With the highly scalable Intel® Xeon® processor E7-8890 v4 family, the Cisco Unified Computing System™ (Cisco UCS®) captured the 4-socket MultiJVM score for critical Java operations (Critical-jOPS).

Again, Cisco UCS servers powered by Intel Xeon processor technologies have set world records on industry benchmarks. Today’s performance record of 128,990 SPECjbb®2015 MultiJVM critical-jOPS on a 4-socket server is another example of our ability to deliver results (Table 1). This record surpasses our previous best result on the previous generation of the Intel Xeon processor E7 family by 29 percent. With integrated Cisco UCS management, these flexible and programmable servers can be provisioned in less time and without human intervention to deliver record-setting results such as those detailed in this brief.

Table 1 SPECjbb2015 Result for the Cisco UCS C460 M4 Rack Server

<table>
<thead>
<tr>
<th>Server</th>
<th>Processors</th>
<th>SPECjbb2015 MultiJVM max-jOPS</th>
<th>World-Record SPECjbb2015 MultiJVM critical-jOPS</th>
<th>Disclosure Date and Disclosure Link</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cisco UCS C460 M4</td>
<td>4 Intel Xeon processor E7-8890 v4 CPUs at 2.2 GHz</td>
<td>189,334 max-jOPS</td>
<td>128,990 critical-jOPS</td>
<td>June 6, 2016</td>
</tr>
</tbody>
</table>

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 C460 M4 Rack Server powered by four 24-core Intel Xeon processor E7-8890 v4 CPUs running a single instance of Red
Cisco UCS C460 M4 Rack Server: Best 4-Socket MultiJVM SPECjbb2015 Benchmark Result

Hat Enterprise Linux (RHEL) Server 7.2 and 64-bit Oracle Java HotSpot Server Virtual Machine 1.8.0_91. The rack server was configured with 2048 GB of RAM and accessed the network through a built-in dual Gigabit Ethernet network interface. The benchmark places the Cisco UCS C460 M4 at the top of critical-jOPS scores for 4-socket servers running multiple JVMs.

Cisco UCS C460 M4 Mission-Critical Rack Server
The Cisco UCS C460 M4 Rack Server offers exceptionally high performance and reliability to power the most compute- and memory-intensive, mission-critical enterprise applications and virtualized workloads. These high-performance 4-socket servers support:

- Up to 6 terabytes (TB) of memory
- Twelve front-accessible small form-factor (SFF) disk drive bays with support for hot-pluggable SAS, SATA, and SSD disk drives (two disk drive bays can be used for PCIe SSDs)
- Up to two PCIe SSDs
- Ten PCI Express (PCIe) Generation 3 (Gen 3) slots that support Cisco UCS virtual interface cards (VICs) and third-party adapters and graphics processing units (GPUs)
- Two Gigabit Ethernet LAN-on-motherboard (LOM) ports
- Two 10 Gigabit Ethernet ports in a 4-rack-unit (4RU) design

Powered by the Versatile Intel Xeon Processor E7 v4 Family
The Cisco UCS C460 M4 Rack Server harnesses the power of the latest Intel Xeon processor E7 v4 family CPUs to deliver exceptional performance, scalability, and bandwidth for your diverse workloads. With massive processing resources (33 percent greater core count over the previous generation of processors), large memory capacity (up to 60 MB of last-level cache space), and sophisticated Intel Run Sure Technology available only in the Intel Xeon processor E7 v4 family, these versatile processors support the most demanding scale-up and scale-out business applications. Support for DDR4 and DDR3 memory accelerates transfer rates to help you run your expanding workloads and confidently move your business forward with actionable, real-time results.

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 C460 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


Benchmark Disclosures