ThinkSystem SR665 Sets 4 World Records with New SPECjbb Benchmark Results
Performance Benchmark Result

The Lenovo ThinkSystem SR665 server has set four 2-socket performance world records for the SPECjbb2015 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 SR665 with two processors achieved the following four top SPECjbb2015 scores:

- **SPECjbb2015-Distributed max-jOPS (SUSE 15.1): 347,351**
- **SPECjbb2015-Distributed max-jOPS (Windows Server 2019): 327,501**
- **SPECjbb2015-MultiJVM max-jOPS (Windows Server 2019): 327,501**
- **SPECjbb2015-Distributed critical-jOPS (Windows Server 2019): 194,609**

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 SR665 was configured as follows:

- 2x AMD EPYC 7H12 processor - 64 cores, 2.60 GHz, 256 MB L3 cache per processor
- TruDDR4 memory as follows:
    - SPECjbb2015-Distributed Max-jOPS: 1 TB and 2 TB
    - SPECjbb2015-Distributed Critical-jOPS: 2 TB
    - SPECjbb2015-MultiJVM Max-jOPS: 1 TB
- Operating systems:
    - SPECjbb2015-Distributed Max-jOPS: SLES 15 SP1 and Windows Server 2019 Datacenter
    - SPECjbb2015-Distributed Critical-jOPS: Windows Server 2019 Datacenter
    - SPECjbb2015-MultiJVM Max-jOPS: Windows Server 2019 Datacenter
- Java
    - SPECjbb2015-Distributed Max-jOPS: Oracle Java HotSpot 64-Bit Server VM, 14.0.0 and 13.0.2
    - SPECjbb2015-Distributed Critical-jOPS: Oracle Java HotSpot 64-Bit Server VM, 13.0.2
    - SPECjbb2015-MultiJVM Max-jOPS: Oracle Java HotSpot 64-Bit Server VM, 13.0.2

Results referenced are current as of May 5, 2020. To view details of these results, go to these SPEC web pages:

- SPECjbb2015-Distributed max-jOPS (SUSE 15.1)
  https://www.spec.org/jbb2015/results/res2020q2/jbb2015-20200408-00534.html

- SPECjbb2015-Distributed max-jOPS (Windows Server 2019)
  https://www.spec.org/jbb2015/results/res2020q2/jbb2015-20200408-00536.html
- SPECjbb2015-MultiJVM max-jOPS (Windows Server 2019)
  https://www.spec.org/jbb2015/results/res2020q2/jbb2015-20200408-00538.html
- SPECjbb2015-Distributed critical-jOPS (Windows Server 2019)
  https://www.spec.org/jbb2015/results/res2020q2/jbb2015-20200408-00535.html

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

About the ThinkSystem SR665

The Lenovo ThinkSystem SR665 server, now with AMD EPYC 7003 Series processors, delivers outstanding TCO for transactional database, ERP, virtualization, big data & analytics and software-defined deployments. The combination of two AMD EPYC 7003 CPUs with class-leading memory speed, storage, and GPU density, rapidly outpaces the power of prior generation two-socket servers. Lenovo's lauded system reliability, management capabilities, and security infrastructure layer on to the exceptional value that the ThinkSystem SR665 brings to the data center. With the enterprise-class AMD EPYC 7003 Series or 7002 Series processor, the world's first 7nm data center CPU, the ThinkSystem SR665 features two processors with up to an unprecedented 128 total cores with 128 PCIe Gen4 lanes to reduce bottlenecks and increase server utilization.

Compared to the previous processor generations, ThinkSystem SR665 delivers up to 2X performance and 4X floating point capability, providing faster data transfer and analytics without sacrificing memory capacity or I/O with PCIe Gen4 support and faster memory speeds up to 3200 MHz.

Key features:

- 128 cores across two processors to handle heavy-lift ERP, CRM, and virtualization workloads; provides cutting edge application efficiency in health care applications such as medical imaging, EMR, and PACS, or electronic trading platforms for financial services applications.
- Multi-GPU optimized rack server, providing support for up to 8 single-wide GPUs that offer 200% more workload acceleration in AI Inference, and virtualized desktop infrastructure (VDI).
- Support for up to 32 NVMe solid-state drives; when paired with high speed networking, make the system an excellent choice for workloads that need large amounts of low-latency high-bandwidth storage, including virtualized clustered SAN solutions, software-defined storage (SDS), and applications leveraging NVMe over Fabrics.

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 SR665 server, visit the SR665 product web page:
https://www.lenovo.com/us/en/data-center/servers/racks/ThinkSystem-SR665-Server/p/77XX7SR552S

Related product families

Product families related to this document are the following:

- 2-Socket Rack Servers
- SPECjbb Benchmark Results
- ThinkSystem SR665 Server

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