ThinkSystem SD535 V3 Sets 16 World Records with New SPECjbb on Linux & on Windows Benchmark Result

Performance Benchmark Result

Lenovo has published several new SPECjbb2015 benchmark results that have set sixteen new world records. These results have been achieved on the powerful Lenovo ThinkSystem SD535 V3 server using the new AMD EPYC 9755 processor and AMD EPYC 9965 processor.

The sixteen benchmark world records are:

- Best SPECjbb2015-Distributed max-jOPS score on four nodes with 4 processors
- Best SPECjbb2015-Distributed max-jOPS score on four nodes with 4 processors running Microsoft Windows Server
- Best SPECjbb2015-Distributed max-jOPS score on four nodes with 4 processors running Linux Server
- Best SPECjbb2015-Distributed critical-jOPS score on four nodes with 4 processors
- Best SPECjbb2015-Distributed critical-jOPS score on four nodes with 4 processors running Microsoft Windows Server
- Best SPECjbb2015-Distributed critical-jOPS score on four nodes with 4 processors running Linux Server
- Best SPECjbb2015-MultiJVM max-jOPS score on one node with 1 processor running Microsoft Windows Server
- Best SPECjbb2015-MultiJVM critical-jOPS score on one node with 1 processor
- Best SPECjbb2015-MultiJVM critical-jOPS score on one node with 1 processor running Linux Server
- Best SPECjbb2015-MultiJVM critical-jOPS score on one node with 1 processor running Microsoft Windows Server
- Best SPECjbb2015-Composite max-jOPS score on one node with 1 processor
- Best SPECjbb2015-Composite max-jOPS score on one node with 1 processor running Linux Server
- Best SPECjbb2015-Composite max-jOPS score on one node with 1 processor running Microsoft Windows Server
- Best SPECjbb2015-Composite critical-jOPS score on one node with 1 processor
- Best SPECjbb2015-Composite critical-jOPS score on one node with 1 processor running Linux Server
- Best SPECjbb2015-Composite critical-jOPS score on one node with 1 processor running Microsoft Windows Server

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 SD535 V3 achieved the following sixteen top SPECjbb2015 scores:

- **SPECjbb2015-Distributed max-jOPS (Windows Server 2022): 1,931,223** (1,2)
- **SPECjbb2015-Distributed max-jOPS (SUSE 15SP6): 1,594,127** (3)
- **SPECjbb2015-Distributed critical-jOPS (Windows Server 2022): 1,644,778** (4,5)
- **SPECjbb2015-Distributed critical-jOPS (SUSE 15SP6): 1,502,058** (6)
- **SPECjbb2015-MultiJVM max-jOPS (Windows Server 2022): 579,381** (7)
- **SPECjbb2015-MultiJVM critical-jOPS (SUSE 15SP6): 471,940** (8,9)
- **SPECjbb2015-MultiJVM critical-jOPS (Windows Server 2022): 468,022** (10)
- **SPECjbb2015-Composite max-jOPS (SUSE 15SP6): 559,013** (11,12)
- **SPECjbb2015-Composite max-jOPS (Windows Server 2022): 559,013** (13)
- **SPECjbb2015-Composite critical-jOPS (SUSE 15SP6): 505,908** (14,15)
- **SPECjbb2015-Composite critical-jOPS (Windows Server 2022): 461,684** (16)

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 SD535 V3 was configured as follows:

- Processors:
  - 4x AMD EPYC 9755 processors - 128 cores, 2.70 GHz, 512 MB L3 cache per processor
  - 1 x AMD EPYC 9965 processor - 192 cores, 2.25 GHz, 384 MB L3 cache
- Memory:
  - 3TB system memory
  - 768 GB system memory
- Operating system:
  - Windows Server 2022 Datacenter
  - SUSE Linux Enterprise Server 15 SP6
- Java version:
  - Java HotSpot 64-bit Server VM, version 23.0.1

Results referenced are current as of January 23, 2025. To view details of these results, go to these SPEC web pages:

- (1) Best 4-nodes, 4-processors SPECjbb2015-Distributed max-jOPS score. Used Windows Server 2022 & Oracle Java SE 23.0.1
  https://www.spec.org/jbb2015/results/res2025q1/jbb2015-20250108-01518.html
- (2) Best 4-nodes, 4-processors SPECjbb2015-Distributed max-jOPS score run on Windows. Used Windows Server 2022 & Oracle Java SE 23.0.1
  https://www.spec.org/jbb2015/results/res2025q1/jbb2015-20250108-01518.html
- (3) Best 4-nodes, 4-processors SPECjbb2015-Distributed max-jOPS score run on Linux. Used SUSE 15SP6 & Oracle Java SE 23.0.1
  https://www.spec.org/jbb2015/results/res2025q1/jbb2015-20250108-01517.html

- (4) Best 4-nodes, 4-processors SPECjbb2015-Distributed critical-jOPS score. Used Windows Server 2022 & Oracle Java SE 23.0.1
  https://www.spec.org/jbb2015/results/res2025q1/jbb2015-20250108-01516.html
- (5) Best 4-nodes, 4-processors SPECjbb2015-Distributed critical-jOPS score run on Windows. Used Windows Server 2022 & Oracle Java SE 23.0.1.
  https://www.spec.org/jbb2015/results/res2025q1/jbb2015-20250108-01516.html
- (6) Best 4-nodes, 4-processors SPECjbb2015-Distributed critical-jOPS score run on Linux. Used SUSE 15SP6 & Oracle Java SE 23.0.1
  https://www.spec.org/jbb2015/results/res2025q1/jbb2015-20250108-01517.html
- (7) Best 1-node, 1-processor SPECjbb2015-MultiJVM max-jOPS score run on Windows. Used Windows Server 2022 & Oracle Java SE 23.0.1
  https://www.spec.org/jbb2015/results/res2025q1/jbb2015-20250108-01524.html
- (8) Best 1-node, 1-processor SPECjbb2015-MultiJVM critical-jOPS score. Used SUSE 15SP6 & Oracle Java SE 23.0.1
  https://www.spec.org/jbb2015/results/res2025q1/jbb2015-20250108-01522.html
- (9) Best 1-node, 1-processor SPECjbb2015-MultiJVM critical-jOPS score run on Linux. Used SUSE 15SP6 & Oracle Java SE 23.0.1
  https://www.spec.org/jbb2015/results/res2025q1/jbb2015-20250108-01522.html
- (10) Best 1-node, 1-processor SPECjbb2015-MultiJVM critical-jOPS score run on Windows. Used Windows Server 2022 & Oracle Java SE 23.0.1
  https://www.spec.org/jbb2015/results/res2025q1/jbb2015-20250108-01523.html
- (11) Best 1-node, 1-processor SPECjbb2015-Composite max-jOPS score. Used SUSE 15SP6 & Oracle Java SE 23.0.1
  https://www.spec.org/jbb2015/results/res2025q1/jbb2015-20250108-01520.html
- (12) Best 1-node, 1-processor SPECjbb2015-Composite max-jOPS score run on Linux. Used SUSE 15SP6 & Oracle Java SE 23.0.1
  https://www.spec.org/jbb2015/results/res2025q1/jbb2015-20250108-01520.html
- (13) Best 1-node, 1-processor SPECjbb2015-Composite max-jOPS score run on Windows. Used Windows Server 2022 & Oracle Java SE 23.0.1
  https://www.spec.org/jbb2015/results/res2025q1/jbb2015-20250108-01521.html
- (14) Best 1-node, 1-processor SPECjbb2015-Composite critical-jOPS score. Used SUSE 15SP6 & Oracle Java SE 23.0.1
  https://www.spec.org/jbb2015/results/res2025q1/jbb2015-20250108-01520.html
- (15) Best 1-node, 1-processor SPECjbb2015-Composite critical-jOPS score run on Linux. Used SUSE 15SP6 & Oracle Java SE 23.0.1
  https://www.spec.org/jbb2015/results/res2025q1/jbb2015-20250108-01520.html
- (16) Best 1-node, 1-processor SPECjbb2015-Composite critical-jOPS score run on Windows. Used Windows Server 2022 & Oracle Java SE 23.0.1
  https://www.spec.org/jbb2015/results/res2025q1/jbb2015-20250108-01519.html

To view all SPECjbb2015 results, go to

https://www.spec.org/jbb2015/results/jbb2015.html

About the ThinkSystem SD535 V3

The 1U half-width ThinkSystem SD535 V3 multi-node server, powered by AMD, provides flexible high-density compute with increased storage over other multi-node servers. With double the CPU density of a standard 1U server, it is ideal for large enterprises who need to process large amounts of data quickly. The ThinkSystem SD535 V3 is also thermally designed for efficiency with 1U optimized thermals, up to 4 nodes sharing only 2 or 3 power supplies. It provides efficient, dense, processing while minimizing OPEX.

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 SD535 V3 server, visit the SD535 V3 product web page: https://www.lenovo.com/us/en/p/servers-storage/servers/multi-node/lenovo-thinksystem-sd535-v3/len21ts0033

Related product families

Product families related to this document are the following:

- Multi-Node Servers
- SPECjbb Benchmark Results
- ThinkSystem SD535 V3 Server

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