# ThinkSystem SR650 V3 Sets 4 World Records with New TPCx-AI Benchmark Result

## Performance Benchmark Result

Lenovo has published a new TPCx-AI benchmark result that has set four world records. The result has been achieved on the powerful Lenovo ThinkSystem SR650 V3 server with 5th Gen Intel Xeon Scalable processors. The benchmark results are:

- The world's #1 overall TPCx-AI v2.0 result for performance and price/performance at scale factor 3
- The world's best TPCx-AI v2.0 result for performance and price/performance on 2-processor systems at scale factor 3

The TPCx-AI is an AI benchmark standard developed by the TPC to measure the performance of an end-to-end machine learning or data science platform. It focuses on emulating the behavior of representative industry AI solutions that are relevant in current production datacenters and cloud environments.

The ThinkSystem SR650 V3 server achieved the following score (1):

- **527.30 AIUCpm@3 (AI Use Cases per minute) @ $230.38 USD/AIUCpm@3**

The SR650 V3 achieved this record level of AI performance using the following configuration:

- 2x Intel Xeon Platinum 8558P 48-core processors at 2.7GHz
  (2 processors, 96 total cores, 192 total threads)
- 512 GB of Lenovo TruDDR5 memory
- Red Hat Enterprise Linux 8.9
- Anaconda Business

Results referenced are current as of September 16, 2024. To view all TPC results, visit www.tpc.org.

(1) The total solution availability for this TPCx-AI benchmark result is September 5, 2024. See the details for this result at https://www.tpc.org/5422.

## About the ThinkSystem SR650 V3

The Lenovo ThinkSystem SR650 V3 is an ideal 2-socket 2U rack server, based on the new 5th generation Intel Xeon Scalable processor family. The SR650 V3 is for small business up to large enterprises that need industry-leading reliability, management, and security, as well as maximizing performance and flexibility for future growth. The server offers a broad selection of drive and slot configurations and offers numerous high performance features. Outstanding reliability, availability, and serviceability (RAS) and high-efficiency design can improve business operation and help save operational costs.

SR650 V3 offers the low-latency, high capacity performance necessary to keep up with the workloads of today. It's designed to handle a wide range of workloads, such as databases, virtualization and cloud computing, virtual desktop infrastructure (VDI), infrastructure security, systems management, enterprise applications, collaboration/email, streaming media, web, and HPC.

## About TPCx-AI

The TPCx-AI benchmark defines and provides a means to evaluate the performance of a general-purpose data science system that:

- Generates and processes large volumes of data
- Trains preprocessed data to produce realistic machine learning models
- Conducts accurate insights for real-world customer scenarios based on the generated models
- Can scale to large scale distributed configurations
- Allows for flexibility in configuration changes to meet the demands of the dynamic AI landscape.

The benchmark models real-life examples of companies and public-sector organizations that use a range of analytics techniques, both AI and more traditional machine learning approaches, as well as the potential application of these techniques in situations like those in which they have already been successfully deployed. In addition, the benchmark measures end to end time to provide insights for individual use cases, as well as throughput metrics to simulate multiuser environments for a given hardware, operating system, and data processing system configuration under a controlled, complex, multi-user AI or machine learning data science workload.

## Learn more

To learn more about solutions for database and AI applications, please contact your Lenovo Sales Representative.

To find out more about TPC, visit http://www.tpc.org.

To learn more about the Lenovo ThinkSystem SR650 V3 server, visit the SR650 V3 product web page: https://www.lenovo.com/us/en/p/servers-storage/servers/racks/thinksystem-sr650-v3/len21ts0013

## Related product families

Product families related to this document are the following:

- 2-Socket Rack Servers
- TPCx Benchmarks
- ThinkSystem SR650 V3 Server

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