

ThinkSystem SD550 V3 Sets 6 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 six new world records. These results have been achieved on the powerful Lenovo ThinkSystem SD550 V3 server using the new Intel Xeon Platinum 8592+ processor.

The six benchmark world records are:

- Best SPECjbb2015-Distributed max-jOPS score on two nodes with 4 processors running Linux Server
- Best SPECjbb2015-Distributed critical-jOPS score on two nodes with 4 processors running Linux Server
- Best SPECjbb2015-Distributed max-jOPS score on two nodes with 4 processors
- Best SPECjbb2015-Distributed critical-jOPS score on two nodes with 4 processors
- Best SPECjbb2015-Distributed max-jOPS score on two nodes with 4 processors running Microsoft Windows Server
- Best SPECjbb2015-Distributed critical-jOPS score on two nodes with 4 processors 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 SD550 V3 with 2 nodes 4 processors achieved the following six top SPECjbb2015 scores:

- **SPECjbb2015-Distributed Max-jOPS (SUSE Linux 15SP5): 942,619 (1,3)**
- **SPECjbb2015-Distributed Critical-jOPS (SUSE Linux 15SP5): 817,116 (2,4)**
- **SPECjbb2015-Distributed Max-jOPS (Windows Server 2022): 904,258 (5)**
- **SPECjbb2015-Distributed Critical-jOPS (Windows Server 2022): 726,781 (6)**

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 SD550 V3 was configured as follows:

- 4x Intel Xeon Platinum 8592+ processors - 64 cores, 1.9 GHz, 320 MB L3 cache per processor

- Memory configuration:
 - Up to 2TB system memory
 - Up to 4TB system memory
- Operating system:
 - SUSE Linux Enterprise Server 15SP5
 - Windows Server 2022 Datacenter
- Java version:
 - Java HotSpot 64-bit Server VM, version 17.0.10
 - Java HotSpot 64-bit Server VM, version 22

Results referenced are current as of May 2, 2024. To view details of these results, go to these SPEC web pages:

- (1) Best 2-nodes, 4-processors SPECjbb2015-Distributed Max-jOPS score run on Linux. Used SUSE Linux 15SP5 & Oracle Java SE 17.0.10
<https://www.spec.org/jbb2015/results/res2024q2/jbb2015-20240401-01241.html>
- (2) Best 2-nodes, 4-processors SPECjbb2015-Distributed Critical-jOPS score run on Linux. Used SUSE Linux 15SP5 & Oracle Java SE 17.0.10
<https://www.spec.org/jbb2015/results/res2024q2/jbb2015-20240401-01241.html>
- (3) Best 2-nodes, 4-processors SPECjbb2015-Distributed max-jOPS score. Used SUSE Linux 15SP5 & Oracle Java SE 17.0.10
<https://www.spec.org/jbb2015/results/res2024q2/jbb2015-20240401-01241.html>
- (4) Best 2-nodes, 4-processors SPECjbb2015-Distributed critical-jOPS score. Used SUSE Linux 15SP5 & Oracle Java SE 17.0.10
<https://www.spec.org/jbb2015/results/res2024q2/jbb2015-20240401-01241.html>
- (5) Best 2-nodes, 4-processors SPECjbb2015-Distributed max-jOPS score run on Windows. Used Windows Server 2022 & Oracle Java SE 22
<https://www.spec.org/jbb2015/results/res2024q2/jbb2015-20240417-01252.html>
- (6) Best 2-nodes, 4-processors SPECjbb2015-Distributed critical-jOPS score run on Windows. Used Windows Server 2022 & Oracle Java SE 22
<https://www.spec.org/jbb2015/results/res2024q2/jbb2015-20240417-01251.html>

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

About the ThinkSystem SD550 V3

Compute intensive workloads do not necessarily require large amounts of storage. The ThinkSystem SD550 V3 multi-node server is optimized for these workloads by maximizing density, providing up to 2x the CPUs than a standard 2U rack server, and doesn't add costs with unnecessary storage. The 2U half-width format with up to 2 CPUs maximizes core density, saves rack space, and lowers 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 SD550 V3 server, visit the SD550 V3 product web page: <https://www.lenovo.com/us/en/p/servers-storage/servers/multi-node/thinksystem-sd550-v3-multi-node-server/len21ts0027>

Related product families

Product families related to this document are the following:

- [Multi-Node Servers](#)
- [SPECjbb Benchmark Results](#)
- [ThinkSystem SD550 V3 Server](#)

Notices

Lenovo may not offer the products, services, or features discussed in this document in all countries. Consult your local Lenovo representative for information on the products and services currently available in your area. Any reference to a Lenovo product, program, or service is not intended to state or imply that only that Lenovo product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any Lenovo intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any other product, program, or service. Lenovo may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not give you any license to these patents. You can send license inquiries, in writing, to:

Lenovo (United States), Inc.
8001 Development Drive
Morrisville, NC 27560
U.S.A.
Attention: Lenovo Director of Licensing

LENOVO PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some jurisdictions do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you.

This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. Lenovo may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time without notice.

The products described in this document are not intended for use in implantation or other life support applications where malfunction may result in injury or death to persons. The information contained in this document does not affect or change Lenovo product specifications or warranties. Nothing in this document shall operate as an express or implied license or indemnity under the intellectual property rights of Lenovo or third parties. All information contained in this document was obtained in specific environments and is presented as an illustration. The result obtained in other operating environments may vary. Lenovo may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation to you.

Any references in this publication to non-Lenovo Web sites are provided for convenience only and do not in any manner serve as an endorsement of those Web sites. The materials at those Web sites are not part of the materials for this Lenovo product, and use of those Web sites is at your own risk. Any performance data contained herein was determined in a controlled environment. Therefore, the result obtained in other operating environments may vary significantly. Some measurements may have been made on development-level systems and there is no guarantee that these measurements will be the same on generally available systems. Furthermore, some measurements may have been estimated through extrapolation. Actual results may vary. Users of this document should verify the applicable data for their specific environment.

© Copyright Lenovo 2024. All rights reserved.

This document, LP1959, was created or updated on May 7, 2024.

Send us your comments in one of the following ways:

- Use the online Contact us review form found at:
<https://lenovopress.lenovo.com/LP1959>
- Send your comments in an e-mail to:
comments@lenovopress.com

This document is available online at <https://lenovopress.lenovo.com/LP1959>.

Trademarks

Lenovo and the Lenovo logo are trademarks or registered trademarks of Lenovo in the United States, other countries, or both. A current list of Lenovo trademarks is available on the Web at <https://www.lenovo.com/us/en/legal/copytrade/>.

The following terms are trademarks of Lenovo in the United States, other countries, or both:

Lenovo®

ThinkSystem®

The following terms are trademarks of other companies:

Intel® and Xeon® are trademarks of Intel Corporation or its subsidiaries.

Linux® is the trademark of Linus Torvalds in the U.S. and other countries.

Microsoft®, Windows Server®, and Windows® are trademarks of Microsoft Corporation in the United States, other countries, or both.

SPEC® and SPECjbb® are trademarks of the Standard Performance Evaluation Corporation (SPEC).

Other company, product, or service names may be trademarks or service marks of others.