The IBM data governance blueprint: Leveraging best practices and proven technologies

Introduction

In the past few years, dozens of high-profile incidents involving process failures and data mismanagement have gained international media attention. Caught off guard by these failures, the organizations impacted by them have struggled with eroded brand confidence, lost business, and in some cases, legal liability.

Incidents such as these have catapulted corporate governance to the top of the boardroom agenda and made it one of the most important strategic priorities for companies and governments throughout the world. Embedded in nearly every aspect of an organization, IT plays its own increasingly critical role in governance initiatives. Foremost among these challenges is the need to effectively manage and control the mountains of data that reside within different parts of the organization.

Data is at once an organization's greatest source of risk and greatest source of value. Poor data management often means poor business decisions and results, and greater exposure to compliance violations and theft. For example, regulations such as Sarbanes-Oxley in the United States, the equivalent European Sarbanes Oxley and the Japanese Financial Instruments and Exchange Law (J-SOX) dictate a balance between information access and appropriate use as mandated by rules, policies and regulations.

On the other hand, the ability to leverage clean, trusted data can help organizations provide better service, drive customer loyalty and spend less effort complying with regulatory policies. Effectively leveraging information also brings with it the promise of increased innovation by optimizing people and processes through creative uses of information.

Through the ability to enhance the quality, availability and integrity of data, effective data governance holds the key to both mitigating risk and increasing data value. Often, however, companies don't know how or where to get started. Accustomed to having clearly defined resolutions for organizational challenges, data governance presents new, unique challenges. There is a clear need for common solutions and governance models to protect and share data on different levels. That's why IBM has created the IBM data governance blueprint. Based on Business Partner solutions and research concepts, it is a breakthrough initiative designed to build consistency and quality control in governance, helping your company protect and leverage critical data. It brings together proven business technologies, collaborative methods and best practices to support critical governance issues and ensure that these projects are linked with business requirements.

This executive brief explains how IBM can help your company improve data governance practices to help:

- *Safeguard corporate information from exposure and theft.*
- *Satisfy auditors and regulators by using technology and processes to ensure specific guidelines are followed.*
- *Increase innovation by leveraging information.*

In addition, it outlines the specific resources IBM has developed, including a comprehensive data governance maturity model that can help stakeholders assess where and how to get started, and a comprehensive list of IBM offerings and solutions.

From silos to governance

As more and more business-critical operations move online, IT is pressured to manage and control the data that resides within a company, especially as it extends into large data supply chains. The data is often spread across a complex web of legacy silos and disparate systems that have mushroomed over time, a situation that leads to poor collaboration, redundant information, excess costs and an inability to leverage and retrieve critical information when and where it's needed.

Take for example a banking environment that operates multiple lines of business such as branch offices, mortgage financing and investment banking. Each line of business may manage a customer independently and maintain a fully separate and independent set of customer information. Due to the differences in data entry standards and data controls implemented by applications in each line of business, the customer information may be recorded differently in each application. As a result, multiple downstream applications that use customer data may end up interpreting the three customer records as three different customers, thereby impacting business decisions made using the data.

As another example, consider that the vast majority of the different regulatory initiatives require data to be collected, analyzed and reported in different formats and under different timescales. Yet the data needed to comply with one regulation may also be required for other regulations. Collecting the same data over and over wastes significant time and costs, and poses a greater risk for inconsistencies.

According to findings by the IBM Data Governance Council, the top governance challenges today are:

- Inconsistent data governance, which can cause a disconnect between business goals and IT programs.
- Governance policies are not linked to structured requirements gathering and reporting.
- Risks are not addressed from a lifecycle perspective with common data repositories, policies, standards and calculation processes.
- Metadata and business glossaries are not used to bridge semantic differences in global enterprises.
- Few technologies exist today to assess data asset values that link security, privacy and compliance.
- Controls and architecture are deployed before long-term consequences are modeled.

By breaking down the organizational stovepipes that isolate people and prevent them from sharing expertise and data, you can begin to involve everyone in developing your data as an asset. When you make data everyone's responsibility, you take the first step toward data governance. A quality control discipline for assessing, managing, using, improving, monitoring, maintaining and protecting organizational information, effective data governance can help organizations:

- *Produce more accurate and comprehensive information from and across the enterprise consistently over time.*
- *Protect corporate information to keep auditors and regulators satisfied.*
- *Improve data quality to retain customers and drive new business opportunities.*
- *Control silos of self-interest to benefit the common good of the overall company.*
- *Directly impact the three factors any organization most cares about: increasing revenue, lowering costs and reducing risks.*

Taking the first step: Six key questions

The benefits of a commitment to a comprehensive enterprise data governance initiative are many and varied, and so are the challenges to achieving strong data governance. Transforming current business processes into a mature, responsible data governance model requires using effective rules to control access to information in a way that lets organizations protect critical information assets at every step of a business transaction. But if policies controlling access to information are too stringent, they'll stifle innovation; if they're not adequate, they'll jeopardize data security. Finding a balance that supports both security requirements and innovation needs is fundamental to data governance.

The IBM Data Governance Council, which was formed in 2004 as a thought leadership vehicle to help build a data governance marketplace, has identified six key questions every company should use to identify data governance issues:

1. Do you have a governor?

The first step in any successful data governance program is to get appoint someone accountable who carries the delegated authority of the CEO to make things happen. There is no substitute for strong leadership. Data governance is a political challenge that requires building consensus among many diverse stakeholders. Political leadership within the organization is the first priority. Once established, the governor can create a governing council of organizational stakeholders to establish stewardship policies and report progress to the CEO and board of directors.

2. Have you surveyed your situation?

The first thing a governor does after creating a governing council is to survey the territory. An enterprise data governance assessment is a vital tool for this task. The IBM Data Governance Council has created a maturity model and assessment survey that benchmarks data governance practices against 11 categories of essential data governance disciplines. Developed with input from 47 companies, vendors and universities worldwide, the assessment is designed to help organizations plot where a data governance program is today and map steps to determine where it should go tomorrow.

The Data Governance Council

Founded in November 2004, the IBM Data Governance Council is a leadership forum for chief data, security, risk, compliance and privacy officers concerned with issues related to how an organization can effectively govern data within an enterprise. The Council focuses on the relationship of data to business processes and the value of data to the organization. The Council straddles two major relationship stress lines in the industry:

- The business view versus the IT view.
- The interaction between operational risk and process control mechanisms.

The Council today consists of nearly 50 leading companies, institutions and technology solution providers dedicated to developing technologies and methods to help the industry better protect critical data. The insight of the Council members provides an industry-led common assessment benchmark and a new approach to measuring data governance.

3. Do you have a data governance strategy?

Following an enterprise data governance assessment, the governing council should create a vision of where it wants the company's data governance to be in the next few years. The council should establish milestones, key performance indicators to track progress and yearly reports to the CEO and board to validate results. The data governance maturity model can help identify the goals of the strategy.

4. Have you calculated the value of your data?

If you don't know the value of your data you can't enhance, protect or measure a set of data's contribution to the business bottom line. But data isn't a normal commodity. It's like water out of the tap—vital to life, yet often taken for granted. Nevertheless, data is the raw material of the information value creation, and its value to an organization can be calculated with the right tools.

5. Do you know the probability of risk?

Data is desirable, and not just to the people who should be using it. Knowing how it has been used and abused in the past is essential to being able to tell how it might be compromised and disclosed in the future. Mature solutions can help organizations capture past events, profile losses and forecast future requirements.

6. Are you monitoring the efficacy of your controls?

Data governance is about organizational behavior. Organizations change everyday, and their data, its value and its risks are also changing every day. Unfortunately, most organizations only assess themselves once a year. If a business is unable to change its organizational controls to meet new demands on a daily or weekly basis, that business isn't governing change.

Breaking it all down: The IBM Data Governance Maturity Model

Data governance is not limited to security departments – it touches virtually every area in an organization. Accordingly, effective data security requires broad organizational buy-in, and awareness and support from areas that have never participated in data security before. The IBM Data Governance Maturity Model is an important step forward because it helps to educate other stakeholders on how they can help make the strategy more effective.

Developed based on input from Data Governance Council members, the Maturity Model is designed to define the scope of who needs to be involved in governing and measure the way businesses govern data – e.g., sensitive customer information or financial details – across an organization. It measures data governance competencies of organizations based on 11 disciplines of data governance maturity, such as organizational awareness and risk lifecycle management and provides recommendations based on a unique stage of data governance to match the needs of the businesses. Through this assessment, companies can evaluate the gaps between current company-wide practices and the enterprise's desired position to identify opportunities and specific activities for improving the way data is governed, valued and protected.

11 Disciplines of Data Governance Maturity

1. **Organizational Awareness**
   Describes the level of mutual responsibility between Business and IT, and recognition of the fiduciary responsibility to govern data at different levels of management.
2. **Stewardship**
   Stewardship is a quality control discipline designed to ensure custodial care of data for both asset enhancement, risk mitigation, and organizational control.
3. **Policy**
   Policy is the written articulation of desired organizational behavior.
4. **Value Creation**
   The process by which data assets are qualified and quantified to enable the business to maximize the value created by data assets.
5. **Data Risk Management**
   The methodology by which data risks are identified, qualified, quantified, avoided, accepted, mitigated, or transferred out.
6. **Security / Privacy / Compliance**
   Describes the policies, practices and controls used by an organization to mitigate risk and protect data assets.
7. **Data Architecture**
   The architectural design of structured and unstructured data systems and applications that enable data availability and distribution to appropriate users.
8. **Data Quality**
   Methods to measure, improve, and certify the quality and integrity of production, test, and archival data.
9. **Business Glossary / Metadata**
   The methods and tools used to create common semantic definitions for business and IT terms, data models, types, and repositories. Metadata that bridge human and computer understanding.
10. **Information Lifecycle Management**
    A systemic policy-based approach to information collection, use, retention, and deletion.
11. **Audit & Reporting**
    The organizational processes for monitoring and measuring the Data value, risks, and efficacy of Governance.

Driving value through end-to-end data governance solutions

Defining an effective data governance strategy can help position you for growth and maximize your agility to respond to new challenges. IBM offers end-to-end data governance solutions that span a range of IT processes that support successful data governance objectives. These solutions seamlessly integrate with each other and other IT processes to help you achieve an end-to-end view of your data governance measures. Using a highly modular approach, you can implement the process areas that help generate the greatest value today, and then build out more as your needs change.

- ***Core Data Governance Products/Services***
  IBM Information Server, Data Governance Maturity Model Assessment
- ***IT Security***
  Tivoli® Access Manager, Tivoli Federated Identity Manager, Tivoli Identity Manager, Tivoli Security Compliance Manager, Tivoli Storage Manager, Consul Insight Suite and Consul zSecure Suite; Security & Privacy Services-Governance Service
- ***MultiForm MDM***
  SWG: Global Name Recognition, Identity & Relationship Resolution, Anonymous Resolution, WebSphere® Customer Center; GBS: Threat & Fraud Intelligence & Asset Recovery Solution, Risk Management Solution
- ***ECM Records Compliance***
  SWG: IBM Records Manager, FileNet Records Manager, Federated Records Management, FileNet Records Crawler, CommonStore for Lotus® Domino®/ Exchange Server, eMail Search for CommonStore, FileNet Email Manager, WebSphere MQ Extended Security Edition

Summary

Numerous forces have combined to push data governance to the forefront of corporate consciousness. As IT becomes increasingly critical to business operations and data continues to explode, process failures and data mismanagement pose ever greater risks to organizations. At the same time, there is a growing recognition that having clean, trusted data can allow companies to leverage information more effectively to better understand consumer needs, create innovative products and services, and ease the burden of compliance regulations.

As a result, there is a growing industry-wide need for services to help companies become more proactive in a bid to gain insight into where important information resides within the organization and appropriately governing its use. That's why IBM offers a data governance blueprint. Through proven business technologies, collaborative methods and best practices, IBM can help organizations of all sizes, across all industries, govern their critical data by assessing value, measuring risk, and mitigating security and operational exposures associated with data access.

For more information

To learn how IBM can help you get started on the path to data governance, visit http://www-306.**ibm.com**/software/data/information/trust-governance.html or call a representative at 1 877-426-3774.

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Silicon Valley Laboratory
555 Bailey Avenue
San Jose, CA 95141

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