Geospatial Line of Business Overview –Security and Privacy Considerations

Information Security and Privacy Advisory Board Meeting

June 8, 2006

E·GOV

Lines of Business Opportunities

OMB and the LoB Task Forces are focused on business-driven, common solutions developed through architectural processes.

The following LoBs will be undertaken in FY 2006:

- **Budget Formulation and Execution**
- **IT Infrastructure Optimization**
- **Geospatial**

Common Solutions: A business process and/or technology based shared service made available to government agencies.

Business Driven (vs. Technology Driven): Solutions address distinct business improvements that directly impact LoB performance goals.

Developed Through Architectural Processes: Solutions are developed through a set of common and repeatable processes and tools.

Geo LoB Background

- The Geo LoB will enable us to move to the next level of electronic government by examining opportunities to share common geospatial processes and functions across government.

- Significant opportunities for improvement exist in the areas of grants, geographic information systems, data acquisition, and services.

- Government service to citizens has already improved the way agencies use geospatial data via Geospatial One-Stop- GeoData.gov, and the Geo LoB will further build on those accomplishments.

Geo LoB Purpose

- To establish a more coordinated approach to producing, maintaining, and using geospatial data and services and ensure sustainable participation from Federal partners to establish a collaborative model for geospatial-related activities and investments.
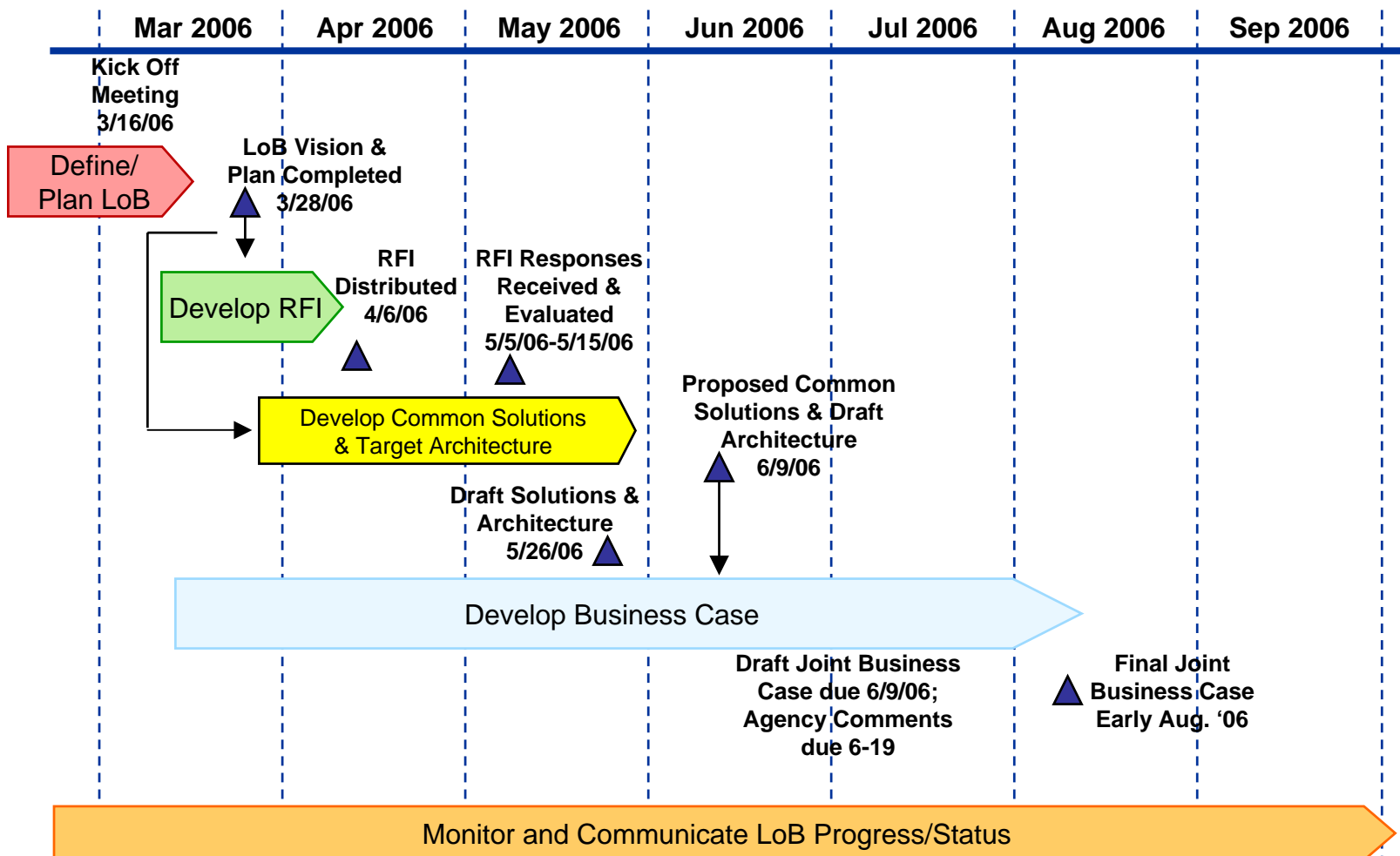
Geo LoB Approach

- Using the Federal Enterprise Architecture (FEA), the Geo LoB will work to identify opportunities for efficiency to reduce the cost of government and improve service to citizens through business performance improvements.

- The Geo LoB will work to ensure a standardization of geospatial data with a business-driven focus. The coupling of geospatial data, services and technologies with conventional data, services and technologies increases performance of key mission requirements across all levels of government.

- The Geo LoB will work to develop processes and solutions for agencies to use in integrating geospatial data with business applications, exponentially improving the value of data analysis.

High-Level Timeline

| Mar 2006 | Apr 2006 | May 2006 | Jun 2006 | Jul 2006 | Aug 2006 | Sep 2006 |

Kick Off Meeting 3/16/06

Define/ Plan LoB

LoB Vision & Plan Completed 3/28/06

Develop RFI

RFI Distributed 4/6/06

RFI Responses Received & Evaluated 5/5/06-5/15/06

Proposed Common Solutions & Draft Architecture 6/9/06

Develop Common Solutions & Target Architecture

Draft Solutions & Architecture 5/26/06

Develop Business Case

Draft Joint Business Case due 6/9/06; Agency Comments due 6-19

Final Joint Business Case Early Aug. '06
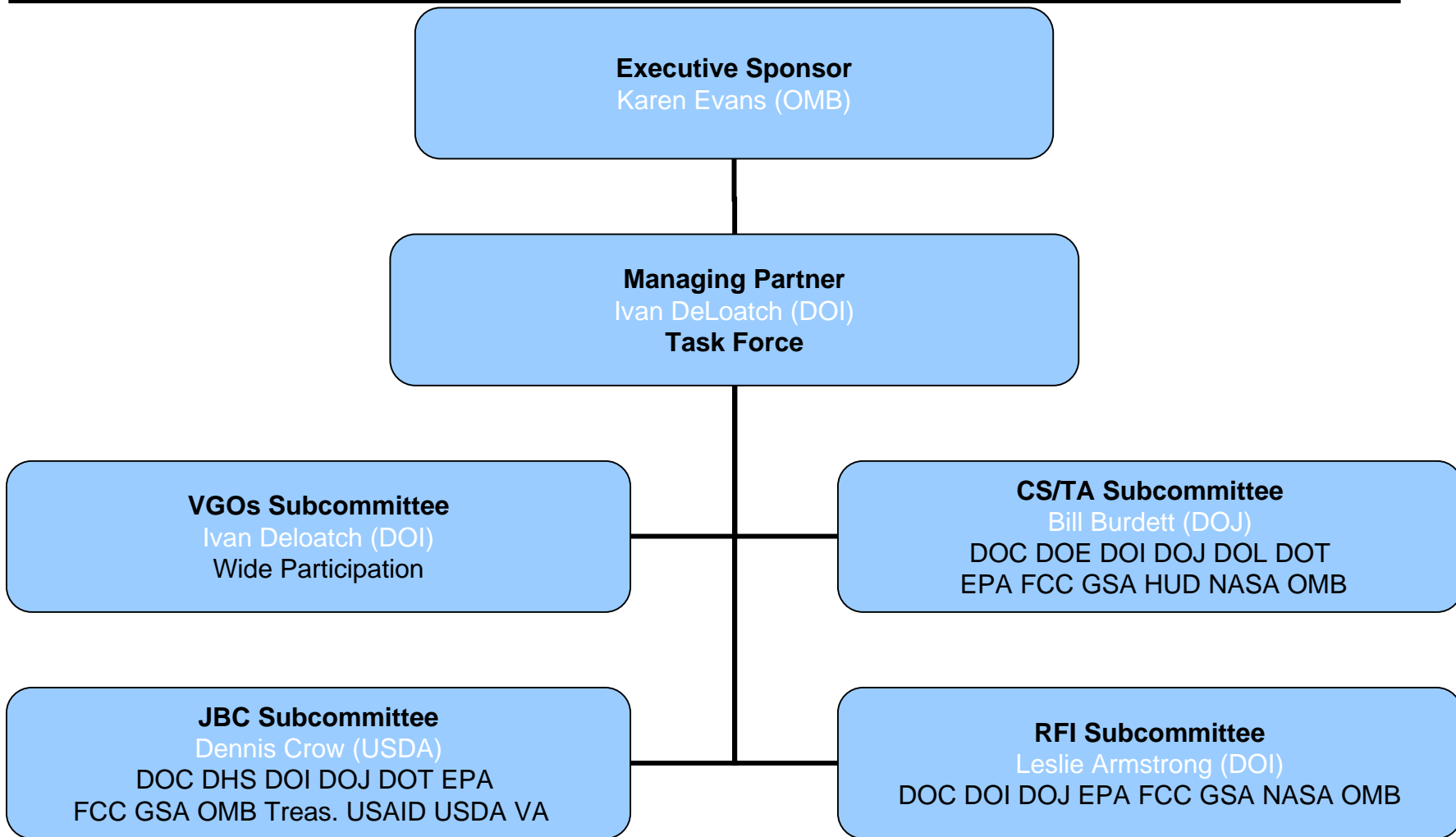
Monitor and Communicate LoB Progress/Status

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Expected LoB Outcomes

The LoB Task Forces will identify common solutions, develop a target architecture, and develop a joint (interagency) business case by August 2006.

Milestones	Key Deliverables
3/28/06	LoB Vision, Goals, and Objectives and project Plan (FY06 draft spend plan, project plan)
4/6/06	RFI to Industry, Agencies, etc.
4/18-19/06	Practitioner's Day Meetings
5/8/06	Collection of Agency Data (4/10 – 5/8)
5/5/06	Due date for RFI Responses
5/15/06	RFI Analysis and Summarization
5/26/06	Draft Common Solutions and Target Architecture
6/9/06	Proposed Common Solutions and Target Architecture
6/9/06	Draft Joint Business Case for LoB Common Solutions
6/12/06	Draft Joint Business Case to Agencies for Comment
6/19/06	Due Date for Agency Comments on Draft Joint Business Case
Early Aug 06	Final Joint Business Case for LoB Common Solutions

Task Force/Subcommittee Structure

Executive Sponsor
Karen Evans (OMB)

Managing Partner
Ivan DeLoatch (DOI)
Task Force

VGOs Subcommittee
Ivan Deloatch (DOI)
Wide Participation

CS/TA Subcommittee
Bill Burdett (DOJ)
DOC DOE DOI DOJ DOL DOT
EPA FCC GSA HUD NASA OMB

JBC Subcommittee
Dennis Crow (USDA)
DOC DHS DOI DOJ DOT EPA
FCC GSA OMB Treas. USAID USDA VA

RFI Subcommittee
Leslie Armstrong (DOI)
DOC DOI DOJ EPA FCC GSA NASA OMB

Final Vision

Vision

(A statement that reflects what complete success of the Geo LoB looks like)

The Nation's interests are served, and the core missions of Federal agencies and their partners are met, through the effective and efficient development, provision, and interoperability of geospatial data and services.

Final Draft Objectives

Goal 1 - Productive intergovernmental collaboration for geospatial-related activities and investments across all sectors and levels of government

Objectives

(The tactical targets that lead to achieving the goals)

- To improve governance processes and results in alignment with common geospatial solutions
- To identify, evaluate and implement common geospatial services, processes and best practices
- To enhance coordination across geospatial community stakeholders

Final Draft Objectives

Goal 2 - Optimized and standardized common geospatial functions, services, and processes that are responsive to customers

Objectives

(The tactical targets that lead to achieving the goals)

- To implement guidance provided through the FEA Geospatial Profile

- To adopt, deploy and promote effective use of geospatial interoperability standards

- To establish an LoB-wide business architecture for common functions associated with geospatial information

Final Draft Objectives

Goal 3 - Cost efficient acquisition, processing, and access to geospatial data and information

Objectives
(The tactical targets that lead to achieving the goals)

- To coordinate geospatial requirements and capabilities
- To identify opportunities and consolidate geospatial acquisition activities
- To enhance LoB-wide portfolio management
- To develop and implement geospatial requirements language for Federal grants and contracts

RFI Questions

Please address each of the following key aspects in your response to each scenario:

· **Solutions** - What are the geospatial interoperable technologies, cross-cutting services and best practices, processes, consolidation, outsourcing, aggregate purchases, training programs, and types of standards that support other lines of business? What is the best approach for assembling and using multiple data sets from diverse fields where scale, units of analysis and data types differ?

· **Governance** - How do you manage and fund common geospatial assets/data and standards stewardship? How are stakeholders involved in leveraging geospatial assets across time and space and traditional governance bodies? What is the best approach to long term planning despite changes in administrations and local requirements? Describe recommendations for policy development, implementation, and compliance.

· **Costs/Benefits/Performance/Metrics** - Where are the economies of scale and how much does it cost to obtain them? What are the key performance indicators? What metrics can be obtained to measure performance? What are the key service level agreements considerations? How should the geospatial investment portfolio for the U.S. be managed and what tools could be used?

· **Transition/Change Management** - How do you sequence these types of changes? What are the critical change management issues and best practices for successful implementation? What cultural and training issues are paramount at which stages of the transition?

· **Critical Success Factors/ Issues & Challenges** - What are keys to success or the issues most likely to cause failure? How do you mitigate them?

Emergency Response Scenario

The U.S. is experiencing an adverse event (natural or man-made). Many organizations, both public and private, need to work together in real time to respond effectively. In your response, please describe each phase of the scenario:
- Preparedness
- Event Management
- Post Event Analysis

What needs to be done to coordinate the use of geospatial assets in response to a discrete event, where there is significant risk to the public, and a required response from federal, state and local emergency resources? How can the use of geospatial approaches be leveraged in this situation?

What are the key components – organizational, training, business, and technical (including fixed and mobile technology) – that establish an environment that is ready to respond (preparedness), able to respond (event management), capable of post event analysis, and provides enhancements and/or lessons learned for future event management?

Common Solution & Target Architecture

Common Solution & Target Architecture	
Description	A business process and/or technology based shared service made available to government agencies that achieves the vision, objectives, and performance metrics of the LoB.
Approach	• Employ responses from agency analysis and RFI • Develop target architecture that identifies the elements necessary to achieve LoB vision and objectives • Dependent on definition of vision, goals, and objectives and RFI process
Delivery Date	• **5/26/06** – submit draft Common Solution and Target Architecture • **6/9/06** – submit proposed Common Solution and Target Architecture

Common Solution Framework
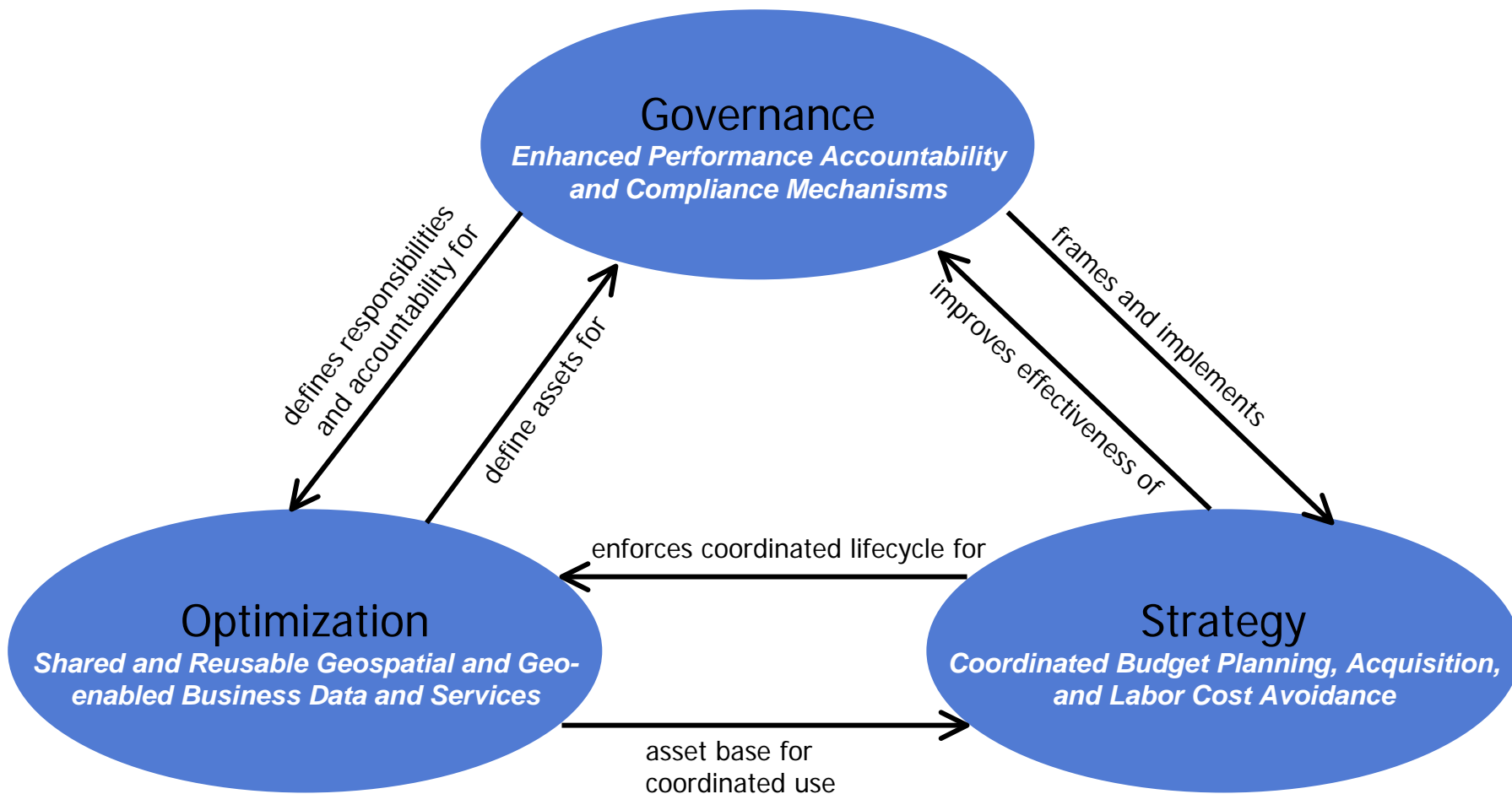
Target Architecture - Services

Back Office

Data Management

Data Exchange
Extraction & Transformation
Data Mart
Data Warehouse
Metadata Management
Data Cleansing
Data Classification

Support

Security

Access Control
Role / Privilege Management

Search

Query
Precision / Recall Ranking
Classification
Pattern Matching

Business Analytical

Analysis & Statistics

Geographic Analysis*
Imagery Analysis*

Visualization

Mapping / Geospatial /
Elevation / GPS

Knowledge Discovery

Data Mining
Modeling
Simulation

Business Intelligence

Decision Support &
Planning

Reporting

Ad Hoc
Standardized / Canned
OLAP

Digital Assets

Content Management

Tagging & Aggregation

Knowledge Management

Information Retrieval
Information Mapping / Taxonomy
Information Sharing
Categorization
Knowledge Capture
Knowledge Distribution & Delivery

Records Management

Record Linking / Association
Digital Rights Management

Business Mgmt.

Supply Chain Mgmt.

Catalog Management
Ordering / Purchasing

***These services are not
accounted for in the FEA SRM**

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Joint Business Case

Business Case	
Description	**A joint FY08 Exhibit 300**
Approach	• **Written by the managing partners in collaboration with the participating agencies** • **Must comply with A-11 guidance** • **Dependent on identification of common solution and development of target architecture**
Delivery Date	• **6/9/06 – submit draft Business Case** • **6/12/06 – disseminate draft to agencies for comment** • **6/19/06 – agency comments due** • **Early Aug. '06 – final business case ready**

Security and Privacy Considerations

- National Spatial Data Infrastructure- promotes open access to geospatial information

- Geospatial information supports many missions (cross-cutting), including national security, law enforcement, health care, the environment, and natural resources conservation

- OMB requires that for any appropriation used to develop IT systems that a privacy report be generated and filed with the Department which identifies any sensitive information which is to be utilized in the system

Security and Privacy Considerations

- Geospatial data is partnership driven and requires ensuring the integrity and protection of partners information

- How do we balance the practice of open access with the need the manage and secure geospatial?

- E-Authentication

- Certification and Accreditation: Sensitive information systems have to go through extensive C&A to assure that the information is in fact protected

Security and Privacy Considerations

- DHS has a policy "Protection of Sensitive Information Voluntarily Provided to DHS ".

- There are no consistent policies that manages the content of websites

- Who should be responsible for the content on a federal agency's Web site—the agency's public affairs office, CIO office or some other oversight body?

Questions ??????????

Thank You

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