U.S. Federal Enterprise Architecture Data Reference Model (FEA DRM):
Managing Data As A National Asset
July 2007

“Build to Share”
Agenda

• FEA DRM Overview
• Three Pillar Data Strategy Framework
• Federal Data Architecture Subcommittee
The MIT Information Quality Industry Symposium, 2007

FEA DRM Concept

Data Sharing

Query Points and Exchange Packages

Data Description

Data

Data Context

Taxonomies

How do I exchange the data?

How do I find the data and access it?

What does the data mean?

Based on FEA DRM Version 2.0
FEA DRM Structure

**Data Context**

- **Business Context**
  - Subject Area
  - Information Class

  - The broad categories of data that support business processes of a line of business or community of interest.
  - The sub-categories of data used for mapping data groupings of many lines of business or communities of interest.

- **Data Sharing**
  - Information Exchange & Query Points

  - Information that is generated or required by a Unit of Work and is subsequently passed to another Unit of Work. Units of Work consume and produce data.

- **Data Description**
  - Data Element
    - Structured
    - Semi-structured
    - Unstructured

  - The organized description of data to convey semantic understanding usually through an entity relationship diagram.

  - Data that has characteristics of both structured and unstructured data, such as an e-mail.

  - Data that is of more free-form format, such as unstructured text.

*Based on FEA DRM Version 1.0 and 2.0*
FEA DRM Abstract Model
(Guidance for Organizing Information About Agency Data)
The DRM provides basic guidance on what to capture in each of these areas and how to capture it. (i.e., the Abstract Model)

Intentionally, the DRM does not delve into specific models or artifacts that the architects will create:

- Organizations use different EA Frameworks. There are a lot of right ways.
- The models/artifacts developed will depend on what’s needed

As we define best practices, we will consider more definitive guidance in the DRM

However, the objective is to provide actionable guidance to your programs: We should be building with data sharing in mind up front.

- “Build to Share”
FEA DRM
Three Pillar Data Strategy Framework
The DRM Data Strategy Framework

Business & Data Goals drive Governance

Data Strategy

Data Architecture (Structure)

Information Sharing/Exchange (Services)

The Rule: All 3 pillars are required for an effective data strategy.

Goals drive; governance controls; structure defines; and services enable data strategy.

Special thanks to Laila Moretto and Forrest Snyder, MITRE Corp.
Data Strategy Framework Elements

Use of specific elements depend on the goals
Mapping the Strategy to the DRM

Data Context enables...

Data Description captures...

Data Sharing guides...

Governance
- Oversight
- Policy & Procedures
- Education/Training
- Processes and Practices
- Issue Resolution
- Metrics/Incentives

Data Architecture (Structure)
- Inventory
- Discovery Data
- Definitions/Semantics
- Structure
- Syntax
- Pedigree
- Authoritative Sources
- Security/Protection Data
- Data Transfer Standards

Information Sharing/Exchange (Services)
- Communities of Interest
- Search
- Data Registries
- Data Catalogs
- Shared Spaces
- Access Services
- Brokering
- Mediation

Data Strategy
Governance Overview
The Federal Data Architecture Subcommittee is one of four subcommittees under the Architecture and Infrastructure Committee.
Governance Strategy

- **Federal Data Architecture Subcommittee (DAS)**
  - Chartered by Federal CIO Council
  - 2 Co-chairs appointed by AIC
  - Membership Federal CIO representation (105)
  - Various work groups

- **Key FY07/FY08 Activities/Deliverables**
  1. Federal Data Quality Profile
  2. Final Draft Person Core Concept
  3. Initial draft DRM Implementation Guide
Summary
Summary

- The FEA DRM is one of five inter-related reference models designed to facilitate inter-agency analysis and collaboration.

- The FEA DRM consists of three basic concepts: Context, Description, and Information Sharing.

- Agencies can implement the FEA DRM in many ways, but must follow the three pillar data strategy to be successful.

- The Federal Data Architecture Subcommittee was established to provide agencies additional guidance on FEA DRM implementation.
Questions

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