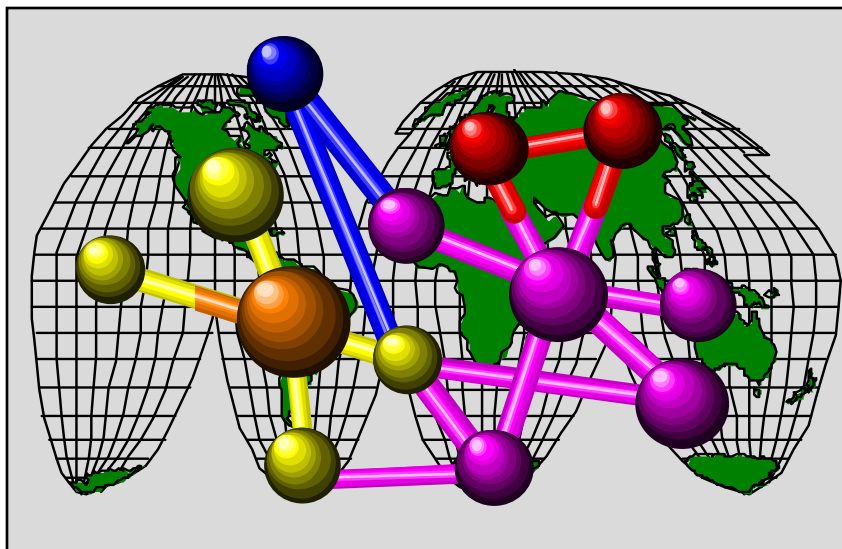


DoD Enterprise Architecture

NDIA Net-centric Operations Conference
March 2003



Department of Defense
Terry Hagle, Office of DoD CIO/A&I

607-0235

terry.hagle@osd.mil



Power to the Edge 

DoD Enterprise Architecture

- **What** is it?
- **Who** is responsible for its description, development, etc?
- **What** is its composition?
- **What** does compliance mean?



DoD Enterprise Architecture

Architecture

*The structure of **components**, their **relationships**, and the principles and guidelines governing their design and evolution over time*

DoD Architecture Framework, V 1.0

Based on IEEE STD 610.12, 1990

- **components**
- **relationships**



Power to the Edge 

Describing an Architecture

Components and Relationships

*The **DoDAF** defines three views of an architecture description:*

- Operational View
- Systems View
- Technical Standards View

Views, composed of sets of architectural data elements, define the components and relationships

***Core Architecture Data Model (CADM)** defines the entities and relationships for architecture data*



OMB/GAO: Enterprise Architecture

What is an Enterprise Architecture?

Scoping function:

Components and Relationships are enterprise in scope

An EA is the explicit description and documentation of the current and desired relationships among business and management processes and information technology. It describes the "current architecture" and "target architecture" to include the rules and standards and systems life cycle information to optimize and maintain the environment which the agency wishes to create and maintain by managing its IT portfolio. The EA must also provide a strategy that will enable the agency to support its current state and act as the roadmap for transition to its target environment.

Source: OMB Circular A-130, Revised (Transmittal Memorandum No. 4),
8 December 2003, Section 8, Policy, paragraph b, (2), (a) (page 15 Of 23)

- Current Architecture (AS-IS)
- Target Architecture (TO-BE)
- Transition Strategy



Global Information Grid Architecture

DoD's Enterprise Architecture

Information Technology Architecture for the Executive Agency

DoD CIO

"Develop, maintain, and facilitate the implementation of a sound and integrated information technology architecture for the executive agency"

(40 U.S.C. Section 1425)

- AS-IS Architecture -- Version 1.0
- TO-BE Architecture -- Version 2.0
- Transition Strategy -- NCOW Reference Model

Target Audience: Capability Developers & Program Managers' Technical Staff

- 'What' not 'How'
 - Not an implementation strategy
- 20xx timeframe
- Not an Architecture

- Language/taxonomy
- Net-centric Enterprise Services Strategy
- Net-centric Data Strategy
- Net-centric Information Assurance Strategy



Why Build a Reference Model?

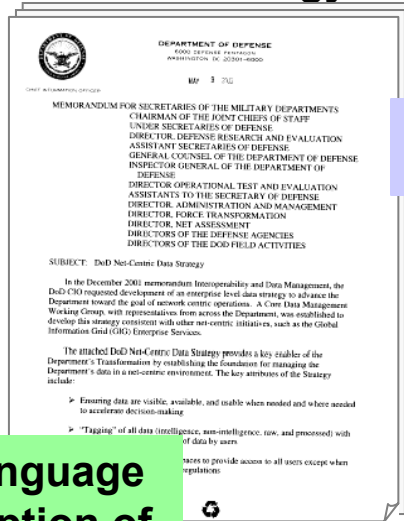
- ✓ Integrated Net-centric strategies – Define the target architectural environment
- ✓ Provide Program Managers **acquisition guidance** on what to make contractually binding beyond the *Joint Technical Arch (JTA)*.
 - Provide immediate utility without time-consuming analysis of the DoD Enterprise Architecture (GIG Architecture Versions 1 and 2)
 - Overcome difficulty of relating and applying a broad Enterprise Architecture to specific programs.
- ✓ Provide a **common net-centric architectural construct** congruent with the DoDAF.
- ✓ Establish a **common language and taxonomy** for NCOW concepts.
- ✓ Demonstrate and promote the **TPPU Vision**.
- ✓ Focus the GIG Arch compliance requirement
- ✓ DoD **mapping to Federal Enterprise Architecture**
- ✓ Support evolution of the *DoD Architecture Framework* and the DoD IT Standards Registry (DISR) – previously known as the JTA

Building the Model is a collective DoD effort



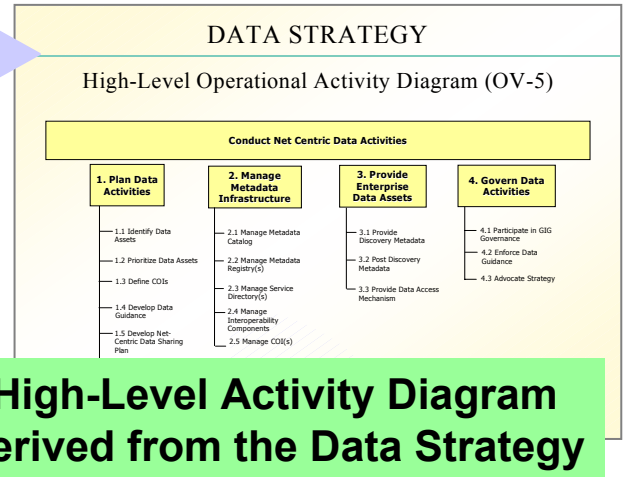
NCOW REFERENCE MODEL VERSION 1.1 INCORPORATING NET-CENTRIC DATA STRATEGY

DoD Net-Centric Data Strategy



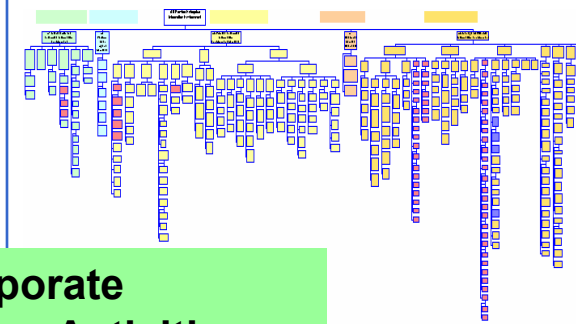
English-language
text description of
the DoD Data
Strategy

Data Strategy Working Group Architecture Products



High-Level Activity Diagram
derived from the Data Strategy

NCOW REFERENCE MODEL VERSION 1.1 ACTIVITY DECOMPOSITION



Incorporate
Data Strategy Activities

Ncow Reference Model
Version 1.1
Activity Decomposition

Power to the Edge

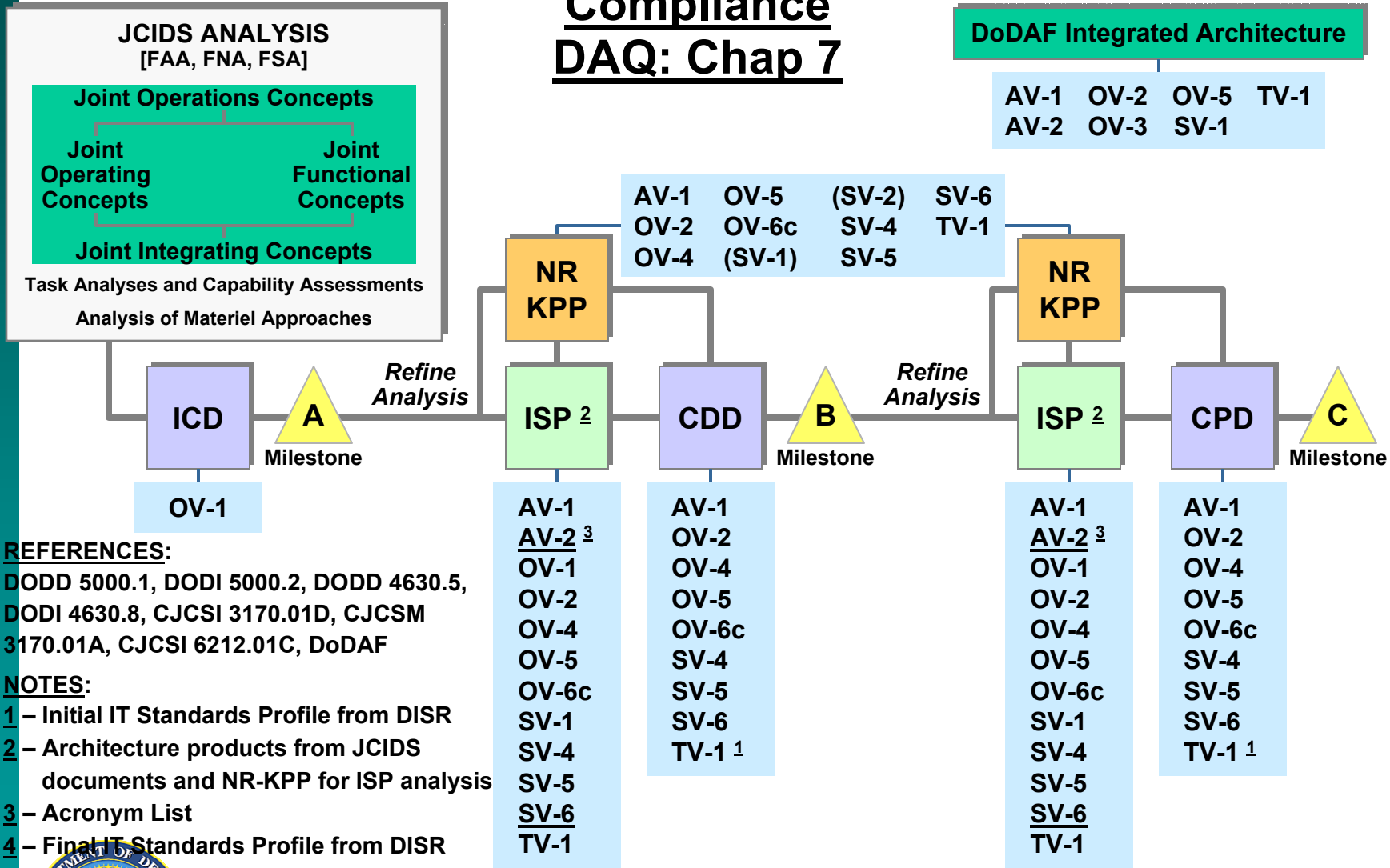


THE GLOBAL INFORMATION GRID ARCHITECTURES AND DECISION-MAKING PROCESSES

Compliance DAQ: Chap 7

DoDAF Integrated Architecture

AV-1 OV-2 OV-5 TV-1
AV-2 OV-3 SV-1



REFERENCES:

DODD 5000.1, DODI 5000.2, DODD 4630.5,
DODI 4630.8, CJCSI 3170.01D, CJCSM
3170.01A, CJCSI 6212.01C, DoDAF

NOTES:

- 1 – Initial IT Standards Profile from DISR
- 2 – Architecture products from JCIDS documents and NR-KPP for ISP analysis
- 3 – Acronym List
- 4 – Final IT Standards Profile from DISR



No new documentation required



**ERP (COI) Application
Service Modules**

**A32 - Provide
COI Services**

A32-ERP-A1 - Logistics

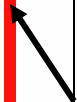
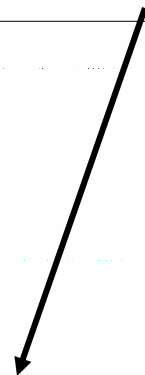
**A32-ERP-A2 - Financial
Management**

**A32 -ERP-A3 - Work
Force Management**

**A32 -ERP-A4 - Infrastructures
& Facilities Management**

**A32 -ERP-A5 - Program/
Project Management**

**“Capability” Interface
(where ERP capabilities
become visible to users)**



EIEMA Domains

- Core Enterprise Services
- Computing
- Communications
- Information Assurance

Net-centric strategies
Integrated in the NCOW Reference Model



EIEMA Governance Portfolios

- **Portfolio Management (PfM):** A disciplined approach to analyzing, selecting, controlling and evaluating the best mix of investments to strengthen a mission capability.
 - Composed of: Programs of Record and other entities
- Compliance with the DoD Enterprise Architecture
 - Compliance Precursors: DoDAF, CADM, and DISR
 - NCOW Reference Model
 - Net-centric Checklist
 - Adherence to the Net-centric strategies
 - Compliance Framework in development
 - KIPS
 - On-Line Tool
 - Defense Acquisition Guidebook, Chap 7



Questions

