

Cisco UCS C220 M4 Rack Server: Best 2-Socket x86-Architecture SPECjbb2015 Benchmark Result



Balanced Performance with the Intel Xeon Processor E5-2600 v4 Family

Performance Brief
March 2016

Highlights

Best 2-Socket SPECjbb2015 critical-jOPS Result

- A Cisco UCS® C220 M4 Rack Server powered by the Intel® Xeon® processor E5-2600 v4 family delivers the best 2-socket critical-jOPS SPECjbb®2015 performance for an x86-architecture server in an environment with multiple Java virtual machines (JVMs).

Continued Benchmark Results

- Cisco® servers continue to demonstrate excellent performance—giving you confidence in the choice of Cisco servers for your business applications.

Optimized Resource Use

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

Capability to Do More with Less

- Cisco UCS helps IT organizations simplify their enterprise application landscape and increase computing capacity with a smaller footprint.

With the highly scalable Intel® Xeon® processor E5-2600 v4 family, Cisco Unified Computing System™ (Cisco UCS®) captured the top x86 2-socket MultiJVM score for Critical Java operations (Critical-jOPS).



Once again, we show you that Intel Xeon processor technologies in Cisco UCS servers set world records on industry benchmarks. Today's performance record of 71,951 SPECjbb®2015 MultiJVM critical-jOPS is another example of our ability to deliver results (Table 1). Combined with integrated Cisco UCS management, these flexible and programmable systems can be provisioned in less time and without human intervention to deliver record-setting results.

Table 1 SPECjbb2015 Result for the Cisco UCS C220 M4 Rack Server

Server	Processors	SPECjbb2015 MultiJVM max-jOPS	World-Record SPECjbb2015 MultiJVM critical-jOPS	Disclosure Date and Disclosure Link
Cisco UCS C220 M4	2 Intel Xeon processor E5-2699 v4 CPUs at 2.2 GHz	94,667 max-jOPS	71,951 critical-jOPS	March 31, 2016

SPECjbb2015 Benchmark

The SPECjbb2015 benchmark has been developed to measure Java performance based on the latest Java application features. This latest Java benchmark from the Standard Performance Evaluation Corporation (SPEC) has enhancements that align with the changes that you are experiencing in your IT organization. These changes include physical and virtual performance measurements to give you a more accurate assessment than previous versions of the benchmark.

Benchmark Configuration

The benchmark configuration consisted of the benchmark controller, back-end, and transaction injector functions, each running on its own Java virtual machine (JVM). The JVM instances ran on a Cisco UCS C220 M4 Rack Server powered by two 22-core Intel Xeon processor E5-2699 v4 CPUs running a single instance of Red Hat Enterprise Linux (RHEL) Server 6.7 and 64-bit Oracle Java HotSpot

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Server Virtual Machine (VM) 1.8.0_74. The rack server was configured with 1024 GB of RAM and accessed the network through a built-in dual Gigabit Ethernet network interface. The benchmark places the Cisco UCS C220 M4 at the top of critical-jOPS scores for 2-socket x86-architecture servers running multiple JVMs.

Cisco UCS C220 M4 Rack Server

Cisco UCS C220 M4 servers are among 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 serial-attached SCSI (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 v4 Family

Cisco UCS C220 M4 servers harness the power of up to two of the latest Intel Xeon processor E5-2600 v4 family CPUs to deliver the best balance of

performance, power efficiency, and features to meet the diverse needs of next-generation data centers.

Business Advantages

When you choose Cisco servers, you can simplify your data center and get excellent performance for your Java applications:

- **Simplify data centers:** With Cisco UCS unified management and Intel Resource Director Technology you can improve the orchestration of all tasks to reduce operating expenses.
- **Excellent performance:** Cisco tunes the chip sets and servers for specific workloads. With high-performance processors, large and fast memory configurations, and efficient use of Intel Transactional Synchronization Extensions (TSX) the Cisco UCS C220 M4 delivers high performance and server optimization to JVMs.

Conclusion

With this benchmark result, Cisco demonstrates a continuing commitment to delivering excellent performance for real-world business environments such as those running Java applications. With

Cisco UCS servers, you can get your business applications up and running quickly and deliver the performance that your users, workloads, and applications need to deliver results.

For More Information

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

For more information about the Cisco Unified Computing System, visit <http://www.cisco.com/go/ucs>.

Benchmark Disclosures

SPEC and SPECjbb are registered trademarks of Standard Performance Evaluation Corporation. The performance results described in this document are derived from detailed benchmark results available at <http://www.spec.org> and <http://www.cisco.com/go/ucsatwork> as of March 31, 2016.



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