Hewlett Packard Enterprise

Performance brief

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HPE PROLIANT AMD SERVERS GAIN 7 WORLD PERFORMANCE RECORDS FOR DECISION SUPPORT DATABASE

HPE ProLiant DL385 Gen10 Plus v2 and HPE ProLiant DL345 Gen10 Plus servers crush expectations

Key takeaways

DL385 Gen10 Plus v2

- **#1 overall world record performance**
- **#1 overall world record price/performance**
- **1st 2P result for TPC-H @ 10000GB scale factor**
- **Best 2P performance**
- **2P DL385 Gen10 Plus v2 beats the 4P Cisco UCS C480 M5 Server**
- **14% more performance than 4P Cisco and 16.42% less cost than previous best, the 4P Dell EMC PowerEdge R940xa, on TPC-H @ 10000GB scale factor**

DL345 Gen10 Plus

- **#1 overall performance**
- **Best 1P performance**
- **#3 overall price/performance**
- **8.2% better performance than previous best on TPC-H @ 3000GB scale factor**
- **27.4% more performance and 16.7% less cost in comparison to 2nd Gen AMD EPYC processors**

Configurations
HPE ProLiant DL385 Gen10 Plus v2:

[3]TPC-H performance as of March 15, 2021. See tpc.org for more information. Claim based on having the #1 performance and price/performance for a non-clustered system on the TPC-H @ 10000GB scale factor. Configuration: 1 HPE ProLiant DL385 Gen10 Plus V2 server used 2 AMD EPYC 7763 2.45 GHz processors; 2 processors/128 cores/256 threads; Red Hat Enterprise Linux 8.3; Microsoft SQL Server 2019 Enterprise Edition. TPC-H results show the HPE ProLiant-DL385 Gen10 Plus v2 with a result of 1,883,497.4 QphH @ 10000GB and $0.56 USD/QphH @ 10000GB with system availability of April 19, 2021. See tpc.org/3351 (as of March 15, 2021) for details.

HPE ProLiant DL345 Gen10 Plus:

[2]TPC Benchmark™ H (TPC-H) performance as of March 15, 2021. See tpc.org for more information. Claim based on having the #1 performance for a non-clustered system on the TPC-H @ 3000GB scale factor. Configuration: 1 HPE ProLiant DL345 Gen10 Plus server used 1 AMD EPYC 7763 2.45 GHz processor; 1 processor/64 cores/128 threads; Red Hat Enterprise Linux 8; Microsoft® SQL Server 2019 Enterprise Edition. TPC-H results show the HPE ProLiant DL345 Gen10 Plus with a result of 1,346,933 QphH @ 3000GB and $0.40 USD/QphH @ 3000GB with a system availability of April 19, 2021. See tpc.org/3352 (as of March 15, 2021) for details.

EXECUTIVE SUMMARY

The new HPE ProLiant DL385 Gen10 Plus v2 and the DL345 Gen10 Plus servers took overall non-clustered world record performance records @ 10000GB and @ 3000GB scale factors on the TPC Benchmark™ H (TPC-H) benchmark, respectively. With the latest 3rd Gen AMD EPYC™ processors, the servers showed exceptional price/performance, and performance gains over competitors and when compared to previous generations.
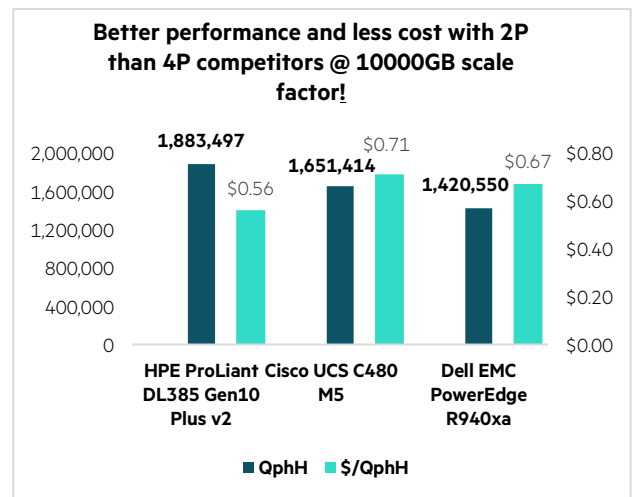
The HPE ProLiant DL385 Gen10 Plus v2 server achieved two #1 non-clustered results for decision support database workloads, providing 14% better performance as a 2P server compared to a 4P server and a 16.42% cost reduction compared to the previous best result.[3]

2U/2P: HPE ProLiant DL385 Gen10 Plus v2

Ideal choice as an accelerator-optimized solution for big data analytics

FIGURE 1. The HPE ProLiant DL385 Gen10 Plus v2 offers 14% more performance than the 4P Cisco UCS C480 M5 server and is 16.42% more affordable than the previous best on the Dell EMC PowerEdge R940xa Server

Better performance and less cost with 2P than 4P competitors @ 10000GB scale factor!

HPE ProLiant DL385 Gen10 Plus v2: 1,883,497 QphH, $0.56 $/QphH
Cisco UCS C480 M5: 1,651,414 QphH, $0.71 $/QphH
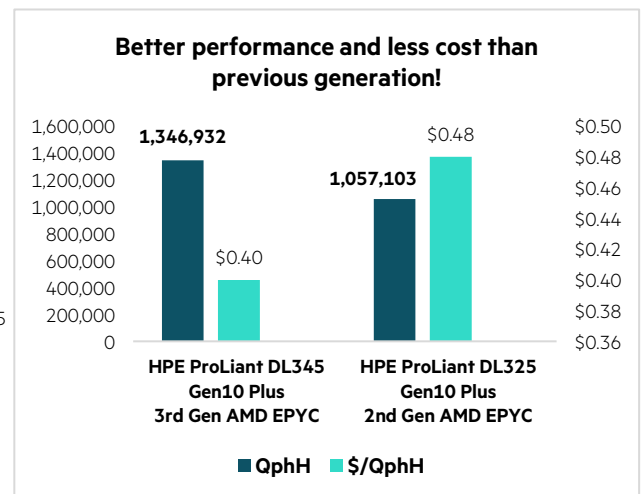Dell EMC PowerEdge R940xa: 1,420,550 QphH, $0.67 $/QphH

■ QphH   ■ $/QphH

In addition, the HPE ProLiant DL345 Gen10 Plus server achieved the #1 result for non-clustered decision support database workloads, and a gain in pure performance of 27.4% with a reduction in cost of 16.7%.[2] compared to the previous generation.

2U/1P: HPE ProLiant DL345 Gen10 Plus

Ideal choice as a storage-optimized solution for database workloads

FIGURE 2. The HPE ProLiant DL345 Gen10 Plus server provides 27.4% performance and costs 16.7% less than the previous generation, the HPE ProLiant DL325 Gen10 Plus

Better performance and less cost than previous generation!

HPE ProLiant DL345 Gen10 Plus 3rd Gen AMD EPYC: 1,346,932 QphH, $0.40 $/QphH
HPE ProLiant DL325 Gen10 Plus 2nd Gen AMD EPYC: 1,057,103 QphH, $0.48 $/QphH

■ QphH   ■ $/QphH

ABOUT THE 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.

BOTTOM LINE

The new HPE ProLiant DL345 Gen10 Plus and DL385 Gen10 Plus v2 servers are game changers for customers who need faster performance at less cost.

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