The Business in Business Intelligence
Defining Business Intelligence (BI)

- Goals
  - Identify data assets
  - Transform data and organize
  - Present information
    - Reports and dashboards
    - Driven by business goals

- Components
  - Processes
  - Architecture
  - Technologies
Importance of BI

- Decision-making
  - Data-driven
  - Strategic
  - Tactical
  - Operational

- Collaboration
  - Data sharing

- Discovery
  - Data mining
  - Predictive analytics

Evelson, Boris (21 November 2008. "Topic Overview: Business Intelligence"
BI and Data Governance

- BI is data-driven

- Data Governance ensures
  - Accuracy
  - Reliability
  - Timeliness

Data Governance is the collection of decision rights, processes, standards, policies, and technologies required to manage, maintain, and exploit information as an enterprise resource. An effective data governance program includes the process by which you manage the quality, consistency, usability, security, and availability of the organization’s data.
Data Governance Impact

**Business**
- Enterprise-wide consistency
- Cost effectiveness
- Reliable analytics and reporting

**Global Data Governance**
- Avoid data redundancies
- Assure data consistency
- Centralize data distribution (one source)
- Provide unique identifier
- Create global hierarchies and attributes

**IT**
- Centralized, efficient data storage
- Improved system integration
- Minimal data conversions

Gartner Research, February 2006 – ID No G00137680
Data Governance Framework

**Data Architecture** includes business information model and metadata dictionary

**Technology** provides solutions to enable data governance capabilities

**Processes and Practices** establish guidelines on how data policies are created and implemented

**Governance Metrics** establish measures to monitor performance of enterprise data

**Organization** provides a network of resources to deliver governance capabilities

**Policy** refers to guidelines and principles to enforce data governance processes

**Key Enablers to Sustain Quality and Enforce Standards**
Data Governance Model

Executive Sponsor
Data Governance Steering Committee

Data Governance Council

- Enterprise Data Lead
- Data Owners

Data Trustees

- Data Stewards
- Data Custodians
- Project EDM Lead(s)

GO Team

FIN
CNST
MNT
Airport

Reference Data
Master Data Domains
Meta Data
Structural Data

Data Owners

Data Analysts
Additional IT Data Roles

Information Management Lead

Enterprise Data Architect

Primarily Business Roles
IT Roles
IT/Business Roles

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## Data Governance Roles

<table>
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<tr>
<th>Role</th>
<th>Resp. Group</th>
<th>Focus</th>
<th>Description</th>
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<tbody>
<tr>
<td>Executive Sponsor</td>
<td>Business</td>
<td>Program</td>
<td>• Guide the Data Governance Steering Committee and represent the EDM program at the executive level discussions&lt;br&gt;• Accountable for establishing direction and approving recommendations made by the GO team or Steering Committee to implement data governance&lt;br&gt;• Reviews the data governance strategy and liaises with the executive team for funding and resource requirements</td>
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<tr>
<td>Data Governance Steering Committee</td>
<td>Business</td>
<td>Program</td>
<td>• Umbrella organization that encompasses multiple project tracks, and has ongoing EDM responsibilities for these projects after the project is operational&lt;br&gt;• Provides guidance to the GO Team on project priorities and requirements&lt;br&gt;• Reviews and approve any variances to EDM scope of work&lt;br&gt;• Final resolution of cross process team domain data issues</td>
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<tr>
<td>Data Governance Council</td>
<td>Business and IT</td>
<td>Program and Project</td>
<td>• Oversees the smooth operation of the EDM strategic and tactical performance across projects that are in flight or in production.&lt;br&gt;• Applies the enterprise vision, mission, and strategies that address data as a corporate resource&lt;br&gt;• Approves data management decisions and resolves cross project team data issues and mitigate risk&lt;br&gt;• Ensures EDM decisions and approach align with integration strategy across projects</td>
</tr>
<tr>
<td>GO Team (Governance Operating Team)</td>
<td>Business and IT</td>
<td>Project</td>
<td>• This project-level working group will include some key players who are data experts in key business areas&lt;br&gt;• Leverages existing or new EDM roles from business and IT resources to drive data governance initiatives associated with one or more applications within a project</td>
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| Enterprise Data Lead     | Business    | Program                | • Serves as the catalyst and facilitator of data quality across the organization.  
• Orchestrates Enterprise Data Management across TxDOT, and across all data object domains (e.g., Projects, Vendor, Equipment, Contract, etc.).  
• Works with senior management, Data Trustees and Data Stewards to assure data management initiatives and sustaining processes are aligned with the strategic business objectives of the department  
• They are responsible for implementing the Corporate Data Policy, the Data Quality Program, and supporting compliance and audit of data for regulatory requirements |
| Data Owner               | Business    | Program and Project    | • Business SME responsible for the overall strategy, data quality and data processes for a business functional group (e.g., Finance, Construction, Maintenance, Airport, etc.) and its associated reference, structure and metadata  
• Approves data management decisions and deliverables for the business functional group  
• Resolves cross project and cross domain data issues and risks |
| Data Trustee             | Business    | Program and Project    | • Business SME responsible for the overall strategy, data quality and data processes for a data object domain and its associated reference, structure and metadata  
• Approves data management decisions and deliverables for the domain  
• Resolves cross process team data issues and risks |
| Data Steward             | Business    | Program and Project    | • Expert in the systems (or related systems) that use master data (across domains).  
• Very knowledgeable in how all data is used within the system, including the data domains, metadata, structures and reference data.  
• Monitors the quality of the data for their business area  
• Responsible for monitoring and training the Data Custodians in their business area so that data is accurately maintained in accordance with business rules  
• Represent their business area on the company wide teams responsible for defining data processes and standards |
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| Project EDM Lead      | Business    | Project | • Project manages the efforts of the GO Team  
• Leads the identification of challenges, issues and risks related to an information domain  
• Leads the development and presentation of information deliverables to the Steering Committee for review and approval  
• Represents project and process teams in data domain workshops, reviews and meetings  
• Ensures business requirements for the process team are imbedded in the data domain design  
• Serves as process team contact point to the data domain team  
• Raises issues when conflicts arise |
| Data Custodian        | Business    | Program | • This role likely resides within an existing role today, whose responsibilities entail entering and maintaining critical data within their span of responsibility (e.g., creating projects or vendors)  
• Assists with the management of the company's data assets in order to improve and maintain timeliness and quality of the data  
• Data Custodians monitor the quality of the data for which they are responsible  
• Assist the Data Stewards as directed |
Current State
Questions