DATABASE AND ANALYTICS WORKLOADS ON HPE PROLIANT GEN11 SERVERS WITH AMD EPYC™ PROCESSORS

Matching processors to your specific workloads can help optimize performance, cost, and efficiency. HPE offers flexible and powerful servers to meet your data management needs.

Working together, AMD and HPE have designed servers to deliver outstanding database performance, energy efficiency, and value. Data management is a fundamental need, and businesses constantly look to optimize and extract value from their data. High-performance solutions that are also energy efficient help reduce TCO which is a key to success. HPE servers with AMD EPYC™ processors provide flexible options optimized for every business need, in conjunction with the data management ecosystem's leading software products. Transforming data into value more quickly has earned AMD EPYC processors nine world records on structured database benchmarks and ten on business intelligence and analytics workloads.[1] AMD EPYC processors power energy-efficient servers, helping to reduce energy costs, holding 45 world records in virtualization and integer energy efficiency.[1] Efficiency leads to value, and choosing 5th Gen AMD EPYC processors over 5th Gen Intel Xeon processors can lead to fewer servers to achieve the same results, with less power consumption and lower TCO. See page 2 for details. 9xx5TCO-001B

EPYC Performance Accelerates Data Analytics and AI Inference

Microsoft SQL Server®
~44%
More Queries/Hr
QPHH@3000GB benchmark based on TPC-H
2x 32c EPYC 9374F vs 2P 32c
Intel® Xeon® 8562Y+

Cloudera®
~40%
More Queries/Hr
QPHH@3000GB with 6-node clusters
benchmark based on TPC-DS
Comparing 1x EPYC 9654 vs 2x Xeon 8480+

MySQL®
~2.7x
Queries/Hr
TPROC-H on DSS benchmark
2P EPYC 9654 vs. 2P Xeon Platinum 8380 SP5-070

EPYC Processors Accelerate Transactions and Queries to Gain Actionable Insights

Microsoft SQL Server
~31%
More Transactions/Sec Per Core
TPC-E comparing 1P 96C EPYC 9654
to 2P 60C Xeon 8490H SP5-148

MySQL
~3.9x
Transactions/Sec
TPROC-C comparing 2x 192C EPYC
9965 vs 2x 64C Xeon 8592+ 9xx5-005A

PostgreSQL®
~58%
Higher Transactions/Sec
OLTP using a 1P EPYC configuration
1x EPYC 9374 vs 2x Xeon 8462Y+

CHOOSE YOUR ADVANTAGE WITH HPE PROLIANT GEN11 SERVERS

HPE ProLiant Gen11 severs are powered by your choice of 4th or 5th Gen AMD EPYC™ processors and help power your business to greater efficiency and faster time to market. These servers can help you deliver a data-driven strategy to accelerate business outcomes with the help of simple, secure, and optimized solutions powered by the latest compute and storage innovations with the help of HPE's experts, its global partner network, and broad ecosystem. Data analytics solutions accelerate speed to insight and help transform large volumes of data into competitive advantage. With AMD EPYC processors offering from 8 to 192 cores, you gain cost-effective, energy-efficient solutions that optimize performance, deliver new business value and help minimize your carbon footprint.

Model	HPE ProLiant DL325 Gen11	HPE ProLiant DL365 Gen11	HPE ProLiant DL345 Gen11	HPE ProLiant DL385 Gen11
Configuration	1U, 1-socket	1U, 2-socket	2U, 1-socket	2U, 2-socket
AMD EPYC processors	EPYC 9004 and 9005 Series up to 160 cores	EPYC 9004 and 9005 Series up to 160 cores	EPYC 9004 and 9005 Series up to 160 cores	EPYC 9004 and 9005 Series up to 160 cores
Memory capacity	12 DDR5-6000 up to 3 TB	24 DDR5-6000 up to 6 TB	12 DDR5-6000 up to 3 TB	24 DDR5-6000 up to 6 TB
Front disk options	10x 2.5" or 4x 3.5" or 20x E3.S	10x 2.5" or 20x E3.S	24x 2.5" or 12x 3.5" or 36x E3.S	24x 2.5" 12x 3.5" or 36x E3.S
Mid-tray disk options			Up to 8x 2.5" or 4x 3.5"	
Rear disk bay options			Up to 2x 2.5" or 4x 3.5"	Up to 2x 2.5" or 4x 3.5"

290% MORE OLTP PERFORMANCE
- Handle intermittent traffic peaks with ease
- Power highly responsive customer applications
- For non-per-core-licensed software, use high-core-count CPUs to deliver higher performance: a server with two 192-core AMD EPYC 9965 CPUs processes 2.9x the transactions per second compared to two 64-core Intel® Xeon® 8592+ CPUs running the TPROC-C benchmark on MySQL

WORLD-RECORD ANALYTICS HPE CAPTURES TOP TPCx-HS™ SCORE WITH CLOUDERA SOFTWARE
- Turn unstructured data into knowledge and gain faster insights
- AMD's frequency-optimized CPU handles massive amounts of data in less time, delivering the best overall HSph@100TB score[EPYCWR-20241010-466]

~44% LOWER 3-YEAR TCO
~63% FEWER SERVERS
~45% LESS POWER
- Comparing the number of servers needed to produce an aggregate SPECrate®2017_int_base score of ~39,100, using 2-socket servers with 192-core EPYC 9965 processors compared to 64-core Xeon 8592+ CPUs.[9xx5TCO-001B]

READY TO SWITCH?
- Learn more about HPE ProLiant servers with AMD EPYC processors
- Learn more at amd.com/epyc