SQL Server 2019 editions

Industry leading security, performance and intelligence over all your data.
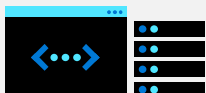
Enterprise
Mission-critical performance and intelligence for tier 1 databases

Feature highlights

- Unlimited cores of CPU
- Unlimited memory
- Industry-leading performance with unmatched scalability
- Unlimited virtualization benefits
- Petabyte scale data warehousing
- Business critical HA on Windows and Linux
- Low TCO with free DR replicas
- Access to Power BI Report Server

+ **Standard features**

+ **Express/web features**

Standard
Full featured database with intelligent QP features and persistent memory support.

Feature highlights

- Up to 24 cores of CPU
- Up to 128 GBs of memory
- Data virtualization through PolyBase
- Enhanced in-memory performance
- Automatic intelligent database tuning
- Azure Data Studio with notebook support

+ **Express/web features**

Express/web
Free, entry-level database for small web and mobile apps

Feature highlights

- Up to 16 cores of CPU
- Up to 64 GBs of memory
- In-memory OLTP and Columnstore
- End-to-end encryption with secure enclaves
- Full T-SQL surface area
- Support for Linux and Windows containers
- UTF-8 character encoding
- Data classification and auditing

Developer
Free to use with all the features of Enterprise Edition specifically for dev/test in non-production environments

Build once and deploy across any SQL Server edition without changing your app

What's new in SQL Server 2019

SQL Server 2019 new features		Express/web	Standard	Enterprise
Compute and storage	Maximum number of cores	16	24	OS Max
	Maximum memory utilized per instance	64 GB	128 GB	OS Max
	Maximum size	524 PB	524 PB	524 PB
Intelligence over all your data	Data virtualization using PolyBase (including additional data sources like Oracle, Teradata, MongoDB, and other SQL Server databases)	✕	✕	✕
	Unified AI platform to train and operationalize models in SQL Server ML Services		✕	✕
Choice of language and platform	Compatibility certification	✕	✕	✕
	UTF-8 support	✕	✕	✕
	Support for SQL Server Java extension	✕	✕	✕
Industry-leading performance and availability	Free DR replicas in Azure and on-premises		✕	✕
	Intelligent QP features: Scalar UDF inlining, table variable deferred compilation, approximate count distinct, and automatic tuning		✕	✕
	Intelligent QP features: row mode memory grant feedback and batch mode for row store			✕
	Automatic read-write connection re-routing			✕
	In-Memory Database: memory-optimized tempdb			✕
	In-Memory Database: Persistent Memory support		✕	✕
Secure and reliable	Always Encrypted with secure enclaves	✕	✕	✕
	Transparent database encryption		✕	✕
	Data classification and auditing	✕	✕	✕
	Vulnerability assessment	✕	✕	✕
Quick business insights	Azure Data Studio to manage SQL Server including support for T-SQL using Notebooks	✕	✕	✕
	SQL Server Analysis Services Direct Query		✕	✕

SQL Server 2019 continues to deliver unparalleled value

Key investment themes

Choice of language
and platform

Industry-leading
performance and availability

Highly secure
and reliable

Quick business insights

2019 additions

- Data virtualization to integrate external data sources
- Azure Machine Learning
- Support for Kubernetes deployment
- Free supported Java
- Native UTF-8 support
- In-Memory Database: Persistent Memory support
- Accelerated database recovery
- Free DR to Azure
- Always Encrypted with secure enclaves
- Data classification & auditing
- Vulnerability assessment
- Notebook support for T-SQL, Python in Azure Data Studio
- SQL Server Analysis Services Direct Query

2017 additions

- Support for Linux including Red Hat Enterprise Linux (RHEL), SUSE Linux Enterprise Server (SLES), and Ubuntu
- Support for Docker containers on Linux and Windows
- Python language support
- Support for graph data
- Automatic plan correction and adaptive query processing
- Cross platform availability groups
- Power BI reporting both on-premises and in the cloud
- Access to Power BI Report Server

2016 additions

- Real-time operational analytics
- PolyBase
- R language support
- SQL Server Machine Learning Services
- Dynamic data masking, Row level security and Always encrypted
- End to end mobile BI