

# Cisco UCS Claims World-Record SPECjbb2013 Benchmark Result



With Versatile Performance from the Intel Xeon Processor E5-2600 v3 Family

Performance Brief  
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## Highlights

### Dramatically Increase Performance

- A Cisco UCS® C220 M4 Rack Server powered by the Intel® Xeon® processor E5-2600 v3 family sets a new world record while delivering four times the max-jOPS rate that Cisco measured using previous processor generations.

### Increase Transaction Throughput

- High-performance rack servers enable the Cisco UCS C220 M4 to handle Java transactions at the rate of 195,119 concurrent Java operations per second (jOPS) on the SPECjbb®2013 benchmark.

### Optimize the Use of Resources

- The Cisco Unified Computing System™ (Cisco UCS) dramatically reduces the number of physical components needed to support demanding Java application workloads, enabling IT departments to make effective use of limited space, power, and cooling resources.

### Do More with Less

- Cisco UCS enables IT departments to simplify their enterprise application landscape and increase capacity with a smaller footprint.

Gain another leap in performance from Cisco Unified Computing System™ (Cisco UCS®) as Cisco claims its 100th world-record performance result<sup>1</sup> with the fastest 2-socket server on the SPECjbb®2013 MultiJVM benchmark for the max-jOPS metric.



When companies need high-performing data center infrastructure, they turn to Cisco® solutions. With 100 world-record benchmark performance results, the reason is obvious. Cisco's track record of delivering world-record performance in generation after generation of server and processor technologies speaks for itself. The latest example of Cisco's innovative approach is the Cisco UCS C220 M4 Rack Server with the versatile Intel® Xeon® processor E5-2600 v3 family. This high-performance rack server captured the [top 2-socket MultiJVM score for maximum Java operations \(max-jOPS\)](#).

Today's world-record of 195,119 max-jOPS is more than three times better than our record-setting Cisco UCS C240 M3 with Intel Xeon processor E5 v2 family-based result from just 10 months ago, and more than four times better than our Intel Xeon processor E5 family result from 18 months ago (Figure 1). With consistent,

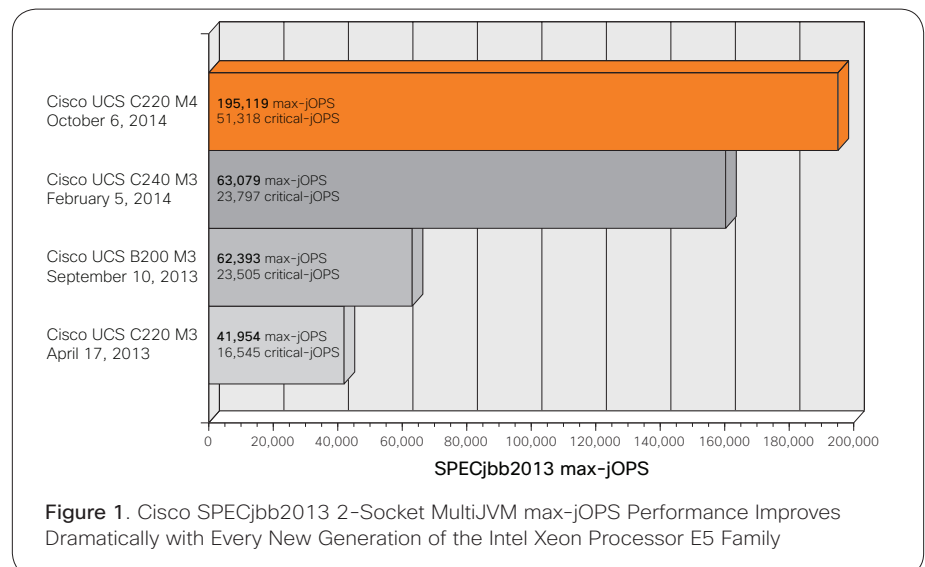


Figure 1. Cisco SPECjbb2013 2-Socket MultiJVM max-jOPS Performance Improves Dramatically with Every New Generation of the Intel Xeon Processor E5 Family

1. This refers to [100 first-to-market results or results that exceed those set by other system vendors](#), including Dell, HP, and IBM, as of the dates of disclosure.

record-setting performance from Cisco blade and rack servers, you can be confident that Cisco will stay ahead of competitors in delivering high performance for Java virtual machines (JVMs) and throughput-intensive Java applications.

## Benchmark Configuration

Our configuration consisted of a controller and two groups, each consisting of a transaction injector and back end, all running across multiple JVM instances within a single operating system image. The JVM instances ran on a Cisco UCS C220 M4 Rack Server powered by two 18-core Intel Xeon processor E5-2699 v3 CPUs running Red Hat Enterprise Linux (RHEL) Server 6.5 and Oracle Java HotSpot 64-Bit Server Virtual Machine (VM) Version 1.8.0\_20. The rack server was configured with 512 GB of RAM and accessed the network through two 1-Gbps network interface cards (NICs). The benchmark result of 195,119 max-jOPS places the Cisco UCS C220 M4 at the top of max-jOPS scores for 2-socket servers running multiple JVMs.

### Cisco UCS C220 M4 Rack Server

Cisco UCS C220 M4 Rack Servers are the most versatile general-purpose enterprise infrastructure and application servers in the industry. These high-density 2-socket servers support up to eight Small Form-Factor (SFF) or

four Large Form-Factor (LFF) drives, up to 1.5 terabytes (TB) of memory, a dedicated slot for a 12-Gbps SAS module RAID controller, two additional PCI Express (PCIe) slots, one modular LAN-on-motherboard (mLOM) slot, and two LOM ports in a compact 1-rack-unit (1RU) design.

### Powered by the Versatile Intel Xeon Processor E5 v3 Family

Cisco UCS C220 M4 Rack Servers harness the power of latest Intel Xeon processor E5-2600 v3 family CPUs to deliver an outstanding combination of performance, built-in capabilities, and cost effectiveness. Whether your business needs to address technical computing challenges, deliver cloud capabilities and intelligent storage, or power design automation and data analytics, Cisco and Intel technology are the smart choice for a software-defined environment in which performance and efficiency matter most.

## Business Advantages

**Accelerate responsiveness:** Cisco tunes its chip sets and servers for specific workloads. With high-performance processors, large and fast memory configurations, and efficient use of Intel Turbo Boost Technology, the Cisco UCS C220 M4 delivers low latency and server optimization to JVMs.

**Increase scalability:** SPECjbb2013 MultiJVM benchmark results

show that the Cisco UCS C220 M4 delivers excellent scalability to JVMs and applications.

## Conclusion

IT departments that deploy Java applications on Cisco UCS can deliver more throughput and support more users while reducing the complexity of the data center. For businesses assessing infrastructure for Java applications, the results demonstrate Cisco's capability to consistently deliver record-setting performance with every new generation of processor.

## For More Information

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

SPEC and SPECjbb are registered trademarks of Standard Performance Evaluation Corporation. The performance comparisons described in this document were valid based on results at <http://www.spec.org> as of October 6, 2014, and they include the following:

- [Cisco UCS C220 M4 result](#) of August 24, 2014
- [Cisco UCS C240 M3 result](#) of February 5, 2014
- [Cisco UCS B200 M3 result](#) of September 10, 2013
- [Cisco UCS C220 M3 result](#) of April 17, 2013



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