

SQL Server 2022 comparison

Compare SQL Server 2022 features and capabilities with prior versions.

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SQL Server 2022: Azure-enabled, with continued performance and security innovation

Get to know the features and benefits now available in SQL Server 2022.

Download the datasheet

Compare SQL Server versions

Feature availability

Not supportedFully supported

Features	SQL Server 2022	SQL Server 2019	SQL Server 2017
Intelligence across all your data			
Data virtualization using PolyBase ^[1]	Fully supported	Fully supported	Fully supported
Data virtualization for any data lake	Fully supported	Not supported	Not supported
Object storage backup and restore	Fully supported	Not supported	Not supported
Azure Synapse Link	Fully supported	Not supported	Not supported
Database performance			
In-memory database: in-memory OLTP	Fully supported	Fully supported	Fully supported
In-Memory Database: Persistent Memory ^[2]	Fully supported	Fully supported	Fully supported
In-memory database: memory-optimized tempdb	Fully supported	Fully supported	Not supported
Real-time operational analytics	Fully supported	Fully supported	Fully supported
Intelligent query processing ^[3]	Fully supported	Fully supported	Fully supported
Buffer pool parallel scan	Fully supported	Not supported	Not supported
Query Store on by default with replica support	Fully supported	Not supported	Not supported
Query Store hints	Fully supported	Not supported	Not supported
Integrated acceleration & offloading	Fully supported	Not supported	Not supported
Hybrid buffer pool with direct write	Fully supported	Not supported	Not supported
Advanced Vector Extension (AVX) 512 extension to improve batch mode operations	Fully supported	Not supported	Not supported
Availability			
Always on	Fully supported	Fully supported	Fully supported
Accelerated database recovery	Fully supported	Fully supported	Not supported
Read scale-out availability groups	Fully supported	Fully supported	Fully supported
Large memory and concurrency scalability	Fully supported	Not supported	Not supported
Multi-write replication	Fully supported	Not supported	Not supported
Link to Azure SQL Managed Instance - replicas	Fully supported	Fully supported	Fully supported
Link to Azure SQL Managed Instance - unidirectional	Fully supported	Fully supported	Fully supported
Link to Azure SQL Managed Instance - bidirectional ^[6]	Fully supported	Not supported	Not supported
Contained availability group	Fully supported	Not supported	Not supported
Encryption at rest and in motion	Fully supported	Fully supported	Not supported
Security			
Always encrypted with secure enclaves ^[4]	Fully supported	Fully supported	Not supported
Data discovery and classification	Fully supported	Fully supported	Not supported
Transparent data encryption	Fully supported	Fully supported	Fully supported
Backup encryption support	Fully supported	Fully supported	Fully supported
Encryption at rest and in motion	Fully supported	Fully supported	Fully supported
Dynamic data masking and row-level security	Fully supported	Fully supported	Fully supported
Microsoft Entra ID (formerly Azure Active Directory) authentication ^[7]	Fully supported	Not supported	Not supported
Microsoft Defender for SQL	Fully supported	Fully supported	Fully supported
Microsoft Purview Integration central governance	Fully supported	Fully supported	Fully supported
Microsoft Purview Integration data owner policies	Fully supported	Not supported	Not supported
SQL Ledger	Fully supported	Not supported	Not supported
Support for PFX certificates and other cryptographic enhancements	Fully supported	Not supported	Not supported
MS-TDS 8.0 protocol and TLS 1.3	Fully supported	Not supported	Not supported
Azure-enabled			
Link to Azure SQL Managed Instance - replicas			
Link to Azure SQL Managed Instance - unidirectional			
Link to Azure SQL Managed Instance - bidirectional ^[6]			
Optimized virtual machine (VM) images in Azure gallery			
Free asynchronous replication on Azure Virtual Machines for disaster recovery			
Microsoft Defender for SQL			
Azure Purview central governance			
Azure Purview data owner policies			
Microsoft Entra ID (formerly Azure AD) Authentication			
Azure Synapse Link for SQL			
Management and programmability			
Linux support			
Container support			
Kubernetes support			
Temporal tables			
JSON support			
Graph data support			
UTF-8 support			
Java support			
Azure Data Studio to manage SQL Server including support for T-SQL using notebooks			
Database compatibility certification			
Bit manipulation functions			
Time series support			
BI and Analytics Support			
Integration services managed as a server			
Tabular BI semantic model ^[5]			
Master data services ^[5]			
Data quality services ^[5]			
Many-to-many relationships in tabular models			
End-to-end mobile BI on any device			
SQL Server Analysis Services (SSAS) direct query			
Calculation groups in tabular model			

[1] For HDFS and Azure Blob Storage only(For SQL Server 2017, SQL Server 2016 only).

[2] For tail of the log only (For SQL Server 2017, SQL Server 2016 only).

[3] See full [list Intelligent Query Processing updates](#) by release.

[4] See additional SQL Server 2022 secure enclaves [updates](#).

[5] SQL Server Enterprise edition only.

[6] The bidirectional disaster recovery capability of the Link feature for Azure SQL Managed Instance is available in limited public preview. [Learn more](#).

[7] Feature requires connection to Azure Arc agent.

NOTE: See the [list](#) of SQL Server 2022 features.

Available SQL Server 2022 editions

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Read the SQL Server Editions datasheet

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