Upgrading from SQL Server 2005 Experience the benefits of SQL Server 2014

SQL Server 2005 is approaching the end of its support on April 12, 2016. With end of support, security updates and hotfixes are no longer available from Microsoft. So there's never been a better time to upgrade and benefit from the dramatic performance gains, higher availability and scalability and rich BI capabilities SQL Server 2014 has to offer.

Achieve mission critical performance

Maintain security and compliance

Modernize your data platform

Payback in

months*

Mission Critical Performance

Breakthrough in-memory performance: Proven 13x higher performance for traditional OLTP since SQL Server 2005* plus additional in-memory OLTP delivering up to 30x more performance

High availability: The 9's you need - availability and disaster recovery with AlwaysOn

Security: Supported, compliant ALL WORKLOADS database platform—least vulnerable six years in a row;***

Scalability: Scalable across compute, networking and storage with Windows Server 2012 R2 and up to 640 logical processors; virtualization and live migration support

Support: Support includes security patching and maintenance updates, and eliminates the expense of custom support agreements Runs up to

13x

faster than SQL Server 2005**

IN-MEMORY BUILT-IN ACROSS



In-Memory OLTP

Up to 30x faster transactions



In-Memory ColumnStore

Over 100x query performance gains



In-Memory **Analytics**

Process millions of rows in seconds

Faster insights on any data

Easy access to data, big and small for insights on any data

Powerful insights with familiar tools: Self-service BI with the familiarity of Office and the power of the cloud

Complete BI Solution: From data management to BI and analytics; scale models while ensuring quality and accuracy

Data platform modernization

Virtualize and consolidate: Modernize data platform and infrastructure for maximum performance at low TCO

Hybrid cloud scenarios: The best of on-premises and cloud

Easy on-ramp to cloud: Fast time to develop, manage and deploy; migrate and run SQL Server on Microsoft Azure

^{*}Forrester Consulting, The Total Economic Impact(TM) of Microsoft SQL Server, a commissioned study conducted on behalf of Microsoft, July 2014 **13x gain based on TPC-E benchmark results published for SQL Server 2014 (<u>www.tpc.org/4069</u>), SQL Server 2005 (<u>www.tpc.org/4001</u>) as of 10/8/14.

What's new in SQL Server 2014 since SQL Server 2005

Mission critical performance

PERFORMANCE & SCALE

- In-Memory OLTP
- Enhanced In-Memory ColumnStore for DW
- Support for 640 logical proc. & 4 TB memory
- Support to 15,000 partitions
- Resource Governor IO governance
- Buffer Pool Extension to SSDs
- Query optimization enhancements
- Predictable performance with tiering of compute, network, and storage with Windows Server 2012 R2
- SysPrep at VM & cluster level
- Data Compression with USC-2 Unicode support
- Backup Compression

HIGH AVAILABILITY

- SQL Server AlwaysOn
- Database Mirroring
- Failover Clustering
- Database Snapshots
- Delayed Durability
- Recovery Advisor
- Windows Server Core
- Live Migration
- Online Operations
- Clustered Shared Volume support, VHDX support with Windows Server 2012 R2
- Manage on-premises and cloud apps with System Center 2012 R2

SECURITY

- User-Defined Server Roles
- Default Schema for Groups
- SQL Server Audit
- Transparent Data Encryption
- Extensible Key Management
- Standards-based Encryption
- SQL Server Fine-grained Auditing
- Enhanced separation of duty
- CC certification at High Assurance Level
- Backup Encryption

PROGRAMMABILITY

- SQL Server Data Tools
- Data-tier Application Component project template
- Data-Tier Application Framework (DAC Fx)
- Interoperability support (ADO.NET, ODBC, JDBC, PDO, ADO APIs and .NET C/C++, Java, Linux, and PHP platforms)

T-SQL enhancements

- Enhanced support for ANSI SQL standards
- Transact-SQL Static Code Analysis Tools
- Transact-SQL code snippets
- Intellisense

Data Support

- FILESTREAM data type
- FileTable built on FILESTREAM
- Remote Blob Storage with SharePoint 2010
- Spatial data support
- Full Text Search for unstructured files
- Statistical Semantic Search
- Large user-defined data types

Programmability Support

- Support for LINQ and ADO.NET Entity Framework
- CLR Integration and ADO.NET Object Services

MANAGEABILITY

- Distributed Replay
- · Query optimization enhancements
- System Center Management Pack for SQL Server 2012
- Windows PowerShell 2.0 support
- Data-Tier Application Component
- Contained Database Authentication
- Policy-Based Management
- Performance Data Collector
- SMTP mail for secure DB email w/o Outlook

Faster insights on any data

ACCESS ANY DATA

- Power Ouerv for Excel
- Mash up data from many sources, such as Oracle & Hadoop
- Connectors for Azure HDInsight and Hadoop on Windows
- Analytics Platform System built on SQL Server 2014

INSIGHTS WITH FAMILIAR TOOLS

- Power BI in Office 365
- Power Map for Excel
- Mobile BI interfaces for Power BI

COMPLETE BI SOLUTION

- SQL Server BI edition
- StreamInsight for complex event processing
- BI Semantic Model
- SQL Server Data Tools
- BI Development Studio
- Microsoft Visual Studio-based reporting development tools
- Change Data Capture for Oracle

Analysis Services

- Import Power Pivot models into Analysis Services
- Enhancements on productivity, performance
- Block computations, cube design tools, and write-back to MOLAP

Reporting Services

- · Power View for Excel
- Configurable reporting alerts
- Reporting as SharePoint Shared Service
- Report Builder 3.0
- Report Designer
- Report Manager

Data Quality Services

- Connect to 3rd party data cleansing providers
- Build knowledge base to increase quality over time
- Standalone or with Integration Services

Master Data Services

- Master Data Hub
- Master Data Services Add-in for Excel

Integration Services

- Manage SSIS as a server
- Graphical tools in SSIS
- Extensible object model
- Broader data integration:
 DB vendors, cloud, Hadoop
- Pipeline improvements
- Persistent lookups
- High-performance connectors

Data platform modernization

HYBRID CLOUD SOLUTIONS

- Encrypted and compressed backups to Microsoft Azure
- Enhanced disaster recovery with Microsoft Azure
- Easily extend on-premises apps to the cloud

EASY ON-RAMP TO THE CLOUD

- New Microsoft Azure deployment UI for SQL Server
- Larger VMs and memory sizes now available in Microsoft Azure
- Pre-configured images optimized for OLTP and DW performance
- DAC enhancements: Easily import/export to Microsoft Azure SQL

COMPLETE AND CONSISTENT FROM ON-PREMISES TO CLOUD

- SQL Server Data Tools
- License Mobility with Software Assurance
- Resource Governor enhancements
- Snapshot backups to Azure via SQL Server Management Studio