Microsoft® SQL Server™ 2008

Mission-critical platform for OLTP data solutions

Microsoft® SQL Server™ 2008 is a comprehensive data platform that provides the scalability, availability, security, and manageability that you need for mission-critical OLTP applications.

TOP NEW FEATURES

- Take control of workload resource utilization with Resource Governor
- Store all kinds of business data with native support for relational data, XML, filestreams, and spatial data
- Reduce storage requirements and improve performance with data compression and sparse columns
- Optimize database mirroring performance and eliminate downtime with automatic recovery of suspect pages
- Implement peer-to-peer replication quickly with the new visual designer, and add nodes to a peer-to-peer replication configuration without stopping system activity
- Audit all actions across the enterprise and consolidate audit reporting
- Help protect sensitive data with automatic, transparent data encryption
- Use Performance Data Collection to troubleshoot, tune, and monitor SQL Server 2008 instances across the enterprise

Scale and Performance

Build a database solution with the performance and scalability capabilities required by today's applications.

Get real-world performance and scalability

Use the SQL Server 2008 high performance query processing engine for industry leading performance and scalability. Use Resource Governor to define resource limits and priorities for different workloads, and take control of database server performance. Use the extensive query analysis and optimization tools to design optimal database structures and indexes. Lock down query plans for consistent performance. Improve concurrency by using the Lock Escalation setting on a table, and achieve better concurrency when querying partitioned tables.

Store and manage all of your data

Use partitioned tables to manage large sets of data efficiently. Use the native support for XML and FILESTREAM data types to store non-relational data. Optimize the storage of numerical data by using the VARDECIMAL storage format.

Store your data more effectively and improve performance by using data compression. Reduce the storage space that is set aside for nullable values by using sparse columns.

High Availability

Provide a database application with Always-On capabilities, while minimizing management and performance overhead.

Achieve always-on operations

Choose the high availability option that is right for your data; log shipping, database mirroring, or server clustering. Take advantage of enhancements to database mirroring to reduce latency across low bandwidth connections and recover suspect pages directly from a mirror server. Improve failover clustering by using SQL Server 2008 and Windows Server® 2008 to remove the "one drive letter per instance" requirement and support up to 16 cluster nodes. Perform indexing and backup and restore operations, and add memory and CPUs without needing to take the database offline.

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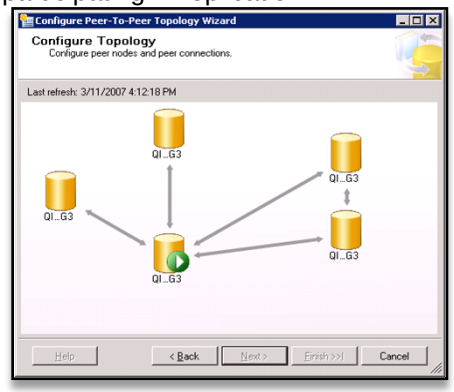
Distribute data throughout the enterprise by using replication

Use replication to provide local copies of data throughout the enterprise. Reduce the time taken to implement and manage a peer-to-peer replication solution by using the new visual designer to enable applications to read or modify data in any of the databases that are participating in replication.



Peer-to-Peer Replication Topology Wizard

Security

Provide a security-enhanced data platform for your mission-critical data.

Secure business data

Authenticate database users and enforce password policies. Use SQL Server's comprehensive permissions model to help secure data and resources. Centrally manage all services and features, and minimize the attack surface area of your data solution by enabling only the services and features you require. Encrypt data in an entire database without the need for application code changes. Use third party cryptographic providers and Hardware Security Modules to simplify and consolidate encryption and key management across applications.

Audit all actions

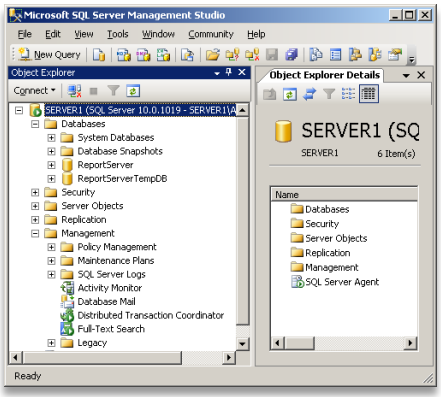
Take advantage of comprehensive data auditing to monitor all events at the server and database levels, and scale-out auditing across the enterprise. Consolidate enterprise-wide auditing records from multiple sources.

Manageability

Help reduce the time and cost of managing infrastructure with innovative and automated policy-based administration and improved tools for monitoring, troubleshooting, and tuning.

Reduce management overhead

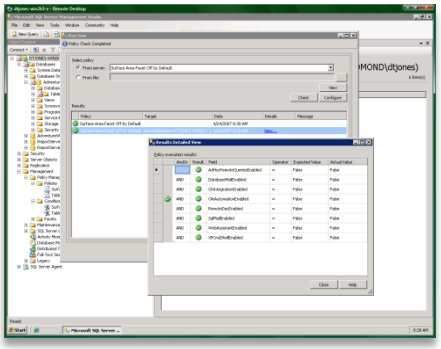
Use the consistent management interface provided in SQL Server Management Studio to manage all SQL Server instances and services. Schedule automated administrative tasks and respond proactively to events to reduce the burden on database administrators.



SQL Server Management Studio

Enforce configuration policy compliance

Use the Policy-Based Management to define configuration policies and apply them across the enterprise. Enforce policies proactively, after changes are made, on a schedule, or explicitly by performing ad hoc checks in real time.



Policy-Based Management

Centralize and consolidate monitoring

Use Performance Data Collection to troubleshoot, tune, and monitor the state of one or more instances of SQL Server 2008. Collect information from multiple sources. Store performance data in a centralized management data warehouse or provide the data to System Center Operations Manager for centralized storage and analysis. Display all of the relevant troubleshooting information in one place by using Reporting Services.

Additional Information

For more information about Microsoft SQL Server 2008, visit http://www.microsoft.com/sql.

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