

Cisco UCS C220 M4 Rack Server: First and Best 2-Socket SPECjbb2015 Benchmark Result Ever



Versatile Performance with the Intel Xeon Processor E5-2600 v3 Family

Performance Brief
September 2015

Highlights

Best 2-Socket SPECjbb2015 max-jOPS Result

- A Cisco UCS® C220 M4 Rack Server powered by the Intel® Xeon® processor E5-2600 v3 family delivers the best 2-socket performance for max-jOPS in a multiple-Java virtual machine (JVM) environment.

First Result on New Benchmark

- Cisco demonstrates its commitment to delivering superior business application performance by achieving a top-performance level ahead of other vendors—giving you confidence in the choice of Cisco® servers for your business applications.

Optimized Resource Use

- 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.

Capability to Do More with Less

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

Cisco has the fastest 2-socket server performance on the SPECjbb®2015 MultiJVM benchmark for max-jOPS—one more reason to choose Cisco Unified Computing System™ (Cisco UCS®) servers.



When companies need high-performing data center infrastructure, they turn to Cisco UCS. They do so because of Cisco's track record of delivering world-record performance in generation after generation of server and Intel® Xeon® processor technologies. They also choose Cisco UCS servers because of our ability to be the first to claim world records on new industry benchmarks. We can achieve these records in part because of the flexibility and programmability of Cisco UCS: servers can be provisioned in less time and without human intervention with integrated Cisco UCS management. When you choose Cisco® servers, you also benefit from the performance and rapid deployment capabilities of Cisco UCS. Today's performance record of 92,463 SPECjbb2015 MultiJVM max-jOPS is another example of Cisco's ability to be the first to set a new world record on a new industry benchmark (Table 1).

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

Server	Processors	World-Record SPECjbb2015 MultiJVM max-jOPS	SPECjbb2015 MultiJVM critical-jOPS	Disclosure Date and Disclosure Link
Cisco UCS C220 M4	2 Intel Xeon processor E5-2699 v3 CPUs at 2.3 GHz	92,463 max-jOPS	31,654 critical-jOPS	September 23, 2015

SPECjbb2015 Benchmark

The new SPECjbb2015 benchmark has enhancements that align with the changes that you are experiencing in your own IT organization—thus giving you a more accurate capacity measurement than previous versions of the benchmark. This version adds both physical and virtual performance measurements, reflecting the move toward virtualization and cloud computing. Further reflecting real-world use, the benchmark allows multiple run configurations that include the capability to modify multiple elements of the system stack, including the hardware, operating system, Java virtual machine (JVM), and application layers.

Benchmark Configuration

The benchmark configuration consisted of the benchmark controller, back-end, and transaction injector functions, each running on its own JVM. 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 a single instance of Red Hat Enterprise Linux (RHEL) Server 6.5 and 64-bit Oracle Java HotSpot Server Virtual Machine (VM) 1.8.0_60. The rack server was configured with 256 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 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 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 v3 Family

Cisco UCS C220 M4 Rack Servers harness the power of up to two of the 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 Business Advantages

Business Advantages

Accelerate response: Cisco tunes the 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: The benchmark results show that the Cisco UCS C220 M4 delivers excellent scalability to JVMs and applications.

Simplify data centers: Cisco UCS delivers the scalability needed for

large Java application deployments. The dramatic reduction in the number of physical components results in a system that makes effective use of limited space, power, and cooling resources by deploying less infrastructure to perform the same, or even more, work.

Conclusion

With this first and best benchmark result, Cisco demonstrates a commitment to delivering superior performance for real-world business applications such as those running Java applications. Cisco also demonstrates the ease with which you can get business applications up and running quickly, with excellent performance.

For More Information

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

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