CASE STUDY: Data Governance & Compliance for Financial Services

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Data Governance Center of Excellence
Overview

- Many business drivers are now requiring organizations to institutionalize data governance.
- Clearly, strong data governance is integral to delivering reliable and usable business information; enabling the execution of an organization's business goals; and developing information as a corporate asset.
- In addition to discussing the driving forces behind the Financial Services industry which are spearheading key efforts in data governance, this presentation will highlight secrets to successfully jump-start a data governance program:
  - Delivering leadership
  - Managing ownership
  - Performing capable implementations
Who is Affected?

- All Industries
  - Communications
  - Consumer Packaged Goods
  - Financial Services
  - Governmental Agencies
  - Healthcare
  - Manufacturing
  - Pharmaceutical
  - Telecom

- Corporate Officers:
  - CFO, CRO, CIO, CCO, Chief Legal Council

The Problems
- Doing the right things (strategy)
- Doing things right (tactics)
Driving Forces
Driving Forces

International
- Basel I, Basel IA, Basel II
- Solvency II
- European Privacy Acts
- Statute of European System of Central Banks
- Commission of European Communities OECD Principles
- MiFID - Markets in Financial Instruments Directive
- MNS
- UK’s Financial Services Authority Combined Code, includes Turnbull Guidance and COSO
- Australia’s Stock Exchange (ASX) Principles
- Japan’s JSOX
- India’s Right of Information Act 2002
- Germany’s KonTraG 1999
- France’s LSF
- Canada’s 52-109 and 52-111
- Islamic Banking Law

United States
- AML - Anti-Money Laundering Laws & Regulations
- CRA - Community Reinvestment Act
- FED - Federal Reserve Regulation
- FDIC - Federal Deposit Insurance Corporation Improvement Act
- GLBA - Gramm-Leach-Bliley Act
- BHCA – Bank Holding Company Act - Anti-Tying
- PCAOB - Public Company Accounting Oversight Board
- OCC - Department of Treasury, Office of the Controller of the Currency SEC - Securities and Exchange Commission
- Sanctions - Congressional or executive order
- SOX - Sarbanes-Oxley Act, Sections 302, 401, 403, 404, 406, 408, 409,........
- US Anti-Boycott Regulations
- US Export Controls – Export Administration Act
- FCPA - US Foreign Corrupt Practices
- KYC - USA Patriot Act (aka - Know Your Customer)
- HIPAA – Health Insurance Portability & Accountability Act

75,000 Pages In Federal Register and 4,266 Rules in the Pipeline
Driving Forces

- Department of Defense (DOD) Directive 5015.2
- The UK’s The National Archives (TNA)
- Germany’s Document Management & Electronic Archiving (DOMEA)
- Australia’s Victorian Electronic Records Standards (VERS)
- Canada’s Electronic Records as Documentary Evidence
- ISO’s 15489, Information & Documentation on Records Management Guidelines
- The EU’s Model Requirement for the Management of Electronic Records (MoReq)
- SEC’s Section 19(b)(3)(A) and 19b-4(f)(6) to show all Stock Bids and Offers
  - Early Attention: Rule 26 (a) (1): Show What You Have
  - Early Attention: Rule 26 (f): Requires a Discovery Consensus
  - Form of Production: Rule 34 (a) & (b): Can Ask for all Types of ESI
  - Sanctions: Rule 37: No Penalty for Purges as Part of Normal Operations
  - Form of Production: Rule 26 (b) (5) (B): Privileged Information Protected
  - Accessibility: Rule 26 (b) (2) (B): Protection from Cost Prohibitive Discovery
Driving Forces

The Federal Reserve Board

Joint Press Release
Board of Governors of the Federal Reserve System
Financial Crimes Enforcement Network
Office of Foreign Asset Control
New York State Banking Department
Illinois Department of Financial and Professional Regulation

For Release at 4 p.m. EST
December 19, 2005

Bank supervisory and penalty actions released Monday will require ABN AMRO Bank, N.V. to undertake remedial action in its worldwide banking operations and to pay $80 million in penalties to U.S. federal and state regulators.

Associated Press

Federal Reserve fines UBS $100 Million
Marcy Gordon

Monday, May 10, 2004

The Federal Reserve on Monday fined Switzerland's largest bank, UBS AG, $100 million for allegedly sending dollars to Cuba, Libya, Iran and Yugoslavia in violation of U.S. sanctions against those countries.

UBS operated a trading center for dollars in its Zurich headquarters under contract with the Federal Reserve of New York to help the circulation of new U.S. notes and the retirement of old ones. One condition was that the Swiss bank not deliver or accept dollar notes through the depository or from banks in countries that are under U.S. trade sanctions.

In an announcement, the Fed said that UBS had violated the agreement and that some former bank officers and employees, whom it did not name, concealed the transactions by falsifying UBS' monthly reports to the U.S. central bank. The individuals were not part of the order issued Monday, in which UBS agreed to pay a $100 million civil fine without admitting to the allegations.

The Federal Reserve Board

Joint Press Release
Board of Governors of the Federal Reserve System
New York State Banking Department

For immediate release
October 14, 2005

The Federal Reserve Board and the New York State Banking Department on Friday announced the execution of a Written Agreement by and among the Deutsche Bank Trust Company Americas, New York, N.Y., the Federal Reserve Bank of New York, and the New York State Banking Department.

The Written Agreement addresses Bank Secrecy Act and anti-money-laundering compliance at Deutsche Bank Trust Company Americas, including policies and practices relating to the provision of correspondent banking services.
Driving Forces

US Retention & Recovery Requirements impacting Legal Discovery
3 to 30 Years of Data to be Retrieved in Weeks, Days and/or Real Time
Driving Forces

- Morgan Stanley - $1.6 billion settlement to Ron Perlman and $15 million fine as result of failing to produce email records (over wrote backup tapes containing emails)
- GMAC subsidiary Residential Funding Corp – Dec 202 Appeal of $96M jury award granted based on failure to produce email evidence
- SEC/NASD & NYSE levy $8.5M on 5 brokerage firms for failure to preserve email communications
- Arthur Andersen effectively put out of business due to ineffective records retention policies
- Criminal charges brought against CSFB investment banker Frank Quattrone for allegedly telling people to “clean up” files after learning about investigation
Driving Forces

Figure 16. Dollar Amount Losses by Type

<table>
<thead>
<tr>
<th>Type</th>
<th>2005 Losses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Virus</td>
<td>$42,077,67</td>
</tr>
<tr>
<td>Unauthorized access</td>
<td>$31,293,00</td>
</tr>
<tr>
<td>Theft of proprietary info</td>
<td>$30,833,00</td>
</tr>
<tr>
<td>Denial of service</td>
<td>$1,000,000</td>
</tr>
<tr>
<td>Insider Net abuse</td>
<td>$700,000</td>
</tr>
<tr>
<td>Laptop theft</td>
<td>$500,000</td>
</tr>
<tr>
<td>Financial fraud</td>
<td>$400,000</td>
</tr>
<tr>
<td>Misuse of a public Web app</td>
<td>$300,000</td>
</tr>
<tr>
<td>System penetration</td>
<td>$200,000</td>
</tr>
<tr>
<td>Abuse of wireless network</td>
<td>$100,000</td>
</tr>
<tr>
<td>Sabotage</td>
<td>$100,000</td>
</tr>
<tr>
<td>Telecom fraud</td>
<td>$40,000</td>
</tr>
<tr>
<td>Web site defacement</td>
<td>$30,000</td>
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</table>

Total losses for 2005 were $130,104,542

Table 1: How Many Incidents? From the Outside? From the Inside?

<table>
<thead>
<tr>
<th>Incident Type</th>
<th>1-5</th>
<th>6-10</th>
<th>&gt;10</th>
<th>Don't know</th>
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<tbody>
<tr>
<td>Virus</td>
<td>43</td>
<td>19</td>
<td>9</td>
<td>28</td>
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<tr>
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<td>42</td>
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<td>22</td>
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<tr>
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<td>38</td>
<td>20</td>
<td>18</td>
<td>29</td>
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<tr>
<td>Denial of service</td>
<td>38</td>
<td>20</td>
<td>15</td>
<td>30</td>
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<tr>
<td>Insider Net abuse</td>
<td>33</td>
<td>24</td>
<td>11</td>
<td>31</td>
</tr>
<tr>
<td>Laptop theft</td>
<td>33</td>
<td>23</td>
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<td>31</td>
</tr>
<tr>
<td>Financial fraud</td>
<td>34</td>
<td>22</td>
<td>14</td>
<td>29</td>
</tr>
</tbody>
</table>

How many incidents from the outside, by % of respondents

<table>
<thead>
<tr>
<th>Incident Type</th>
<th>1-5</th>
<th>6-10</th>
<th>&gt;10</th>
<th>Don't know</th>
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<tr>
<td>Virus</td>
<td>47</td>
<td>17</td>
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<td>Unauthorized access</td>
<td>52</td>
<td>9</td>
<td>9</td>
<td>30</td>
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<tr>
<td>Theft of proprietary info</td>
<td>40</td>
<td>10</td>
<td>13</td>
<td>31</td>
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<tr>
<td>Denial of service</td>
<td>43</td>
<td>14</td>
<td>9</td>
<td>27</td>
</tr>
<tr>
<td>Insider Net abuse</td>
<td>41</td>
<td>14</td>
<td>7</td>
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<tr>
<td>Laptop theft</td>
<td>39</td>
<td>11</td>
<td>8</td>
<td>42</td>
</tr>
<tr>
<td>Financial fraud</td>
<td>43</td>
<td>8</td>
<td>3</td>
<td>39</td>
</tr>
</tbody>
</table>

How many incidents from the inside, by % of respondents

<table>
<thead>
<tr>
<th>Incident Type</th>
<th>1-5</th>
<th>6-10</th>
<th>&gt;10</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Virus</td>
<td>40</td>
<td>7</td>
<td>3</td>
<td>44</td>
</tr>
<tr>
<td>Unauthorized access</td>
<td>50</td>
<td>8</td>
<td>8</td>
<td>34</td>
</tr>
<tr>
<td>Theft of proprietary info</td>
<td>45</td>
<td>11</td>
<td>12</td>
<td>33</td>
</tr>
<tr>
<td>Denial of service</td>
<td>42</td>
<td>12</td>
<td>9</td>
<td>33</td>
</tr>
<tr>
<td>Insider Net abuse</td>
<td>40</td>
<td>12</td>
<td>7</td>
<td>41</td>
</tr>
<tr>
<td>Laptop theft</td>
<td>38</td>
<td>16</td>
<td>9</td>
<td>37</td>
</tr>
<tr>
<td>Financial fraud</td>
<td>37</td>
<td>16</td>
<td>12</td>
<td>35</td>
</tr>
</tbody>
</table>

CS/FBI 2005 Computer Crime and Security Survey
Source: Computer Security Institute

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Driving Forces

“Our main objective is to stop the use of our institution for the funding of international crime.”

AML & Compliance Officer, Top 10 European FI

Cost of compliance actions and fines is far greater than cost of developing & maintaining compliance. Fines are increasing.

TowerGroup

“80% of the work we do on inquiries would disappear if I could rely on the customer identity information from the lines of business.”

Compliance Manager, Top 5 US Bank
Driving Forces

- A 2005 McKinsey survey of 1,000 directors indicated that 76% wanted to spend more time on risk management.
- A recent survey of 271 large companies by The Conference Board and Mercer Oliver Wyman indicated that:
  - 91% are building, or planning to build, ERM.
  - 11% have completely implemented ERM.
  - The companies that have fully implemented ERM reported a high degree of satisfaction:
    - 86% cite better informed business decisions (vs. 58%).
    - 83% cite greater consensus on key risks (vs. 36%).
    - 79% cite increased management accountability (vs. 34%).
- 85% to 95% of all regulatory evidence is now electronically stored information.
Driving Forces

- Regulators and legal discovery demand the ability to actively monitor, control, store, search, retrieve, and analyze critical information, including structured and unstructured data.
- Without a robust enterprise-wide Data Governance solutions, utilizing people, processes and technology effectively, there are no means to meet regulator and legal discovery demands.
- Disparate and legacy management organizations, processes, and systems only perform basic management and control - significantly impairing the ability to meet regulatory and discovery burdens.
Driving Forces

Data Warehouse Project Challenges
Four of the top six (6) technical challenges for companies implementing data warehouses are related to poor data quality, integrity, integration, transformation, and infrastructure (2005 industry study, “Data Integration: Using ETL, EAI, and EII Tools to Create an Integrated Enterprise)

Enterprise Technology Project Failures
“...through 2007, more than 50 percent of data warehouse projects will have limited acceptance, or be an outright failure, because of lack of attention to data quality issues” (Gartner)

Adverse Financial Impacts
“...data quality problems cost U.S. businesses more than $600 billion a year.” (The Data Warehouse Institute)
Driving Forces

Growth of Unstructured Content

- 92% CAGR in content
- 90% electronically generated
- > 1.2 trillion emails a year
- 35 billion emails a day
- 40 billion instant messages a day
- 45% network traffic is email
- 80% of documents that should be managed, aren’t
- Information life-cycle value can range from days to years

Storage Demand
Petabytes

Fixed “Unstructured” Data
Dynamic “Structured” Data

Enterprise Storage Group, June 2003

Data Value

High

Low

7 Days 14 Days 21 Days 28 Days 3 Months 6 Months 9 Months 1 Year 5 Years 10 Years

Data Base
Development Code
Email
Productivity Files
MPEG

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Delivering Leadership
Delivering Leadership

Levels of Capability in Data Governance in the Banking Industry (2006–10)

Exhibit 3
Levels of Capability in Data Governance in the Banking Industry (2006-10)
Source: TowerGroup

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“Organizations are seeking new ways to exploit information assets to fuel their growth. At the same time, they want to ensure that appropriate safeguards and measures are in place to protect sensitive information, provide transparency and minimize risk. This requires new attitudes, management practices and accountabilities for overcoming information silos, satisfying compliance issues and solving operational inefficiencies. Such objectives require a coordinated, organized program Gartner refers to as enterprise information management (EIM). One of the key building blocks for EIM is governance: the mechanisms through which EIM objectives are set, achieved and enforced.”

~ Gartner Research report “Governance Is an Essential Building Block for Enterprise Information Management” by David Newman and Debra Logan, May 18, 2006

Key Findings

- **Everyone from the boardroom to the mailroom has a role in the governance of information assets.** All are accountable for ensuring that information remains protected, consistent, accurate, transparent and accessible.

- **Governance includes a formalized process known as stewardship.** The roles and responsibilities for stewardship are commensurate with the levels of authority and accountability in the organization. The board (including the CEO and CFO) has stewardship responsibilities that are different from business-unit managers and staff functions.

- The scope of governance spans the life cycle of information assets from creation and capture through deletion, as well as quality, security, accessibility and disclosure.

- **Governance is operationalized in the system development methodology.**

Predictions

- **By 2008, the need for governance mechanisms on information assets will span multiple groups, forcing business units to develop coordinated processes to solve information quality, security and accessibility issues; however, less than 10 percent will succeed in their first attempts because of cultural barriers and lack of senior-level sponsorship (0.7 probability).**

- Through 2009, the demands for **consistent and transparent information across the organization to support business performance and enterprise agility** will force EIM to mature as a discipline in 60 percent of Global 100 companies (0.8 probability).
Delivering Leadership

- **Forrester**
  - Banks plan to increase spending on IT, but will not get the most out of these investments unless they address ongoing issues with IT governance. Banks can overcome some of the structural problems caused by their organizational silos by raising process ownership to an executive level, establishing IT steering committees across lines of business (LOBs), and enhancing incentive plans.
  - **Narrow LOBs focus on their own “special” needs.** Product-line-based business units focus on selling their products rather than on the overall objectives of the bank. In this atmosphere, business lines like consumer lending and small business insist that their IT needs are completely unique — demanding individual applications and processes. As a result, many banks lose the opportunity to leverage investments more broadly, like an application engine that can support both mortgage and home equity acquisition, or a common infrastructure for online services.
  - **Business processes lack centralized governance.** Within most large banks, each of the LOBs is responsible for business processes, even those that exist across business units, like account opening and cross-selling. Correspondingly, most banks don’t invest deliberately in software applications that support processes that cross LOBs. This decentralization creates many versions of the same process in different applications, all of which have to be developed and maintained by IT.
  - **IT relationship managers’ incentives drive myopia.** IT relationship managers are held accountable for the satisfaction of their clients, the LOBs that they support. Rarely does an incentive plan reward a team member for collaboration with other groups or for design and implementation of a new application built with other channels and other business units in mind.
Delivering Leadership

- **TowerGroup**
  - Rather than creating duplicative service and processing functions, banks may build on internal and third-party products to integrate more sophisticated offerings. Differentiation stems from highly personalized and seamless interconnected solutions. These solutions cater to the needs of individual clients and are delivered through the client’s preferred channels. Direct online connectivity continues to grow as a delivery vehicle. Integrated online views also support client interactions by “high-touch” relationship managers, product specialists, and knowledgeable service personnel. Banks also require integrated information to compress the engineering and time to market of new products.
  - The banking sector has responded with a flurry of initiatives that demand the extensive logging and inspection of transaction data. Such tactical compliance solutions resulted in unwanted duplication and manual controls, so the industry is now envisioning a broader and more integrated approach to risk management. Because fragmented legacy structures still haunt most banking processes and supporting systems, data integration activities in an enterprise risk management initiative typically take up around 50% of the total effort.
  - As executive sponsors, business champions, and data owners engage in promoting a data culture, banks establish an integrated platform to drive business transformation and customer value. By adopting advanced data management methods and tools, banks reaffirm a sound, effective, and responsible enterprise governance approach that promotes organic growth.
“Data Governance is the orchestration of people, process, and technology to enable an organization to leverage data as an enterprise asset.”

The core objectives of a governance program are:

- Building governance infrastructure, technology and supporting organization
- Defining processes and business rules for ongoing governance
- Developing common and standard data domain definitions
- Developing architecture practices and standards
- Monitoring and improve data quality
<table>
<thead>
<tr>
<th>Delivering Leadership</th>
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</thead>
</table>

### Value Creation

Value Creation defines how an organization realizes returns on investment in the collection, management, and usage of data. Returns may take the form of gains in operational efficiency, worker productivity, time-to-market, sales and revenue, as well as reductions in costs and risks. Costs consider process failures, opportunity costs, scrap and rework costs, as well as the absence of fact-based decision making. Risks, at minimum, include Regulatory, Market, Operations, and Credit.

### Organization Alignment / Process

Organization Alignment addresses Data Governance organizational structure, broader alignment, and culture. Data Governance maturity is derived by the level of teamwork between the business and IT among other elements. Awareness of the value and risks of data management and effective control structures enabling persistent measurement and refinement are also artifacts of maturity.

### Data Architecture

Data Architecture addresses enterprise infrastructure, including strategic planning and alignment of enterprise data structures, processes, tools, and migration / transformation supporting the effective usage of data / information, knowledge creation, and management. Maturity considers how infrastructure supports shared development and usage of data supporting corporate performance.

### Security / Privacy / Compliance

Security / Privacy / Compliance considers the degree to which an organization has put in place policies, processes, and technologies to protect its data from misuse. Maturity considers risk-driven data classification and regulatory requirements, as well as the rigor, consistent application, and breadth of the approach maintained across the organization.

### Data Quality

Data Quality considers the degree to which an organization understands, defines, and manages Data Quality across its recognized seven (7) dimensions. Core information assets should achieve and sustain prudent levels of quality across all enterprise functions and processes. Maturity is assessed considering formal enterprise programs / initiatives and end-to-end management reporting practices.

### Stewardship

Stewardship addresses the degree to which an organization defines, organizes, and manages IT and business Data Governance roles and responsibilities, including Data Stewards, supporting its information assets with clear accountability for the managing the value of those assets. Maturity considers corporate adoption, rigor, consistency, and comprehensiveness of the efforts.

### Information Lifecycle Management

Methods, processes, roles, responsibilities, and tools that enterprises utilize to collect and manage the environment stipulated by regulatory requirements or corporate best practices. This includes data collection, analysis, report generation, distribution, and archiving up to and including retirement / deletion of information.

### Risk Management

Risk Management includes Operational, Credit, Market and Regulatory risk. Evidence of commitment and established practices in these areas are often suggested by employee titles, rigorous and consistent processes and use of automation. Levels of maturity are generally based on how broadly, consistently, and rigorously a corporation enables risk and risk management.

### Policy

Policy comprises corporate policies and standards around Data Governance. Policies allow for and support a level of formal adoption and sustained enforcement of Data Governance practices, roles, and responsibilities. Maturity considers the presence, comprehensiveness, and enforcement of policies weaving Data Governance into the fabric of a company.

### Audit and Reporting

Audit and Reporting addresses the methods, processes, roles, responsibilities, regulation, regularity, and tools that enterprises utilize to collect and manage the environment stipulated by regulatory requirements or corporate best practices. This includes data collection, analysis, report generation, distribution, and archiving up to and including retirement / deletion of information.

### Meta Data / Business Glossary

Metadata is a primary tool of Data Governance. The presence, completeness, management, and usage of metadata supports an organization’s ability to sustain Data Governance. Included with this domain are, at minimum, business, technical, and operational Metadata supporting Data Quality, Security / Privacy / Compliance, ILM, Stewardship, and Audit and Reporting disciplines.

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Managing Ownership
Managing Ownership

Business Transformation

- Continuous Improvement
- Innovation / Leadership
- Collective / Shared Efforts
- Consistent & Rigorous
- Significant Automation
- Consistent Performance Measurement against Stated Goals
- Objectivity and Trust
- Advanced Tools / Usage
- Measured and Managed Efforts
- Understood / Shared Practices
- Consistent Application
- Improving Performance
- Advancing Technology
- Initial Process Definition
- Basic Infrastructure Modeling
- Project Discipline
- Automation Opportunities
- Lack of Processes
- Stand-alone Structures
- No Tracking / Management
- Heroic Efforts
- Ad Hoc Attempts

Key contributors to maturity:
1) Rigor
2) Comprehensiveness
3) Consistency
Managing Ownership

Data Governance requires Organization, Process, and enabling Technology changes that span both Information Technology and Business in the management of data.

Data Governance is the process by which an organization will behave or act to ensure the appropriate execution of its mandate, and typically, protect and maximize the benefits inherent in its data assets.

Data Governance is the process by which an organization will behave or act to ensure the appropriate execution of its mandate, and typically, protect and maximize the benefits inherent in its data assets.
Managing Ownership

Governance of the environment can refer to two distinct activities which are not mutually exclusive. Concentration of the Data Governance group’s efforts however will shift over time as the environment matures.

- **Governance Objective** (for enterprise informational assets)
  - **Transition initiative prioritization & management**
    - Develop the means to exploit the asset
      - Determine business strategy
      - Establish target business and IT architecture
      - Identify strategic initiatives
      - Manage initiative implementation
  - **End-state information stewardship**
    - Use the asset within the defined means
      - Determine strategic business alignment
      - Define and manage stakeholder relationships
      - Manage creation, deployment and use of strategic asset(s)

As the target business and IT activities are achieved, governance focus will shift to managing the transition of data into information, rather than the means by which that process is achieved.

Transition initiative prioritization/mgmt

End-state information stewardship

Governance Focus/Size of Effort

Time/BI Maturity Level
Managing Ownership

The Data Governance Lifecycle

**HEALTHCHECK**
- Conduct Data Governance Diagnostic
- Secure Sponsorship & Key Participants

**VISION & COMMIT**
- Review Current Data Governance Strategy & Roadmap
- Review Current Data Governance Framework and Deliverables
- Review Related Governance Bodies
- Conduct High-Level Current Data Landscape (Process, Initiatives, Resources, Technologies)
- Conduct Interviews of Key Stakeholders
- CURRENT STATE
  - Summarize Pain Points, Situation Assessment, Current Capabilities
- TARGET STATE
  - Describe envisioned state of efficiency, effectiveness & control
- GAP ANALYSIS
  - Identify Gaps and identify Quick Win Opportunities

**PLAN, ALIGN & MOBILIZE**
- Assess Priorities; Select Approach; Define Going Forward-Plan
- Establish or Enhance Data Governance Foundation (0-3 months)
- Define & Implement Near-term Plan (3-6 months)
- Define & Implement Longer-term Plan (3-18 months)
- Monitor, Measure & Communicate Progress including Benefits Realized

**ENHANCE & EVOLVE**
- Revisit diagnostic annually with external advisor
- Revisit plan quarterly
Managing Ownership

- Data Governance starts with defining, developing and delivering a coherent, consistent and valuable structure to methodically enhance and evolve the organization’s ability to more effectively manage information for the business.
- This approach provides the basis for effective planning and execution with clear objectives, activities, deliverables, and benefits. The timeframes for each of these phases vary from organization to organization, but this approach, based on years of IBM experience, will allow clients to identify, understand and adapt to specific organizational evolutionary considerations.
- The following four phases are recognized as the typical evolution of Data Governance engagements:
Managing Ownership

Objectives
- Develop Conditions of Satisfaction
- Complete Data Governance assessment
- Present to all stakeholders & obtain consensus on recommendations and next steps

Key Activities
- Perform Data Governance Assessment (DGA) to benchmark organizational maturity
- Draft of DGA report is reviewed with Client stakeholders
- Feedback from stakeholders is incorporated into report
- Final DGA report is developed and presented to Client executive committee
- Complete conditions of satisfaction

Key Deliverables
- Final DG Assessment which reflects feedback from key stakeholders
- Agreement on next steps

Benefits
- Provides an organization with an informed, objective, documented assessment of DG maturity of their organization within a maturity model
- Objectively identifies, uncovers, highlights and details the strengths and weaknesses of an organization’s data management capabilities
- Validates known truths, validates, modifies, and invalidates assumptions; and brings new truths forward
- Furthers the client’s knowledge of their organization’s existing capabilities and levels of understanding around these elements
- Supports recognition of issues and what steps can be taken to develop, prioritize, and deliver solutions
- Documents and centralizes information that may reside across the organization
Managing Ownership

**Objectives**
- Secure sponsorship and key participants
- Identify current state of Data Governance
- Identify desired state of Data Governance
- Identify gaps between current and desired state
- Identified near-term or quick wins and assess priorities for next steps

**Key Activities**
- Review current Data Governance Strategy, roadmap, framework, deliverables, and related governance bodies
- Conduct high-level assessment of current data landscape
- Conduct interviews with key stakeholders
- Identify Key Performance Metrics and expected business benefits
- Develop Data Governance business case

**Key Deliverables**
- Documented current state of Data Governance
- Documented desired state of Data Governance
- Documented gap between current and future state and identification of near-term or quick wins
- Business case and KPIs for Data Governance

**Benefits**
- Clear organizational vision and commitment to Data Governance initiatives; consensus to take action
- Clear understanding of current state and desired state for Data Governance; consensus where Client is and where it is going
- Clear understanding of gaps between current and desired state of Data Governance; consensus on next step actions to be taken
- An established foundation for identifying and determining mid- to longer-term activities, ownership, and timelines

**Health Check**
**Vision and Commit**
**Plan, Align, and Mobilize**
**Enhance and Evolve**
Managing Ownership

Objectives
- Initialize Data Governance activities
- Establish Data Governance Foundation
- Define and implement near-, mid-, and longer-term plans

Key Activities
- Create or edit current Data Governance strategy, roadmap, framework, deliverables
- Socialize assessment of current data landscape; identify key areas of interest
- Begin formalizing Data Governance Organization (DGO) participants, roles, responsibilities, calendar, agenda templates, and DG performance scorecards

Key Deliverables
- Documented Data Governance Strategy, roadmap, framework, deliverables
- Initial plan to address key areas of interest
- Documented DGO, participants, roles / job descriptions / performance metrics, responsibilities, calendar, and agendas
- Initial organizational communications in place, i.e. KPI Cascading Performance Portal, employee communications, etc.

Benefits
- Clear understanding of organization, participants, roles and responsibilities
- Broad and discrete (organization, division, department, group, individual) understanding of Data Governance vision, business benefits, organizational and operational elements
- Individual understanding of the importance of Data Governance and recognition of personal responsibilities
- Individual and personal engagement in moving toward realizing the benefits of Data Governance
- Initial benefits (may not yet be tangible) begin to be realized
Managing Ownership

Objectives
- Continue communicating activities and status of advancement along DG maturity model
- Continued expansion and application of Data Governance foundation elements
- Evaluate, refine, and continue implementing mid- and longer-term plans
- Evaluate

Key Activities
- Perform 2nd Data Governance Assessment to calibrate organizational performance
- Monitor benefits captured within
- Measure realized benefits against forecast
- Communicate KPI performance gap
- Develop plans to close gap and or advance performance
- Identify key stakeholders to drive initiatives

Key Deliverables
- Data Governance Assessment report
- Data Governance Scorecard Portal
- Organizational and individual performance plans

Benefits
- Organizational understanding of benefits realized
- Identification of program performance strengths and weaknesses
- Clear plan toward next steps
- Clear identification of individuals responsible and accountable for activities and goal achievement
- Automated tracking of initiatives and program performance
- Adopted performance management approaches toward established performance goals
Managing Ownership

- **A Data Governance Assessment:**
  - Provides an organization with an informed, objective, documented assessment of the maturity of their organization within a Data Governance Maturity Model
  - Objectively identifies, uncovers, highlights and details the strengths and weaknesses of an organization’s data management capabilities
  - Validates known truths, validates, modifies, and invalidates assumptions; and brings new truths forward
  - Furthers the client’s knowledge of their organization’s existing capabilities and levels of understanding around these elements
  - Supports recognition of issues and what steps can be taken to develop, prioritize, and deliver solutions
  - Documents and centralizes information that may reside across the organization
Managing Ownership
The IBM Data Governance Assessment

- The IBM Data Governance Assessment will provide clients with a clear view of organizational strengths and weaknesses relative to Data Governance.
- It also provides the basis for a plan toward implementing a Data Governance program based on improved understanding of what portions of the program will need more or less attention, will be more or less difficult, and will occur faster or less fast.
- The final deliverable includes a classification of the client’s organization based on its level of maturity. Detail is provided on how the organization scores along the dimensions of Data Governance. The placement within specific modules provides insight as to the potential ease and speed of a Data Governance engagement at Client.
- The following six step approach is used in the Data Governance Assessment engagement.
Managing Ownership
Understanding the customer and effectively using customer data is a key differentiator for our FSS and insurance clients.

The overall objective of customer data integration is to provide the ability to establish, maintain, and deliver a 360-degree view of a customer’s relationship across segments, products and business units.
Managing Ownership
Customer data includes those items essential to driving consistent and effective client interactions across all channels.

Customer-Centric Solutions Framework

- Enterprise Hardware Infrastructure
  - Assisted Call Center
  - Self Service
  - B2B Portal

- Collaboration
  - Desktop
  - Telephony
  - Internet
  - Wireless
  - e-mail
  - B2B Portal

- Business Operations
  - Customer Interaction Processing
  - Core Business Processing
    - Banking
    - Transaction svcs.
    - Account mgt.
    - Insurance
    - Quote
  - Sales
  - Cross Sell & Up Sell
  - Needs Analysis
  - Illustration
  - Service
  - Customer Care
  - Case Mgt.
  - Bus. Tmr.
  - enablement
  - Advice & Guidance
  - Aggregation

- Analysis
  - Data Warehouse
    - Enterprise
    - Extrprise
  - Data Marts
    - Activity Analysis
    - Segmentation
    - Market Mgt.
    - Profitability
    - Campaign Devt
    - Campaign
    - Assessment
  - Data Analysis & Reporting
    - Data Mining
    - Mgt. Reporting
    - Predictive modeling

- Enterprise Application Integration

Making the offer and delivering the service
Matching services and offers to an individual and their value
Knowing the customer's portfolio, contact history and preferences
Integrating applications into customer centric processes
Knowing what offer to make to which customer at what time
Knowing the customer/account current and potential value

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Managing Ownership
Certain common “pain points” surround customer data for all IBM clients

- **No consolidated view of customer:**
  - Multiple “versions of truth”
  - Data replication issues
  - Matching issues - duplication
  - Limited information, stale data

- **Existing systems have an incomplete or limited view of the customer**
  - Individuals
  - Businesses
  - Customers of customers
  - Hierarchies

- Most organizations have one or more client files that are not capable of being the system of record for customer data because they are static, not transactional.
Managing Ownership
The Underlying Technology

- A centralized, extensible platform to manage, threats, fraud & compliance
- Full multi-attribute identity resolution capabilities
  - To root out person using multiple identities and accounts
- Multi-attribute relationship linking to understand networks
- Understands both individuals and businesses
- Massive scalability & real-time performance
  - Targeted to large multi-national banks with millions of clients
- Self-learning, self-correcting
- Global name classification, matching, & searching
- Share personal information while meeting strict privacy requirements

Allows you to Act Tactically within a Strategic Context
Managing Ownership
Fraud, Risk & Compliance Solutions In Financial Services

- Use Cases/Business Processes
  - Financial Risk & Reporting
  - Information Governance & Quality
  - Authorization & Passporing
  - Enterprise Risk Management
  - Anti-Money Laundering/KYC
  - Insider Threat & Collusion

- Information Solution Enablers
  - Operational Customer Data Integration
  - Global Name Recognition
  - Identity & Relationship Resolution
  - Text Analysis & Content Management
  - Pattern/Transactional Analysis
  - Anonymization
  - Financial Services Models

Exploits Information Server
Managing Ownership

Why Traditional Technologies Fall Short

- Most products are siloed and deal with only a part of the problem, (transactions, case mgmt, reporting)
- Unable to deal with complex identity fraud schemes
- Relationship linking limited to house holding
- No ability to understand all identities associated with businesses
- Data degradation and drift impact identity recognition
- Cannot handle multi-cultural names from all countries in which do business, have clients from, etc.
- Clear text data subject to unintended exposure
- Most identity components originally designed for CRM
Managing Ownership
How the Banking & Financial Markets Solution Helps You

- A centralized, real-time analytical repository for dealing with fraud, abuse, and compliance across multiple LOB’s
- Cost avoidance through identity recognition at the account opening to reduce verification costs
- Respond in real time to Gov’t. 314a’s
- See the identity behind the subtle signature of terrorist funding transactions
- Screen employees and root out insider threats
- Increase watch lists and KYC filter process accuracy
- Uncover hidden criminal networks
- Powerful analytics to investigate SAR/STR
- More effective use of AML, Case Mgmt, & Reporting tools
Managing Ownership
Architecture Model

Operational Systems
- Internal Source Systems
- External Loss Data
- Key Risk Indicators
- Scenario Analysis
- Internal Loss Data
- RCSA

Extraction, Mapping, Replication

DataMart

Staging Database

Analytical Engines, Database & Schema
- Op Risk
- SOX
- Credit Risks
- GLB
- Market Risks
- IAS
- Non-Regulatory
- AML

Ops. Risk Results Data

Results Data

Data Mining Tool(s)

Information Delivery
- Disclosure
- Benchmarking
- Analysis
- Management Data
- Op Risk Capital

External Audience

Feed back loop
Capture, re-analyse, act, adjust

Metadata Management

Enterprise Data Definition
Operational Metadata
Standard & Guidelines
Metadata Catalogue

Analytics Administration
Privacy/Access and Security
Data Quality Administration

Internal Audience

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