

Data Governance: From theory to practice

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Why Data Governance?



Why Data Governance?

Challenges	Best Practices
Multiple versions of truth (e.g. Customer, Bookings)	Single version of truth
Limited time for data analysis, time wasted on data gathering	More time for analysis; less data gathering & reconciliation
Project-driven approach resulting in disparate data definitions	Common data definitions leveraged across applications
Uncontrolled data redundancy or data mart anarchy	Summarized data marts linked to a data warehouse support departmental reporting
Unclear data ownership rules	Well defined data ownership/stewardship rules
Inconsistent and incomplete information (poor quality)	Well defined data with robust data quality processes
Inflexible custom code and "work-arounds" from early implementations	Cost effective/scalable technology to take advantage of newer functionality (lower TCO)
No widely adopted standard reporting tools, Heavy "end-user" IT report support	Robust end-user toolbox and common portal, End-user self-service and process support
Re-writing history for realignments & errors	Detailed data repository acts as a data "clearing house"
Development focus on providing detail data	Delivery of analytical applications versus reports (OLAP, dashboards etc)
High IT maintenance and development costs	Well defined roadmap for adaptive IT architectures

Right Information at the right time to the right people to make the right decisions

THE DATA USER'S BILL OF RIGHTS



Data users have the right to know what the data means

- 1. The right to know the definition of the data.
- 2. The right to know where the data came from.
- 3. The right to know how the data was calculated or manipulated.

Data users have the right to know how risks to the data have (or have not) been managed

- 4. The right to know what Security risks weren't eliminated.
- 5. The right to know what Quality risks weren't eliminated.
- 6. The right to know what Privacy risks weren't eliminated.
- 7. The right to know what Compliance requirements influenced data processing and usage.

Data users have the right to know who made decisions about managing the data, according to what rules

- 8. The right to know who made data-related decisions.
- 9. The right to know what decision-making checks-and-balances were in place.
- 10. The right to know how issues have been and will be resolved.



Data Ownership

- Many companies argue the point of "Who should own the data?" This is a difficult question to answer, since a data item may be created and subsequently modified by many different people and systems ...
- .. I prefer to refer to the practice of enterprise data management for one simple reason and that is because data is an asset of the enterprise and ownership of it is an enterprise problem. If you accept this, it signals the need for roles, responsibilities and best practice disciplines to govern and control data as it comes into the enterprise, is used and in some cases is passed out of the enterprise to partners, suppliers and customers.

Data Ownership and Enterprise Data Management

Mike Ferguson

Data Ownership



Data is a business asset, and business assets are controlled by business people. Therefore, data owners and data stewards should be business people. They must be careful not to manage their data within the narrow focus of their own business unit (department or division); instead, they must ensure that their data is managed from an enterprise perspective so that it can be used and shared by all business units.

Master Data Management: Much More Than Technology



Data Governance

The execution and enforcement of authority over the management of data assets and the performance of data functions

Data Stewardship

The formalization of accountability for the management of data resources

Steward: Old English "Sty Ward"; "Keeper of the sty"



Formalising Data Governance



The DAMA Guide to The Data Management Body of Knowledge (DAMA-DMBOK Guide)

First Edition

Mark Mosley, Editor - Development Michael Brackett, Editor - Production Susan Earley, Assistant Editor Deborah Henderson, Project Sponsor







Data Management Body of Knowledge (DMBOK©) Guide Version 3

Amazon.com or www.technicspub.com - \$54.95 (CD)

Enterprise Server Edition \$550.00 Hardcover Guide - \$74.95 (available March 2010)

Data Management



 Enterprise Data Modelling Value Chain Analysis Related Data Architecture Specification Analysis Analysis · Data Modelling Measurement Data • Database Design Improvement **Architecture** Implementation Management Data Data Quality **Development** Acquisition Management Architecture Recovery Integration Tuning Control **Data** Retention Delivery **Database** Purging **Meta Data** Governance **Operations** Management **Management** Strategy Organisation & Roles Policies & Standards Data **Document & Content** • Projects & Services Security Issues Management Valuation Management Acquisition & Storage Standards Backup & Recovery Classification Data Reference & Content Mgmt Administration Warehousing Retrieval **Master Data** Authentication. & Business Retention **Management** Auditing Intelligence **Management** External Codes Internal Codes Architecture Customer Data Implementation Product Data Training & Support Dimension Mgmt Monitoring & Tuning

Environmental Functions



Organization & Culture · Critical Success Factors · Reporting Structures Management Metrics · Values, Beliefs, Expectations **Activities** Technology · Attitudes, Styles, Preferences Rituals, Symbols, Heritage · Phases, Tasks, Steps Tool Categories Dependencies Standards & Protocols Sequence & Flow · Selection Criteria • Use Case Scenarios Learning Curves Trigger Events **Goals & Principles** Vision & Mission Business Benefits Strategic Goals **Deliverables** · Specific Objectives Guiding Principles **Practices & Techniques** • Inputs & Outputs Information Recognized Best Practices Documents · Common Approaches Databases Alternative Techniques Other Resources Roles & Responsibilities Individual Roles Organizational Roles Business & IT Roles Qualifications & Skills

DMBOK Data Governance



Definition: The exercise of authority and control (planning, monitoring, and enforcement) over the management of data assets.

Goals:

- To define, approve, and communicate data strategies, policies, standards, architecture, procedures, and metrics.
- To track and enforce regulatory compliance and conformance to data policies, standards, architecture, and procedures.
- To sponsor, track, and oversee the delivery of data management projects and services.
- To manage and resolve data related issues.
- To understand and promote the value of data assets.



Inputs:

- · Business Goals
- · Business Strategies
- IT Objectives
- · IT Strategies
- Data Needs
- Data Issues
- · Regulatory Requirements

Suppliers:

- Business Executives
- IT Executives
- · Data Stewards
- Regulatory Bodies

Participants:

- Executive Data Stewards
- Coordinating Data Stewards
- · Business Data Stewards
- · Data Professionals
- · DM Executive
- CIO

Activities:

- 1. Data Management Planning (P)
 - Understand Strategic Enterprise Data Needs
 - 2. Develop and Maintain the Data Strategy
 - Establish Data Professional Roles and Organizations
 - 4. Identify and Appoint Data Stewards
 - 5. Establish Data Governance and Stewardship Organizations
 - Develop and Approve Data Policies, Standards, and Procedures
 - Review and Approve Data Architecture
 - 8. Plan and Sponsor Data Management Projects and Services
 - 9. Estimate Data Asset Value and Associated Costs

2. Data Management Control (C)

- Supervise Data Professional Organizations and Staff
- Coordinate Data Governance Activities
- 3 Manage and Resolve Data Related Issues
- 4. Monitor and Ensure Regulatory Compliance
- Monitor and Enforce Conformance With Data Policies, Standards, and Architecture
- Oversee Data Management Projects and Services
- Communicate and Promote the Value of Data Assets

Tools:

- · Intranet Website
- E-Mail
- · Meta-data Tools
- · Meta-data Repository

- Issue Management Tools
- Data Governance KFI Dashboard

Primary Deliverables:

- Data Policies
- Data Standards
- Resolved Issues
- Data Management Projects and Services
- · Quality Data and Information
- · Recognized Data Value

Consumers:

- Data Producers
- Knowledge Workers
- Managers and Executives
- Data Professionals
- Customers

Metrics

- Data Value
- Data Management Cost
- · Achievement of Objectives
- · # of Decisions Made
- Steward Representation / Coverage
- Data Professional Headcount
- Data Management Process Maturity

Activities: (P) - Planning (C) - Control (D) - Development (O) - Operational

DMBOK Data Governance



Issue Resolution

< 5%

Data Governance Council

Executive Data Stewards

Strategic

< 20%

Data Stewardship Steering Committee

Coordinating
Data Stewards

Tactical

< 80 - 85%

Data Stewardship Teams

Business
Data Stewards

Operational

Data Governance Office

Data Governance Council



- Primary & highest authority
- Senior management serving as Executive Data Stewards
- Chief Information Officer
- Data Management Leadership
- Data stewardship facilitator
- Meeting facilitators



Executive Data Steward

- Executive involvement is imperative
 - Breaking down the barriers/"ivory towers"
 - Political challenges the greatest obstacle
 - Do not need to attend stewardship meetings or participate in tasks such as data definitions
 - Need to provide appropriate level of support for business & technical stewards.
- Five key qualities:
 - Willing to be an Executive Sponsor
 - Executive Ranking
 - High Creditability
 - Knowledgeable on problems in the company
 - Willing to challenge the status quo



Business Steward

- Responsible for defining procedures, policies, data meanings and requirements of the organisation
- Business stewards can be from a department or subject matter area
- Strong knowledge of the business requirements and policies of the organisation
- Needs to make sound decisions and work with key members of the business in to gain consensus on business policies and requirements

Technical Steward

- Typically a member of the organisation's IT department.
- Technical resources that focus on technical meta data and data that needs to be captured



Getting a bit more practical

Data Governance Assessment

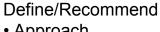


Assess maturity

- Executive awareness
- Data "ownership"
- Data "stewardship"
- Organisation structures
- Processes & procedures

Establish requirements

Develop Data Governance Strategy



- Approach
- High Level Structures
- Roles/Responsibilities
- Change Management
- Budget



Mandate Data Governance Strategy

- Educate/Present
- Reporting line
- Agree strategy
- Get mandate to implement
- Identify Business & Technical Sponsor



- Identify/Appoint Implementation Team
- Appoint Principal Data Steward

Create **Data Excellence Awareness**



Establish Data Governance Structures



Develop Data Stewardship Functions



Launch

Data Excellence

Change Management Plan

Messages

Long term

This is serious

- Importance
- Commitment

Identify members

 Subject Areas Responsibilities

Roles Areas

Data Governance Committee

Define/Agree

- Responsibilities
- Operations
- Best Practices Sanctions

"Recruit" **Data Stewards**



Everyone responsible





Educate Organisation

By area

- Responsibility
- Impact on others

The Data Council

Training & /Mentoring

Approach



- Be direct and strong: When a law is put in place, you do not have an option whether to follow it or not. Break it and there are consequences.
- Data Governance is not a game: it is serious business.
- Stewardship is akin to accountability.
- Ensure Data Stewardship focuses on the *formalization of the roles* and responsibilities rather than the assignment of responsibilities.
- Data Stewards are already there. The challenge is to get them to participate and operate more efficiently and effectively in these data management roles.



History in ACC

- 2006 Information Governance Committee
 - Failed: no terms of reference
- BI Strategy identified data governance
 - CSF for Strategy
- Data Quality Effectiveness Review
- Data Quality Working Group
- Recommended Data Governance
 - Received Mandate
 - Formed Data Governance Committee
 - Identified and appointed Data Stewards
 - Formed Data Council

Data Governance in ACC



Data governance provides the framework for the intersection of IMG and business working together to establish confidence and credibility in the enterprise's information.

IMG: Information Management Group



Executive Sponsorship

Initiation Quarterly

Strategic Data Governance

Monthly then **Quarterly**

Tactical Data Governance Weekly

Data Governance Execution

Ongoing

Executives: CFO, CIO, CHR, CRO...

Provide mandate and visible support for Data Governance Incl. Governance Process, Data Certification & Reporting

Data Governance Committee

Sanction & Approve Data Governance Policies/Procedures

Report on Data Governance Implementation Progress Issue Resolution

The Data Council

Responsibilities Priorities, Tasks

Improvements Changes, Issues

- Business Unit Data Governance
 - •Management Roles
 - Architecture Groups

Member responsible for

- Business Unit
- A Data Function:
- Data Quality
- Data Definitions
- Data Lineage
- Data Modeling
- Data Access
- Data Security

Responsible functional groups forming governance Business Units, Risk Managers, Finance, Compliance, Reporting

ACC Executive Mandate



- Defining & implementing a data governance framework across ACC
- Management of data
- Oversee the implementation of the ACC Business Intelligence strategy where it supports the aims and objectives of data governance
- Responsible for all data quality initiatives and resolution of data issues across ACC
- Incorporating existing initiatives where appropriate



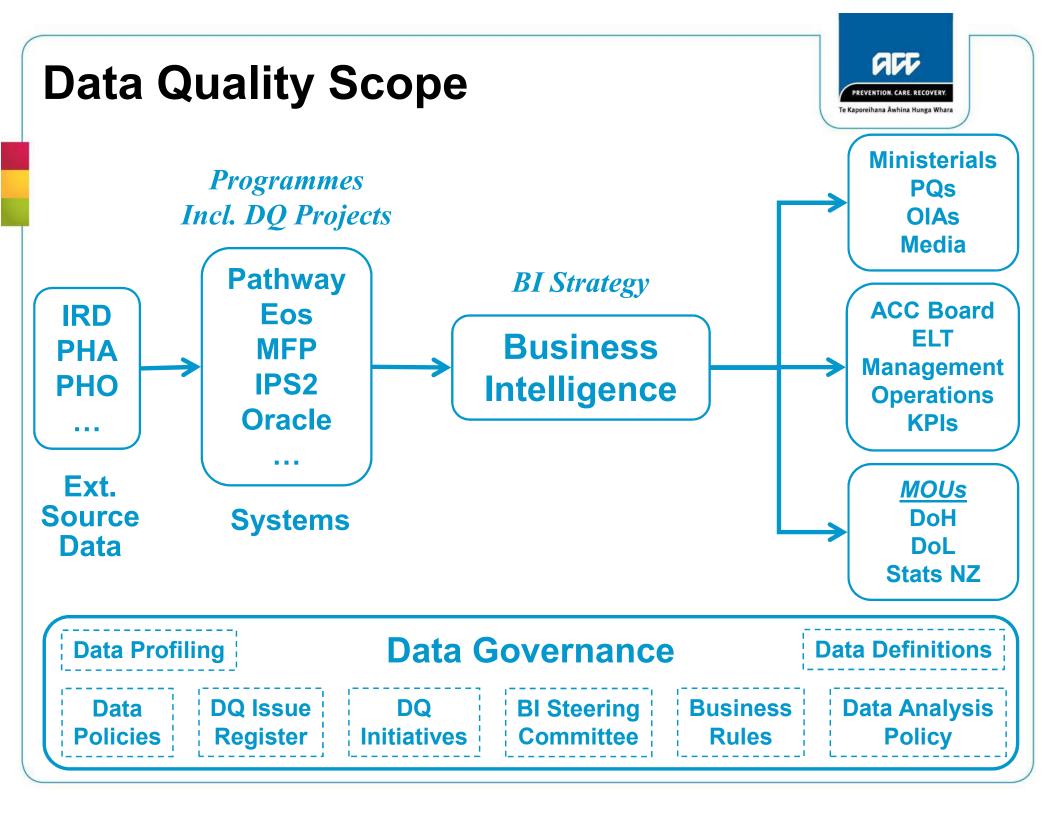
ACC Data Governance Committee

- 4 Executive Members
 - Executive Data Stewards
- GM: ICT
- Chair: The Data Council
- Data Governance Office
 - In Attendance (no voting rights)
 - Facilitation

Where are we?



- Governance Structures formed
- Main focus areas
 - Communication
 - Clarification of roles
 - Coordinating data quality projects
 - Reintegration of roles between business and IT



Data Governance Maturity Model



Stage 7 Strategic Governance

Stage 6 Stewardship Culture

Stage 5 Expanded Business Involvement

Stage 4 Proactive Process Rollout

Stage 3 Formalised Organisation & Responsive Process Rollout

Stage 2 Scenarios & Validation

Stage 1 Strategy & Framework

Useful Sites





 Data Management Association (DAMA) www.dama.org



 The Data Administrator Newsletter www.tdan.com



The Data Governance Institute (DGI) www.datagovernance.com



Data Management Interest Group?

- No DAMA chapter in NZ
- If enough interest, can start a DMIG
- Contact me zeeman.vandermerwe@ACC.co.nz