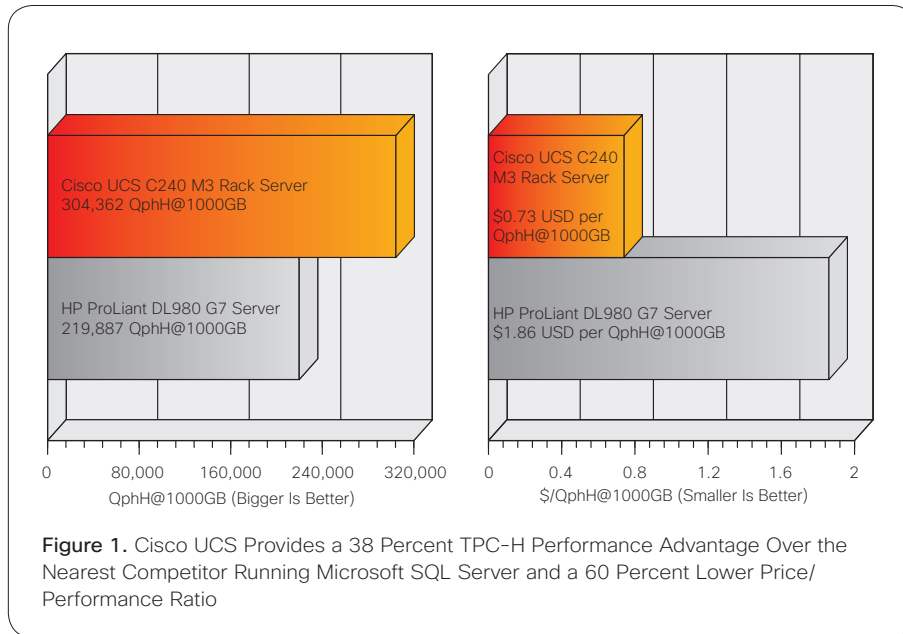
**Table 1.** TPC-H 1000-GB Results for the Cisco UCS C240 M3 and the HP ProLiant DL980 G7

Server	Processors (Cores and Threads)	Performance	Price/Performance Ratio	Availability Date
Cisco UCS C240 M3	2 Intel Xeon processor E5-2690 CPUs at 3.0 GHz (20 cores, with 40 threads total)	304,362 QphH@1000GB	\$0.73 USD per QphH@1000GB	<a href="#">August 20, 2014</a>
HP ProLiant DL980 G7	8 Intel Xeon processor E7-4870 CPUs at 2.4 GHz (80 cores, with 160 threads total)	219,887 QphH@1000GB	\$1.86 USD per QphH@1000GB	<a href="#">August 30, 2011</a>

### TPC-H Benchmark

The TPC-H benchmark is an industry-standard decision-support test. It is designed to measure the capability of a system to examine large volumes of data, process queries with a high degree of complexity, and return answers to critical business questions. The TPC-H benchmark evaluates a composite performance metric (QphH@size) and a price-to-performance metric (\$/QphH@size) that measure the performance of various decision-support systems by running sets of queries against a standard database under controlled conditions.

## Cisco UCS Delivers the Best 2-Socket Server Performance and Best Overall Price/Performance on the TPC-H Benchmark at the 1000-GB Scale Factor



**Figure 1.** Cisco UCS Provides a 38 Percent TPC-H Performance Advantage Over the Nearest Competitor Running Microsoft SQL Server and a 60 Percent Lower Price/Performance Ratio

### Cisco UCS C240 M3 Rack Server

The Cisco UCS C240 Rack Server delivers the balanced I/O, memory, and computing capacity needed for large-scale analytical and business intelligence applications. The system is a 2-rack-unit (2RU) rack server supporting the Intel® Xeon® processor E5-2600 v2 product family, up to 768 GB of double-data-rate-3 (DDR3) memory, and up to 12 Large Form-Factor (LFF) or 24 Small Form-Factor (SFF) hot-pluggable SAS, SATA, or solid-state drives (SSDs).

### Benchmark Configuration

For the benchmark, the server was equipped with 768 GB of memory and two 3.0-GHz Intel Xeon processor E5-2690 v2 CPUs. The system ran Microsoft SQL Server 2014 Enterprise Edition and Windows Server 2012 R2 Standard Edition.

The test database and log files resided on fourteen 400-GB Samsung Enterprise Performance SAS SSDs and two 800-GB Samsung Enterprise Performance SAS SSDs. The disk drives were accessed through two LSI MegaRAID SAS 9271-8i SAS RAID controllers.

### Record-Setting Performance

These benchmark results demonstrate top performance running Microsoft SQL Server 2014 and the best price/performance ratio of any server.

### For More Information

- For more information about Cisco UCS servers, please visit <http://www.cisco.com/go/ucs>.
- For more information about Cisco UCS performance, please visit <http://www.cisco.com/go/ucsatwork>.

### Disclosures

The Transaction Processing Performance Council (TPC) is a nonprofit corporation founded to define transaction processing and database benchmarks, and to disseminate objective and verifiable performance data to the industry. TPC membership includes major hardware and software companies. TPC-H, QphH, and \$/QphH are trademarks of the Transaction Processing Performance Council (TPC). The performance results described in this document are derived from detailed benchmark results available as of August 20, 2014, at <http://www.tpc.org/tpch/default.asp>.



**Americas Headquarters**  
Cisco Systems, Inc.  
San Jose, CA

**Asia Pacific Headquarters**  
Cisco Systems (USA) Pte. Ltd.  
Singapore

**Europe Headquarters**  
Cisco Systems International BV Amsterdam,  
The Netherlands

Cisco has more than 200 offices worldwide. Addresses, phone numbers, and fax numbers are listed on the Cisco Website at [www.cisco.com/go/offices](http://www.cisco.com/go/offices).