SQL Server 2008 R2 Editions Overview

What's New

SQL Server 2008 R2 introduces two new premium editions to continue to deliver on the growing demands of large scale datacenters and data warehouses and advanced BI customers.

- **SQL Server 2008 R2 Datacenter**

- **SQL Server 2008 R2 Parallel Data Warehouse**

Introducing SQL Server 2008 R2

SQL Server 2008 delivered a trusted, productive, and intelligent data platform with the fewest vulnerabilities*, innovative manageability, and built-in enterprise reporting and analytics.

Built on the strong foundation and proven capabilities of SQL Server 2008, SQL Server 2008 R2 delivers higher mission-critical scale, more efficient IT, and self-service business intelligence.

With SQL Server 2008 R2, Microsoft continues to be the value leader, offering rich functionality to support OLTP and BI workloads out of the box at a low cost of ownership relative to competitors. With increasing hardware innovations, Microsoft continues to be the only major database vendor who does not price per core for multi-core processors.

New Premium Editions

To meet the needs of large scale datacenters and data warehouses, SQL Server 2008 R2 introduces two new premium editions.

Datacenter

Built on SQL Server 2008 R2 Enterprise, SQL Server 2008 R2 Datacenter is designed to deliver a high-performing data platform that

provides the highest levels of scalability for large application workloads, virtualization and consolidation, and management for an organization's database infrastructure. Datacenter helps enable organizations to cost effectively scale their mission-critical environment.

Key features new to Datacenter:

- Application and Multi-Server Management enrolling, gaining insights and managing over 25 instances

- Highest virtualization support for maximum ROI on consolidation and virtualization

- High-scale complex event processing with StreamInsight

- Supports more than 8 physical processors for highest levels of scale

- Supports memory limits up to OS maximum

Parallel Data Warehouse

SQL Server 2008 R2 Parallel Data Warehouse is a highly scalable data warehouse appliance-based solution. Parallel Data Warehouse delivers performance at low cost through a massively parallel processing (MPP) architecture and compatibility with hardware partners – scale your data warehouse from tens and hundreds of terabytes to the petabyte range.

- 10s to100s TBs to 1+ PB enabled by MPP architecture

- Advanced data warehousing capabilities like Star Join Queries and Change Data Capture

- Integration with SSIS, SSRS, and SSAS

- Supports an industry standard data warehousing hub and spoke architecture

Parallel Data Warehousing offers hardware choices with industry standard hardware from HP, Dell, Bull, IBM and EMC.

SQL Server 2008 R2 Core Editions

The R2 release offers expanded functionality across the most popular editions, Enterprise and Standard.

Enterprise

SQL Server 2008 R2 Enterprise delivers a comprehensive data platform that provides built-in security, availability, and scale coupled with robust business intelligence offerings—helping enable the highest service levels for mission-critical workloads.

The following capabilities are new to Enterprise:

- Application and Multi-Server Management for enrolling, gaining insights and managing up to 25 instances

- Complex event processing with basic StreamInsight support

- Master Data Services for data consistency across heterogeneous systems

- PowerPivot for SharePoint collaboration

- Data Compression now enabled with UCS-2 Unicode support

Standard

SQL Server 2008 R2 Standard delivers a complete data management and business intelligence platform for departments and small organizations to run their applications—helping enable effective database management with minimal IT resources.

The following capabilities are new to Standard:

*Source: nist.gov

- Complex event processing with basic StreamInsight support
- Backup Compression to reduce data backups by up to 60% and help reduce time spent on backups*
- Can be managed instance for Application and Multi-Server Management capabilities

SQL Server 2008 R2 Specialized and Breadth Editions

SQL Server 2008 R2 continues to deliver both specialized and broad-reaching editions to meet customers' unique needs.

SQL Azure

A cloud-based relational database service built on SQL Server technologies, SQL Azure provides a Microsoft hosted highly available, scalable, multi-tenant database service. Integration points with SQL Server 2008 R2 and Visual Studio 2010 offer the ultimate in deployment flexibility.

Web

Designed specifically for service providers and organizations that host Web sites and Web applications, Web edition offers an optimal balance of scalability and manageability at an affordable price. With no restrictions on database size, premium features, and a low monthly price**, Web edition is the ideal platform for those developing and deploying public-facing internet applications.

Workgroup

SQL Server 2008 R2 Workgroup is a reliable data management and reporting platform that helps deliver highly secure, remote synchronization and management capabilities for running branch applications.

Developer

SQL Server 2008 R2 Developer enables developers to build and test applications that run on SQL Server on 32-bit, ia64, and x64 platforms.

Developer includes all of the functionality of Datacenter but is licensed only for development, test, and demo use.

Express - FREE

Microsoft SQL Server 2008 R2 Express is a free edition of SQL Server that is ideal for learning, for developing and powering desktop, web and small server applications, and for redistribution by ISVs. Express is interoperable with Microsoft developer tools such as Microsoft Visual Studio® and Visual Web Developer Express, making it easy to work with data at every stage of the development process.

Compact - FREE

Microsoft SQL Server 2008 R2 Compact is a free SQL Server embedded database ideal for building standalone and occasionally connected applications for mobile devices, desktops, and Web clients.

SQL Server 2008 R2 Core Editions by Scenario

Scenario	Standard	Enterprise	Datacenter	Parallel Data Warehouse
Custom/ Packaged OLTP Apps	4 procs, 64GB RAM, Backup Compression	8 procs, 2TB RAM, Adv. Security, Backup Compression	>8 procs, OS Maximum, Adv. Security, Backup Compression	N/A
Server Consolidation	1 VM	4 VMs, Resource Governor App & Multi-Server Mgmt (up to 25 instances)	Maximum Virtualization, Resource Governor, App & Multi-Server Management (>25 instances)	N/A
Data Warehousing	N/A	Scale-up DW, Data Compression 10s of TBs, Up to 30TB w/ Fast Track	Scale-up DW, Data Compression 10s of TBs	Scale-out DW 10s to 100sTBs to 1+ PB
Business Intelligence	Dept/Team BI	Enterprise-scale BI, Master Data Services, PowerPivot for SharePoint	Very Large-Scale BI, Master Data Services, PowerPivot for SharePoint	Integrated w/ SSIS, SSRS, SSAS

Microsoft