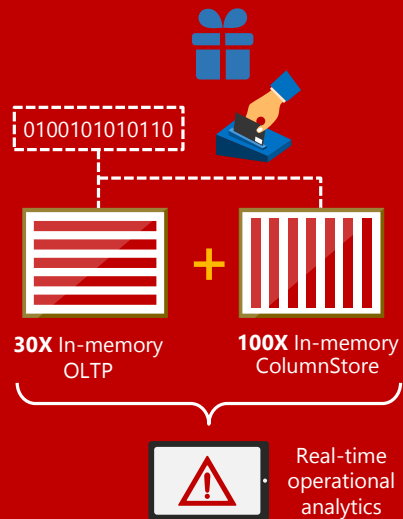


As the biggest leap forward in Microsoft's data platform history, SQL Server 2016 delivers breakthrough mission critical performance, deeper insights across any data on many devices and enables the power of hyperscale cloud to unlock new hybrid scenarios.

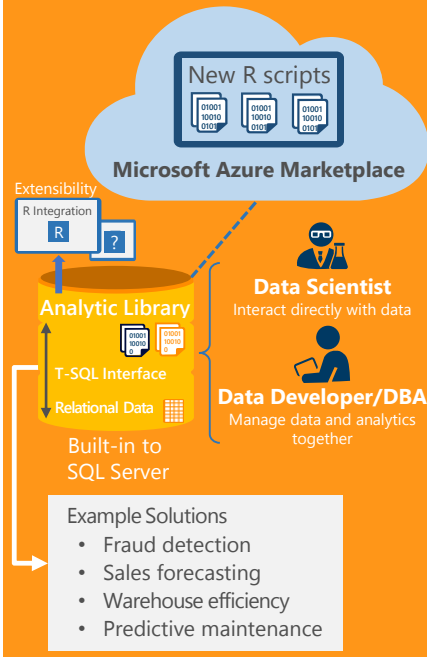
In-memory enhancements

Operational analytics and enhanced performance



Advanced Analytics

In database analytics at massive scale



MISSION CRITICAL PERFORMANCE

Performance

Enhanced in-memory performance with up to 30x faster transactions, more than 100x faster queries than disk based relational databases and real-time operational analytics.

Security Upgrades

Always Encrypted technology helps protect your data at rest and in motion, on-premises and in the cloud, with master keys sitting with the application, without any application changes.

High Availability

Even higher availability and performance than SQL Server 2014 with AlwaysOn secondaries with the ability to have up to 3 synchronous replicas, DTC support and round-robin load balancing of the secondaries.

Scalability

Enhanced database caching across multiple cores & support for Windows Server 2016 that efficiently scale compute, networking and storage in both physical and virtual environments.

DEEPER INSIGHTS ACROSS DATA

Access Any Data

Query relational and non-relational data with the simplicity of T-SQL with PolyBase. Manage document data with native JSON support.

Scale and Manage

Enhanced performance, scalability and usability across SQL Server Enterprise Information Management tools and Analysis Services.

Powerful Insights on any device

Business insights through rich visualizations on mobile devices. Native apps for Windows, iOS and Android. New modern reports for all browsers.

Advanced Analytics at massive scale

Built-in advanced analytics provide the scalability and performance benefits of running your "R" algorithms directly in SQL Server. Expand your analytics library with Microsoft Azure Marketplace.

HYPERSCALE CLOUD

Breakthrough hybrid scenarios

Stretch Database technology keeps more of your customers' historical data at your fingertips by transparently stretching your warm and cold OLTP data to Microsoft Azure on-demand without application changes.

Simplicity

New tools that make SQL Server migration to Microsoft Azure and hybrid scenarios even easier.

Consistency

Consistent experience from on-premises to Microsoft Azure IaaS & PaaS.

Hardware and Software Requirements for Installing SQL Server 2016

Once the public preview is released you will be able to find hardware and software requirements at the link below:

<http://microsoft.com/sqlserver2016>

MISSION CRITICAL PERFORMANCE

New Performance Enhancements

- **Operational Analytics:** Insights on operational data, works with in-memory OLTP or on disk
- **In-memory OLTP enhancements:** Greater T-SQL surface area, terabytes of memory supported and greater number of parallel CPUs
- **Query Data Store:** Monitor and optimize query plans with full history of query execution
- **Native JSON:** Parsing & storing of JSON as relational data & exporting relational data to JSON
- **Temporal Database:** Track historical changes

Security Upgrades

- **Always Encrypted:** Help protect data at rest and in motion with the master key residing with the application & no application changes required
- **Row Level Security:** Apply fine-grained access control to table rows based on users rights
- **Dynamic Data Masking:** Real-time obfuscation of data to prevent unauthorized access

Even Higher Availability

- **Enhanced AlwaysOn:**
 - Up to 3 synchronous replicas for auto failover across domains
 - Round-robin load balancing of replicas
 - DTC & SSIS support
 - Automatic failover based on database health

Improved Scalability

- **Enhanced Database Caching:** Cache data with automatic, multiple TempDB files per instance in multi-core environments
- **Support for Windows Server 2016**

DEEPER INSIGHTS ACROSS DATA

Access Any Data

- **PolyBase:** Manage relational & non-relational data with the simplicity of T-SQL
- **Power Query for Analytics and Reporting:** Pull data from countless sources into data models and reports
- **Enhanced SSIS:** Designer support for previous SSIS versions and support for Power Query

Scale and Manage

- **Enterprise-grade Analysis Services:** Enhanced performance and scalability for Analysis Services
- **Single SSDT in Visual Studio 2015:** Build richer analytics solutions as part of your development projects in Visual Studio through a single tool.
- **Enhanced MDS:** Excel add-in 15X faster, more granular security roles, archival options for transaction logs, and reuse entities across models

Powerful Insights on any device

- **Mobile BI:** Business insights for your on-premises data through rich visualizations on mobile devices with native apps for Windows, iOS and Android
- **Enhanced Reporting Services:** New, modern reports with rich visualizations

Built-in Advanced Analytics

- **Built-in Advanced Analytics:** Bringing predictive analytic algorithms directly into SQL Server. Expand your "R" script library with Microsoft Azure Marketplace

HYPERSCALE CLOUD

Hybrid Solutions

- **Stretch Database:** Stretch operational tables in a secure manner into Azure for cost effective historic data availability. It works with Always Encrypted and Row Level Security
- **PowerBI with on-premises data:** New interactive query with Analysis Services. Customer data stays behind your firewall
- **Hybrid Scenarios with SSIS:** Azure Data Factory integration with SSIS, package lineage and impact analysis as well as connect SSIS to cloud data source
- **Enhanced Backup to Azure:** X faster restore and 50% reduction in storage, support larger DBs with Block blobs and custom backup schedule with local staging

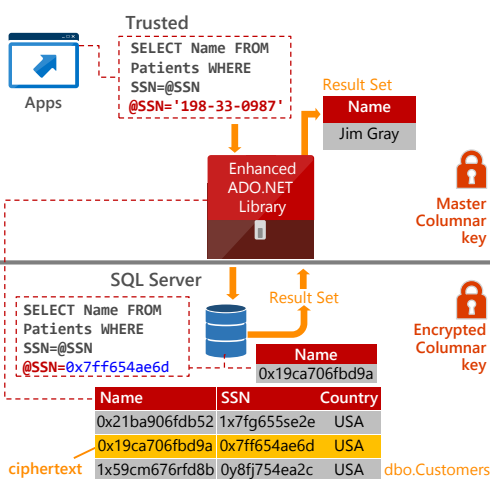
Simplicity

- **Easy migration of on-premises SQL Server:** Simple point and click migration to Azure
- **Simplified Add Azure Replica Wizard:** Simplified hybrid HA & DR with AlwaysOn

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**

Always Encrypted



Mobile BI



Stretch Database

