

# SQL Server 2016 SP1 Editions

SQL Server 2016 is the biggest leap forward in the Microsoft 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. Now with SQL Server 2016 SP1, a common programming surface enables developers to build applications for SQL Server once and deploy them across editions.

		Enterprise
Express	Standard	<p>MISSION CRITICAL IN-MEMORY PERFORMANCE AND SCALE, SECURITY AND HIGH AVAILABILITY</p> <ul style="list-style-type: none"><li>✓ <b>Mission critical high availability</b></li><li>✓ <b>Enhanced in-memory</b> performance for all workloads</li><li>✓ Unparalleled data security</li><li>✓ PB scale data warehousing</li><li>✓ <b>End-to-end mobile BI</b> with rich visualizations on all major platforms</li><li>✓ <b>In-database advanced analytics</b> built-in at scale with R plus in-memory; 1M predictions/second</li><li>✓ Enhanced hybrid scenarios including <b>Stretch Database</b>, HA, DR and backup</li></ul>
<p>SMALL-SCALE APPLICATIONS</p> <ul style="list-style-type: none"><li>✓ Development and management tools</li><li>✓ Easy backup and restore to Microsoft Azure</li></ul>	<p>FULLY FEATURED DATABASE FOR MID-TIER APPLICATIONS AND DATA MARTS</p> <ul style="list-style-type: none"><li>✓ Most secure database with <b>Always Encrypted</b></li><li>✓ <b>Enhanced in-memory</b> performance for all workloads</li><li>✓ Basic reporting</li><li>✓ <b>Basic analytics</b></li><li>✓ <b>Hybrid scenarios: Stretch Database, backup</b></li></ul>	

**Develop once and scale across editions with the common programming surface in SQL Server 2016 SP1**

SQL Server 2016 SP1 features by edition			Standard	Enterprise
OLTP Performance	Maximum number of cores	New	24 cores	Unlimited
	Maximum memory utilized per instance		128 GB	OS Max
	Maximum size		524 PB	524 PB
	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	Security (Always Encrypted, row-level security, data masking, basic auditing, separation of duties)	New	●	●
	Transparent Data Encryption			●
Data Warehousing	Fuzzy grouping and look ups			●
	Data warehousing (In-Memory ColumnStore*, partitioning, data compression, change data capture**, database snapshot)	New	●	●
Business Intelligence	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	●	●
Programmability	Programmability (T-SQL, CLR, Service Broker, JSON, XML)	New	●	●

Features in blue are newly available in Standard and Express since SQL Server 2016 SP1  
 \*Subject to memory core and limitations for Standard and Express \*\*Change data capture not available in Express

