Enterprise Data Management

- The Why/How/Who

- The business leader’s role in data management

Maria Villar, Managing Partner
Business Data Leadership
Introduction
“Good Data “ is necessary for all business activity
Current state of data management

- Managed from IT  (recent Gartner Group report)
  
  Who is responsible for Data Quality at your company?

- Managed in silos  (IF AT ALL !)
- Limited budget
- Lack of confidence or attention from business leaders

Price Waterhouse Global data mgmt survey: Has the company suffered significant problems, cost or losses in any area because of poor data quality?  
75% said YES !
What causes data problems at your company?

- Same data in multiple places \( \rightarrow \) different formats, meaning, values
- Highest quality data source is usually unknown
- Data moves often from system to system \( \rightarrow \) changes made, defects introduced
- Little data quality checking in most applications
- Data documentation is missing or lacking
- Few metrics, lots of stories
- Integration projects see the inconsistencies – usually late in the project

Leads to more defects, complexity, resources, people and risk across the firm
What is Enterprise Data Management?

… common, company wide program

- processes
- procedures
- controls
- technology
- roles

Produces high quality data that meets ALL critical business needs
What data should be managed?

- Unstructured data
  - Documents
  - Emails
  - Web sites
  - Institutional knowledge

- Structured data
  - Databases

Not ALL data should be managed equally
Companies must decide what/which/how/how long
to manage data based on:

- Criticality to the business
- Legal obligations
- Risk to the company
6 Truths of Data Management

- Data management is an ongoing program
- Data issues are business process issues
- Hard to fix, takes dedicated time & resources
- People/organizations like to “own” their own data – but don’t want to do what it takes to steward the data for the entire company
- Requires business, IT, and operations collaboration
- “Good” data quality means different things to different people/processes
How to fix it:

Enterprise Data Management

Treat data as a corporate asset

“From CHAOS to CONFIDENCE”
Enterprise Data Management: a holistic approach

Data Strategy

Data Technology / Access

Enterprise Governance

Enterprise Data Services

Metrics / Controls

Data Quality & Stewardship

Skills

Data Is an Enterprise Asset
New Emerging Roles

- Chief Data Officer
  - VP or higher
  - Reports to COO, CFO, CEO or CIO
  - Leads development and execution of data strategy, architecture
  - Establishes standards and policies
  - Responsible for Data Quality program
  - Chairs data governance forums

- Business Data Steward
  - VP or director
  - Reports into business function
  - Represents business data issues and requirements
  - Matrixed to CDO
  - Identifies critical data
  - Drives data mgmt across the function
  - Drives data quality across the function

Data Center of Excellence

Consolidated data services
High Impact data warehouses
Establishing Metrics & Controls

<table>
<thead>
<tr>
<th>Metrics</th>
<th>Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Data Quality Assessments</td>
<td>• Standards &amp; Policies</td>
</tr>
<tr>
<td>□ Timeliness</td>
<td>□ Retention</td>
</tr>
<tr>
<td>□ Accuracy</td>
<td>□ Data Quality</td>
</tr>
<tr>
<td>□ Validity</td>
<td>□ Data Field Naming</td>
</tr>
<tr>
<td>□ Completeness</td>
<td>□ Privacy</td>
</tr>
<tr>
<td>□ Consistency</td>
<td>□ Security</td>
</tr>
<tr>
<td>• Data Infrastructure</td>
<td></td>
</tr>
<tr>
<td>• Cost of Ownership (TCO)</td>
<td></td>
</tr>
<tr>
<td>• Re-use</td>
<td></td>
</tr>
<tr>
<td>• Data Asset Value</td>
<td></td>
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Create a Balanced Scorecard
## Data Balanced Scorecard

### Internal Perspective

<table>
<thead>
<tr>
<th>Area</th>
<th>Objectives</th>
<th>Measurement</th>
<th>Current State</th>
</tr>
</thead>
</table>
| IP1: Reduce Operational Costs through the simplification of the data landscape | 1. Reduce database redundancy  
2. Maximize utilization within databases  
3. Reduce data element redundancy | 1a: # of Production Physical Databases  
1b: # of Production Logical Databases  
3. # of data elements in Fannie Mae |  |
| IP2: Manage the Critical Data | 1. Identify enterprise critical data elements (ECDE)  
2. Identify trusted sources of ECDE | 1. % of ECDE’s identification efforts completed  
2. % of ECDE’s with identified trusted sources |  |
| IP3: Establish Control of the Data | 1. Data Governance structure established  
2. Ensure databases are properly documented  
3a. Data policies and procedures established | 1a. Steering committee fully engaged  
1b. Stewardship council fully engaged  
1c. Domain stewards named  
2. # of data models in the Enterprise Metadata Repository  
3a. # of Enterprise Data Standards approved  
3b. % of monitored compliance with data standards |  |
| IP4: Measure and Improve Data Quality | 1. Establish data quality measures | 1. Enterprise data quality assessment |  |

### External Perspective

<table>
<thead>
<tr>
<th>Area</th>
<th>Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP1: Regulatory Compliance</td>
<td>1. Meet all regulatory requirements related to data</td>
</tr>
</tbody>
</table>

### Learning & Growth Perspective

<table>
<thead>
<tr>
<th>Area</th>
<th>Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1. Recruit and retain highly skilled workforce</td>
<td>1. Retain best qualified staff</td>
</tr>
<tr>
<td>L2. Organizational awareness</td>
<td>2. Formal data management training</td>
</tr>
</tbody>
</table>

### Financial Perspective

<table>
<thead>
<tr>
<th>Area</th>
<th>Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost of quality</td>
<td></td>
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</tbody>
</table>
Technology

- Enterprise meta data
- Databases
- KM tools
- Reporting tools
- Document management tools
- Data quality tools
- Data monitoring tools
- NPI masking tools

Business intelligence category is growing - niche vendors are consolidating (IBM, SAP, HP)
Getting Senior Management Commitment

- Align data strategy to corporate business strategy
- Leverage a crisis
- Align data project to business re-engineering initiative (CRM, ERP, Lean Six Sigma)
- Make information a “utility service”
- Have a senior management sponsor
10 Keys to Data Management Success

1. Start at the top
2. Integrate enterprise data management into overall company business strategy and process
3. Deploy in stages
4. Communicate and educate
5. Set realistic, measurable milestones and success metrics
6. Get talent
7. Keep your data allies close and your data enemies closer
8. Dispel data myths with data facts
9. Change the data management culture
10. Governance is critical
Did you know?

- In the next 60 minutes in the US
  - 251 businesses will have a suit, line, or judgment
  - 246 business telephone numbers will change
  - 58 business addresses will change
  - 81 directorship (CEO, CFO etc.) will change
  - 41 new businesses will open their doors
  - 11 companies will change their name
  - 7 businesses will file for bankruptcy

- In a year
  - 21% of CEOs will change
  - 20% of all addresses will change
  - 18% of telephone numbers will change
  - 17% of business names will change

Business data decays and therefore needs to be managed