

# SQL Server 2012 Performance Benchmarks

SQL Server 2012 helps deliver predictable and next-generation performance backed by customer, partner, and industry-leading benchmarks.

New benchmarks published by hardware and software partners on the SQL Server 2012 release further help validate SQL Server as the data platform on which you can bet your business.

# Highlights

- Impressive benchmarks from real-world applications
- xVelocity benchmarked by Microsoft for astonishing data warehousing gains
- New TPC-E record

# Real-World Applications

Microsoft partners have built critical applications on SQL Server because of its continued and proven superior performance.

#### **Temenos**

### **Linear scalability of 95%**

Temenos is the leading provider of banking software to retail, corporate, universal, private, Islamic, microfinance and community banks. Microsoft SQL Server 2012 along with HP and XIO broke the TEMENOS T24 R12 performance record. At peak performance, the system processed 11,500 transactions per second in online business testing and averaged more than 10,000 interest accrual and capitalizations per second during close-ofbusiness testing, processing 25 million capitalizations and account accruals in less than 42 minutes. The testing showed a near linear scalability of 95% as the number of agents was increased.

"Banks today face significant challenges which are squeezing margins tighter than ever before and driving a rapid need for higher cost efficiency. With these benchmark results we demonstrate a powerful software combination which addresses these requirements by delivering high end scalability with a lower total cost of ownership and increased flexibility and agility to a market that has traditionally been hampered by legacy systems"

- Andre Loustau, CTO, Temenos

### **Siemens PLM**

# Doubled concurrent users to 10,000 with great performance

Teamcenter from Siemens PLM
Software is the world's most widely
used PLM system in the world, with
more licenses deployed at more
companies in more industries than
any other PLM vendor.
Performance benchmarks
conducted by Siemens PLM
validate the performance and





scalability of Microsoft SQL Server 2012 as an enterprise-class database management system for Teamcenter. The tests confirm that when running on SQL Server 2012, Teamcenter can easily scale to 10,000 concurrent users while maintaining excellent performance

### **Redknee**

### Scale to 250 million subscribers

Redknee is a leading global provider of real-time converged billing and customer care software for service providers around the globe. TCB (Turnkey Converged Billing) built on SQL Server 2012 has been benchmarked to support 250 million subscribers. The 250 million-subscriber test exceeded the performance objectives for both invoicing and mediation, generating 26 million invoices within a six hour billing cycle, and mediating 4.9 billion Call Detail Records (CDRs) within 12 hours, showing a near-linear scalability as the number of subscribers increased.

# Microsoft-Tested

# **xVelocity**

# Gain 10-100x performance in DW

The new xVelocity memory optimized column store index feature in SQL Server 2012 delivers breakthrough performance gains for data warehouse queries. SQL

Server 2012 is the first mainstream RDBMS to integrate a memory optimized columnar data storage capability into the relational database engine. Using a combination of compression, algorithms enhanced for modern CPU/memory hardware realities, and highly parallel query execution, xVelocity can offer significant speedups to query execution times.

Measurements by Microsoft of a collection of complex DW queries running with and without column store indexes on a 1TB database showed elapsed time speedups of 8-20x for many queries with some improving by as much as 100-500x.

# Industry Leading Benchmarks

Make a bet on a trusted platform with industry-leading TPC-E benchmark results. TPC Benchmark™ E (TPC-E) measures an On-Line Transaction Processing (OLTP) workload representative of modern customer environments.

#### TPC-E

# SQL Server is the uncontested leader in TPC-E

With 52 results published on SQL Server from seven server manufacturers, SQL Server is the uncontested leader on TPC-E.

SQL Server 2012 continues this tradition with a new record result, shown below.

#### **IBM**

### **Sets 2P Performance Record**

IBM set a new two processor performance record on SQL Server 2012, delivering 1863 tpsE on the System x3650 M4<sup>i</sup>.

#### **Additional Resources**

Find out more details and documentation on the listed benchmarks:

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

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i As of 3/6/12. IBM System x3650 M4, 1863 tpsE, 208 \$/tpsE, available 5/31/12. See www.tpc.org for full details.