HPE ProLiant DL385 Gen11 attains 4 world records for performance and price-performance on TPC-H benchmark

Key takeaways

HPE ProLiant DL385 Gen11 results:

- **#1 overall world record performance for TPC-H @ 3TB scale factor**
- **#1 2P performance for TPC-H @ 3TB scale factor**
- **#1 2P price/performance for TPC-H @ 3TB scale factor**
- **#1 performance on Microsoft Windows @ 3TB scale factor**
- **First ever result with above 3 million QphH @ 3TB scale factor (Server scored 3.4M QphH)**
- **41.4% performance gain and 28.6% lesser price/performance with AMD EPYC 9575F processors compared to a similar configuration with AMD EPYC 9554 processors**

All results are valid as of 10/10/24

About the TPC-H benchmark
The TPC-H is a decision support benchmark consisting of a suite of business-oriented ad-hoc queries and concurrent data modifications selected for broad relevance. This benchmark models decision support systems examining large volumes of data and executing complex queries.

Overall performance leadership on TPC-H decision support system workload @ 3TB scale factor (non-clustered)

Executive summary

The HPE ProLiant DL385 Gen11 with AMD EPYC™ 9575F processors obtained the overall performance leadership result for decision support workloads at the 3,000GB (3TB) scale factor (non-clustered), beating the next highest result for (3TB) scale factor (non-clustered).

World records. Additionally, the HPE ProLiant DL385 Gen11 server gained three more #1 results: 2P performance, 2P price-performance, and the best performance with Microsoft Windows, all at the 3TB scale factor. The server was also the first ever result with over 3 million QphH queries execution per hour on the TPC-H workload (non-clustered).

Decision support benchmark. The TPC-H is a decision support benchmark. It consists of a suite of business-oriented ad-hoc queries and concurrent data modifications. The queries and the data populating the database have been chosen to have broad industry-wide relevance. This benchmark illustrates decision support systems that examine large volumes of data, execute queries with a high degree of complexity, and give answers to critical business questions.

The HPE ProLiant DL385 Gen11 benchmark results are proof points for the leadership capability and the generational processor scalability of the HPE ProLiant DL385 Gen11 server.

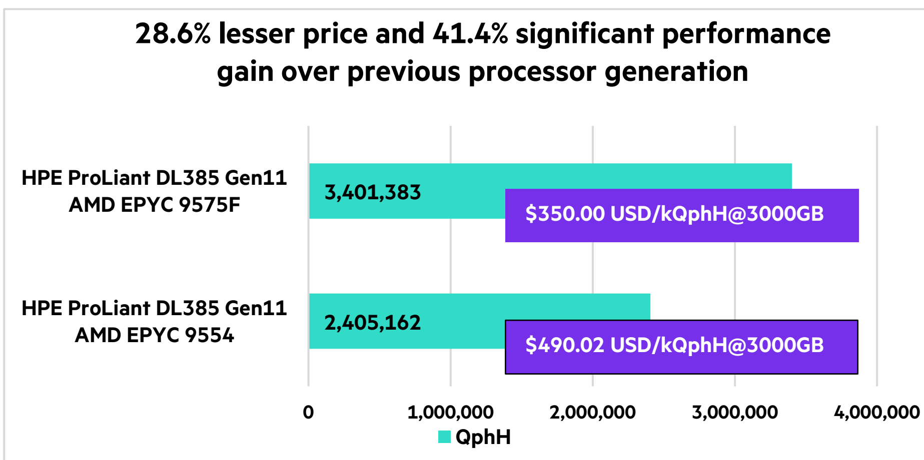

Figure 1. TPC-H performance and price-performance results for the HPE ProLiant DL385 Gen11 with AMD EPYC 9575F vs. AMD EPYC 9554 processors.

Advantages of updating the next level of AMD EPYC processors. The HPE ProLiant DL385 Gen11 with AMD EPYC 9575F offers increased memory bandwidth, higher network speed, advanced transfer, and faster I/O capacity, among other features compared to the previous generation of AMD EPYC processors.

More performance at a lesser price

The HPE ProLiant DL385 Gen11 holds the world's best overall record performance and 2P price-performance, and a significant generational gain.

HPE server configuration
HPE ProLiant DL385 Gen11, 2 AMD EPYC 9575F @ 3.0 GHz; available 12/2/2024, scored 3,401,383 QphH@3000GB and $350 USD/kQphH@3000GB.
See tpc.org/3395.

HPE ProLiant DL385 Gen11; AMD EPYC™ 9554 @ 3.1 GHz, available 4/3/2023, scored 2,405,162 QphH@3000GB and $490.02 USD/kQphH@3000GB; Microsoft SQL Server 2022 Enterprise Edition
See tpc.org/3387.

*Eight SW GPUs are now available

The TPC believes that comparisons of TPC-H results measured against different database sizes are misleading and discourages such comparisons.
The TPC-H results shown below are grouped by database size to emphasize that only results within each group are comparable.

Customer value with HPE

HPE ProLiant DL385 Gen11 Server

The HPE ProLiant DL385 Gen11 server is an accelerator-optimized 2U 2P solution that delivers exceptional compute performance, upgraded high-speed data transfer rate, and memory depth at 2P compute capability. It is powered by 5th and 4th Generation AMD EPYC™ 9005 & 9004 Series Processors with up to 160 cores, increased memory speed (up to 6000 MT/s), high-speed PCIe Gen5 I/O, Gen5 EDSFF storage, and the newly designed chassis supporting eight Single-Wide (SW) or four Double-Wide (DW) GPUs*

HPE and AMD partnership

Whether customers need a lightweight single-processor server or the power of an exascale supercomputer, HPE and AMD deliver workload-optimized computing performance. HPE next-gen compute featuring AMD EPYC™ Series Processors raises the bar yet again for workload performance.

Bottom line

Optimized performance for business workloads. Get the performance customers demand to accelerate any workload—from the data center to the edge—with HPE ProLiant compute that's engineered for your hybrid environment. Deploy seamlessly while achieving optimal performance for demanding applications requiring the most advanced graphics and data acceleration.

These benchmark records are proof points for the leadership and performance capability and the generational processor scalability of the HPE ProLiant DL385 Gen11 Server.

Learn more at

HPE ProLiant DL385 Gen11 Documents
HPE Server performance briefs
HPE and AMD partnership

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