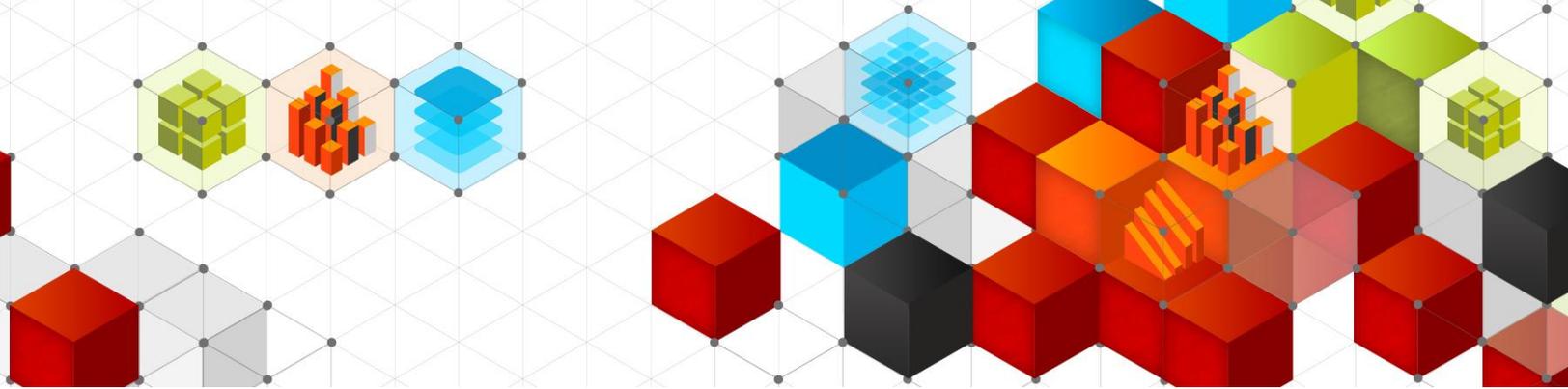




Microsoft® SQL Server® 2012



Overview

Microsoft® SQL Server® 2012 is a cloud-ready information platform that will help organizations unlock breakthrough insights across the organization and quickly build solutions to extend data across on-premises and public cloud, backed by mission critical confidence.

Highlights

- **Get required 9s with SQL Server AlwaysOn**
- **Blazing-fast performance with xVelocity in-memory technologies**
- **Rapid data exploration via Power View and PowerPivot**
- **Credible, consistent data via BI Semantic Model and Data Quality Services**
- **Write applications once, run anywhere with SQL Server Data Tools**
- **Scale on demand from devices to datacenter to cloud**

Mission Critical Confidence

Enable mission critical environments including availability and performance at low TCO

Required 9s and protection

Deliver required uptime and data protection, server to cloud without wasting time and money

- Help reduce downtime with the new integrated high availability and disaster recovery solution, SQL Server AlwaysOn.
- Achieve maximum application availability and data protection with options to configure active, multiple secondaries and ability to quickly failover and recover applications.
- Significantly reduce OS patching with new support for Windows® Server Core.
- Eliminate idle hardware and improve IT cost efficiency and performance using Active Secondary which enables offloading of various workloads to the secondaries.

- Maintain uptime during maintenance operations using enhanced online operations and eliminate planned downtime on Hyper-V™ using Live Migration.
- Simplify deployment and management of high availability requirements using integrated configuration and monitoring tools.
- Help enable a more predictable and optimal restore sequence for database recovery and backup with Database Recovery Advisor.
- Achieve highest level of availability regardless of whether applications are deployed on-premise or on Microsoft private or public cloud.

Blazing-fast performance

Gain breakthrough and predictable performance backed by industry-leading benchmarks

- Experience next-generation performance across SQL Server with xVelocity in-memory technologies for both Data Warehousing and Business Intelligence.

¹ <http://www.microsoft.com/sqlserver/en/us/product-info/benchmarks.aspx>

² [http://technet.microsoft.com/en-us/library/bb964719\(v=SQL.100\).aspx](http://technet.microsoft.com/en-us/library/bb964719(v=SQL.100).aspx)

- Significantly boost Data Warehouse query performance by 10x to 300x for star join and similar queries with xVelocity in-memory technologies.
- Interact and explore billions of rows of data at the speed of thought using xVelocity in-memory technologies for Business Intelligence.
- Support blazing-fast queries with dramatic improvements to Full-Text Search that offer serious performance and scale advances.
- Accelerate the performance of I/O intensive workloads by cutting growing volumes of data ~50-60%² with compression capabilities.
- Gain consistent performance for concurrent and mixed workloads by defining resource usage across different applications with Resource Governor.
- Analyze query execution plans, capture database activity, optimize indexes and structures, and help ensure consistent query performance with familiar, easy-to-use management tools.
- Make a bet on a trusted platform that continuously leads in industry-relevant TPC and real-world application performance benchmarks¹. Release over release SQL Server is SAP-certified to run some of the industry's most demanding workloads.
- Help ensure security enhanced deployments and minimize surface-area attacks by enabling only required services through Configuration Manager—built-in services turned off by default.
- Help secure end user data analytics with built-in IT controls, including new Microsoft SharePoint® and Active Directory® security models for end user reports published and shared in SharePoint.
- Control database access to deployed applications while improving manageability through Contained Database Authentication that uses self-contained access information without the need for server logins.
- Help protect data with built-in encryption capabilities that help protect confidential information without changes to the application.
- Help ensure compliance and increase manageability related to auditing with audit resilience, filtering, user-defined audit, and enablement across all SQL Server editions.
- Increase manageability and decrease complexity of database schema through Default Schema for Groups by allowing a default database schema for Windows group user accounts.
- necessary to deliver maximum availability and performance to their Mission Critical Applications.
- Microsoft offers a broad ecosystem of partners with more than 640,000 partners, including best-of-breed applications from vendors such as SAP, Temenos, and Kronos® as well as partnerships with leading OEMs like Dell, HP, and EMC®.
- Microsoft delivers peace of mind with the licensing program, Enterprise Application Program, which offers unlimited support to customers with specific software assurance plans
- Unlike many software companies, Microsoft offers free access to software service packs.
- Quickly plan for an upgrade or migration with a wealth of no-fee tools developed by Microsoft engineers and available online.
- Simplify application testing and minimize errors with application changes, configuration changes, and upgrades using new Distributed Replay.

Organizational security and compliance

Help enable security and compliance with built-in security and IT controls

- Easily manage permissions around data access with User-Defined Server Roles to support separation of duties.

Peace of mind

Help ensure peace of mind with premier services and support, a trusted partner ecosystem, and a wealth of free tools

- Microsoft's Premier Mission Critical Support and the Microsoft Critical Advantage Program, provide the services and support needed for companies to establish the proactive IT environment and operations

Breakthrough Insight

Unlock new insights with pervasive data discovery across the organization

Rapid data discovery

Empower end users with new insights through rapid data exploration and visualization

- Discover new insights at the speed of thought with Power View, a highly interactive, familiar browser-based data exploration, visualization, and presentation experiences for users of all levels—backed by the power of xVelocity in-memory technologies.

- Empower users of all levels to access and mash-up data from virtually any source, create compelling reports and analytical applications, and easily collaborate and share insight using familiar tools with PowerPivot for Microsoft Excel 2010 and Microsoft SharePoint 2010.
- Inspire innovation across end users with data mash-up capabilities including connectivity to Big Data, cloud-based data in Azure DataMarket or via third-party providers with Odata.

Managed self-service BI

Enable users with self-service BI while gaining better monitoring and management capabilities for IT

- Offload IT tasks and reduce support requests with self-service analytics tools, like Power View and PowerPivot, that scale to thousands across the organization
- Balance the need to monitor, manage, and govern the data and analytics end users create with IT dashboards and controls that help IT monitor end user activity, data source usage, and gather performance metrics from servers.
- Transform end user created applications in PowerPivot into corporate grade solutions by importing them into SQL Server Analysis Services so that they can be professionally managed by IT.
- Enable end user alerting from reports published to SharePoint and benefit from the ease of consolidated management through the SharePoint 2010 Central Administration.
- Extend rich user insights to even more people with SQL Azure Reporting that removes the need for

deploying and maintaining a reporting infrastructure.

Credible, consistent data

Deliver credible, consistent data to the right users across the organization with a complete end-to-end solution

- Provide a consistent view across heterogeneous data sources with the BI Semantic Model, a single, scalable model for Business Intelligence applications, from reporting and analysis to dashboards and scorecards.
- Reduce time-to-solution for team-based data integration across data sources, including the cloud, by utilizing the industry-leading tools in Integration Services (SSIS) that help deliver credible, consistent data reliably and efficiently.
- Improve data quality by using organizational knowledge and 3rd party reference data providers, including Windows Azure Marketplace, to reliably profile, cleanse, and match data with the new SQL Server Data Quality Services —run as a standalone or leverage SSIS.
- Maintain master data across the organization structures used for object mapping, reference data, metadata management with Master Data Services (MDS) while a new MDS Add-in for Excel makes it easy for end users to manage and maintain central data.

Big data analytics and data warehousing

Achieve scale and flexibility with analytic and data warehouse solutions that offer massive scale at low cost

- Deploy more than just breathtaking end user analytics tools, SQL Server continues to deliver easy to stand up and manage traditional OLAP and reporting cubes that can scale to 10's of Terabytes.
- SQL Server 2012 supports structured data on scalable relational database and data warehouse offerings, and unstructured data on an Enterprise-ready Hadoop distribution.
- Gain near real-time insights with StreamInsight™, a dedicated engine for high velocity data such as web clickstreams and gain deep insights from all your data, through seamless integration between Hadoop and SQL Server 2012.
- Move data between Hadoop and SQL Server with Bidirectional Hadoop connectors for SQL Server 2012 and Parallel Data Warehouse.
- Connect Hive directly to familiar Microsoft BI tools such as PowerPivot and Power View with a new Hive ODBC Driver.
- Interact with Hadoop data in Microsoft Excel™ via a new Hive Add-in for Excel.
- Scale data warehouses with built-in database features like Remote Blob Storage and partitioned tables that scale to 15,000 partitions for large sliding window scenarios.
- Gain high scale with expanded support for up to 640 logical processors – enabling high-performance.
- Choose hardware and deployment options to suit unique organizational needs with Fast Track configurations from 11 hardware vendors or software only solutions, reference architectures and appliances.
- Scale to 600+ TB while maintaining high performance through massively parallel processing (MPP)

architecture with Parallel Data Warehouse.

Cloud on Your Terms

Create & scale business solutions fast, on your terms from server to private or public cloud

Scale on demand

Scale on demand with flexible and hybrid deployment options on your terms server to cloud

- Gain operational flexibility with proven Microsoft cloud offerings, private or public, that deliver interoperable deployment options with SQL Server 2012.
- Scale beyond the constraints of any one deployment environment by taking advantage Hybrid IT opportunities with a common architecture that spans traditional servers, appliances and the cloud.
- License Mobility supports Hybrid IT, a highly flexible deployment environment, through unique use rights that allow organizations to freely move applications across instances across server, private and public cloud with SQL Azure.
- Start small or leverage large scale with SQL Azure, a cloud database service, running in Microsoft's global datacenters, which offers a pay-as-you-grow business model and guaranteed SLA uptimes.

Fast time to solution

Reduce complexity and accelerate time to solution through appliance and private or public cloud offerings

- Speed time to solution with SQL Server appliances by eliminating the time to design, tune and test all the hardware and software components.

- Accelerate top organizational priorities with appliances for data warehousing of varying sizes, business intelligence, private cloud, consolidation, and transaction processing.
- Microsoft collaborates with partners to design, optimize and tune appliances and define reference architectures that help deliver an incredible price/ performance.
- Provision databases in minutes without any physical infrastructure investments with SQL Azure.

Optimized productivity

Optimize IT and developer productivity across server and cloud with common tools

- Take database development to the next level with SQL Server Data Tools, an integrated development experience for developers building next-generation web, enterprise, and data-aware mobile applications across on-premises and cloud.
- Build, deploy, and manage database or business intelligence solutions across on-premises and cloud environments using the same development tools, frameworks and T-SQL based model.
- Manage efficiently at scale with a single console, SQL Server Management Studio (SSMS), to deploy and manage database assets across servers, private cloud and public cloud. Additionally, use SSMS to manage high availability configurations, BI services, and resource utilization.
- Streamline virtualization management with Microsoft System Center Virtual Machine Manager.
- Support for Windows PowerShell 2.0 automates management tasks across the Microsoft platform while

- up-to-date management packs for System Center enable monitoring.
- Use Data-tier Application (DAC) support across SQL Server and Microsoft Visual Studio® to more easily contain the schemas and objects required to support an application, then deploy, import, and export DACs more easily across on-premises and public cloud.

Extend any data, virtually anywhere

Extend the reach of across server and/or cloud

- Enable new scenarios with SQL Azure Data Sync, a cloud service that provides bi-directional data synchronization between databases across datacenter and cloud.
- Provide a consistent and open data-feed to power multiple user experiences across the web, devices and desktop with OData, an open protocol built on web standards.
- Manage and extend relational and non-relational data including XML data, Windows files, and spatial.
- Monetize data through Windows Azure Marketplace by publishing data for purchase and consumption by other entities.
- Extend heterogeneous environments by connecting to SQL Server and SQL Azure applications using any industry standard APIs (ADO.NET, ODBC, JDBC, PDO, and ADO) across varied platforms including .NET, C/C++, Java, & PHP.

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