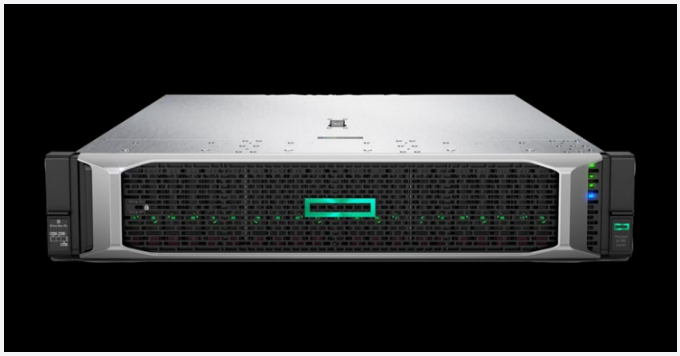
Microsoft | AMD

Run Microsoft SQL Server 2022 on HPE servers using AMD EPYC™ processors

Optimize performance, transaction processing rates, availability, and security with SQL Server running on AMD EPYC™ processor-based servers

Business continuity	Seamless analytics	Industry-leading performance	Proven security leadership
Enhance disaster recovery by reducing the time to recover with accelerated database recovery (ADR) and Azure integration with SQL Server on OEM hardware enabled by AMD EPYC processors.	Query data and do analytics quickly from within SQL Server or using external data sources through data virtualization in SQL Server on hardware using AMD EPYC processors.	Take advantage of #1 Non-clustered DW performance on on 1TB[1], 3TB[2], 10TB[3] only on AMD EPYC processors.	Modernize protection and minimize potential attack surfaces with the industry-leading security of SQL Server and hardware-based AMD Infinity Guard multilayered security.[2]
Only in SQL Server 2022: Azure integration is made even easier with Azure SQL Managed Instance link.	**Only in SQL Server 2022:** Azure Synapse Link delivers near real-time insights with a no-ETL connection.	**Only in SQL Server 2022:** Improvements in intelligent query processing (IQP) and Query Store in SQL Server 2022 continue the tradition of release-over-release performance improvements.	**Only in SQL Server 2022:** SQL Server 2022 adds SQL Ledger to provide an immutable record of data modifications.



Take your SQL Server workloads running on AMD EPYC processor to the next level with HPE servers

HPE ProLiant DL385 Gen11

HPE ProLiant DL385 Gen11 Plus server with two AMD EPYC 9224 processors, 32 GB memory, MR408i-o storage controller, eight small form factor drive bays and an 800W power supply

- Industry leading services and ease of deployment
- Flexible design making your investment expand as your business needs grow
- World-class performance featuring enhanced compute density
- Defend applications and data before your server is built with HPE trusted supply chain

[1] https://www.tpc.org/3386; [2] https://www.tpc.org/3385; [3] https://www.tpc.org/3391

[4] GD-183A: AMD Infinity Guard features vary by EPYC™ Processor generations and/or series. Infinity Guard security features must be enabled by server OEMs and/or Cloud Service Providers to operate. Check with your OEM or provider to confirm support of these features. Learn more about Infinity Guard at http://www.amd.com/en/products/processors/server/epyc/infinity-guard.html.

AMD EPYC™ 9004 Series Processors

Faster Time-to-Results

AMD EPYC 9004 Series processors deliver exceptional time-to results for your business-critical applications.

Cutting-Edge Security Features

EPYC processors includes AMD Infinity Guard, a comprehensive suite of security features that can keep your data safe

Energy Efficiency

EPYC processors power the most energy-efficient x86 servers, helping you reduce energy costs and meet corporate sustainability goals

Faster insights

Capture the full value of your IT investment with EPYC processor-powered servers that improve time-to-value for your applications and help you gain business-critical insights faster.

4th Gen AMD EPYC™ processors are available on 1P and 2P configurations and feature:

- Up to 128 cores (256 threads) per processor.
- Up to 384 MB L3 cache.
- Up to 12 memory channels per socket that support up to 6 TB of DDR5-4800 memory.
- Support for up to 128 (1P) and up to 160 (2P) PCIe® Gen 5.
- AVX-512 instruction support for enhanced AI and Machine Learning

4th Gen AMD EPYC processors deliver efficient, optimized performance by combining high frequencies, the largest-available L3 cache, up to 128 (1P) or up to 160 (2P) lanes of PCIe® Gen 5 I/O, synchronized fabric and memory clock speeds, and support for up to 6 TB of DDR5-4800 memory.

SQL Server database sizing recommendations

Size	Size/Users	CPU Cores	SKU	AMD Sizing Recommendation	
S	300GB-1TB <10 users	16	1 x 9174F	• **CPU:** 1 x 9174F • **Memory:** 192GB (12 x 16GB) DDR5 @4800MT/s	• **Disk (REDO):** 2 x 1TB NVMe • **Disk (DATA):** 12 x 1TB NVMe • **NIC:** 2 x 10G
M	1TB-3TB <20 users	32	1 x 9374F	• **CPU:** 1 x 9374F • **Memory:** 384GB (12 x 32GB) @4800MT/s	• **Disk (REDO):** 2 x 3TB NVMe • **Disk (DATA):** 12 x 3TB NVMe • **NIC:** 2 x 25G
L	3TB-10TB <50 users	48	2 x 9474F	• **CPU:** 2 x 9474F • **Memory**: 3TB (24 x 128GB) @4800MT/s	• **Disk (REDO):** 2 x 3TB NVMe • **Disk (DATA):** 12 x 3TB NVMe (or 24 x) • **NIC:** 2 x 25G
XL	10TB-100TB	96	2 x 9654	• **CPU:** 2 x 9654 • **Memory:** 3TB (24 x 128GB) @4800MT/s	• **Disk (REDO):** 2 x 3TB NVMe • **Disk (DATA):** 12 x 3TB NVMe (or 24 x) • **NIC:** 2 x 25G

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