The Role of Data Quality in BI and Performance Management

HOW COGNOS AND INFORMATICA HELP BUSINESS MAXIMIZE DATA QUALITY TO DRIVE HIGHER PERFORMANCE

A COGNOS WHITE PAPER

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Why Data Quality Matters

Increasingly, organizations are turning to business intelligence (BI) and performance management to ensure their success. By applying technology and best practices, they are aligning operational and financial information, internal processes, and strategic goals to build competitive advantage, increase return on investment, and drive superior performance.

BI and performance management solutions are fast becoming recognized as the best vehicles for the strategic use of an organization's information. By combining data from a multitude of sources; transforming it into information that provides a single, consistent, accurate vision of corporate processes and performance; and ensuring that the information reaches the right people in the right way at the right time, BI and performance management empower business personnel throughout an enterprise to make consistently better decisions around three key performance-related questions:

- **How are we doing?**
  Addressed by measuring and monitoring performance with scorecards and dashboards that track key metrics.
- **Why?**
  Addressed with reporting and analysis that enable business users to explore data, gain context, understand trends, and spot anomalies.
- **What should we be doing?**
  Addressed with planning, budgets, and forecasts that let business people set and share a realistic and reliable view of the future.

With this trend toward BI and performance management, and with the demands of increasingly stringent compliance legislation, comes a growing recognition of the importance of data quality. If BI and performance management solutions are to be effective, then it is essential that they be built on a foundation of high quality data that delivers the single version of the truth on which BI and performance management depend.

With this in mind, and with the knowledge that BI and performance management that is based on quality data will result in greater commercial opportunities, forward-looking organizations are addressing the issue of data quality as part of their BI and performance management implementations. They are seeking to ensure that they have the best possible quality data on which to base critical business decisions.

Data Quality as a Business Issue

Those involved in implementing BI and performance management solutions are also realizing that the responsibility for data quality can no longer be left solely to the IT department.

Traditionally, businesses looking to gain a consistent, complete view of information focused only on the information management layer of the extract, transform, and load (ETL) processes involved in converting data to information. Many still do. But data quality as it relates to BI and performance management can not be achieved solely with technology. Data quality improvement is not just about fixing data; it involves process and cultural changes within an organization to ensure that high standards are maintained in an iterative process of continuous data quality improvement.

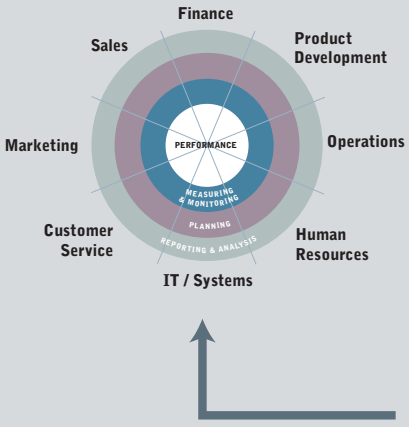
As the BI and performance management markets mature, as organizations' data increasingly comes not just from a single data warehouse but a wide range of disparate sources, and as more organizations use transactional, financial, and operational data to drive business decisions, the historical, IT-centric approach to data quality is no longer adequate.

To achieve the high levels of data quality needed to support BI and performance management, it is necessary to take an approach that combines business and IT. While IT focuses on the data infrastructure needed to support BI and performance management, business users must focus on the business rules that determine what information is provided, and that require a knowledge of business needs and an understanding of the language and nuances that must be brought to the table when collaborating with IT.

In short, data quality in support of BI and performance management demands an integrated effort by IT and business.

Interest in the discipline of data quality (and, therefore, data quality tools) is growing among enterprises worldwide. Organizations are discovering that data quality plays a significant role in addressing their strategic business initiatives, and that poor data quality can very often prevent them from achieving the growth, agility and competitiveness they demand.

Gartner, "Trust and Compliance Issues Spur Data Quality Investments", Ted Friedman, 7 Sept 2007



The Dimensions of Data Quality

Completeness	Is all the necessary data present?
Conformity	What data is stored in a nonstandard format?
Consistency	What data values give conflicting information?
Duplication	What data records are repeated?
Integrity	What data is missing important relationship linkages?
Timeliness	Does the age of the data meet user requirements?

The Cognos and Informatica Approach to Ensuring Data Quality

As the world leader in business intelligence and performance management, customers look to Cognos, an IBM company, to provide them with complete solutions to their BI and performance management needs. To address the critical aspect of customer data quality, Cognos has built on its longstanding relationship with Informatica, a leading provider of enterprise data integration and quality software and services, to offer an unrivaled approach to ensuring data quality.

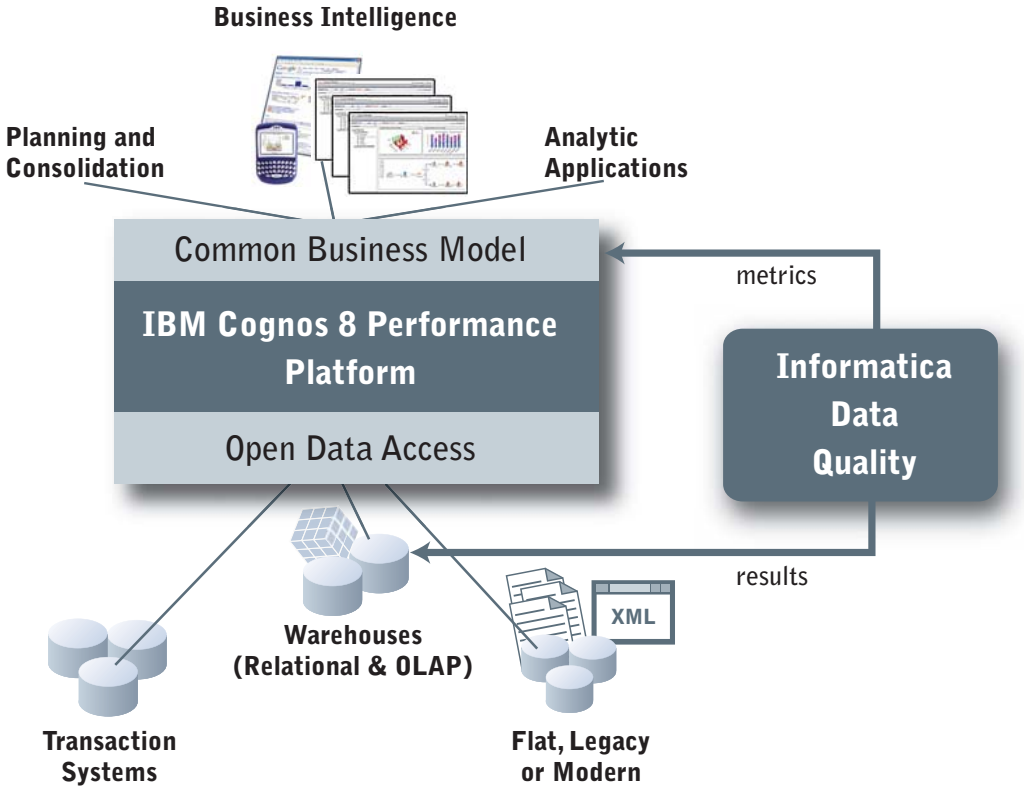
The Cognos and Informatica solutions are a natural fit. Both feature an open, platform-neutral architecture that addresses today's need for solution standardization. Both focus on the business user's role in ensuring data quality. And both encompass data across the full breadth of the enterprise.

As a co-seller of Informatica software and services, and with existing Cognos data quality and performance management professional services, Cognos provides everything businesses need to discover, measure, and continuously improve and monitor the quality of the data they depend on to manage and drive their performance.

By combining people, processes, and technology, the Cognos approach addresses all aspects of the data quality issue. It ensures that the appropriate members of the organization's business team take ownership of data quality and collaborate with IT to ensure effective business rules for transforming data into consistent, useful information across the organization to enable higher performance.

A business-focused approach

The Cognos approach to data quality goes beyond point solutions that call for an exclusively IT approach to addressing data quality and that result in an incomplete resolution of data quality issues. While IT is responsible for getting the raw data, they do not "own" the data contents or necessarily understand its context – that is the role of Business.



For Cognos, data quality processes are like other organizational processes – they require business engagement, and metrics tools are needed to measure, monitor, and constantly improve them to drive ever higher performance. Bringing the Cognos BI and performance management capabilities to the issue of data quality means that ongoing data quality can be managed using data quality dashboards, scorecards, alerts, and other components of the Cognos BI and performance management solution. This enables business users to monitor key data quality metrics, just as they do other performance-related metrics. This ensures that business users are engaged in the process of improving and owning the quality of their information, increasing business buy-in to ensuring data quality, and facilitating the adoption of data quality and performance management initiatives.

The Cognos approach does this by featuring:

- **An easy-to-use graphical workbench** that lets business users identify, categorize, quantify, prioritize, and resolve data quality issues
- **Extensive data profiling** for exploring and discovering undocumented data sources, so that anomalies critical to performance management are identified for resolution
- **Graphical, metrics-driven monitoring** that enables business users to understand and adopt the data quality dimensions that impact performance management
- **Configurable business rules** and reference dictionary management that enables business users to measure data quality issues without waiting for IT to initiate a project

Complete data domain coverage

Cognos and Informatica focus squarely on data quality issues that most impact the success of BI and performance management initiatives, to improve the quality of the information critical to performance management success.

All relevant data is included in the solution – including customer, product, supplier, materials, assets, and more. And data quality rules are applied to all data types – structured; semi-structured, such as spreadsheets, PDF, and forms; and unstructured.

Metrics-driven monitoring for improved effectiveness

Cognos approaches the management of data quality as an on-going process. Data quality metrics are tied directly to performance management information, including:

- **Detailed quality metrics** to capture the current state of data quality and data quality trends over time
- **Graphical scorecards** to provide continuous visibility into the quality of data
- **Benchmark thresholds** to pinpoint data quality issues that need to be addressed
- **A process-driven methodology framework** to accelerate data quality initiatives

Best practices that speed time to value

The Cognos approach delivers immediate data quality improvements. Business users can better understand and prioritize data quality issues in the early stages of BI and performance management initiatives, and take action to improve data quality from day one:

- Data quality assessment ensures users can scope and quantify data quality issues to be resolved before they impact performance management initiatives
- A data quality jumpstart accelerates data quality initiatives for efficient adoption by the business.

Key Cognos Services Offerings and Benefits

Data Quality Rapid Assessment:

- **Data quality discovery and analysis** increases knowledge of data readiness and quality issues
- **Data quality framework** assesses risk and develops project processes to improve data quality
- **Data quality scorecard** defines data quality metrics for buy-in from stakeholders to formulate a business-IT data quality strategy
- **Assessment report** provides metrics, business rules, baseline processes and recommended strategy to take the next step.

Service Offerings

- Cognos Data Quality Rapid Assessment Service
- Co-sell Informatica Data Quality Audit
- Co-sell Informatica Data Quality Baseline Deployment
- Co-sell additional Informatica Services to Cognos customers

Better Quality Data for Better Performance

Because high quality data is central to the strategic business needs of today's organizations, data quality has become a priority on the corporate agenda.

But no organization can be expected to solve all its data quality issues in one go. Data quality improvement is not just about fixing data once – it involves process and cultural changes within an organization to ensure that high standards are maintained in an iterative process of continuous data quality improvement.

Ensuring that accurate, consistent and timely data is delivered to the business requires a long-term, step-by-step data quality management program founded on the right technology infrastructure that eventually encompasses all of the company data, and on a comprehensive understanding of what constitutes quality data and why.

Combining data quality technology and services from Informatica, and BI and performance management technology and services from Cognos, enables us to help organizations ensure that the quality of the data on which their BI and performance management initiatives depends is monitored and continually improved. Responsibility for, and control of data quality is in the hands of business users, who "own" the information and proactively participate with IT to address data quality issues in areas critical to performance management.

By partnering to provide data quality for performance management, Informatica and Cognos ensure that customers get the right solution for their business. And business users can be confident that the information they use to make business decisions is accurate and complete and will help them achieve higher levels of performance.

"Organizations today need to address the data quality and data integration issues that are preventing them from realizing the full value of performance management," says IDC analyst. "The packaging of Informatica data quality with Cognos Performance Management solutions and deployments will give customers greater business confidence in their information via a more complete and accurate viewpoint on results, operations and strategies."

About Informatica and Cognos

Together, Informatica and Cognos have teamed to deliver strategic, reliable, best-of-breed business intelligence solutions to our customers. Together we provide consistent, high-performing access to all information for all users across a global enterprise.

About Informatica

Informatica Corporation (NASDAQ: INFA) is a leading provider of enterprise data integration software and services. With Informatica, organizations can gain greater business value by integrating all their information assets from across the enterprise. More than 2,850 companies worldwide rely on Informatica to reduce the cost and expedite the time to address data integration needs of any complexity and scale. For more information, visit the Informatica Web site at **http:/www.informatica.com**.

About Cognos, an IBM company

Cognos, an IBM company, is the world leader in business intelligence and performance management solutions. It provides world-class enterprise planning and BI software and services to help companies plan, understand and manage financial and operational performance. Cognos was acquired by IBM in February 2008. For more information, visit http://www. cognos. com.

For more information

Visit the Cognos Web site at www. cognos. com

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