Today’s Agenda

➤ Why Data Governance?
➤ Definitions and Architecture
➤ Data Quality and Metadata Management
➤ Case Studies
Prehistoric Data Sharing Problem

The prosecution rests!
Can you identify this famous mistake??

- Occurred within your lifetime
- World-wide news coverage
- Was described as a “communication problem”
- Cost $125 million
- Involved a single piece of meta data

**The Mars Spacecraft**

- $125M spacecraft lost in 1999 after a 9 1/2 month flight covering 416 Million miles ….
- Failure to convert English units to Metric units
  - Lockheed Martin - provided navigation commands to NASA in **US Units**
  - NASA - Thought they were **Metric Units**
Another...

- Kaiser Permanente
  - 17 year old female transplant patient dies after organs of the wrong blood type were used in her operation
  - Poor data quality also caused deadly mismanagement of a kidney donor wait list
You can create a person with data....

- Paul Allen Berg
- Paul A Berg
- Paula Berg
- Mrs. Paula Berg
- Paul Berg and Paula Berg must be married – they have the same address....
The Power of Data

The map details where we have spent our time over the last 10 years. The very bright red areas represent more than 20,000 man-hours, the bright pink is 1,000+ man-hours and the light pink less than 1,000.

Creating this map took less than 10 minutes. Creating the data for this map took more than 10 years.
Healthcare Has Its Set of Data-related Issues

• Value-based care
  ▪ A shift from paying for services to paying on improving outcomes
  ▪ Massive monetary penalties for underperforming providers

• Patient identity resolution
  ▪ There is no national patient id – logistically and politically untenable
  ▪ Combinations of name-address-birthdate-SSN-phone no
    ▪ Things that can change over time
    ▪ Benchmarks show that >30% of that information is either incorrect or out-of-date in any given patient record database
    ▪ Error rate increases when EMRs are combined, or new systems are brought on-line
Data-related Issues

• Provider identity resolution
  ▪ Ensuring that providers get paid in a timely manner
  ▪ Accuracy among Patient, Health Insurance Plans, Providers, and Payers is critical
    • Was the Patient eligible for a particular service by a participating Provider at the time that the service was performed
    • Inaccuracies cause denied claims, delay of payments
What I do and why?

- I love to use data to create huge levers
  - Performance improvements exceed goals by orders of magnitude ….
  - Eliminate drudgery and work that is more suited to machines than to creative human beings
  - Data is more stable over time than processes

- I look holistically at “systems architecture”
  - Perspectives of Business Processes, Data, Hardware/Software, and Organizations
  - Principles, Standards, Models, Inventory
  - This avoids costly mistakes in any of these realms that can cause system failure
Data Governance – A Definition

• Data Governance, Data Stewardship? What’s the difference?

• Data Governance
  ▪ Knowledgeable responsibility over company data
  ▪ Specific accountabilities: Sarbanes-Oxley
  ▪ Effective application of standards and controls

• Data Stewardship
  ▪ About a person
  ▪ Authority and responsibility to define what the data is, and how it should be used: i.e. the business rules
  ▪ Ideally, belongs to the business function that creates the data they oversee – not an IT function!
What about IT?

- Facilitators
  - To the Data Steward
  - To the overall Data Governance effort
- Implementers
- Roles
  - Data Administrators
  - Database Administrators
  - Data Architects
  - Data Modelers
- Never take the place of the Data Steward
Well Executed Data Governance Drives Business Value

**Business Value**

- Get to market faster
- Enable better informed business decisions
- Provide better care
- Reduce data-related mistakes
- Strengthen customer/vendor loyalty
- Enhance business and operational efficiency
- Manage data risks
- Meet metrics, goals, regulations

---

**Key Data Governance Elements**

- **Strategy | Owners | Stewards**
- **Data We Can Trust & Share**
  - Customer
  - Finance
  - Product
  - And Others as needed
- **Enterprise Data Standards & Processes**
- **Technologies to Enable Data Usage**
3 Pillars to Providing Trusted Data

**Key Data Governance Elements**
- Strategy | Owners | Stewards
- Data We Can Trust & Share
  - Customer
  - Finance
  - Product
  - And Others as needed
- Enterprise Data Standards & Processes
- Technologies to Enable Data Usage

**Authority & Responsibility**

- Data Governance
  - Policy Standards Methodology Tools
  - Plan
  - Meta Data Management
  - Data Quality
  - Feedback

**Standards**
Three Interconnected Focus Areas

Data Governance

Policy Standards Methodology Tools

Plan

Authority & Responsibility

Feedback

Data Quality

Meta Data Management

Feedback

Standards

Lack of Structure And Formality

Root Causes

Lack of Structure And Formality
The Case for Architecture

- Adherence to best practices and standards which will be extremely beneficial in the long term – structural integrity
- To ensure clarity and maintainability of large environments, even when personnel change over time
- To ensure Enterprise integration - beyond the boundaries of a single application or process
- To achieve large economies of scale: continued reduction in “time to satisfaction” for the client
Architectural Analogy

- Building a house...why does it work?

Formal model of the end-result: a blueprint...
Everyone retains their own view
All About the Same House…

• Incorporating *all* the unique points of view.

Promotes *understanding* among all the separate, but related constituencies: which affects *Customer Satisfaction*

Allows the contractor to *assess the impact of change*: affects time and budget, which affects *Profit*…
What Constitutes “Architecture” for IT?

- Michael Hammer convened a group of people from many companies (early 1980’s)
- The Index Group
- “Convergence and Dispersion: An Architectural Approach for Distributed Information Systems”
- Their Conclusion:
  - It’s hard!
  - Expressed it as a multi-faceted framework
## Elements of Architecture

<table>
<thead>
<tr>
<th></th>
<th>Principles</th>
<th>Standards</th>
<th>Models</th>
<th>Inventory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Processes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infrastructure</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organization</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Elements of Architecture

<table>
<thead>
<tr>
<th></th>
<th>Principles</th>
<th>Standards</th>
<th>Models</th>
<th>Inventory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Processes</td>
<td>Document viable choices</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Align to organizational goals</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>No “motherhood” statements</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Limit to 4-6 statements</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infrastructure</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organization</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Elements of Architecture

<table>
<thead>
<tr>
<th>Processes</th>
<th>Principles</th>
<th>Standards</th>
<th>Models</th>
<th>Inventory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infrastructure</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organization</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Industry standards
- Naming conventions
- Best Practices
- Methodology Constraints
- Tool Constraints
# Elements of Architecture

<table>
<thead>
<tr>
<th>Elements of Architecture</th>
<th>Principles</th>
<th>Standards</th>
<th>Models</th>
<th>Inventory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Processes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infrastructure</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organization</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Pictures and diagrams, *with their meta data*, that represent the domain

- DW Flow Diagrams
- Data Models
- Network Diagrams
- Org Charts
## Elements of Architecture

<table>
<thead>
<tr>
<th>Elements of Architecture</th>
<th>Principles</th>
<th>Standards</th>
<th>Models</th>
<th>Inventory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Processes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
|                          | • “Easiest” to do, but can be lowest ROI  
  • Should occur as a natural by-product of meta data capture for most domains |           |        |           |
| Data                     |            |           |        |           |
| Infrastructure           |            |           |        |           |
| Organization             |            |           |        |           |
## Elements of Architecture

<table>
<thead>
<tr>
<th>Processes</th>
<th>Principles</th>
<th>Standards</th>
<th>Models</th>
<th>Inventory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data</td>
<td>Data Governance</td>
<td>Meta Data Management</td>
<td>Data Quality</td>
<td></td>
</tr>
</tbody>
</table>
| Data      | • Document viable choices  
            • Align to organ
'nl goals | • Industry standards  
            • Data Naming  
            • Best Practices  
            • Method Constraints  
            • Tool Constraints | Pictures and diagrams, with their meta data, that represent the domain | Documentation and examination of existing data sources |
| Infrastructure | | | |
| Organization | | | |
# The Data Architecture

<table>
<thead>
<tr>
<th>Processes</th>
<th>Principles</th>
<th>Standards</th>
<th>Models</th>
<th>Inventory</th>
</tr>
</thead>
</table>
| **Data**  | - Document viable choices  
           |            | - Industry standards  
           |            | - Pictures and diagrams, *with their meta data*, that represent the domain  
           |            | - Examination of key existing data sources  
           |            | - Build up of new data inventory  |
| **Infrastructure** |            | - Data Naming  
           |            |          |
| **Organization** |            | - Best Practices  
                 |            |          |
|            | - Method Constraints  
           |            |          |
|            | - Tool Constraints   |            |          |
# The Data Governance Function

<table>
<thead>
<tr>
<th>Processes</th>
<th>Principles</th>
<th>Standards</th>
<th>Models</th>
<th>Inventory</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Data Gov Board</td>
<td>• Industry standards</td>
<td>Pictures and diagrams, <em>with their meta data</em>, that represent the domain</td>
<td>• Examination of key existing data sources</td>
</tr>
<tr>
<td></td>
<td>• Adding new data definitions</td>
<td>• Data Naming</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Modifying data</td>
<td>• Best Practices</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Method Constraints</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Tool Constraints</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data</td>
<td>• Document viable choices</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Align to organ’n goals</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infrastructure</td>
<td>• Hardware</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Software</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Data Modeling</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Data profiling</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organization</td>
<td>• Sponsorship</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Mission &amp; Charter</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Job Descriptions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Org Chart</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Well Executed Data Governance Drives Business Value

**Business Value**

- Get to market faster
- Enable better informed business decisions
- Identify cross-sell and up-sell opportunities
- Strengthen customer loyalty through multi-channel engagement
- Enhance business and operational efficiency
- Manage data risks

**Key Data Governance Elements**

- **Strategy | Owners | Stewards**
- **Data We Can Trust & Share**
- **Customer**
- **Finance**
- **Product**
- **And Others as needed**
- **Enterprise Data Standards & Processes**
- **Technologies to Enable Data Usage**

© 2019 MetaView360™, LLC  All rights reserved.
The Current State and The Opportunity

- **Data Definitions are captured in many places, inconsistently, and not very usable**
- Data Governance practices position us to define & use data as huge business levers

### Today: Disparate approaches and repositories
- Metadata is everywhere.
- It is difficult to find and not linked together.
- Metadata is recreated & it’s difficult to cross reference what is used where. Semantics change.
- Data management / standards work is underway.

### Opportunity: Implement a common Business Vocabulary
- Integrate multiple sources.
- Flexibility to support unique business needs.
- Improve visibility of metadata to key stakeholders.
- Effectively use resources (tools, processes, etc.)
- Implement re-use and avoid silo solutions.
- Automated metadata capabilities for data lineage
Data Management Principles

- Define data *once* by the *authoritative* source. Re-use it everywhere else.
- All sharable data for the Enterprise will be defined and maintained in a partitioned *data model* (location….)
- Separate Data Capture applications from Data Reporting applications: build a *Data Warehouse*.
- A single Data Warehouse will support multiple function-oriented *Data Marts*.
- Acceptable Data Quality measurements are *x%* (perhaps by domain) and will *trend upward at x% every 6 months*.
The Enterprise Data Model

• What is a Data Model?
  ▪ A Structure that represents real-world business objects and their inter-relationships
  ▪ A Blue-print for building real-world applications and the data warehouse
  ▪ A vehicle for communication across the business and across stages of the software development life-cycle
  ▪ The authoritative list of standard data definitions for the company
Business Glossary is a Key Deliverable

• Who should do it?
• How do you start?
  ▪ Hunting and Gathering
  ▪ Consolidation
• How do you continue?
  ▪ Integration
  ▪ Documentation
• Procedure for creating data standards
• Implementing data management principles
• Can tools help?
Taking a Look into Data Quality & Metadata

Key Data Governance Elements
- Strategy | Owners | Stewards
- Data We Can Trust & Share
  - Customer
  - Finance
  - Product
  - And Others as needed
- Enterprise Data Standards & Processes
- Technologies to Enable Data Usage

Data Governance
- Authority & Responsibility
  - Feedback
- Policy Standards Methodology Tools
- Plan
- Feedback
- Standards
Data Quality Assessment – Roles in All Areas of Data Management

• Throughout the Systems Development Life Cycle (including production support)
• For data capture, data movement
• For communication with business users
• As part of Data Governance initiatives
• As an integral part of meta data management
Methodology for Assessing Data Quality is Independent of the Tools

- Compliance to Business Rules
- Completeness and Validity
- Structural Integrity
- Domain Analysis and Review

Assess the Source against Rules of the Source

Assess the Source against Rules of the Target
Meta Data: A Definition

• Literally, “data about data”

• Meta data is a description of your company’s information assets from both a business and a technical perspective.

• Well-managed meta data promotes effective and unambiguous communication across all areas of:
  
  - **The Business**
    - Business Units
    - Partners
    - Suppliers
    - Customers
  
  - **Information Systems**
    - Application Systems
    - Data Warehouses
    - Data Marts
    - Web Interfaces
    - Software Development Tools
This is Data....

<table>
<thead>
<tr>
<th>Name</th>
<th>Last Name</th>
<th>Age</th>
<th>First Name</th>
<th>123456</th>
<th>67890</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shirley</td>
<td>Steven</td>
<td>2</td>
<td>1742</td>
<td>7968</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>James</td>
<td>Dennis</td>
<td>6</td>
<td>3959</td>
<td>4204</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Elliott</td>
<td>Robin</td>
<td>1</td>
<td>2002</td>
<td>2340</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Warren</td>
<td>Taylor</td>
<td>3</td>
<td>2010</td>
<td>1798</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Henry</td>
<td>Harold</td>
<td>2</td>
<td>4080</td>
<td>5460</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Grant</td>
<td>Evan</td>
<td>8</td>
<td>3125</td>
<td>7128</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Robert</td>
<td>Maeve</td>
<td>4</td>
<td>6940</td>
<td>2487</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>
### This is Meta Data....

<table>
<thead>
<tr>
<th>Last Name</th>
<th>First Name</th>
<th># of Children</th>
<th>Monthly Salary</th>
<th>Last 4 SSN</th>
<th>Credit Check</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shirley</td>
<td>Steven</td>
<td>2</td>
<td>1742</td>
<td>7968</td>
<td>1</td>
</tr>
<tr>
<td>James</td>
<td>Dennis</td>
<td>6</td>
<td>3959</td>
<td>4204</td>
<td>1</td>
</tr>
<tr>
<td>Elliott</td>
<td>Robin</td>
<td>1</td>
<td>2002</td>
<td>2340</td>
<td>2</td>
</tr>
<tr>
<td>Warren</td>
<td>Taylor</td>
<td>3</td>
<td>2010</td>
<td>1798</td>
<td>1</td>
</tr>
<tr>
<td>Henry</td>
<td>Harold</td>
<td>2</td>
<td>4080</td>
<td>5460</td>
<td>2</td>
</tr>
<tr>
<td>Grant</td>
<td>Evan</td>
<td>8</td>
<td>3125</td>
<td>7128</td>
<td>2</td>
</tr>
<tr>
<td>Robert</td>
<td>Maeve</td>
<td>4</td>
<td>6940</td>
<td>2487</td>
<td>2</td>
</tr>
</tbody>
</table>
More Meta Data….

<table>
<thead>
<tr>
<th>Last Name</th>
<th>First Name</th>
<th># of Children</th>
<th>Monthly Salary</th>
<th>Last 4 SSN</th>
<th>Credit Check</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shirley</td>
<td>Steven</td>
<td>2</td>
<td>1742</td>
<td>7968</td>
<td>1</td>
</tr>
<tr>
<td>James</td>
<td>Dennis</td>
<td>6</td>
<td></td>
<td>4324</td>
<td>1</td>
</tr>
<tr>
<td>Elliott</td>
<td>Robin</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Warren</td>
<td>Taylor</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Henry</td>
<td>Harold</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grant</td>
<td>Evan</td>
<td>8</td>
<td>3125</td>
<td>7128</td>
<td>2</td>
</tr>
<tr>
<td>Robert</td>
<td>Maeve</td>
<td>4</td>
<td>6940</td>
<td>2487</td>
<td>2</td>
</tr>
</tbody>
</table>

The number of children a person has.
Better Meta Data….

<table>
<thead>
<tr>
<th>Last Name</th>
<th>First Name</th>
<th># of Children</th>
<th>Monthly Salary</th>
<th>Last 4 SSN</th>
<th>Credit Check</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shirley</td>
<td>Steven</td>
<td>2</td>
<td>1742</td>
<td>7968</td>
<td>1</td>
</tr>
<tr>
<td>James</td>
<td>Dennis</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elliott</td>
<td>Robin</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Warren</td>
<td>Taylor</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Henry</td>
<td>Harold</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grant</td>
<td>Evan</td>
<td>8</td>
<td>3125</td>
<td>7128</td>
<td>2</td>
</tr>
<tr>
<td>Robert</td>
<td>Maeve</td>
<td>4</td>
<td>6940</td>
<td>2487</td>
<td>2</td>
</tr>
</tbody>
</table>

The number of dependent children for whom the credit applicant is financially responsible. These may include members of the immediate biological family as well as any other child dependent for whom the applicant provides at least 51% of the child’s financial support. Age limit: 22 years.
Why Care?

- Well-managed meta data promotes effective and unambiguous communication across all areas of:
  - **The Business**
    - Business Units
    - Partners
    - Suppliers
    - Customers
  - **Information Systems**
    - Application Systems
    - Data Warehouses
    - Data Marts
    - Web Interfaces
    - Software Development Tools

- Gives you the ability to set goals and measure against them…
  - Critical business benchmarks: time, quality, amounts, $$$
  - Root cause analysis
  - Customer Satisfaction
Meta Data Value Propositions

- Ensures confident, intelligent decision-making, knowing that there has been no mis-communication of facts
- Gives you the ability to *set goals and measure* against them…
- Allows change to be implemented at “the speed of business”, without fear that critical information pipelines will be disrupted or corrupted
- Enables you to seize opportunities to improve business processes because they are now visible
Can Tools Help?

• Integration of data management functions
  ▪ Data Ownership and Stewardship
  ▪ Collaboration between Business and Technical staff
  ▪ Data Quality
  ▪ Master Data Management
  ▪ Enterprise Information Catalog
  ▪ Data Movement
  ▪ Regulatory Compliance

• Leading Vendors
  ▪ Informatica Axon
  ▪ IBM Information Server & Information Governance Catalog
Orchestrated Tool Implementation

Meta Data Strategy Elements

- Standard data definitions: source for Business Glossary. Defined once, used many places.
- Database meta data loaded into Technical Repositories.
- ETL and BI Tools consume business and technical meta data from the authoritative source.
- ETL contributes source to target mapping meta data to the Repository.
- BI tool contributes reporting/analytic meta data from its repository.
- End-to-end Data lineage information is available.
- Where-used impact analysis is possible.

Data Lineage
Where-used Impact Analysis

© 2019 MetaView360™, LLC All rights reserved.
Case Study #1: Insurance

• The business
• The situation
• The work and how it evolved
• How it resulted in Data Stewardship and a Data Governance initiative
Case Study #1: Business Situation

- Life, long-term care, and supplemental insurance programs
- A new IT System replaced the old System
  - The business needed *more* people to do the work after it was implemented....
  - *Not* an intended result....
- Putting one’s job on the line
  - “Give me 3 months and the right people and I’ll fix it”
  - Sr. systems consultant in a data administration role
  - High visibility
    - Manager of IT
    - Marketing Manager
Case Study #1: Root Cause Analysis

• Modeled the processes of the new system
• Followed the data from beginning to end...
  ▪ Poor quality data was being “fixed” all along the way
  ▪ Total process orientation in the new system
  ▪ No one thought to separate the data from the process
  ▪ No one had any real responsibility for the data
• Procedurally, the system was fine
• The data was of poor quality
  ▪ Lack of standard data definitions
  ▪ No data accountability
Case Study #1: Results, Learnings

• Developed data definitions, data relationships
  ▪ No formal data model
  ▪ Identified Data Stewards and developed Data Stewardship training as a result of the process
  ▪ 3 month effort for the single system

• The need for *key* people...
  ▪ Investigation, analysis, and eventual solution would not have worked without them
  ▪ Business people with the authority to make real-time business process, data, and systems decisions

• Executive visibility and a high business stake in the result
  ▪ Sponsorship, funding, and authority were in place

• More pro-active data management process in place today
Case Study #2: Insurance

• The business
• The situation
• The work and how it evolved
• How it resulted in Data Stewardship and a Data Governance initiative
Case Study #2: Business Situation

• Insurer serving Personal and Commercial Markets
  ▪ Auto, home, and life insurance for individuals and families
  ▪ Workers compensation, general liability, product liability, automobile, property, bonds, construction, short- and long-term disability, and group life insurance for businesses

• Needed a plan for future business systems
  ▪ The Claims Management system needed to be replaced
  ▪ What would need to be replaced next?
Case Study #2: The Approach

• Hired Director of Data Management
  - Reported to the *business*, matrixed to CIO
  - Data administrators and DBAs reported to IT

• Looked at the future of the company through the development of new systems
  - Identified people responsible for various areas of the business
  - “What is...a ‘Claim’, a ‘Policy’, an ‘Organization’.... and do we want it to be this way 10 years from now?”
  - Stewards emerged

• Development of the Target Data Model
  - Foundation for new systems development: x-action & reporting
  - It took 2 years to develop (1995-1997)
Case Study #2: Results, Learnings

- The Target Data Model still lives
  - Fulfilling its purpose
  - Systems being modernized with new technology
  - Reporting → Data Warehousing
  - Data definitions firmly in the business realm

- The biggest barrier is change management…
  - The business groups needed to step up to their responsibility
  - IT needed to relinquish the idea that they owned the data
  - Move from techno-language to business language
Summary

- Key ingredients to success
  - Compelling business imperative with visibility
  - Key business personnel authorized and involved
- Key barriers and how to deal with them
  - Change management
  - Time
  - Language
- Key elements of a program
  - Charter, Mission, Policies, Priorities, Implementation Plan
- Key players and their roles
  - Business-directed data governance
  - IT as facilitators and implementers
Thank You!

What are your questions?

Give me a lever long enough and a fulcrum upon which to put it and I can move the world.

~Archimedes