

Dell EMC PowerEdge R940xa Server is the Leader in Price/Performance for SQL Server 2019

Independent auditing finds Dell Technologies' 4 Socket Platform to be the Leader for Microsoft SQL Server 2019¹

Microsoft SQL Server is the long-established leader in database technology and is the leader in database market share.² It is the preferred analytics platform from small businesses to large enterprises with extremely complex data sets that span structured and unstructured data on premises and in the cloud. Regardless of size, all organizations need to draw insights from their data and do so in a way that is both cost-effective and highly performant. But doing so relies, in large part, on having the right server infrastructure for your SQL Server database.

Measuring SQL Performance with TPC Benchmark H TPC-H

The Transaction Processing Performance Council (TPC) is an independent organization that has developed standardized testing methodologies used to compare database performance across vendors. The methodologies in Benchmark H, commonly referred to as TPC-H, simulates the types of database queries that a real-world organization is likely to perform. These might include a comparison of revenue figures from one quarter to the next, predicting profit/loss data based on sales assumption or evaluating the impact of different business decisions on quarterly forecasts. Performance is measured using a metric called Composite Query-per-Hour for a given database size.

Using TPC-H to Evaluate Price/Performance for a SQL Server Infrastructure

Dell Technologies enlisted a [tpc.org](https://www.tpc.org) independent auditor to evaluate the performance testing, conducting by Dell Technologies, of a 10,000GB SQL Server 2019 Enterprise Edition database on the PowerEdge R940xa server against other server platforms with similar specifications. This test produced a set of raw performance scores across like-for-like servers for the same sized database. The auditor also looked at price/performance to compare the cost per unit of performance across those servers. Price/performance calculations provide IT buyers and decision managers with better understanding of the expected return on their investment when comparing different servers in relation to database performance, rather than using only the absolute cost of the server.

The PowerEdge R940xa Server Delivered the Top Price/Performance Result

The TPC analysis showed that the PowerEdge R940xa ranked #1 in price/performance at \$0.67 USD per query-per-hour for a 10TB SQL Server 2019 database in a non-clustered environment.¹

The PowerEdge R940xa delivers these results with powerful performance from the combination of four CPUs and four GPUs to drive database acceleration at a competitive price point. This performance is ideal for compute-intensive workloads like SQL Server and allows users to scale business-critical workloads with:

- Up to four 2nd Generation Intel Xeon Scalable processors and up to 112 processing cores
- Up to four double-width GPUs or up to four double-width or eight single-width FPGAs to accelerate workloads
- Up to 48 DIMMs (24 of which can be DCPMMs) and up to 15.36TB of memory for large data sets
- 32 2.5" HDDs/SSDs, including four NVME drives
- Up to 12 PCIe slots for external connections

Dell EMC PowerEdge R940xa servers are the top rated price per performance for 10,000GB Microsoft SQL Server 2019 Enterprise database with Windows Server 2019 operating system, according to tpc.org independent auditing.¹

Getting Started with the #1 Price/Performance PowerEdge R940xa for SQL Server 2019¹

Dell Technologies offers a free tool to help you understand your SQL Server environment as it exists today. [Live Optics](#) is an online application you can use to collect data about your IT environment. You can then use this data to assess and implement the latest data management and analytics applications. For a more customized assessment, Dell Technologies [Consulting Services for SQL](#) can perform a thorough, validated and rationalized view of your server and data estate.

To read the full report from tpc.org, please visit the [TPC Website](#).

¹According to an independent audit from TPC: http://www.tpc.org/tpch/results/tpch_price_perf_results5.asp?resulttype=noncluster

²Microsoft SQL Server market share according to Datanyze: <https://www.datanyze.com/market-share/databases--272>

*Based on TPC Benchmark H (TPC-H), Sept 2020, the Dell EMC PowerEdge R940xa server has a TPC-H Composite Query-per-Hour metric of 1,420,550 when run against a 10,000GB Microsoft SQL Server 2019 database in a non-clustered environment yielding a TPC-H Price/Performance of \$0.67 USD per query-per-hour. Actual results may vary based on operating environment. Full results on tpc.org.

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