It is all about the DoD Net-Centric Data Strategy

November 16, 2004

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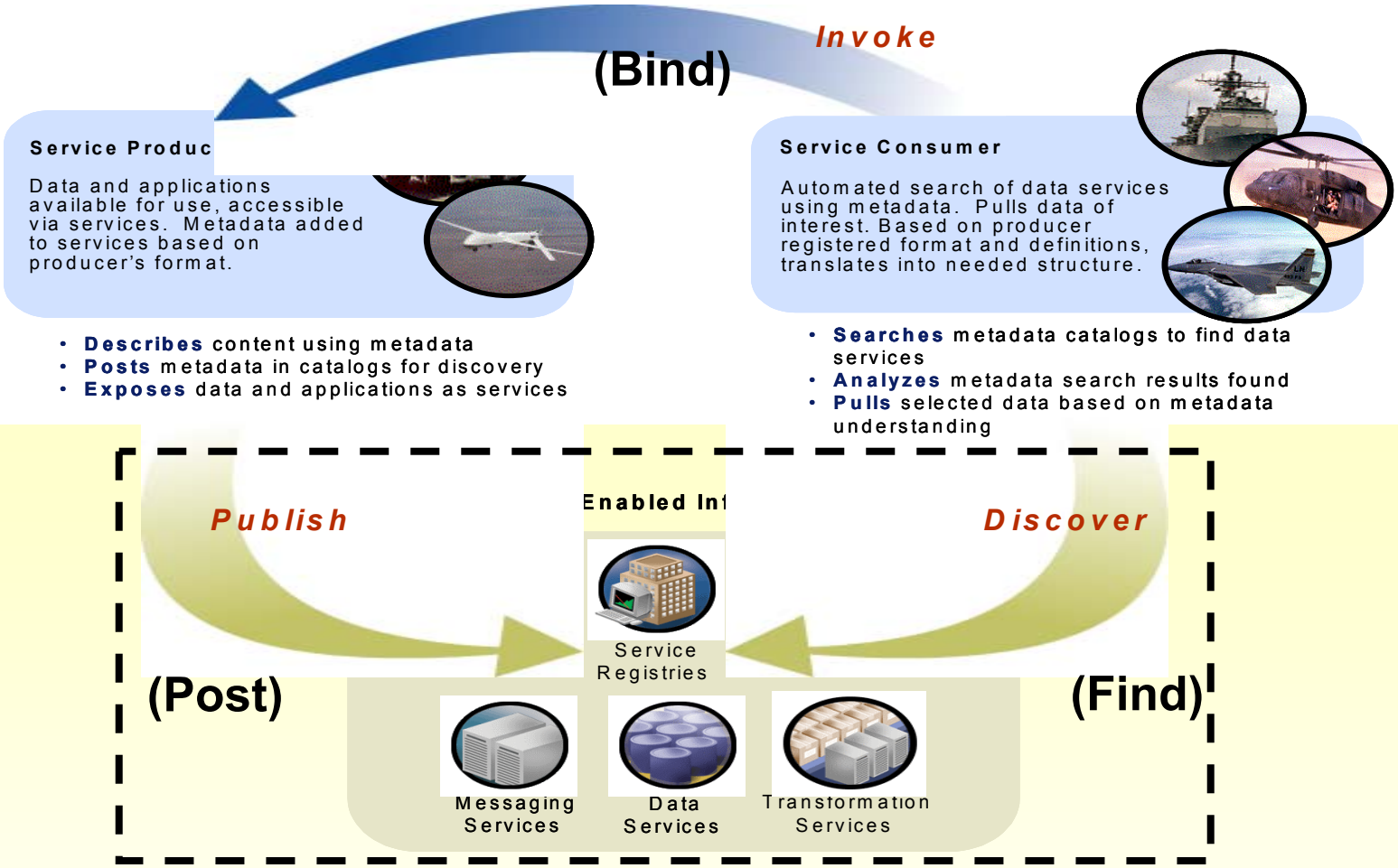
Net-Centric Enterprise Services (NCES)
Key Enabler of a Service-Oriented Architecture



NCES will deliver a capabilities-based infrastructure for ubiquitous access to timely, secure, decision-quality information by edge users

U.S. Infrastructure Efforts To Enable Net-Centric Information Sharing

Applications & Community of Interest (COI) Services

Service-Oriented Architecture

Core Enterprise Services

- Enterprise Systems Management - Messaging - Discovery - Mediation
- User Assist - IA/Security - Storage - Collaboration

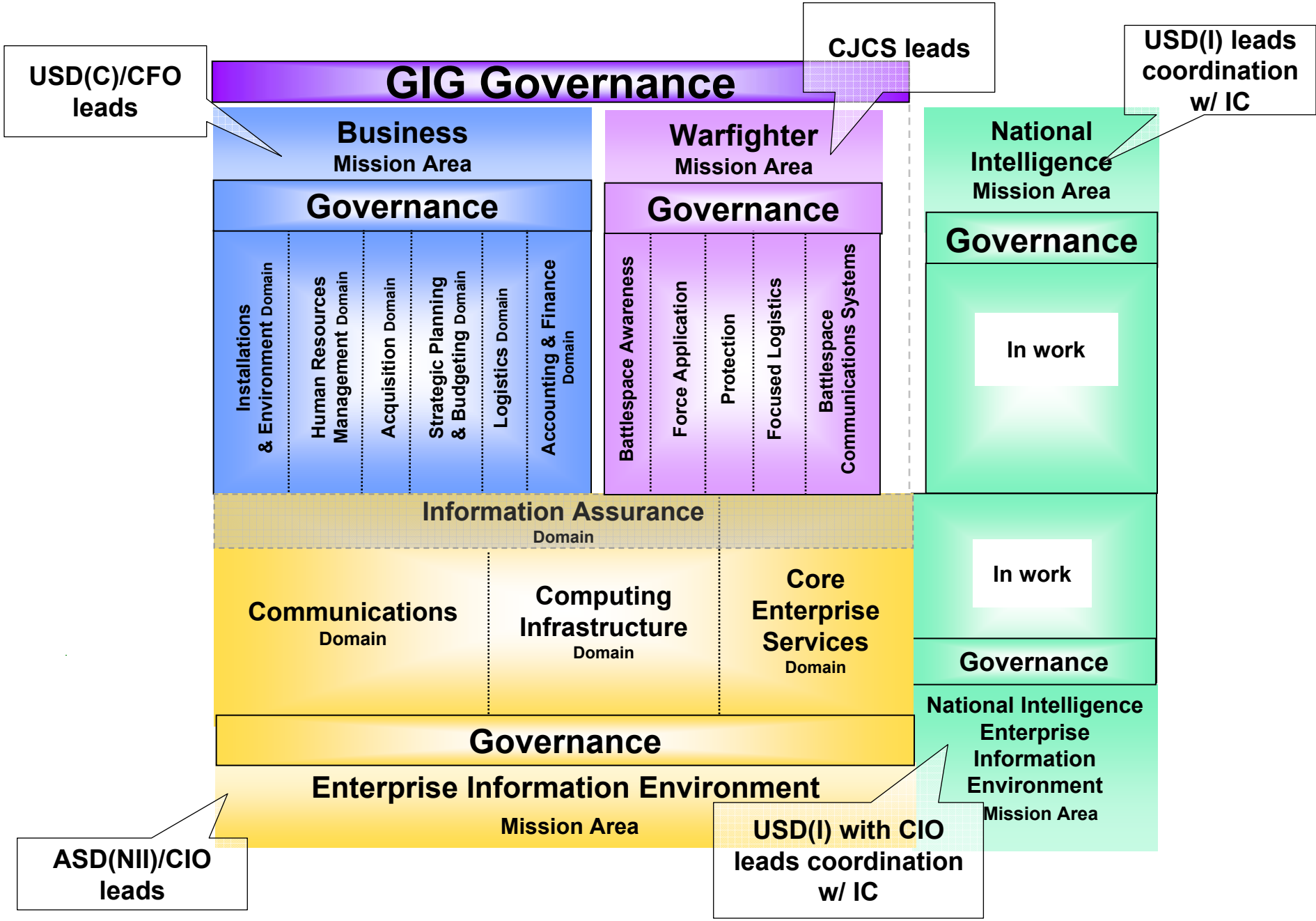
Robust Transport

Transformational Communications System (TCS)
Joint Tactical Radio System (JTRS)
Global Information Grid Bandwidth Expansion (GIGBE)

IA/Security
Multi-national Information Sharing Architecture/Policies

Transport, Services, Applications, and IA/Security Infrastructure allows for secure, global U.S. and multi-national information sharing

DoD Portfolios and Related National Intelligence Portfolios



Net-Centricity Objectives

- Deliver capabilities-based infrastructure for ubiquitous access to timely, secure, decision-quality information by edge users
- Enable information providers to post and share any information they hold
- Enable edge users (including authorized unanticipated users such as Coalition Alllies and non-governmental organizations) to:
  - rapidly and precisely discover and pull information resources
  - dynamically form collaborative groups for problem solving
- Provide security for, and coordinated management of, netted information resources
- Support the transition towards Service-Oriented Architectures (SOAs) which, in turn, supports the shift towards ‘data interoperability’ versus ‘application interoperability’

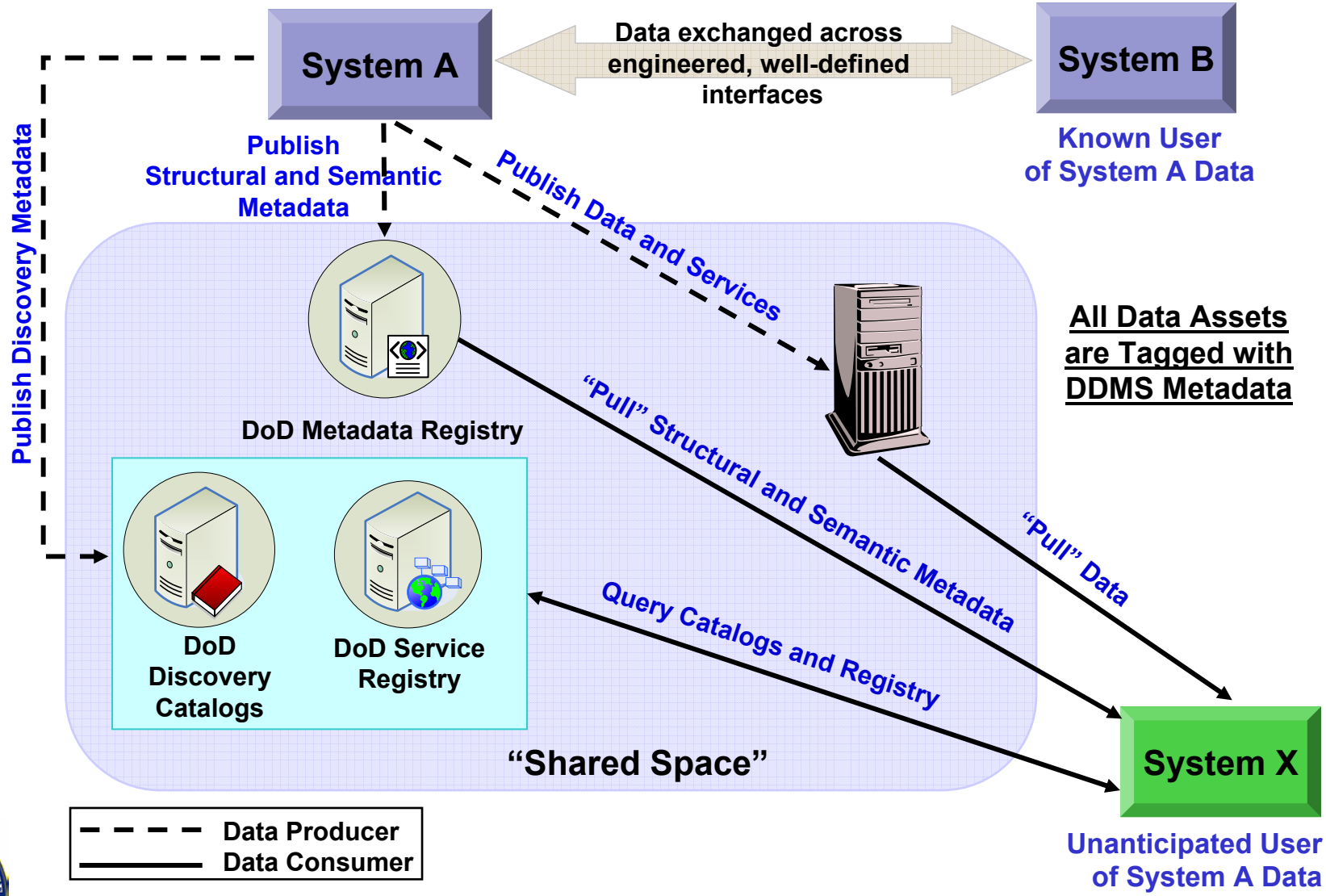
The objectives of net-centricity drive the goals of the DoD Net-Centric Data Strategy

DoD's Net-Centric Data Strategy

- The Net-Centric Data Strategy (signed May 9, 2003) is a key enabler of the Department's transformation
- The Strategy provides the foundation for managing the Department's data in a net-centric environment, including:
  - ✓ Ensuring data are **visible, accessible,** and **understandable** when needed and where needed to accelerate decision making
  - ✓ "Tagging" of all data (intelligence, non-intelligence, raw, and processed) with metadata to enable discovery by known and unanticipated users in the Enterprise
  - ✓ Posting of all data to shared spaces for users to access except when limited by security, policy, or regulations
  - ✓ Organizing around **Communities of Interest** (COIs) that are supported by Warfighting, Business, Enterprise Information Environment, and Intelligence **Mission Areas** and their respective **Domains**.

Publishing and Subscribing to Data & Services

Supporting Both Known and Unanticipated Users



DoD Discovery Metadata Specification (DDMS)

Core Layer Category Set	Primary Category	Obligation
The Security elements enable the description of security classification and related fields	Security	Mandatory
Resource elements enable the description of maintenance and administration information	Title	Mandatory
	Identifier	Mandatory
	Creator	Mandatory
	Publisher	Optional
	Contributor	Optional
	Date	Optional
	Rights	Optional
	Language	Optional
	Type	Optional
	Source	Optional
The Summary Content elements enable the description of concepts and topics	Subject	Mandatory
	Geospatial Coverage	Mandatory unless not Applicable
	Temporal Coverage	Mandatory unless not Applicable
	Virtual Coverage	Optional
	Description	Optional
The Format elements enable the description of physical attributes of the asset	Format	Optional
The COI Extensible Layer elements enable Communities to define additional discovery metadata	COI defined	Optional

DDMS Tagged for Blue Force Tracking COI

An XML formatted document

advertmeta.xml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    - <ddms:creator>
      - <ddms:Organization>
          <ddms:name>Army</ddms:name>
          <ddms:name>3ID</ddms:name>
        </ddms:Organization>
      </ddms:creator>
    - <ddms:subjectCoverage>
      - <ddms:Subject>
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      </ddms:geospatialCoverage>
    - <ddms:protectedBy>
      - <ddms:Security>
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      </ddms:protectedBy>
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  </advertise>
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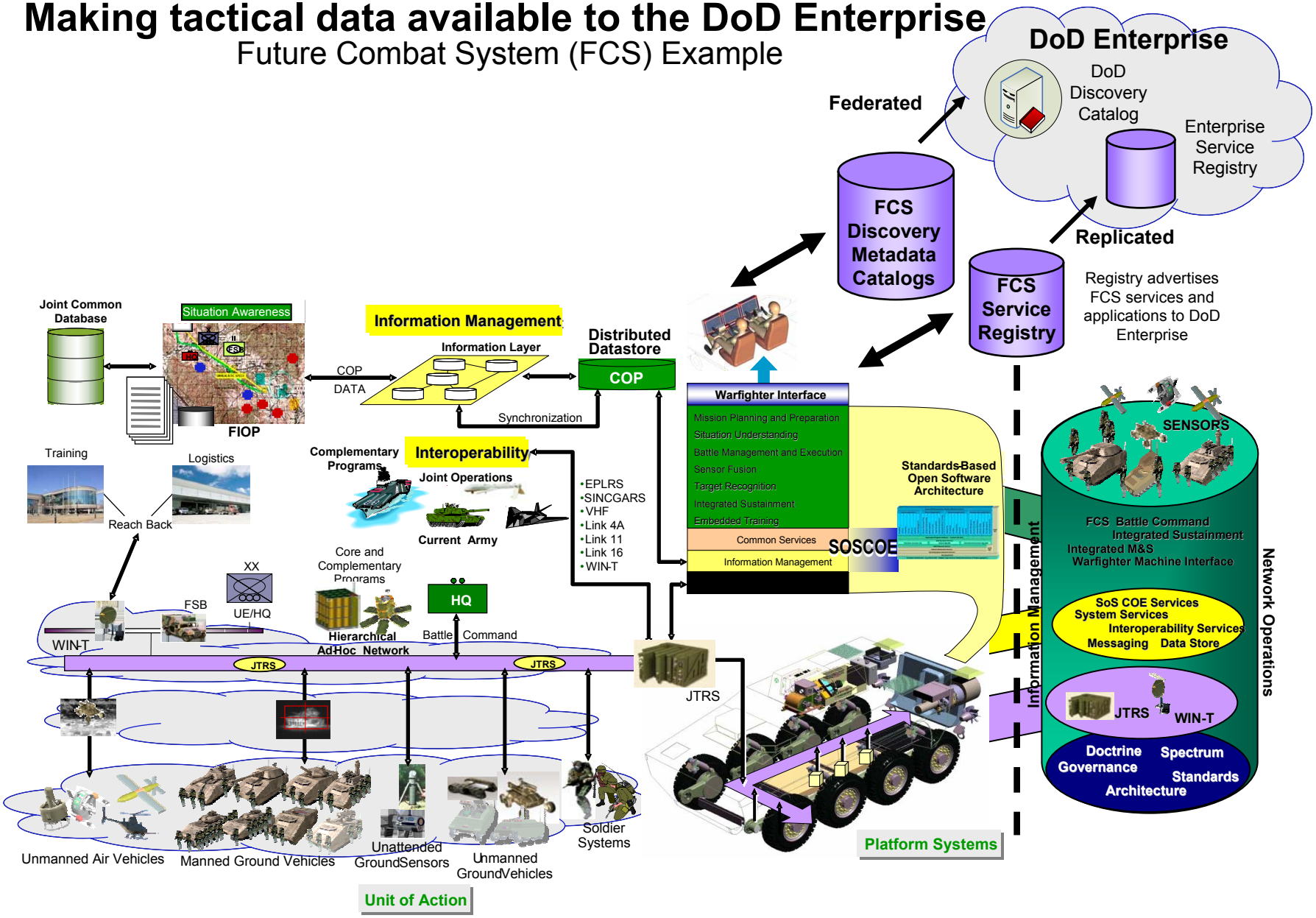
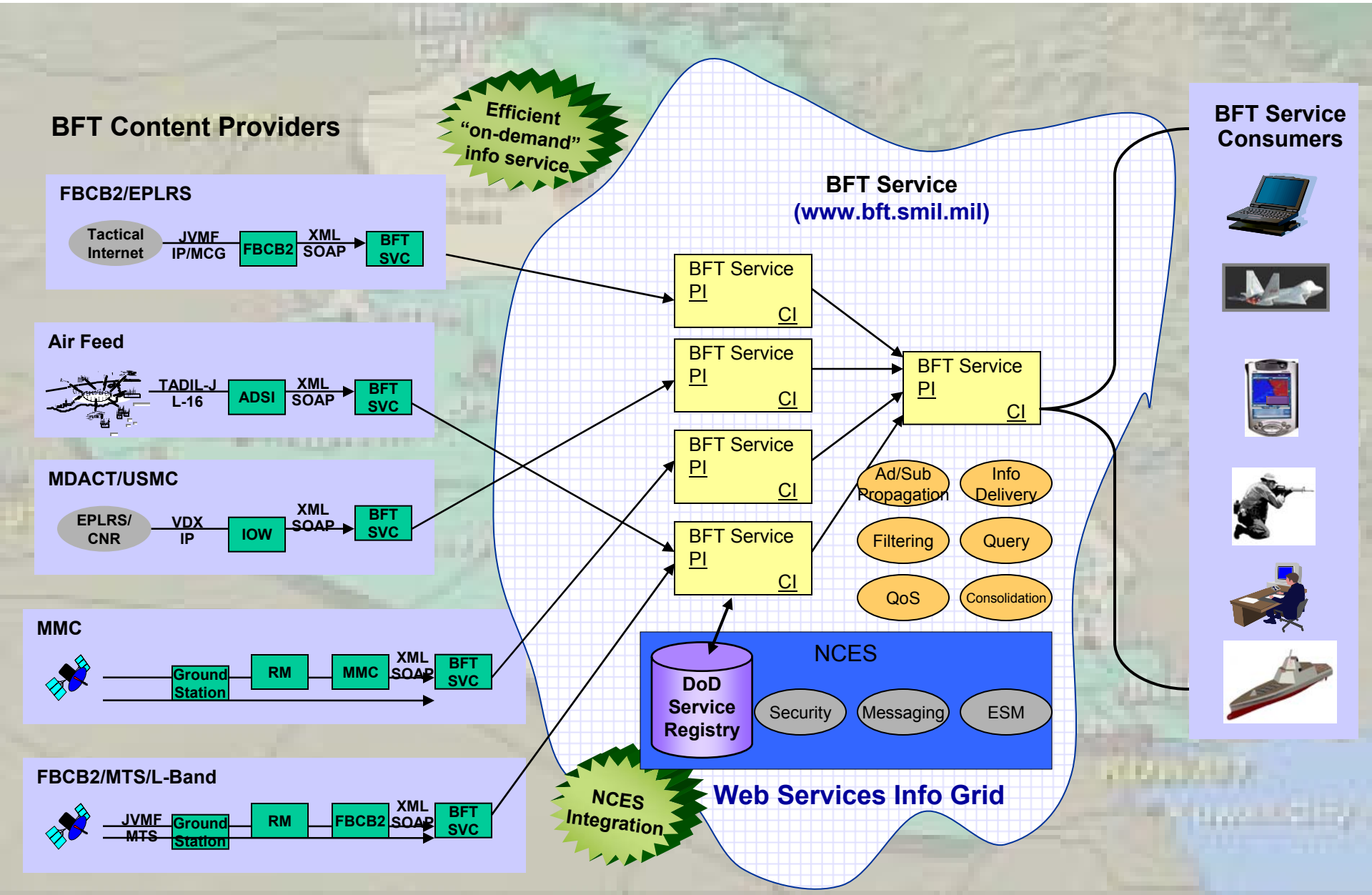
Making tactical data available to the DoD Enterprise

Future Combat System (FCS) Example

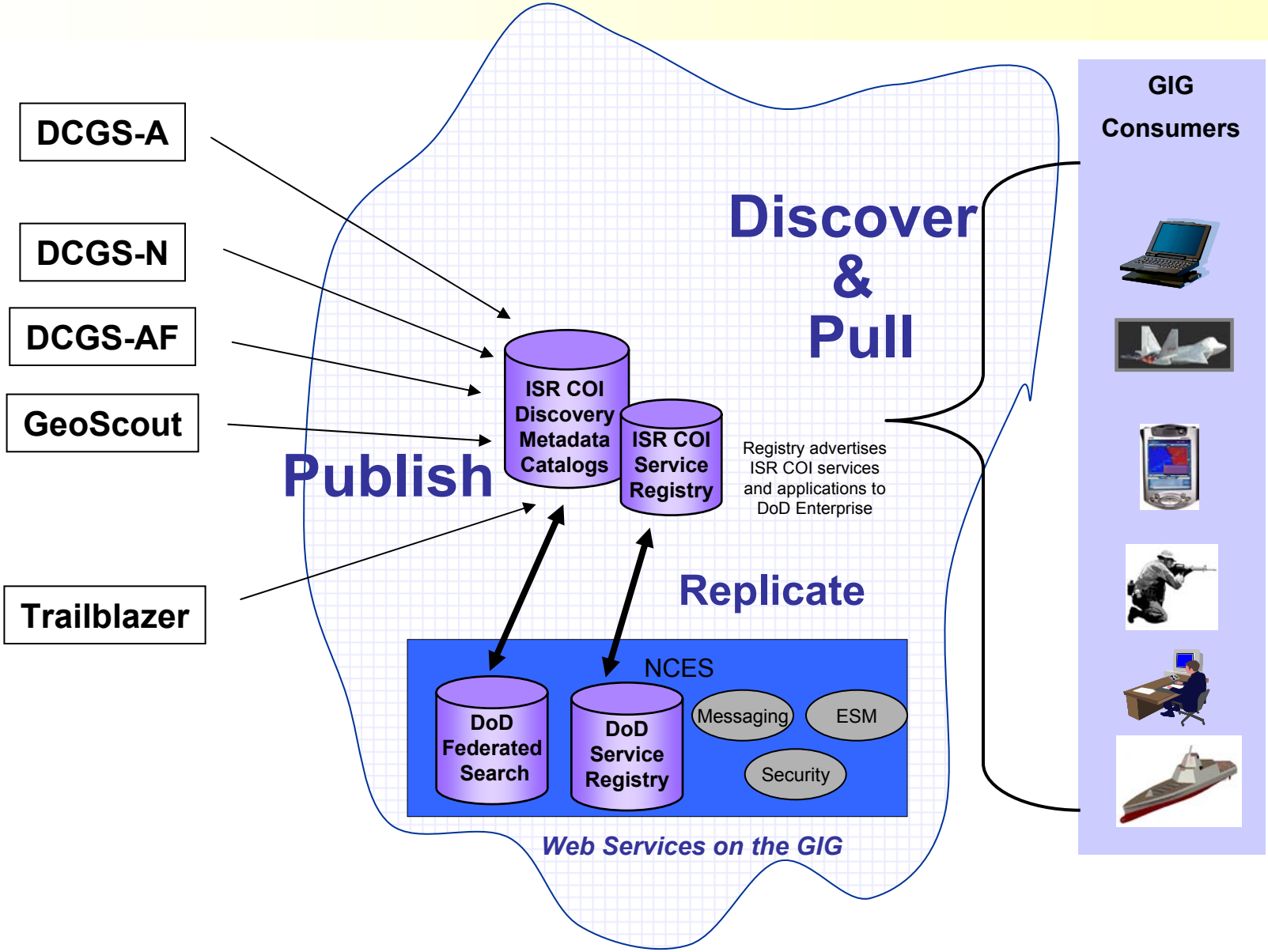


Blue Force Tracking (BFT) COI Service

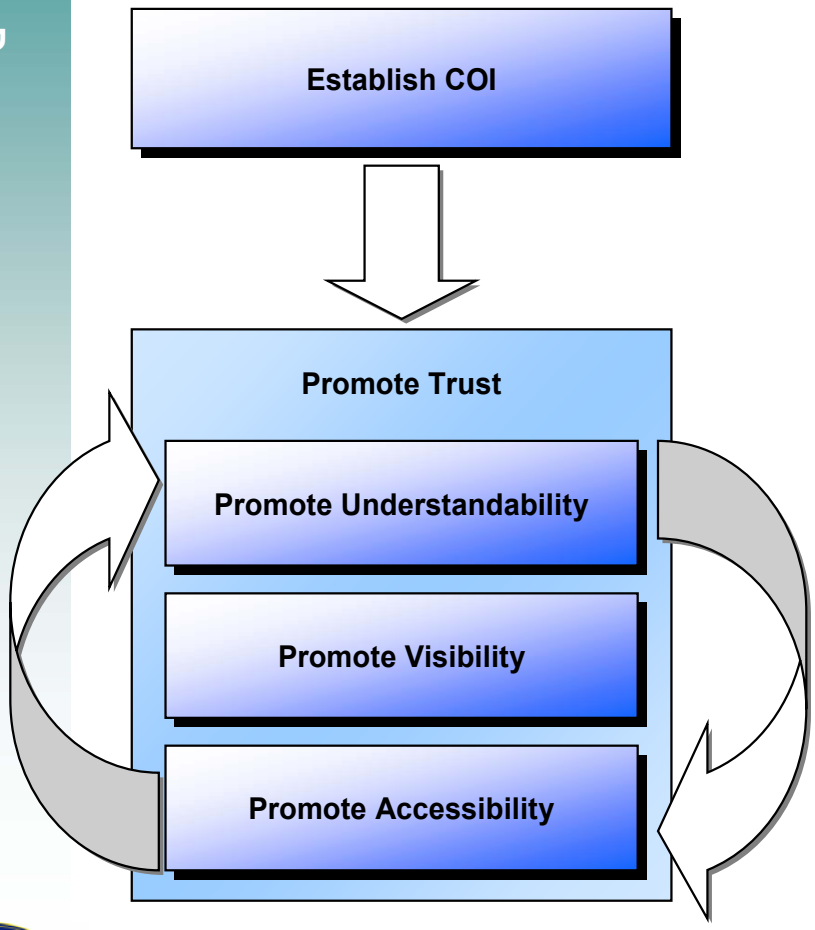
An Implementation of the DoD Net-Centric Data Strategy



ISR ES COI Approach to Implementing Data Strategy



DCIO Proposed Activities for COIs to Implement



Key Activities

1. Identify/establish COI
2. Identify membership and governance (e.g. Mission Areas, Domains) and key stakeholders (e.g. Programs, Operators)
3. Identify/prioritize/select key COI capabilities and data assets to expose to Enterprise
4. Register into DoD COI Directory (https://extranet.itis.osd.mil/coi)
5. Define and register COI structural metadata (e.g. taxonomy, vocabulary, data models, schema)
6. Define discovery metadata and process (extend the DDMS)
7. Tag data assets and post to searchable catalogs (e.g. Domain metadata catalog and service registry)
8. Register COI services (supports separation of data from applications)
9. Operate and sustain COI services (e.g. web services) for selected COI capabilities (leverage NCES CES)

Joint Efforts to Implement the Data Strategy

Objective: Expose pilot COI services to the DoD Enterprise

- **Leveraging JBMC2 Roadmap**
  - Partnered with JFCOM Chief of Staff, J8, and J6
  - JFCOM obligating $3M in FY05
  - Establishing two "train-the-trainer" COI teams
- **Leveraging Business Logistics Domain**
  - Partnered with DUSD(LM&R) to pilot two MilDep led COIs
- **Leveraging USD(I) and JFCOM DCGS workgroups**
  - **Partnered with Dir, ISR Systems and Dir, JI&I**
  - **Established ISR Enterprise Services COI (DCGS FoS, DIB, Trailblazer (NSA) and GeoScout (NGA)**
- **Engaging the Military Services to lead COIs**
  - Army:
    - Joint Blue Force Tracking (PEO C3T/JFCOM)
    - NetOps (STRATCOM/DISA/E2E SE)
    - Sustainment (DUSD(L&MR))
  - Air Force:
    - Time Sensitive Targeting (XII/JFCOM)
    - Space Situational Awareness (STRATCOM)
    - Sustainment (DUSD(L&MR))

Reference Links

The DoD Net-Centric Data Strategy

http://www.defenselink.mil/nii/org/cio/doc/Net-Centric-Data-Strategy-2003-05-092.pdf

DoD Discovery Metadata Specification (DDMS)

http://metadata.DoD.mil.

DDMS Schema information

http://diides.ncr.disa.mil/mdreg/user/DDMS.cfm

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