

ThinkSystem SR650 Sets Four World Records with New One-Socket SPECjbb Results Performance Benchmark Result

The Lenovo ThinkSystem SR650 server has set four new single-socket performance world records for the SPECjbb2015 benchmark.

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 SR650 achieved the following top SPECjbb2015 scores:

- **SPECjbb2015-Distributed Critical-jOPS: 75,628**
- **SPECjbb2015-Distributed Max-jOPS: 93,649**
- **SPECjbb2015-MultiJVM Critical-jOPS: 75,549**
- **SPECjbb2015-Composite Critical-jOPS: 82,196**

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 SR650 was configured as follows:

- 1x Intel Xeon Platinum 8280 processor
 - 2.7 GHz base frequency, 38.5 MB L3 cache
 - 28 cores and 56 threads
- 768 GB system memory
- Red Hat Enterprise Linux Server 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 the results, see these SPEC web page:

- SPECjbb2015-Distributed Critical-jOPS:
<https://www.spec.org/jbb2015/results/res2019q2/jbb2015-20190314-00424.html>
- SPECjbb2015-Distributed Max-jOPS:
<https://www.spec.org/jbb2015/results/res2019q2/jbb2015-20190314-00408.html>
- SPECjbb2015-MultiJVM Critical-jOPS:
<https://www.spec.org/jbb2015/results/res2019q2/jbb2015-20190314-00423.html>
- SPECjbb2015-Composite Critical-jOPS:
<https://www.spec.org/jbb2015/results/res2019q2/jbb2015-20190314-00412.html>

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

About the ThinkSystem SR650

The Lenovo ThinkSystem SR650 server now supports Intel Optane DC Persistent Memory and up to two second-generation Intel Xeon Scalable processors. It features up to 36% total performance improvement compared to the previous generation and supports two 300W high-performance GPUs and ML2 NIC adapters with shared management. Unique Lenovo AnyBay technology provides the flexibility to mix-and-match SAS/SATA HDDs/SSDs and NVMe SSDs in the same drive bays. Support is now available for up to 24 NVMe drives.

For medium to large enterprises, and managed and cloud service providers, Lenovo ThinkSystem SR650 is the optimum 2U, two-socket server—the most widely used server type worldwide. It's engineered to deliver high performance with 205W CPUs, low-latency NVMe drives, and high-power GPUs.

With Lenovo's history of reliability, the highly flexible and configurable SR650 is the ideal platform for hyper-converged infrastructure (HCI) or software-defined storage (SDS). It provides a solid foundation for:

- Transforming physical resources into services, using validated designs for hybrid cloud
- Performing analytics on streaming data, using validated designs for Big Data
- Increasing productivity of virtualized transactional systems, using validated designs for OLTP databases.

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.

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 SR650 server, visit the [SR650 product web page](#).

Related product families

Product families related to this document are the following:

- [2-Socket Rack Servers](#)
- [SPECjbb Benchmark Results](#)
- [ThinkSystem SR650 Server](#)

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