SQL Server 2016 editions – what's new

SQL Server 2016 is the biggest leap forward in Microsoft's data platform history with real-time operational analytics, rich visualizations on mobile devices, built-in advanced analytics, new advanced security technology, and new hybrid cloud scenarios.

Enterprise
SQL Server Enterprise delivers comprehensive datacenter capabilities for mission-critical database, business intelligence, and advanced analytics workloads.[1]

Standard
SQL Server Standard provides core data management and business intelligence capabilities for non-critical workloads with minimal IT resources.

Express
SQL Server Express is a free edition of SQL Server ideal for development and production for desktop, web and small server applications.

Developer
SQL Server Developer is now a free edition providing the full feature set of SQL Server Enterprise. For development and test only, and not for production environments or use with production data.

	Mission critical performance	Security	Data warehousing	Business intelligence	Advanced Analytics	Hybrid cloud
Enterprise	• OS max cores and memory • Enhanced in-memory OLTP performance • Operational analytics • Enhanced AlwaysOn with no domain join (WS 2016) • QueryStore • Temporal	• Always Encrypted • Row-level security • Dynamic data masking • Enhanced separation of duties • Enhanced SQL Server auditing • Transparent data encryption • Policy-based management	• Enhanced in-memory ColumnStore • PolyBase in scale-out configuration (head and compute nodes) • Deployment rights for APS • Distributed query processing • Support for JSON	• End-to-end mobile BI on all major platforms • Enhanced direct query • In-memory analytics • Advanced data mining • Advanced tabular • Web portal experience (all reports in 1 place) • Modernized reports • Pin reports to Power BI • Enhanced multi-dimensional models	• In database Advanced Analytics • R integration with massive parallel processing for performance and scale • Works with in-memory technology • Run in database or standalone • Connectivity to R Open	• Stretch Database • Enhanced backup to Azure • Enhanced HA and DR with Azure – ease of use, no domain join (WS 2016) • SSIS integration with Azure Data Factory and Azure SQL Data Warehouse
Standard	• Disk-based OLTP • 24 cores max and 128 GB max memory • 2-node single database failover (non-readable secondary) • Temporal	• Row-level security • Dynamic data masking • Basic auditing • Separation of duties • Policy-based management	• PolyBase (compute node only) • Support for JSON	• Basic tabular (16GB memory per instance) • Modernized reports • Pin reports to Power BI • Enhanced multi-dimensional models	• Single-threaded for RRE • Connectivity to R Open	• Stretch Database • Backup to Azure
Express	• 1 GB memory, max 10 GB memory • Basic OLTP	• Policy-based management	• Support for JSON	• Basic reporting and analytics • Modernized reports		• Stretch Database • Backup to Azure

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SQL Server 2016 features by edition

[1]		Express	Standard	Enterprise[1]
Maximum number of cores	New	4 cores	24 cores	Unlimited
Maximum memory utilized per instance		1 GB	128 GB	OS Max
Maximum size		10 GB	524 PB	524 PB
Mission critical performance — Basic OLTP		●	●	●
Manageability (Management Studio, Policy-Based Management)		●	●	●
Basic high availability (2-node single database failover, non-readable secondary)	New		●	●
Enterprise data management (Master Data Services, Data Quality Services)				●
Advanced OLTP (In-memory OLTP, Operational analytics)	New			●
Advanced HA (Always On - multi-node, multi-db failover, readable secondaries)				●
Security — Basic security (Row-level security, data masking, basic auditing, separation of duties)	New		●	●
Advanced security (Transparent Data Encryption, Always Encrypted)	New			●
Data warehousing — Advanced data integration (Fuzzy grouping and look ups, change data capture)				●
Data warehousing (In-Memory ColumnStore, Partitioning)	New			●
Business intelligence — Programmability & Developer Tools (T-SQL, CLR, Data Types, FileTable, JSON)	New	●	●	●
Basic reporting & analytics		●	●	●
Basic data integration (SSIS, built-in connectors)			●	●
Basic Corporate Business Intelligence (Multi-dimensional models, Basic tabular model)	New		●	●
Mobile BI (Datazen)	New			●
Advanced Corporate Business Intelligence (Advanced tabular model, Direct query, in-memory analytics, advanced data mining)	New			●
Advanced Analytics — Basic "R" integration (Connectivity to R Open, Limited parallelism for RRE)	New	●	●	●
Advanced "R" integration (Full parallelism for RRE)	New			●
Hybrid cloud — Stretch Database	New	●	●	●

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