

Commonwealth of Virginia

Data Standards Initiative and Data Strategy

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Agenda

- Background
- Data Standards Initiative
- Commonwealth Data Strategy
- Questions / Discussion

Background

- Data Standards Initiative
 - In 2008, Budget Bill required central agencies
 - DOA, DPB, DGS, DHRM, and TRS
 - define data standards to support the new financial management system (VDOT and DOA)
 - In 2009, Senate Bill 936 requires transparency and data standards for vendor and procurement data
 - DOA, DGS, and VITA

Defining and implementing data standards is a best practice, with or without mandates.

What are we trying to achieve with Data Standards?

- **Improve data consistency**
 - Agreement on definition and use of data
- **Reduce cost and improve efficiency of data exchange**
 - Create shared data exchange methods that can be build once and reused often
- **Improve communication and understanding of enterprise data assets**
 - Capture and manage information to promote understanding and reuse
 - what data we collect (dictionary)?
 - why we collect it (business reasons)?
 - who do we share it with (data exchanges)?

Data Inconsistency Example

- Answering business questions where the data crosses agency and application boundaries is challenging.

For example:

- ***How much did the Commonwealth pay IBM, in total, last year?***
 - CARS has payment data but vendor name is agency controlled and inconsistent
- ***How many contracts did the Commonwealth execute with IBM (or any vendor) last year? How much money was paid out by contract?***
 - Need to tie procurement data with payment data to answer these business questions

Definitions

- **What is a Data Standard?**

- A data standard defines information about data
 - For example - definition, data type, authoritative source, stewardship, etc.
 - Some data are defined by a distinct list of valid values (e.g. gender code, state code)
 - Some data are defined as an Identifier – critical to defining uniqueness across a domain (e.g. employee identifier)
 - Data standards are defined within a context or domain

- **What is a Data Exchange Standard?**

- A data exchange standard is the method used for exchanging data with others
 - Some exchange formats are required by other parties (e.g. American Association of Motor Vehicle Administrators – AAMVA)
 - Some exchange formats are within our control (e.g. agency to agency, agency to local)
- Leverage web services technology for all new data exchanges/interfaces
 - Critical to define the authoritative source for the data
 - Critical to define the business rules for managing the data (create, read, update, delete) as it moves across the enterprise

- **What are National and Industry Data Standards?**
 - Data and data exchange standards defined by national organizations and industry consortiums to improve the ability to share data.
 - Environment (e.g. Environmental Information Exchange Network)
 - Health (e.g. HL7)
 - Human Resources (e.g. HR-XML)
 - Financial Reporting (e.g. XBRL)
 - Provide public and private organizations with a common data definition, data exchange schema, and solutions to leverage.

Projects Supporting Data Standards

Project	Status	VEAP Partners	Data
Business One Stop Phase II	Active Defining Data Requirements	SCC (State Corporation Commission) DBA (Business Assistance) Tax VEC (VA Employment Commission) DGS (General Services) DMBE (Minority Business)	Business data Business Certification data
VDOT/Enterprise Financial System	Active DGS conducting data model reviews	VDOT (Transportation) DOA (Accounts) DGS (General Services) DHRM (Human Resources) DPB (Planning & Budget) TRS (Treasury)	Chart of Accounts Financial data Vendor and Purchase Order Employee and Time/Attendance Budget data
DMV – CSI System Redesign	Active 3/20 initial meeting	DMV (Motor Vehicles) Tax* DSS* (Social Services)	Citizen data Other categories TBD in summer 2009
Performance Budgeting System	Resources to be assigned	DPB	Budget data

*VITA Enterprise Application Division will be requesting involvement from these agencies

Where are we today?

- **Vendor Data Standard and Data Exchange – DGS, DOA, VITA SCM**
 - Present standard for adoption in July 2009
- **Procurement to Payment Data Standard – DGS, DOA, VITA SCM**
 - Present standard for adoption by December 1, 2009
- **Employee and Timecard Data Standard – DHRM, DOA (payroll)**
 - Employee Profile, Position, Timecard – started
- **Chart of Account Data Standard – DOA, DPB and COA Work Group**
 - Draft data standard – entity level
 - Intend to finish data standard at attribute level during FM Project Analysis and Design Phase (2009)
- **DMV Analysis**
 - Working with DMV Architects to identify data domains for standardization

Implementation of Standards

- All **enterprise** data will be standardized. This will happen over time and will be driven by the Communities of Interest that steward the data.
- New modernization projects will be tasked with defining and implementing data standards and data exchange standards.
- New database development must design to the data standard.
- New package solutions will not be required to customize the database storage. These solutions will be required to carry the Commonwealth standard identifier or maintain cross walk to the standard identifier. Package solutions must adhere to data standard definitions and valid values for enterprise data.
- For existing and legacy solutions, agencies will evaluate to determine when they will migrate to the data and data exchange standards.

Working with VITA PMD to incorporate data management activities into the existing Project Initiation and Architecture Review processes.

All major projects must plan time to develop and/or implement data standards.

What else is going on?

- DOE/Workforce Stimulus Grant to develop a longitudinal data warehouse
 - Involves collecting data to evaluate performance measures from:
 - DOE, VCCS, SCHEV, VEC and 17 workforce programs
- Health IT Standards Advisory Committee (HITSAC)
 - July 1, 2009 - First advisory committee to the ITIB
 - Recommending to the ITIB data, data exchange and interoperability standards for the health domain

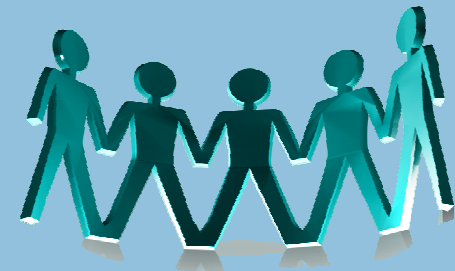
Commonwealth Data Strategy



Data Strategy Work Group

- IT Investment Council – develop a Data Strategy for the Commonwealth
- Members have been collaborating March – June 2009
- Representatives from the following agencies

- VEC – Virginia Employment Commission
- DMV – Department of Motor Vehicles
- DSS – Department of Social Services
- DHP – Department of Health Professions
- DRS – Department of Rehabilitative Services
- TAX – Department of Taxation
- VDOT – Department of Transportation
- JCOTS – Joint Commission Technology & Science
- VITA – Virginia Information Technologies Agency
- VEAP – Virginia Enterprise Applications Program



Data Strategy Scope

- High level approach
 - Identifies a vision for enterprise data management and
 - Goals and objectives to achieving the vision
- Purpose of the Strategy
 - Introduce data management concepts and best practices to Commonwealth leadership
 - To guide enterprise data initiatives

What is Enterprise Data?

- Enterprise data is data that is collected by two or more state agencies or data shared between states or other entities.
- Example categories of enterprise data – vendor and citizen data

Business Drivers

- *The Data Strategy*

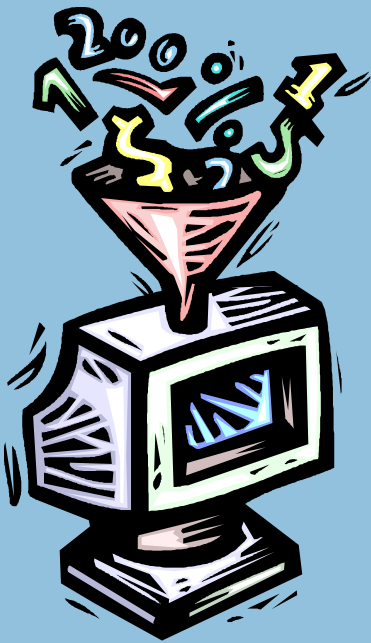
- Identifies high level business drivers which are supported by enterprise data management activities
- Describes 4 business priorities categorized as enterprise data initiatives:



- Evaluating the performance of workforce programs
- Simplifying the process of registering a business in Virginia
- Providing transparency in regards to enterprise vendor relationships
- Standardizing and managing “master” data – for example vendor and citizen data

Enterprise Data Initiatives

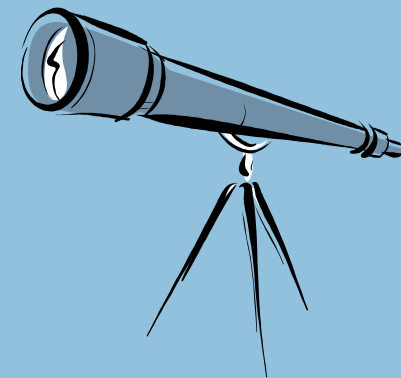
- **Common Characteristics**



- Defining a common data model to meet business requirements
- Identifying roles and responsibilities for managing common data
- Defining how to populate and store, on an ongoing basis, the common data
- Defining a data quality process for ensuring a level of fitness for intended use
- Implementing a means of providing access to the shared data.

Vision Statement

Enterprise data and information is managed as a Commonwealth asset to provide value to our citizens and stakeholders.



Commonwealth Goals

1. Implement an enterprise data management program

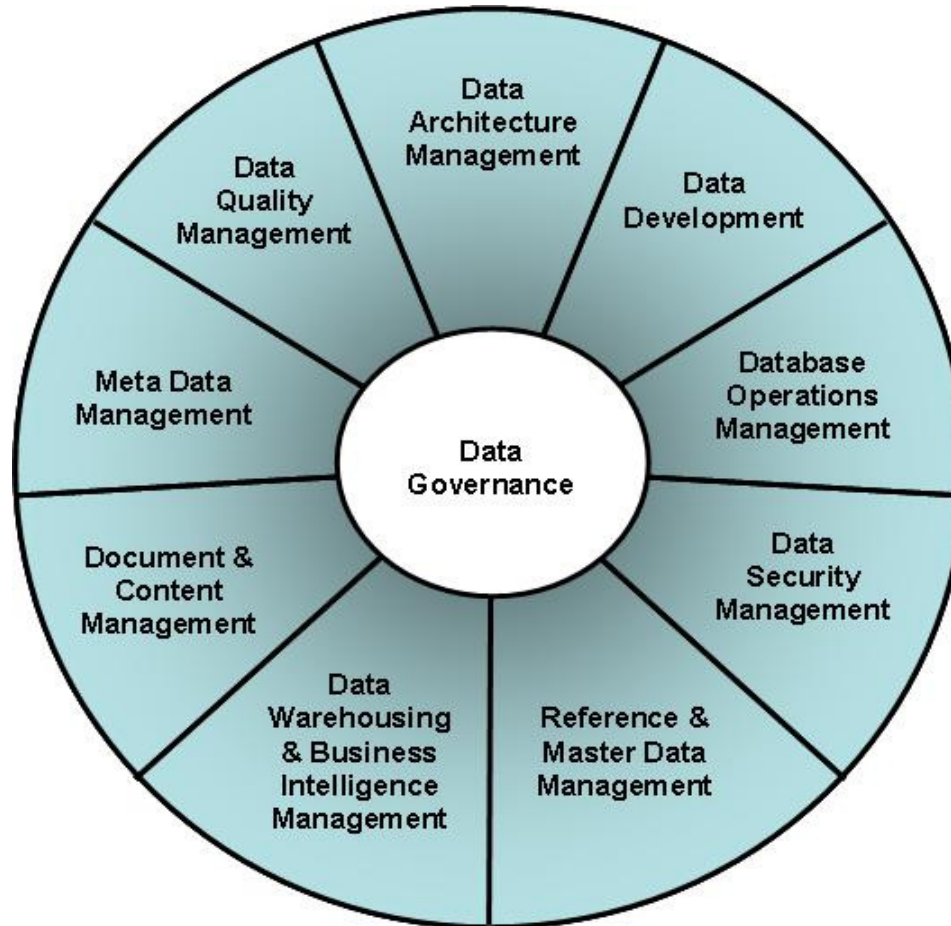
2. Enable data sharing



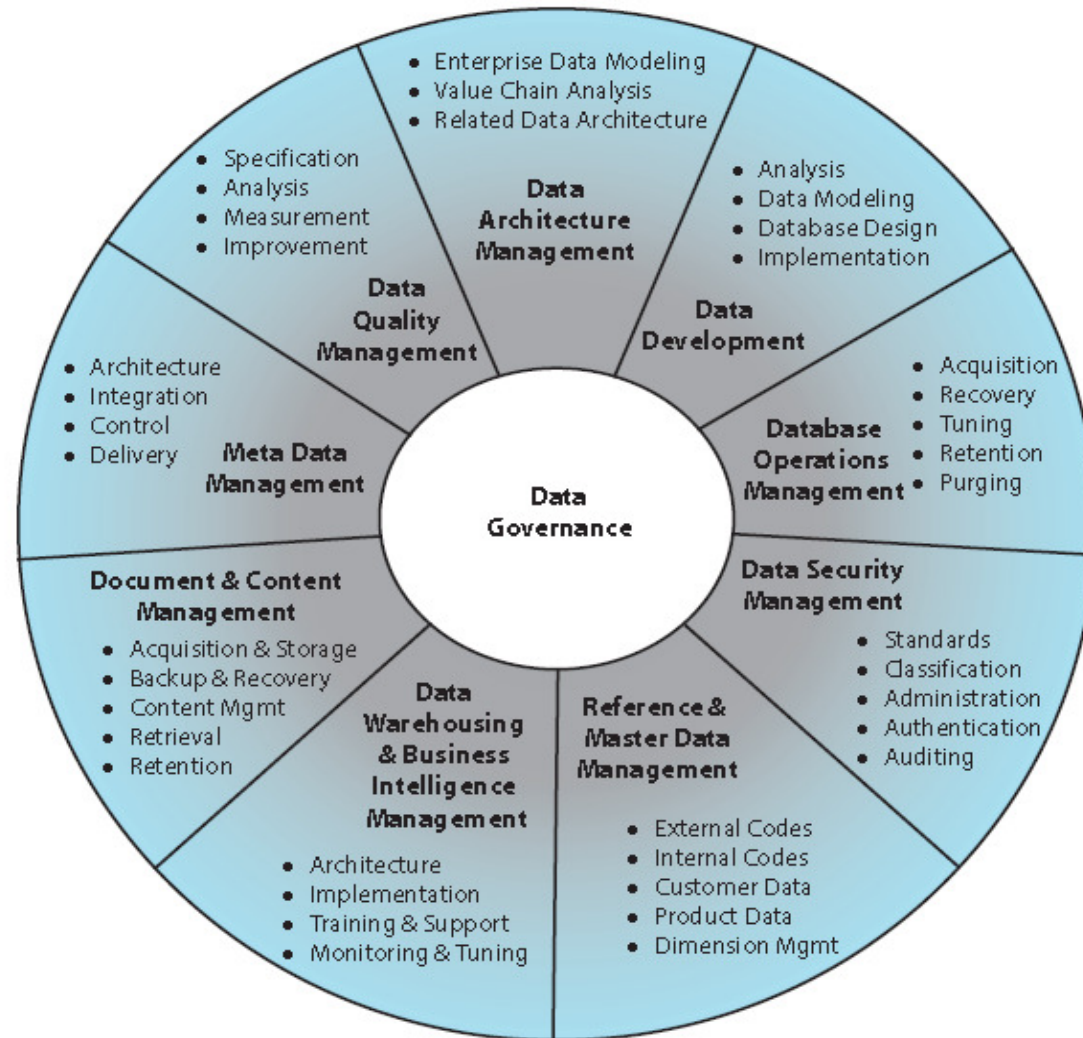
3. Establish data governance and oversight

Data Management Functions

Data governance is essential to managing a successful data management program



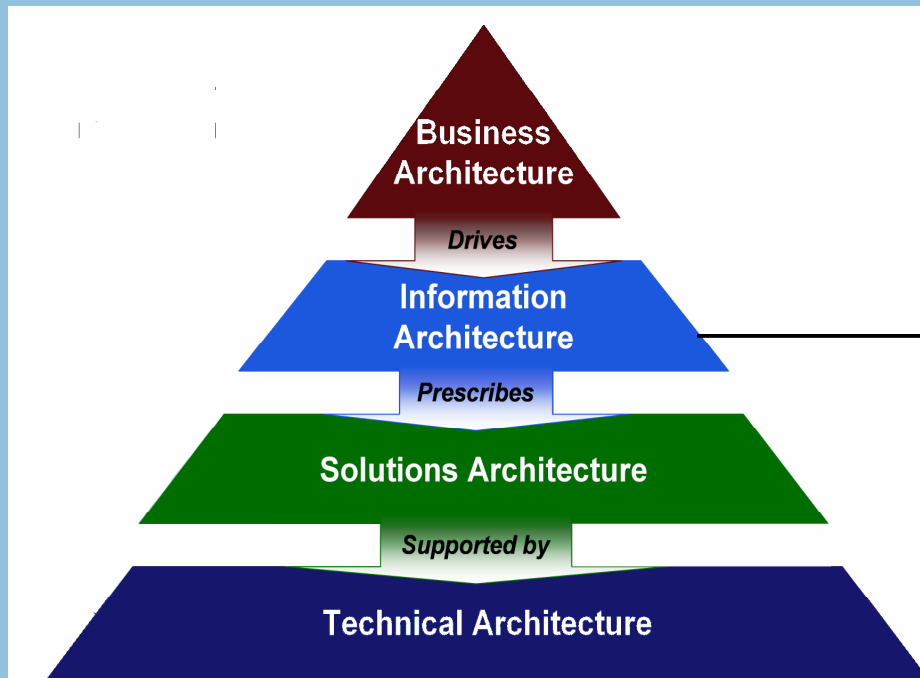
DAMA Functional Framework



DAMA Environmental Framework



Enterprise Information Architecture

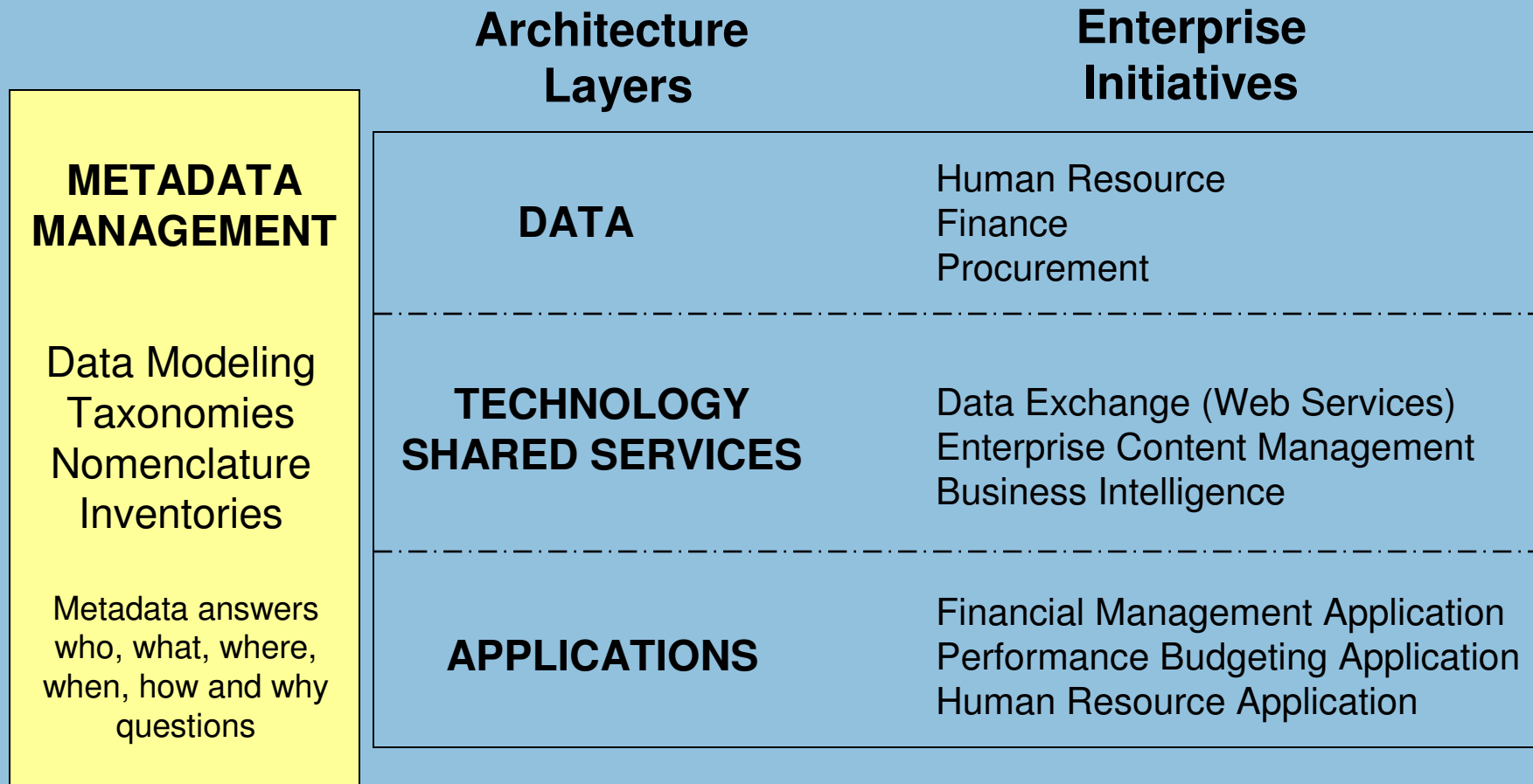


Information Architecture Components

Data Governance and Policy		
Data Quality	Data Architecture	Data Security
Database Operations	Master Data Mgmt	Reference Data Mgmt
Data Development	BI & Data Warehousing	ECM
Metadata Management		

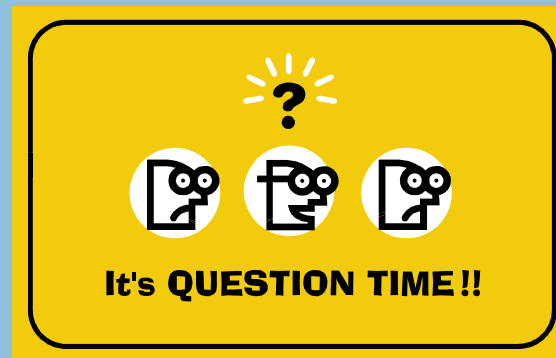
Our data management practices are immature and require significant attention to mature to a defined, managed and optimized practice.

Another View



Data management is complex and it permeates all levels

Discussion



Join the local DAMA Chapter

Data Management Association – Central Virginia Chapter
http://www.damacv.org/about_us/index.htm