

Microsoft®
SQL Server 2005

Business Value of SQL Server 2005 Business Intelligence for SQL Server 2000 Users

SQL Server Technical Article

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Summary: SQL Server 2005 offers compelling reasons to embrace the Microsoft Business Intelligence platform for information needs across your enterprise. This paper explains the extensive feature set from the perspective of business value. It will help you make informed decisions about upgrading or migrating your business intelligence platform to SQL Server 2005.

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Contents

Next-Generation Business Intelligence	1
Complete, Integrated Enterprise BI platform	1
Building on the Foundation of SQL Server 2000	1
Extending SQL Server 2005.....	1
Rapid Upgrade with Immediate ROI.....	2
Faster, Better Business Results.....	2
Enterprise-Class Data Integration.....	2
Advanced Analytics	3
Enterprise Reporting.....	3
Controlling the Costs of Business Intelligence	4
Increased Productivity	4
Developer Productivity	4
Administrator Productivity	4
Integrated End-to-End Feature Set.....	5
Delivering BI with Fewer Resources	5
Reliable and Available Environment for Critical BI.....	5
Study the Proven Results, and Make the Move, Now	6
Barnes & Noble: SQL Server Integration Services Handles Load	6
Sandvik Tooling: SQL Server 2005 Helps Swedish Tool Maker Gain Faster Reporting.....	7
Additional Resources	7
About the Author.....	8
For More Information	8

Next-Generation Business Intelligence

Complete, Integrated Enterprise BI platform

The Microsoft® SQL Server™ 2005 Business Intelligence (BI) platform will transform the way the industry thinks about integration, analysis and reporting. Delivering a complete, integrated and extensible platform that drives consolidation and standardization, SQL Server 2005 offers an alternative to existing business intelligence solutions with rising costs and long development cycles that consistently under-deliver. Instead, one platform provides robust real-time data movement and cleansing, rich analytics and flexible reporting, all supported by a mature, professional-grade integrated development environment.

Building on the Foundation of SQL Server 2000

SQL Server 2000 has attained market leadership in the business intelligence arena through the provision of an enterprise feature-set at a compelling price. SQL Server 2005 is firmly based on the winning architecture of SQL Server 2000, which assures a natural upgrade path that protects all current investments—application architecture, server infrastructure and training. SQL Server 2005 delivers dramatic new capabilities with minimal incremental investment. These new capabilities strategically applied can help organizations run core business systems more efficiently with higher performance on fewer servers requiring smaller development and operational teams.

Extending SQL Server 2005

Business intelligence must meet current requirements and provide for growth and future needs. SQL Server 2005 delivers robust application programming interfaces (APIs) to extend product components on each tier. Standardized APIs enable the extensibility of functionality surrounding enterprise data transformation, unified analysis, scalable reporting and notifications. Close alignment with Microsoft Visual Studio® 2005 provides standardized programming language support and a mature consolidated development experience to add manageability and efficiency to ongoing development tasks following increasing business and technology requirements.

Rapid Upgrade with Immediate ROI

Upgrading to the SQL Server 2005 Business Intelligence platform is a smooth transition that assures immediate results at low cost. A comprehensive upgrade toolset makes both complex and simple solution upgrades and migrations a straightforward process. The Upgrade Advisor tool thoroughly inspects existing SQL Server solutions and prepares detailed reports concerning upgrade readiness and procedures with complete documentation. The Upgrade Advisor is accompanied by tools for an upgrade-in-place or a side-by-side solution migration using numerous migration wizards that streamline the thoroughly tested and cost-effective process.

Stepping up to SQL Server 2005 yields immediate gains in performance, management and availability. Without design renovations, each upgraded component—integration, analysis, and reporting—immediately provides better memory and processor utilization and increased application resiliency for more uptime, all manageable from a new common console.

Faster, Better Business Results

The relational, reporting, analysis, and data integration features that drive the SQL Server 2005 Business Intelligence platform are more efficient in handling enterprise volumes and business complexity while preserving current investments.

Enterprise-Class Data Integration

Enterprise-Class Data Integration. With a new architecture for a new data centric era, SQL Server 2005 boasts compelling new features for enterprise data integration—allowing extensive connectivity, complex workflows, rich data transformation, and highly scalable data processing.

Data Warehousing Smarts. Graduating to SQL Server 2005 brings enterprise-class extraction, transformation, and loading (ETL) tools that provide the breadth of features and very high performance necessary to build and support enterprise-class data warehouse solutions.

Developer Productivity. Data integration components are fully programmable, embeddable, and extensible—characteristics that make SQL Server 2005 an ideal data integration platform.

Advanced Analytics

Single Version of the Truth. SQL Server 2005 meets enterprise information requirements of different users at all levels of the enterprise by capturing and consolidating business logic, analytics, and performance metrics in a single unified dimensional model accessed through scalable Web services interfaces.

Business Performance Management. Insight into business performance is amplified by using Key Performance Indicators (KPIs) where rich supporting information is used to compare metrics to dynamic goals and provide visualization for status and trend values.

Globalization. Requirements for today's global business are handled by providing multilingual solution and currency support out of the box.

Beyond OLAP. With SQL Server 2005, multidimensional analysis extends beyond the traditional scope of OLAP databases, driving widespread adoption because of new capabilities historically tied to relational reporting.

Real-time Business Intelligence. SQL Server 2005 Analysis Services, in concert with other SQL Server 2005 features provides a number of features applicable to making real-time business intelligence (BI) data available to the end user.

Data Mining. Paired with OLAP analysis, SQL Server 2005 further reinforces the platform with an inclusive server-based Data Mining feature set that permits information discovery to support proactive business decision making.

Enterprise Reporting

Increased Business Performance. The reporting and notification capabilities of SQL Server 2005 allow faster development, more flexible user interaction, and timely information availability and alerting. Decision makers get access to information in the format they need when they need it. Ultimately, informed decision makers make decisions that drive greater business performance. Access to information is critical to an organization's success.

Managed Reporting. SQL Server Reporting Services delivers flexible, formatted reports instantly through a scalable platform that easily handles high concurrency and departmental workloads alike. Rich, interactive reports that are always available No matter where the data resides, thereby meeting the information needs of an entire organization.

On-Demand Reporting. Enterprise reporting consistently provides answers for information seekers through automated custom e-mail, file share, and printer delivery. Getting information to users in the right time frame is crucial to their success.

Self-Service Reporting. Beyond standard enterprise reporting, at no additional cost, SQL Server 2005 extends ad-hoc reporting to business users through a new interface *Report Builder*, which uses an intuitive business model promoting end-user independence and eliminating dependencies on database familiarity.

Controlling the Costs of Business Intelligence

Increased Productivity

Business intelligence components in SQL Server 2005 were designed to enhance the productivity of developers and administrators which helps management balance human resource requirements and control training costs.

Developer Productivity

A new development environment promotes software development best practices in all business intelligence development tasks.

Development Decoupled from Deployment. The tasks are now decoupled from server deployment and paired with comprehensive debugging interfaces for rapid troubleshooting. Solution components can often be developed and tested before any server interaction, which enables more stability in application testing and accelerates the development cycle.

Standardized, Collaborative Development Experience. A consistent toolset and experience for developers takes advantage of skills across business intelligence and other software development tasks, endorsing consistent policies surrounding source control, versioning, change management, and deployment.

Empowering New Developers. Developers new to business intelligence are empowered by the numerous design wizards and business templates that provide productivity with limited prior experience or training. Cross-training of developers is very successful. Non-BI Microsoft .NET platform programmers or experienced developers of competing BI platforms are instantly effective on the SQL Server 2005 Business Intelligence platform.

Remove Risk. The rich, comprehensive development environment lets you use SQL Server 2005 to remove risk from business intelligence projects. Using the robust productivity-enhancing feature set controls project scope surrounding tasks such as advanced data movement and cleansing (“ETL”) and complex dimensional schema modeling; these are tasks that have historically added the most risk to business intelligence projects. Because it contains project scope through risk reduction, SQL Server 2005 considerably reduces the cost of business intelligence.

Administrator Productivity

Not unlike the developer paradigm in SQL Server 2005, business intelligence administrators are equally empowered. The central administration of all components is possible with a new unified management console that permits far-reaching control of enterprise solutions and small applications alike. A rich set of capabilities have been added for all parts of business intelligence to assure performance monitoring, high availability, and disaster recovery of critical solutions. As the responsibilities of the business intelligence administrator expand, automated administration tools provide consistency and productivity for frequent tasks.

Integrated End-to-End Feature Set

Interoperability of the layered SQL Server 2005 Business Intelligence components or “stack” truly bridges application tiers and network infrastructure together across security, development, management, and data levels. When the multiple pieces of the stack are implemented together, total cost of ownership for business intelligence can be greatly reduced in design efficiencies like shared security authentication and the convergence of heterogeneous data using integration and transformation presented in a unified data model to support relational and analytical reporting. This produces a single point of contact, one development tool and one management tool.

Delivering BI with Fewer Resources

Whether a company adopts the entire integrated BI feature set of SQL Server 2005 or chooses to upgrade its current SQL Server business intelligence platform, technology and human resources will be freed to invest in new priorities. Vast documentation, a strong user community, excellent developer and administrator tools, and the ability to take advantage of existing skills create fertile growth of common expertise in the marketplace. SQL Server 2005 BI brings the best-of-breed to a single platform: ***Relying on the SQL Server 2005 Business Intelligence stack allows organizations to consolidate servers, products, software licensing, and development and operational teams—all to deliver a consolidated single source of truth for the enterprise.***

Reliable and Available Environment for Critical BI

High-availability features historically available only in the relational engine now are extended to business intelligence. Downtime can now be minimized across the platform, enabling 24-hour-a-day, 7-day-a-week solutions. Business intelligence architectures can be scaled up and scaled out to handle diverse application scenarios and processes such as data processing that are often dependent on multiple decoupled systems often highly configurable and offer restart-ability.

Study the Proven Results, and Make the Move, Now

Understand the value of the SQL Server 2005 Business Intelligence platform today. Use the upgrade toolset, including the Upgrade Advisor tool, to perform a straightforward upgrade process with minimal risk and immediately step up to new functionality and dramatic performance, development and management improvements. The benefits of the SQL Server 2005 Business Intelligence platform clearly outweigh the costs and you can get there, now.

Evaluate the proven results outlined in the following case study references.

Barnes & Noble: SQL Server Integration Services Handles Load

"Moving to SQL Server 2005 Integration Services for our enterprise ETL needs was the right decision," says Lou Ann Leary, vice president of applications for Barnes & Noble. Barnes & Noble's multiterabyte data warehouse tracks detailed product sales and inventory across its stores and online commerce. SQL Server powers the solution on every tier: SQL Server 2005 Integration Services, the release's new extraction, transformation, and loading (ETL) tool, processes and loads the data, processing 15 million to 20 million records daily and 200 million records each week.

Leary adds that Barnes & Noble also increased developer productivity and performance with SQL Server 2005. "We were able to immediately capitalize on the team development features and rapid learning curve," she notes. "But more impressive were the performance benefits as we went to production. The process handles millions of transactions each day in short order, keeping our analysts up-to-date with information on the status and trends of our business."

Another high-value target area for Barnes & Noble is data mining. "We are working to implement the data mining features of SQL Server 2005 in order to predict and therefore reduce out-of-stock scenarios at our stores," Leary adds.

Sandvik Tooling: SQL Server 2005 Helps Swedish Tool Maker Gain Faster Reporting

“Using SQL Server 2005 Integration Services to bring data into our data warehouse, and using SQL Server 2005 Reporting Services, we are able to provide our managers with daily reports that used to take three weeks or more to create,” says Patrik Sköld, an Enterprise Architect at Sandvik Tooling. The Swedish tool maker, which has more than 15,000 employees in nearly 70 countries, needed a centralized reporting solution to help its managers monitor the heartbeat of the enterprise. The company created a data warehouse for reporting and analytics using the beta version of Microsoft SQL Server 2005. Microsoft SQL Server 2005 Analysis Services is used to create multidimensional data cubes for analytics, and Microsoft SQL Server 2005 Reporting Services Report Builder has made it easier for managers to create and manage their own reports. Reports that used to take three weeks to generate are now created daily. SQL Server 2005 Notification Services enables managers to set their own triggers for receiving information updates that can be sent automatically to a variety of devices, including personal digital assistants (PDAs) and mobile phones—a big help for those who travel.

Sköld has witnessed the benefits of upgrading: “SQL Server 2005 and Reporting Services help us create a very good balance that gives us the security benefits of a centrally managed data store, while also supporting a rules-based distribution model... Analysis Services provides a centralized source for performing analytics, and it helps ensure that everyone is working from the same core data.”

Additional Resources

Access these online resources to explore SQL Server 2005 Business Intelligence.

- Get the latest Community Technology Preview (CTP):
<http://www.microsoft.com/sql/2005/productinfo/ctp.mspix>
- Use the SQL Server 2005 Business Intelligence site:
<http://www.microsoft.com/sql/bi/>
- Project REAL—Business Intelligence in Practice:
<http://www.microsoft.com/sql/bi/ProjectREAL/default.mspix>
- Free E-Learning Courses for SQL Server 2005:
<http://www.microsoft.com/technet/prodtechnol/sql/2005/learning/default.mspix>
- SQL Server 2005 Business Intelligence Portal on the SQL Server TechCenter on TechNet:
<http://www.microsoft.com/technet/prodtechnol/sql/2005/BI/default.mspix>
- Business Intelligence and Analytics on the SQL Server Developer Center on MSDN:
<http://msdn.microsoft.com/SQL/2005/busint/default.aspx>

About the Author

Douglas McDowell is the Director of Operations for Business Intelligence at Solid Quality Learning and is an author and contributing editor for SQL Server Magazine. He has spent more than six years dedicated to the delivery of Business Intelligence solutions on the Microsoft SQL Server platform and is very active contributor to the SQL Server community. Douglas organizes *Atlanta.mdf*, a thriving, Atlanta-based Professional Association of SQL Server (PASS) chapter with a membership of more than 700 professionals. He speaks about Business Intelligence at numerous technical conferences, user groups, and professional groups each year and has been very involved in delivering SQL Server 2005 awareness events and trainings throughout the world and online. Douglas enjoys delivering client value using the SQL Server business intelligence and data warehousing platform as a mentor, solution architect and project manager.

For More Information

Please visit the SQL Server site at <http://www.microsoft.com/sql/>.

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