ThinkSystem SR950 Sets Six World Records with New Eight-Socket SPECjbb Results

Performance Benchmark Result

The Lenovo ThinkSystem SR950 server has set six new eight-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 SR950 with eight processors achieved the following six top SPECjbb2015 scores:

- **SPECjbb2015-MultiJVM max-jOPS (SLES 15): 726,026**
- **SPECjbb2015-MultiJVM max-jOPS (Windows Server 2019): 545,001**
- **SPECjbb2015-MultiJVM critical-jOPS (RHEL 7.6): 471,998**
- **SPECjbb2015-MultiJVM critical-jOPS (Windows Server 2019): 234,173**
- **SPECjbb2015-Distributed max-jOPS (SLES 15): 726,026**
- **SPECjbb2015-Distributed critical-jOPS (RHEL 7.6): 486,696**

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 ThinkSystem SR950 was configured as follows:

- 8x Intel Xeon Platinum 8280 processors
  - 2.7 GHz base frequency, 38.5 MB L3 cache
  - 8 processors, each 28 cores and 56 threads
- 6144 GB system memory
- Operating system:
  - SPECjbb2015-MultiJVM max-jOPS: SUSE Linux Enterprise Server 15
  - SPECjbb2015-MultiJVM max-jOPS: Windows Server 2019 Standard
  - SPECjbb2015-MultiJVM critical-jOPS: Red Hat Enterprise Linux 7.6
  - SPECjbb2015-MultiJVM critical-jOPS: Windows Server 2019 Standard
  - SPECjbb2015-Distributed max-jOPS: SUSE Linux Enterprise Server 15
  - SPECjbb2015-Distributed critical-jOPS: Red Hat Enterprise Linux 7.6
- Oracle Java HotSpot 64-Bit Server VM, version 11.0.2

Results referenced are current as of April 2, 2019. To view details of these results, go to these SPEC web pages:

- SPECjbb2015-MultiJVM max-jOPS (SLES 15)
  https://www.spec.org/jbb2015/results/res2019q2/jbb2015-20190314-00420.html
- SPECjbb2015-MultiJVM max-jOPS (Windows Server 2019)
  https://www.spec.org/jbb2015/results/res2019q2/jbb2015-20190314-00440.html
- SPECjbb2015-MultiJVM critical-jOPS (RHEL 7.6)
  https://www.spec.org/jbb2015/results/res2019q2/jbb2015-20190314-00407.html
- SPECjbb2015-MultiJVM critical-jOPS (Windows Server 2019)
  https://www.spec.org/jbb2015/results/res2019q2/jbb2015-20190313-00380.html
- SPECjbb2015-Distributed max-jOPS (SLES 15)
  https://www.spec.org/jbb2015/results/res2019q2/jbb2015-20190314-00419.html
- SPECjbb2015-Distributed critical-jOPS (RHEL 7.6)
  https://www.spec.org/jbb2015/results/res2019q2/jbb2015-20190314-00406.html

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

About the ThinkSystem SR950

Lenovo ThinkSystem SR950 is designed for your most demanding, mission-critical workloads, such as in-memory databases, large transactional databases, batch and real-time analytics, ERP, CRM, and virtualized server workloads. The powerful 4U ThinkSystem SR950 can grow from two to eight second-generation Intel Xeon Scalable Family processors, and with 96 DIMM sockets, supports up to 24 TB of high-speed memory. The modular design of SR950 speeds upgrades and servicing with easy front or rear access to all major subsystems to maximize server availability. The ThinkSystem SR950 also supports Intel Optane DC Persistent Memory delivering a new, flexible tier of memory designed specifically for data center workloads that offer an unprecedented combination of high-capacity, affordability and persistence.

The SR950 packs numerous fault-tolerant and high-availability features into a high-density, 4U rack-optimized design that reduces the space needed to support massive network computing operations and simplify servicing. Lenovo XClarity Controller is an all-new hardware embedded management engine common in every ThinkSystem server. XClarity Controller features an uncluttered graphical user interface, industry standard Redfish-compliant REST APIs, and enables booting in half the time of prior generation servers, with up to 6x faster firmware updates.

Lenovo XClarity Administrator is a virtualized application that centrally manages ThinkSystem servers, storage, and networking. Via reusable patterns and policies, it ramps up and scales infrastructure provisioning and maintenance. It serves as a central integration point to extend your data center management processes to physical IT. Running XClarity Integrators in external IT applications, or integrating through REST APIs, helps you further speed services provisioning, streamline IT management, and contain costs.

ThinkShield is a comprehensive approach to security designed to secure the data center, from the foundation of your infrastructure to the network's edge and guard against a security breach. ThinkShield protects your business with each offering, from development through disposal.

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 SR950 server, visit the SR950 product web page.

Related product families

Product families related to this document are the following:

- Mission Critical Servers
- SPECjbb Benchmark Results
- ThinkSystem SR950 Server

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