ThinkSystem SR655 Sets Six World Records with New 1-Socket SPECjbb Results

Performance Benchmark Result

The Lenovo ThinkSystem SR655 server has set six 1-socket performance world records for the SPECjbb2015-MultiJVM, SPECjbb2015-Distributed and SPECjbb2015-Composite benchmarks.

SPECjbb2015 is a Java Business Benchmark and is the SPEC benchmark used for evaluating the performance of servers running typical Enterprise Java applications.

The ThinkSystem SR655 achieved the following top SPECjbb2015 scores:

- **SPECjbb2015-MultiJVM Critical-jOPS (RHEL 8): 120,320**
- **SPECjbb2015-Distributed Critical-jOPS (RHEL 8): 119,225**
- **SPECjbb2015-MultiJVM Max-jOPS (Windows Server 2019): 151,317**
- **SPECjbb2015-MultiJVM Critical-jOPS (Windows Server 2019): 85,171**
- **SPECjbb2015-Composite Max-jOPS (Windows Server 2019): 127,957**
- **SPECjbb2015-Composite Critical-jOPS (Windows Server 2019): 99,723**

SPECjbb2015 measures multi-threaded compute-intensive applications, with mixed industry workloads such as online purchase, inventory management, and supply. Critical-jOPS scores are ideal for measuring latency-critical applications and max-jOPS scores are ideal for measuring throughput-critical applications.

The Lenovo ThinkSystem SR655 was configured as follows:

- 1x AMD EPYC 7742 processor
  - 2.25 GHz base frequency, 256 MB L3 cache
  - 1 processor, with 64 cores and 128 threads
- Up to 1024 GB system memory
- Operating systems:
  - SPECjbb2015-Distributed Critical-jOPS: Red Hat Enterprise Linux Server 8
  - SPECjbb2015-MultiJVM Max-jOPS: Windows Server 2019 Standard
  - SPECjbb2015-MultiJVM Critical-jOPS: Red Hat Enterprise Linux Server 8 and Windows Server 2019 Standard
  - SPECjbb2015-Composite Max-jOPS: Windows Server 2019 Standard
  - SPECjbb2015-Composite Critical-jOPS: Windows Server 2019 Standard
- Oracle Java HotSpot 64-Bit Server VM, version 12.0.1

Results referenced are current as of August 7, 2019. To view details of the results, see these SPEC web page:

- SPECjbb2015-MultiJVM Critical-jOPS (RHEL 8): https://www.spec.org/jbb2015/results/res2019q3/jbb2015-20190718-00480.html
- SPECjbb2015-Distributed Critical-jOPS (RHEL 8) https://www.spec.org/jbb2015/results/res2019q3/jbb2015-20190718-00482.html
- SPECjbb2015-MultiJVM Max-jOPS (Windows Server 2019) https://www.spec.org/jbb2015/results/res2019q3/jbb2015-20190717-00474.html
- SPECjbb2015-MultiJVM Critical-jOPS (Windows Server 2019) https://www.spec.org/jbb2015/results/res2019q3/jbb2015-20190718-00476.html
- SPECjbb2015-Composite Max-jOPS (Windows Server 2019) https://www.spec.org/jbb2015/results/res2019q3/jbb2015-20190718-00484.html
- SPECjbb2015-Composite Critical-jOPS (Windows Server 2019) https://www.spec.org/jbb2015/results/res2019q3/jbb2015-20190718-00484.html

To view all SPECjbb2015 results, go to https://www.spec.org/jbb2015/results/jbb2015.html

About the ThinkSystem SR655

The Lenovo ThinkSystem SR655 is a 1-socket 2U server that features the AMD EPYC 7002 "Rome" and AMD EPYC 7003 "Milan" families of processors. With up to 64 cores per processor and support for the PCIe 4.0 standard for I/O, the SR655 offers the ultimate in single-socket server performance. With up to 128 PCIe lanes, the server is ideal for workloads that can take advantage of GPU processing and high-performance NVMe drives.

ThinkSystem SR655 is a multi-GPU optimized rack server, with support for up to 6 single-wide GPUs providing 200% more workload acceleration in AI, SDI and VDI instances. Capacity for up to 32x 2.5” low-latency NVMe drives that pairs well with the demands of low-latency, high-bandwidth storage such as clustered SAN solutions and software-defined storage. Eight PCIe Gen4 slots offer 2x faster I/O and support for 16 DIMMs with 2TB of DDR4 memory capacity ensure the SR655 is ideal for high performance database applications.

About SPECjbb2015

The SPECjbb 2015 benchmark has been developed from the ground up to measure performance based on the latest Java application features. It is relevant to all audiences who are interested in Java server performance, including JVM vendors, hardware developers, Java application developers, researchers and members of the academic community.

SPECjbb2015 scores are ideal for measuring throughput and latency of multi-threaded compute-intensive applications such as online purchasing, inventory management, and supply.

Learn more

To learn more about solutions for Java applications, please contact your Lenovo Sales Representative.

To find out more about SPEC, visit https://www.spec.org

To learn more about the Lenovo ThinkSystem SR655 server, visit the SR655 product web page: https://www.lenovo.com/us/en/data-center/servers/racks/ThinkSystem-SR655-Server/p/77XX7SRSR75

Related product families

Product families related to this document are the following:

- 1-Socket Rack Servers
- SPECjbb Benchmark Results
- ThinkSystem SR655 Server

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