The Data Reference Model:
Milestone 1: Moving from Abstract to Concrete

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Agenda

▶ Today’s Objectives

▶ The Information Sharing Quagmire
  – The Solution

▶ The Role of the DRM
  – Multiple Implementation Approaches

▶ A New Challenge

▶ A New, Concrete Approach
  – 207D Implementation
  – COI Harmonization Implementation

▶ Next Steps
  – DHS plans

▶ Conclusion
  – Thanks
Today’s Objective

- **Announce**
  - Public release of the …
  - **Draft DRM XML Schema**

- **Explain**
  - Our Approach to the problem
  - DRM Management Process
  - XML Schema Details

- **Dialogue**
  - Hear your thoughts
  - Answer your questions
The Information Sharing Quagmire

“The biggest impediment to all-source analysis—to a greater likelihood of connecting the dots—is the human or systemic resistance to sharing information.”
- 9-11 Commission Report, Pg 416, July 22, 2004

“This area has received increased attention but the federal government still faces formidable challenges sharing information among stakeholders in an appropriate and timely manner to minimize risk.”
- GAO, “HIGH-RISK SERIES, An Update”, January 2005,

“Equally problematic, individual departments and agencies continue to act as though they own the information they collect, forcing other agencies to pry information from them.”
- Commission on Intelligence Capabilities of the US in regard to WMD, Pg 14. March 31, 2005

“Bush’s choice to run Information Sharing Environment draws criticism”
- GCN Article, June 3, 2005

“Info Sharing still the missing link.”
- Federal Computer Week Article, June 6, 2005

“Intelligence Changes Still Thwarted By Lack Of Information Sharing.”
- Information Week Article, June 7, 2005

“This committee has long been concerned about the lack of information sharing and analysis within the government and among the relevant public and private sector parties.”

“But we're not as convinced that information sharing between agencies, and the computer technology needed to analyze it, has improved.”
- Boston Herald editorial staff, Saturday, June 11, 2005

It’s time to answer the mail!
The Cause and Solution

▶ Root Cause of the Problem:
  – Information Sharing must not stay an abstract concept.

▶ Perfect is the Enemy of the Good
  – We must not wait for the perfect representation, the perfect governance process or the perfect registry.

▶ The Solution:

   **Concrete, Measurable Implementations**

Concrete = Can be processed by software
Measurable = Can be compared and graded
Implementation = Specific to an Agency

This approach will enable accountability!
The Role of the DRM

DRM Purpose (from Volume 1)
- “The DRM’s primary purpose is to promote the common identification, use, and appropriate sharing of data/information across the federal government.”

DRM Usage

1. Categorization of data
   - Required data
   - DRM
   - Business Context

2. Structure of data
   - EA
   - Business Context
   - Data element

3. Exchange of data
   - Organization A
   - Organization B
   - Organization A
   - Organization B
Multiple Implementation Approaches

- **Content**
  - Like BRM, SRM …
  - Pros: Top-down Guidance
  - Cons: Less applicable

- **Structure**
  - Template for description, exchange & categorization

- **Process**
  - Governance
  - Roles & Responsibilities

- **Our Approach**
  - All of the above but in sequence…
  - *A process* for **description** then **prescription**

Diagram:
- Standardization & Harmonization
- Measure
- Collection & Registration
- Office of the Chief Information Officer
A New Challenge

**DRM to support Section 207d of the eGov Act of 2002**
- (A) the adoption of standards, which are open to the maximum extent feasible, to enable the organization and categorization of Government information—
  - (i) in a way that is searchable electronically, including by searchable identifiers; and
  - (ii) in ways that are interoperable across agencies;
- (B) the definition of categories of Government information which should be classified under the standards; and
- (C) determining priorities and developing schedules for the initial implementation of the standards by agencies.

**Firm Deadline**
- OMB Response to Congress – December 17th
- OMB Review – November 17th
- Federal CIO Council Review – October 17th

**This Focused our Approach**
- Work on our XML profile preceded OMB’s request (by about 2 months)
- Meeting with Owen Ambur, Bob Benedict and Susan Turnbull
- Initial email (“my sketch”)
- Andy Hoskinson runs with the ball …
  - first working example in about 8 hours
A New Concrete Approach

DRM XML Schema

- Categorization of Data
  - Business Context
- Exchange of Data
  - Information Exchange Package
- Structure of Data
  - Data Element

XML Schema

Instances

<DRM>
  <Description>
    <Structured>
      XXXX
    </Structured>
  </Description>
</DRM>

DRM Management Process

Phase 1: Collection
Phase 2: Registration
Phase 3: Harmonization & Standardization
Phase 4: Measure

Office of the Chief Information Officer
Agency posts “Public-facing” DRM Instance on their main website.

http://www.dhs.gov/xml/public_drm.xml
COI Harmonization Implementation

- **Agencies are part of a Community of Interest.**
  - Collection and registration occurs for all COI participants
  - A new harmonization requirement occurs
  - Since models are in the registry in a normalized format they can be quickly harmonized.

![Diagram showing the COI Harmonization Implementation process]

**Screening COI**
Next Steps

► Release Schedule
  – June 28 – V0.2 and Exp. Workshop
  – July 1 – V0.3
  – July 19 – V0.4 and Exp. Workshop
  – August 16 – V0.5 and Exp. Workshop
  – September 2 – V0.6
  – September 14 – New Feature Cutoff – V0.7 and 2nd Public Forum.
  – September 23 – RC1 (V0.8) and Exp. Workshop
  – October 3 – RC2 (V0.9)
  – **October 17 – V1.0**

► Oct. 17th Deliverables
  – DRM Overview (revised)
  – DRM Management Strategy
  – DRM Implementation Guide
  – DRM XML Schema V1.0
  – DRM XML Schema Examples
DHS Plans

[Diagram showing DHS plans with various components such as Analysis Tool, DHS Taxonomy, T-Model Builder, DHS MCOE, Community of Interest, Organizational Elements, Existing Structured Information Systems, Data Types Of Interest, and Security.]
Thanks to the DRM Working Group for their hard work, especially preparing for this event.

Thanks to the DRM Leadership
- Especially Dick Burk (OMB) and Kim Nelson (EPA)

Special Thanks to
- Mary McCaffery (EPA), Susan Turnbull (GSA), Cheryl Manns (DRM Program Coordinator)
- Andy Hoskinson (FEAPMO representative), Joe Chuisano (DRM Team member), Ken Sall (DRM Team member)
- Owen Ambur (DOI), Brand Niemann (EPA)

Finally, thank you for your participation here today!
Conclusion

- **A Request:**
  Please review the Draft DRM XML Schema

- Provide Feedback
to the public mailing list (easy web interface)

- Announce Vendor Support

- We will post Comments/Issue Resolution to the public wiki

- What we have begun to achieve starting today …

  **An Executable DRM**

  - Can be directly incorporated into your Organization’s SOA Strategy

  - Please help us improve this draft to move us out of the information sharing quagmire!
Questions?