



Microsoft® SQL Server® 2012



Blazing-Fast Performance

SQL Server 2012 helps customers gain more predictable and next-generation performance backed by industry-leading benchmarks and real-world applications.

Highlights

- Next-generation performance with xVelocity in-memory technologies
- Speed built into the engine
- Proactive management tools
- Verified by industry and real-world application benchmarks

Next-Generation Performance

Experience a generational leap in performance across SQL Server with xVelocity in-memory technologies for data warehousing and business intelligence

Blazing-Fast Query Performance

Reach a new level of performance with data warehouse queries

- Boost query performance by 10-100x¹ for star join and similar queries with xVelocity in-memory column store index for data warehousing.
- Dramatically improve query processing speed with the new vector-based query execution that addresses modern day performance realities by reducing overhead, taking advantage of larger cache sizes, and limiting the number of CPU instructions.

Business Insight at the Speed of Thought

Help accelerate new insights with rapid data exploration within massive data volumes

- Interactively explore 10s of billions of rows of data using xVelocity in-memory analytics engine for business intelligence.

- Dramatically compress data up to 300x² with xVelocity in-memory analytics engine, which uses aggressive compression and column-oriented storage.



Global antivirus company, Trend Micro, needed to accelerate searches for its massive malware database, which had grown past 50 terabytes. With SQL Server 2012 and xVelocity in-memory column store index functionality, Trend Micro was able to:

- **Cut query wait time by 1/3**
- **Respond faster to virus threats**
- **Stay ahead of the competition**

Predictable Performance
Benefit from a higher level of predictability, and perform more proactive troubleshooting and diagnostics

Consistent Performance

Get improved consistency of performance, even for multi-tenancy environments, such as a private cloud

- Achieve more consistent performance for concurrent and mixed workloads by defining resource usage across different applications with Resource Governor.
- Affinitize your resource pools to schedulers, groups of schedulers, and NUMA nodes.

Proactive Management Tools

Manage more efficiently and proactively using familiar tools within a single console

- Use SQL Server Management Studio as your single environment for accessing, configuring, managing, administering, and developing all components of SQL Server.
- Collect data from T-SQL queries, such as DMVs, Windows Performance Counters, and the SQL Trace, and bundle it into a collection set using the Performance Data Collector.
- Use Policy-Based Management to create policies for managing entities on the server, such as a SQL Server instance, databases, or other SQL Server objects.
- Monitor only the events you are interested in and capture server events for near real-time diagnosis using SQL Server Profiler.
- Gain better insight into resource utilization with multi-server management to proactively make changes before trouble arises.

- Improve query processing by selecting and creating an optimal set of indexes with the Database Engine Tuning Advisor (DTA).

Speed, Built-in

Take advantage of significant new capabilities in SQL Server 2012 for enhanced scalability and performance

- More easily manage large data volumes for applications like SAP, with support for up to 15k partitions for large sliding windows scenarios.
- Support blazing-fast queries with dramatic improvements to Full-Text Search that offer serious performance and scale advances.
- Improve the relevance of your search results with statistical semantic search, which uses algorithms in SQL Server to quickly deliver statistically relevant results based on search inquiries.
- Accelerate the performance of I/O intensive workloads by cutting growing volumes of data ~50-60%³ with enterprise-grade compression capabilities.
- Get the scalability and high-performance you need for very large workloads or consolidation scenarios with support for up to 640 cores and 4TB of memory.

Industry-Verified

Rely on a trusted, leading platform backed by major industry benchmarks and proven in real-world applications

Leading TPC Benchmarks

Make a bet on a leading performer in industry-relevant TPC benchmarks¹.

- SQL Server is the uncontested leader in TPC-E performance, with 7 results published in 2011, and 49 results since the benchmark was ratified in 2007 and record-breaking results for SQL Server 2012¹.
- SQL Server also receives high ratings in many of the TPC-H categories, focused on measuring Decision Support¹.

Proven Real-World Performance

Count on performance that is proven in industry-tested applications

- SQL Server 2012 is delivering truly astonishing performance in real-world scenarios, with benchmarks that prove scalability to 250 million subscribers, 25 million capitalizations and account accruals processed in <42 minutes, and 10-100x gains for common data warehouse queries¹.
- Release over release, SQL Server is SAP-certified to run some of the industry's most demanding workloads.

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