SAP on SQL Server 2012

Microsoft® SQL Server® 2012 is an optimal database for enabling mission-critical environments, offering availability and performance at low total cost of ownership (TCO) for SAP® installations of all sizes. SQL Server 2012 can run the most demanding and critical SAP applications. Lower TCO is achieved through increased flexibility with configuration and architecture; higher database administrator productivity; increased hardware utilization; minimized surface area attacks for improved security; and key feature enhancements, such as higher compression and faster failover time.

Highlights

- **Achieve maximum application availability and disaster recovery** using SQL Server AlwaysOn high availability features.
- **Help to minimize planned downtime, patch management, and security risks** by running SQL Server on Windows Server Core installations.

- **Improve IT efficiency and performance** using the Active Secondary capability to meet mission-critical SLAs.
- **Simplify deployment and management** of high availability and disaster recovery using interoperable tools.
- **Make astounding data warehouse gains** with xVelocity benchmarked by Microsoft.

Microsoft and SAP: The Right Partners

Microsoft and SAP have been working together for more than 15 years to ensure that the Microsoft platform and SAP solutions are fully interoperable. Because of this partnership, the Microsoft platform is routinely selected for SAP solutions and application deployments.

Increasingly, enterprises are moving away from proprietary hardware to commodity hardware. Microsoft, in collaboration with SAP, has made significant performance enhancements

and has achieved major milestones on commodity hardware.

World-Class Performance

Release over release, SQL Server is SAP-certified to run some of the industry's most demanding workloads.

Trusted Data Platform for All SAP Deployments

Because SQL Server 2012 was built using the proven experience of thousands of SAP customers worldwide, it is a trusted, productive, and intelligent data platform that can deliver unprecedented value for SAP installations of all sizes.

Compelling TCO

SQL Server 2012 offers compelling TCO for SAP implementations. SAP customers can take advantage of comprehensive data management capabilities in SQL Server 2012 as standard features at no additional cost. These features include high availability, manageability, storage and backup compression, table partitioning, auditing and security capabilities.

Mission Critical

Enterprises that run SAP applications need around-the-clock availability. SAP supports SQL Server 2012 capabilities that enable highly available environments at low TCO.

- **AlwaysOn**. This technology combines the high availability and disaster recovery functionalities of SQL Server, which provides greater flexibility when managing SAP configuration and architecture. AlwaysOn provides one primary and four secondaries, with up to two of the secondaries synchronously. This approach can dramatically improve high availability because there is no single point of failure and maintenance can be performed offline during normal work hours.
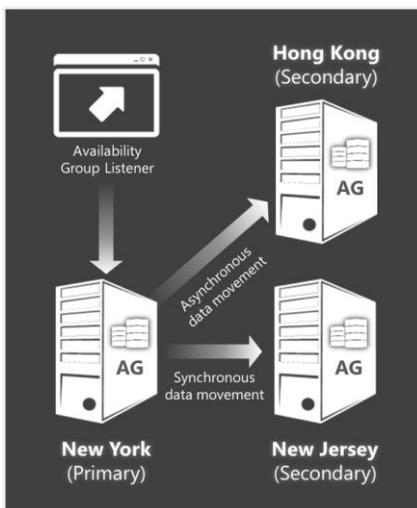
- **Auditing**. SQL Server 2012 provides enhanced flexibility and usability for auditing SAP applications across the SQL Server environment. Key capabilities include audit resilience, filtering, and user-defined audits to support regulation compliance. SQL Server 2012 also helps to ensure security-enhanced deployments and minimize surface area attacks by

enabling only required services through Configuration Manager.

- **xVelocity memory-optimized Columnstore Index**. The xVelocity Columnstore Index feature enables the caching of query-critical SAP application data from the data warehouse in a memory-based columnar format. For customers who generate reports in SAP NetWeaver® Business Warehouse (BW), using columnstore indexes means that runtimes can be decreased dramatically.

- **Support for Windows Server Core deployments**. Organizations can reduce management and maintenance efforts, minimize disk space requirements, and decrease operating system patching by as much as 50 to 60 percent. These improvements mean that SAP applications can run more quickly and efficiently on SQL Server 2012.

- **Online indexing**. All index maintenance operations can be performed online. Incremental re-indexing with read-consistent scans and lock handling help to enhance SAP performance.

- **Database compression for all SAP products**. Data in tables and indexes can be compressed, in addition to data at the row and page levels. Row-level compression reduces database size without additional resource consumption. Page-level compression, now a default compression type in SAP, reduces the size of a typical SAP ERP database by half or more, helping to improve overall response time.

- **Automatic memory tuning**. Highly sophisticated algorithms adapt memory and cache sizes to

changing workload conditions to deliver optimal performance to SAP applications. SQL Server 2012 introduces dynamic threshold percentage rates for updating statistics. The higher the number of rows in a table, the lower the threshold becomes to trigger a statistics update.

- **Transparent data encryption (TDE)**. With TDE, organizations can encrypt an entire database, data files, and log files without the need for application changes. TDE includes encryption of application databases and backup of encrypted SAP databases.

- **15,000 partitions**. SAP NetWeaver® BW customers who perform daily loads can benefit from the increase in table partitions from 1,000 to 15,000.

- **One configuration fits all**. Automatic configuration and tuning algorithms configure SQL Server instances independently of SAP. There is no special configuration for SAP business intelligence.

- **Dynamic Management View (DMV)**. Added DMVs offer greater transparency and visibility into the SQL Server database engine, as well as better processing for SAP DBA Cockpit.

Virtualization

Microsoft and SAP are aligned to support new industry developments, including virtualization. Different vendors have environments that support virtualization for SQL Server 2012, 2008 R2, and 2008.

Additional Information

- http://www.microsoft.com/sap/sql
- http://www.microsoft.com/sqlserver