

SQL Server 2016 Hero Features in a Customer Scenario

Full Lifecycle of Financial Data

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Mission-critical performance

Performance

In-Memory OLTP enhancements

Greater T-SQL surface area, terabytes of memory supported, and higher number of parallel CPUs

Operational Analytics

Insights on operational data; works with In-Memory OLTP and disk-based OLTP

Query Data Store

Monitored, optimized query plans

Temporal database support

Query data as points in time

Security

Always Encrypted

Sensitive data remains encrypted at all times, with ability to query

Dynamic Data Masking

Real-time obfuscation of data to prevent unauthorized access

Row-Level Security

Fine-grained access control for table rows

Other enhancements

Audit success/failure of database operations

TDE support for storage of In-Memory OLTP tables

Enhanced auditing for OLTP with ability to track history of record changes

Availability

Basic Availability Groups

With SQL 2016 Standard Edition

Enhanced AlwaysOn

Distributed availability groups, automatic replica seeding, distributed transactions, automatic failover, load balancing, manageability

Backup enhancements

Managed backup to Azure, Database Recovery Advisor

Scalability

Windows Server support

Support for Windows Server Core and Windows Server ReFS

Live migration

Faster live migration, live migration for non-clustered VMs

Scalability enhancements

Hardware acceleration for TDE, parallelized decryption, TempDB optimization, and more

Deeper insights across data

Store your data – make it accessible

PolyBase

Insights from data across SQL Server and Hadoop with the simplicity of T-SQL

Data warehousing

Modern data warehouse, SMP and MPP SQL Server solutions

Data formats and types

Import/export JSON, XML, spatial, FILESTREAM, RBS

Integration Services enhancements

Interoperability with Azure Data Factory, Azure Storage Connector, and HDInsight

New and enhanced data connectors: HDFS, JSON, Oracle/Teradata, and more

Enhanced MDS

Excel add-in 15x faster, more-granular security roles, archival options for transaction logs, and reuse entities across models

Analyze data

Real-time operational analytics

Running of analytical workloads concurrently with OLTP workloads through columnstore indexes

Analysis Services enhancements

Many-to-many support with bi-directional cross filtering, improved performance

Advanced analytics with R

Integrated R Services, predictive analytics, big data analytics

Share insights

Mobile BI

Mobile reports on SSRS with Mobile Report Publisher

Reporting Services

Modern web browser support (HTML5, CSS3)

Power BI

Connection of Power BI to on-premises SSAS cubes with Power BI Analysis Services Connector

Hyperscale cloud

Hyperscale features

Stretch Database

Stretch operational tables in a secure manner into Azure for cost-effective historic data availability. Works with Always Encrypted and Row-Level Security.

High availability

Distributed availability groups add flexibility to HA/DR. Add Azure Replica Wizard makes it easy to implement.

Enhanced backup to Azure

Enhanced backup includes faster restore times and 50% reduction in storage. Supports larger DBs with block blobs and custom backup schedule with local staging.

Simplicity

Easy migration of on-premises

SQL Server

Simple point-and-click migration to Azure

Suite of advisors for upgrading to SQL Server 2016

SQL Server 2016 Upgrade Advisor in the adoption of new SQL Server features

Consistency

Common development, management, and identity tools

Including Active Directory, Visual Studio, Hyper-V, and System Center

Consistent experience from SQL Server on-premises to Microsoft Azure IaaS and PaaS