

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.

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

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

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

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.

	EXPRESS	STANDARD <i>Contains all Express features in addition to those listed below.</i>	ENTERPRISE <i>Contains all Express and Standard features in addition to those listed below.</i>
Mission Critical Performance	<ul style="list-style-type: none"> • 1 GB memory, max 10 GB memory • Basic OLTP • Partitioning • in-memory OLTP 	<ul style="list-style-type: none"> • Disk-based OLTP • 24 cores max and 128 GB max memory • 2-node single database failover (non-readable secondary) • Temporal 	<ul style="list-style-type: none"> • OS max cores and memory • Enhanced in-memory OLTP performance • Operational analytics • Enhanced AlwaysOn with no domain join • QueryStore
Security	<ul style="list-style-type: none"> • Policy-based management • Row-level security • Dynamic data masking • Always Encrypted • Fine Grained Auditing 	<ul style="list-style-type: none"> • Basic auditing • Separation of duties 	<ul style="list-style-type: none"> • Enhanced separation of duties • Enhanced SQL Server auditing • Transparent data encryption
Data Warehousing	<ul style="list-style-type: none"> • Support for JSON • PolyBase (compute node only) 		<ul style="list-style-type: none"> • Enhanced in-memory ColumnStore • PolyBase in scale-out Configuration (head and compute nodes) • Deployment rights for APS • Distributed query processing

**Only available with SQL Server 2016 SP1*

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Business Intelligence	<ul style="list-style-type: none"> • Basic reporting and analytics • Modernized reports 	<ul style="list-style-type: none"> • Basic tabular (16GB memory per instance) • Pin reports to Power BI • Enhanced multidimensional models 	<ul style="list-style-type: none"> • 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)
Advanced Analytics		<ul style="list-style-type: none"> • Single-threaded for RRE • Connectivity to R Open 	<ul style="list-style-type: none"> • In database Advanced Analytics • R integration with massive parallel processing for performance and scale • Works with in-memory technology • Run in database or standalone
Hybrid Cloud	<ul style="list-style-type: none"> • Stretch Database • Backup to Azure 		<ul style="list-style-type: none"> • 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

SQL Server 2016 features by edition

			EXPRESS	STANDARD	ENTERPRISE
Mission Critical Performance	Maximum number of cores	New	4 cores	24 cores	Unlimited
	Maximum memory utilized per instance		1GB	128GB	OS Max
	Maximum size		10GB		
	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)				
	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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