

Taking the Reins in Enterprise Data Management

Ensuring Quality, Integrity in a New Regulatory Climate

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One of the many reasons that a firm enters into a restructuring of its operations results from the lack of available reliable data. The role of a chief data officer (CDO) can help a company maintain its financial, operational, and transactional enterprise information and ensure that the rest of the C-Suite has reliable, actionable information.

“In 2006, the amount of digital information created, captured and replicated was... 161 billion gigabytes... [or] about 3 million times the information in all the books ever written.”¹ An estimated 32 billion gigabytes of this data is subject to compliance rules and standards.² In the current regulatory climate, business leaders must ask themselves: What is the most critical business data, and where does it reside within the organization?

The massive amount of digital data generated last year included an estimated 90 billion e-mails sent daily,³ and that figure is on the rise. Other reports have estimated that more than 90 percent of all new information generated by a company is in electronic format, much of which may never make it onto paper. With changes in the Federal Rules of Civil Procedure that were enacted late in 2006 and imposed new duties to preserve discoverable data, it is now imperative for companies to answer critical questions about their data continuously:

- How should information be organized in a simple fashion for future use by employees?
- What must be produced in response to discovery requests from regulators?
- How should information be produced in a dispute, or how will it be used to best manage the organization?

With the variety of storage mediums available today, the most important question is: Where is all the data that a company might need located?

Although the concept of enterprise data is not new, the management and maintenance of this information to ensure quality and integrity is a major headache for many firms. Although few are willing to admit it, the magnitude of pain associated with a lack of data quality and integrity initiatives has a dramatically adverse effect on both top and bottom line growth.

Poor data quality can cost an organization millions of dollars each year. These losses stem from wasted employee labor and productivity, or fees paid to external consultants to reconcile inconsistent “source” files in preparation for quarterly or annual filings, financial planning and analysis efforts, or in calculating financial impacts as a result of disputes or litigation.

In addition, firms have spent millions of dollars in recent years on customer relationship management and enterprise resource management tools and products that assist in maintaining regulatory compliance. However, the full benefit of these products is missed because of issues in the uploaded or underlying data contained in these systems. Many users of these programs overlook the fact that while these programs are newer technologies, intrinsic data quality issues remain.

As a result, many firms are unable to react quickly to changing customer needs and find that their growth and agility in the marketplace is inhibited.

Navigating the Enterprise Data Jungle

What steps can a business take to resolve these issues? First, a firm must define what data quality means for its business. Beyond the basic definitions, which include valid, available, and accurate data, a firm must consider how this information is to be interpreted by end users, as well as its relevance in management’s strategic decision making.

For example, day-to-day operating reports and quarterly filings should be derived from the same source data, even though each is used for entirely different purposes and is accompanied by a plethora of different notes. Often, certain operational reports are extracted and manipulated from a feeder system or site-based database for use at a specific location prior to any consolidation (*i.e.*, inter-company transfers or overhead allocations) performed at “corporate.” As a result, issues arise when these reports are compared. Adding to this confusion is the fact that many companies use a summarization tool to consolidate information, effectively eliminating the traceability of transactions.

Contrary to popular opinion, data quality is *not* the responsibility of the information technology (IT) group alone. The data quality initiative is defined to enhance business decision-making confidence,

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increase efficiency, and improve or reduce losses associated with productivity and consequently top and bottom line results. As a result, numerous sponsors of these data initiatives must reside throughout a firm to articulate the project clearly and align organizational understanding across multidisciplinary, data-driven functions.

Unfortunately, it is often a crisis that precipitates change and causes key resources in an organization to acknowledge a problem. This is generally seen in litigation and dispute resolution. Companies cannot afford to be “close” when calculating damages associated with infringements, pricing disputes, billing issues, or anything that affects the spending of customers. As such, time, fees, and intangible costs, often in the millions of dollars, are wasted in consolidating disparate data sources and reconciling internal reports, systems, or databases to provide valid, accurate numbers to the counterparty in a dispute or in response to a regulatory request.

Historically, businesses have focused on solidifying customer data specific to direct marketing efforts, profitability analysis, and relationship management issues. Integral to the success of a data quality and integrity initiative is the incorporation of product, financial, and other operational data attributes. The vision of improvement must extend beyond customer data and into the integrated functionality of master data — the bedrock of the operational and financial planning processes within a firm.

This has been most evident during spin-off scenarios, when customer data housed in a customer relationship management (CRM) system is relied upon for budgeting and forecasting purposes. Subsequent to monthly or quarterly comparisons, it becomes evident that billing databases, revenue-tracking mechanisms, and cash receipt and application functions have varying information on the same customers housed in the CRM database, often providing multiple records of the same contact.

These issues result in delays in productivity and a loss of trust in reporting, and often lead to expenditures on external resources for reconciliation. Looking beyond the visionary phase of a multidisciplinary approach, com-

panies can anticipate data quality initiatives to extend beyond their own systems and to involve up- and downstream suppliers, customers, and strategic business alliances.

Inventorizing Accumulated Data

The volume of information and data that a firm generates has become explosive. Many issues with data governance originate with the fact that organizations don’t necessarily know how to manage the data they have. Ironically, this stems in part from a lack of awareness of what data the firm has accumulated and where this information is housed.

A recent study found that information workers spend nearly 10 hours a week searching for information, which translates into a \$5.7 million annual loss in wasted time for an organization employing 1,000 workers. An additional \$5.3 million is lost by the same firm because of its inability to locate information.⁴ All data, in the context of an enterprise information management (EIM) strategy, must be seen as a shared asset that, when used collaboratively across business units, provides a value-added resource to the organization.

Data quality issues typically are addressed only when issues arise, and then IT is often blamed for the problem. However, because most data is created as a result of business operations, the heads of a company’s operational units (finance, marketing, sales, production, etc.) should be tasked with being data quality leaders, sponsors, or champions.

It is not uncommon to find disparate databases or spreadsheets containing conflicting information. For instance, while production managers track spending for materials, production volume, and distribution information at the production facility level, conflicting information may reside with the head of sales. Meanwhile, the finance department may rely on still other contradictory data related to accounts receivable (A/R), accounts payable (A/P), revenue, and costs of sales.

This systemic problem arises because each department — and often each person within a department — relies on its own means of analysis. What is considered “right” or what is supposed to be taken into account in one department (*i.e.*, scrap in production, bad debt expenses in finance, and promotion/discounts in sales) may not be shared across disciplines, leading to confusion, inefficiencies, and wasted time.

In terms of compliance and regulatory review, the lack of general controls and definitions can lead to confusion for data users, who continually struggle with questions such as, “How was X calculated in report A versus report B?” These issues are getting more headlines within organizations in the wake of compliance governance measures, such as Sarbanes-Oxley, Basel II, and the U.S. Patriot Act. These regulations follow in the footsteps of similar legislation, such as the Health Insurance Portability and Accountability Act (HIPAA), and initiatives imposed by the International Organization for Standardization.

As a result, directors and officers are now liable for improper information conveyed to investors, customers, and the market, and may face jail time and hefty fines. Not to be overlooked, non-structured data, such as e-mail, documents, and contracts, “account for over 80 (percent) of enterprise content.”⁵ Because these documents are considered discoverable in many jurisdictions, complete EIM programs should encompass uniformity, integrity, and quality within document repositories.

Focusing on Data Quality

A recent survey of 301 respondents at business intelligence conferences in Chicago, London, and Sydney sought reasons for increased spending on data quality software by organizations.⁶ General mistrust of data was an overwhelming response, with 51 percent of respondents listing it as one of their top three reasons. These results suggest that organizations have begun to understand the implications of poor data quality on achieving organizational success.

However, as noted earlier, 49 percent of respondents to another survey said investing in data quality software in hopes of enhancing data warehouse and master data initiatives fell short of achieving the expected benefits of data warehousing. For firms that are embarking on or planning for business intelligence or warehousing initiatives, these responses should provide clear indications that it is better to be proactive with data quality and integrity programs rather than experience the same problems confronting those who now find themselves scrambling to clean and normalize their information.

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Thirty-three percent of respondents to the survey conducted at the business intelligence conferences listed supporting EIM and master data management (MDM) efforts as a catalyst for increased spending. As firms begin to embark on processes to consolidate and reconcile data stored in disparate systems and tools, many IT and practice lead professionals are discovering conflicting, discrepant, and error-ridden data sets. This highlights the importance of quality, reliable data in establishing a master data governance process.⁷

Along this line, the creation and empowerment of an additional C-suite officer, the CDO, is becoming more prevalent. The CDO is responsible for ensuring quality, accuracy, and centralization of a master source for all enterprise data and has the authority to initiate change management within an organization. While the chief information officer (CIO) traditionally has been responsible for the infrastructure and “hardware” of an organization, the duties of a CDO would include overseeing and directing all data champions or stewards. The CDO also should provide definitions of data across disciplines within the organization.

Viewing Data as an Organizational Asset

Recent articles in the *Financial Times*⁸ and *Forbes*⁹ have drawn attention to the need to manage the costs associated with overlooking data management, further justifying the view that the data is an overall asset of an organization. Studies have shown that IT personnel — and subsequently organizational leaders — tend to focus on new technologies in the marketplace, while paying little or no attention to managing legacy systems, assets, and data. Further, some firms, especially banks, are attempting to justify cross-border merger and acquisition (M&A) activity via the potential savings that would be realized by combining IT platforms.

While the *Financial Times* article focused on the value of IT hardware, the benefits of reliable, centralized enterprise data realizable to an organization tend to be understood only in the face of adversity. Fees associated with verification of data in response to a U.K. Financial Services Authority (FSA) or U.S. Department of Justice investigation, a distressed situation, or litigation or other dispute can quickly reach millions of dollars. The

Forbes article noted that even in a routine case, costs for discovery might reach \$4 million. To many companies that have been involved in similar situations, this estimate may sound understated.

As a company struggles to accommodate, organize, and store the explosive volume of data it creates on a daily basis, it is necessary to anticipate a solution to conflicting information. The issue of data quality and integrity is expanding to include interaction of data with that of external parties. This is driving the need to solidify an action plan to define scope and priorities that pragmatically addresses the organizational probability of success in achieving a centralized, reliable data repository.

Data quality sponsors and team members need to be cross-functional leaders with the ability to initiate change. These stewards must have the buy-in of senior personnel for initiatives of data change management to achieve traction and establish the company as a nimble, responsive organization with regard to management needs and the requirements of litigation, mediation, arbitration, or regulatory investigation.

Data management is a key element in the overall management — and driver of expense — within today’s business. As such, it deserves careful attention.

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