TPC-E Benchmark Result for System x3650 M5
Performance Benchmark Result (withdrawn product)

Lenovo sets another new TPC-E benchmark performance record!

March 31, 2016 ... Lenovo has published the world's best two-processor (2P) performance result on the TPC-E benchmark.

Achieved on the powerful Lenovo System x3650 M5 2U rack server, this new 2P result joins Lenovo's current #1 4P (1) and #1 overall/8P (2) performance results to solidify Lenovo's dominance of the TPC-E benchmark and On Line Transaction Processing (OLTP) performance.

The TPC-E benchmark is designed to enable customers to objectively measure and compare the performance and price of various On Line Transaction Processing (OLTP) and database systems.

The System x3650 M5 server achieved the following score:

- **4,938.14 tpsE** (transactions per second E) @ **$117.91 USD / tpsE**. (3)

This score is the best two-processor performance in the industry, 30% faster- and with 9% better price/performance- than the Fujitsu PRIMERGY RX2540 M1. (4)

The x3650 M5 achieved this record level of OLTP performance using Microsoft SQL Server 2016 Enterprise Edition and Microsoft Windows Server 2012 R2 Standard Edition. The x3650 M5 was configured with two Intel Xeon E5-2699 v4 processors at 2.20 GHz (2 processors/44 cores/88 threads) and 512GB of TruDDR4 memory.

This result also relied on the new Lenovo Storage E1024 DAS enclosures. Six E1024 storage enclosures and over 50 SAS SSDs were used in the benchmark configuration, attached directly to ServeRAID M5225-2GB SAS/SATA controllers running RAID-5.

The Lenovo Storage E1012 and E1024 Disk Expansion Enclosures offer universal storage expansion capabilities that are designed to provide simplicity, speed, scalability, security, and high availability for small to large businesses. The E1012 and E1024 deliver enterprise-class storage technology in a cost-effective solution with flexible drive configurations and RAID or JBOD (non-RAID) host connectivity or Lenovo storage area network (SAN) array expansion.

Optimized for big data and analytics, cloud computing, and business-critical enterprise workloads, the Lenovo System x3650M5 two-socket 2U rack server offers world-class performance and industry-leading reliability. It belongs to Lenovo's broad enterprise portfolio that spans entry rack and tower servers to four and eight socket mission critical servers.

Lenovo servers, including the x3650 M5, have consistently achieved the highest reliability of all x86 servers in the industry. Predictive Failure Analysis and light path diagnostics facilitate easy serviceability and reduced downtime and costs. Lenovo XClarity, a best-in-class enterprise tool, helps simplify and centralize discovery, monitoring, configuration, alert handling and other management functionality over the servers' lifecycle.

In addition, the x3650 M5 supports open industry standards, such as operating systems, networking and storage fabrics, virtualization, and system management protocols, to fit easily within existing and future data center environments.

Results referenced are current as of March 31, 2016. To view all TPC results, visit http://www.tpc.org.

(1) The #1 4P TPC-E performance result is held by the Lenovo System x3850 X6. Result details are at: http://www.tpc.org/4072

(2) The #1 overall world-record TPC-E result is held by the eight-processor Lenovo System x3950 X6. Result details are at: http://www.tpc.org/4075

(3) The total solution availability for this TPC-E benchmark result is July 31, 2016. See the details for this result here: http://www.tpc.org/4076

(4) Fujitsu PRIMERGY RX2540 M1 result details are at: http://www.tpc.org/4070

Related product families

Product families related to this document are the following:

- 2-Socket Rack Servers
- Direct-Attached Storage
- Microsoft SQL Server
- TPC-E Benchmark Results

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