AEROSPACE INDUSTRIES ASSOCIATION

PRODUCT SUPPORT COMMITTEE

NetCentric Information Systems
Common Data Environment Project

NDIA SED Conference
October 26, 2006

Richard L. (Dick) Engwall
President RLEngwall & Associates

AGENDA

- Review Project Goals
- Review Project Accomplishments to Date:
  - Phases 0/1 Concept of Operations and Project Planning
  - Phase 2 Situational Assessment
  - Phase 3 Business Strategy Development
- Status and Issues Summary

Key Leaders

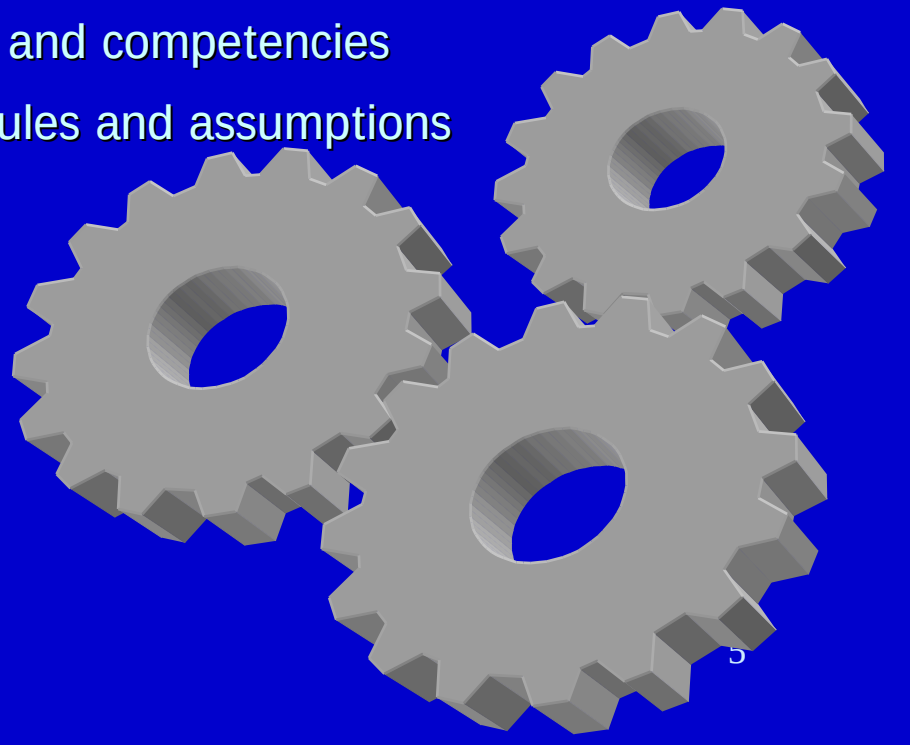
- ADUSD Logistics Policies and Plans – Jim Hall
- ADUSD Material Readiness & Maintenance Policy- Dave Pauling
- AIA Director Product Support Committee- Rusty Rentsch
- AIA PSC NII CDE Project Leader- Suzanne Schwitalla
- Multi-Association/Organization Participation

Industry Coordination Scope

- Aerospace Industries Association (AIA)
  - Electronic Business Steering Group (eBSG)
  - Procurement and Finance Committee (Proc&Fin)
  - Engineering Management Committee (EMC)
  - Technical Operations Committee (TOC)
- National Defense Industry Association (NDIA)
  - The Association for Enterprise Integration (AFEI)
  - Logistics Division
  - Systems Engineering Division
- Government Engineering & Information Association (GEIA)
- Network Centric Operations Industry Consortium (NCOIC)
- The Air Transport Association of America, Inc. (ATA)
- Council of Aerospace and Defense Industry Association (CODSIA)

CDE Project Concept

- AIA Involvement:
  - Partner with DoD to Construct Strategies and Operational Models
  - AIA to define a functional boundary for Government/Industry NetCentric Information Services Common Data Exchange
    - Collaborative scope to assist the DoD to point of departure
    - Interface of Proprietary systems and competencies
    - Plan to include a set of ground rules and assumptions
- Risk Mitigation
  - Buy-in
  - Ownership and Funding
  - Data Security



Product Data Definition

- All Data Associated with a Product During its Life Cycle to include Performance Data of All Stakeholders
  - Requirements Data
  - Engineering/ Technical Data
  - Manufacturing/Supply Chain Data
  - Supportability Data
  - Disposal Data
  - Contracts Data
  - Training Data
  - Mission Support Data
  - Etc.

Vision: Common Data Transmission and Translation Capability

- A Product Data Exchange Capability
  - -- i.e. Pull up the Data on any Screen
- Partnership
- IOC : Exchange & Interoperability
- Value Proposition
- DOD and Industry Recognized Solution

Value Proposition

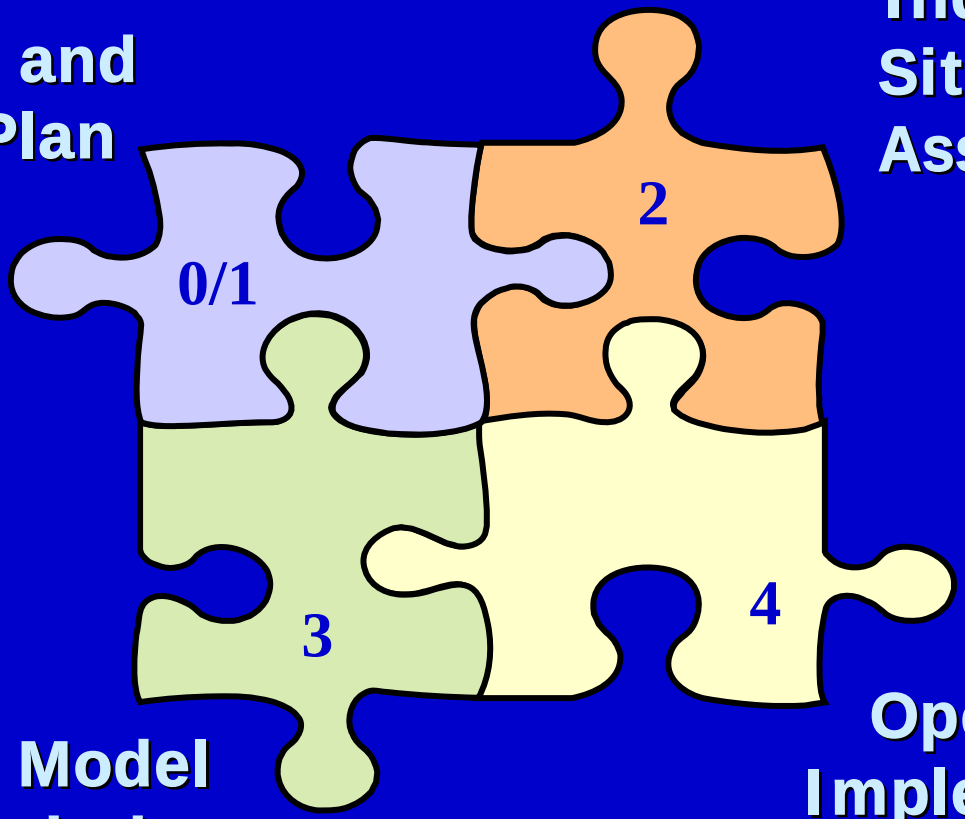
- Must have ROI
  - Cost Avoidance: Lower Capital Investments with Lower Operational Costs
  - Improved Return on Capital Invested (ROCE)
- Improved mission assurance
- Data integrity
  - Source of Data
  - Data Accuracy
  - Data Completeness
- Responsive

… A Life Cycle Perspective

Project Phases

CONOPS and Project Plan

Industry Situational Assessment



Business Model Recommendations

Operational Implementation

Key Dates / Milestones

Phase 0 (CONOPS) / **Phase 1 (Plan)**

- Kickoff: June 29, 2005
- CONOPS Development: July 20, 2005
- Deliverable to OSD: Sept 13, 2005

Phase 2

- Situational Assessment: December 8, 2006
- AIA Proc&Fin Review: January 17, 2006
- Deliverable to OSD: February 28, 2006

Phase 3

- Business Rules / Strategy Development I: April 11, 2006
- Business Rules / Strategy Development II: June 5, 2006
- Business Rules / Strategy Development III: August 29, 2006
- Business Rules / Strategy Development IV: October 10, 2006
- Report Out to OSD: November8, 2006

Phase 4

- Request for Pilot Program: November 2006
- Project Close-out: December 2006

Phase 0/1: CONOPS and Plan

- CONOPS Development Complete
  - Meeting held July 20, 2005
  - Strong Meeting Attendance
    - Gov't: DLA/OSD, DLA/DLIS, Joint Staff
    - Industry: 10 executives / 7 companies
- Key Points
  - Strategic Context
  - Operational Context
  - Security
  - MOE and Assumptions
  - Challenges and Obstacles

Phase 2: Situational Assessment

- Activity: Sep 14 thru Jan 31, 2006
- Participants: Industry (19 Companies)
- Scope of Assessment
  - DoD funded programs
  - Commercial / Industry funded programs / activities
  - Industry association - related initiatives
  - Technical / Infrastructure initiatives
  - Standards initiatives
  - Process based initiatives
  - Internationally sponsored initiatives
  - Relevant DoD policy, directives, laws, instructions

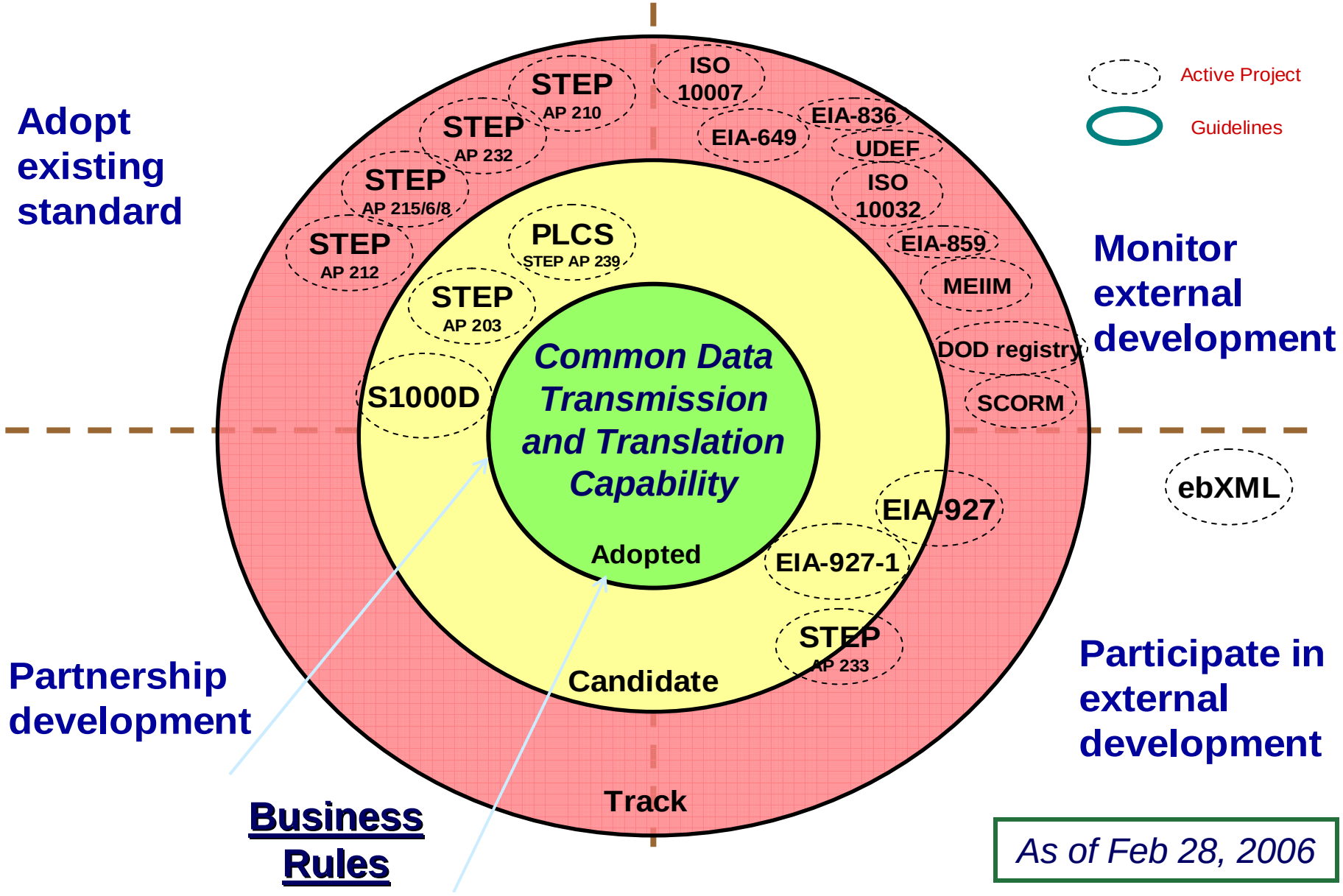
Technical Standards Assessment -1

- Technical standards are available, some usage of these standards occurs on multiple major programs
- The complete standards solution set for product data is not yet defined
- Multiple industry associations and collaborations (both for-profit and not-for-profit) recognize the need for common data standards and are applying resources towards a solution

Technical Standards Assessment -2

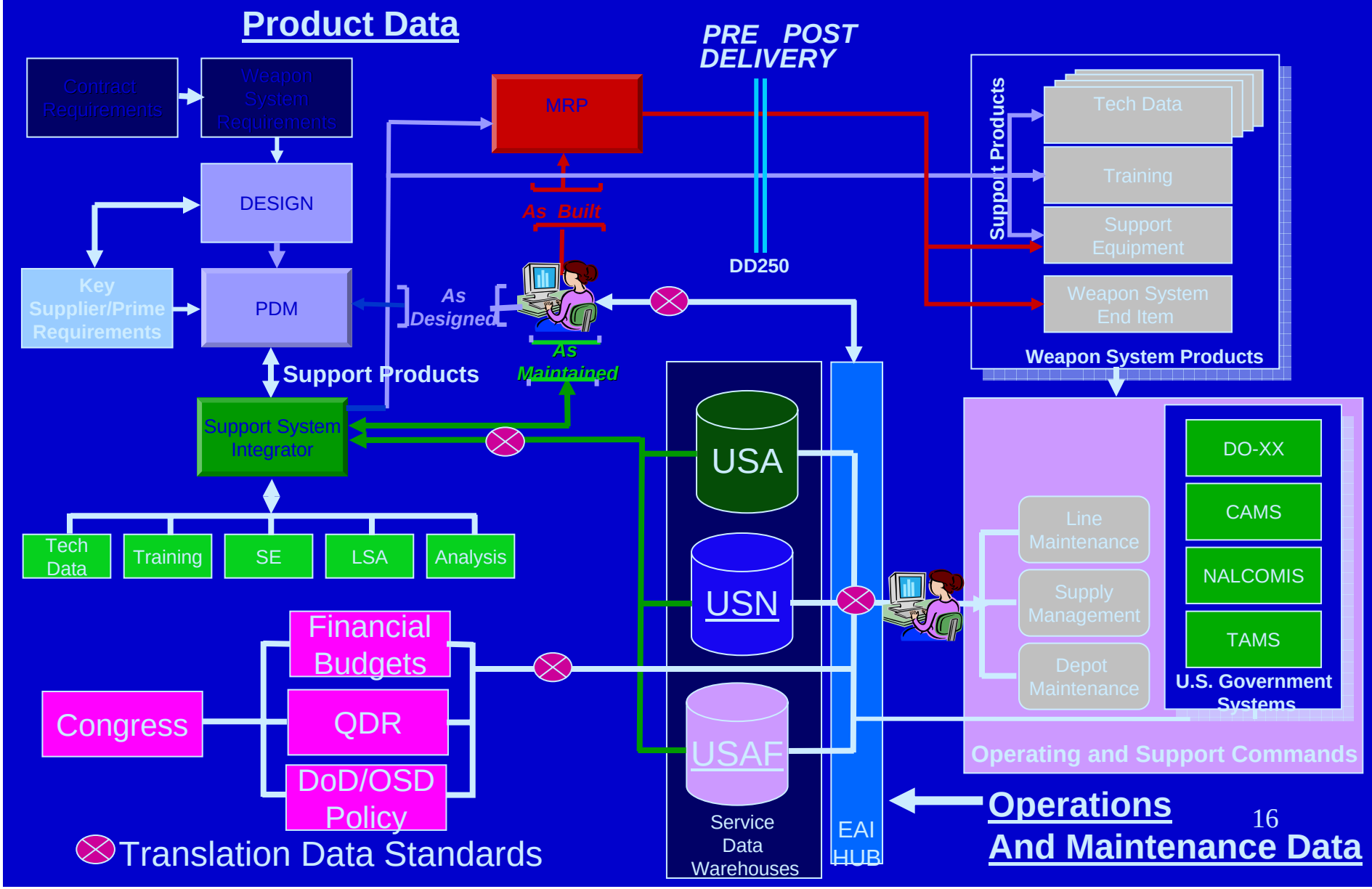
- Most currently existing solution sets are focused on operational data or transactional data, not product data
- Risk focused on data access and security measures
- Technical infrastructure, i.e. pipes and software for data movement, exist as COTS and can be readily adapted to any reasonable implementation solution

The Radar Screen – Standards



As of Feb 28, 2006

Focused Logistics: Industry View



Where We Are Going …-1

- OSD's vision is rapid and accurate product data movement from the warfighters and systems all the way back to the depots, manufacturers, the program offices, and OSD.
- Product data includes any information related to the operation, delivery and sustainment of products and services to support the warfighter.
- The scope of the immediate problem is: how to manage product data to minimize time, cost, and efficiency of moving a data file or piece of data from one organization or tool to another organization or tool.

Where We Are Going …-2

- Often significant non-interoperability exists between organizations and the tools used to manage data.
- Industry must deal with non-interoperability issues both within the commercial and the government side of the defense business.
- There is value to be extracted by all participants in streamlining and adding more transparency to data management.
- The idea is not to duplicate or eliminate useful activities currently being accomplished by either the government or industry, but to streamline and offer an easy alternative for fast and inexpensive data management as a public service to the DOD community.

Phase 3: Business Strategy

- Defining the Issue: Business Implementation Strategies for the Common Data Transmission and Translation Capability
  - Recommendations from Industry to Gov't
  - Partnership with OSD for Development
  - Participants represent wide cross-section of Industry
- Business Rules and Business Strategies Development Schedules
- Research / Homework for Follow-up Meeting:
  - Teams to present "If I Were King" business rules for operating under a common data environment scenario
  - Specific issues / roadblocks in contracts, finance, accounting, or technical areas

Characteristics of Business Rules

- Data must be available, affordable, accurate, secure, reusable, and relevant
- Allowing that technical and business approaches are similar across companies, but with tailoring/customizing that reflects competitive advantage
- Opportunity for both large and small business to participate
- Addressing of both structured and non-structured data
- Extensibility of the capability to other Government departments and commercial industry where applicable

Obstacles to Contracting-1

- Current FAR/DFAR rules don't explicitly cover interoperability and data exchange issues – all are subject to customer/contractor negotiations
  - DFAR 227.7103-2 Acquisition of technical data – access and license rights by government. *What's the reciprocal ruling for industry?*
- With wide ranging interoperability, how to generically value data to facilitate contracting among hundreds of stakeholders: it's product data
- Use commercial contracting procedures (FAR Part 12) when it makes sense – FFP inclusive of service contracts

Obstacles to Contracting-2

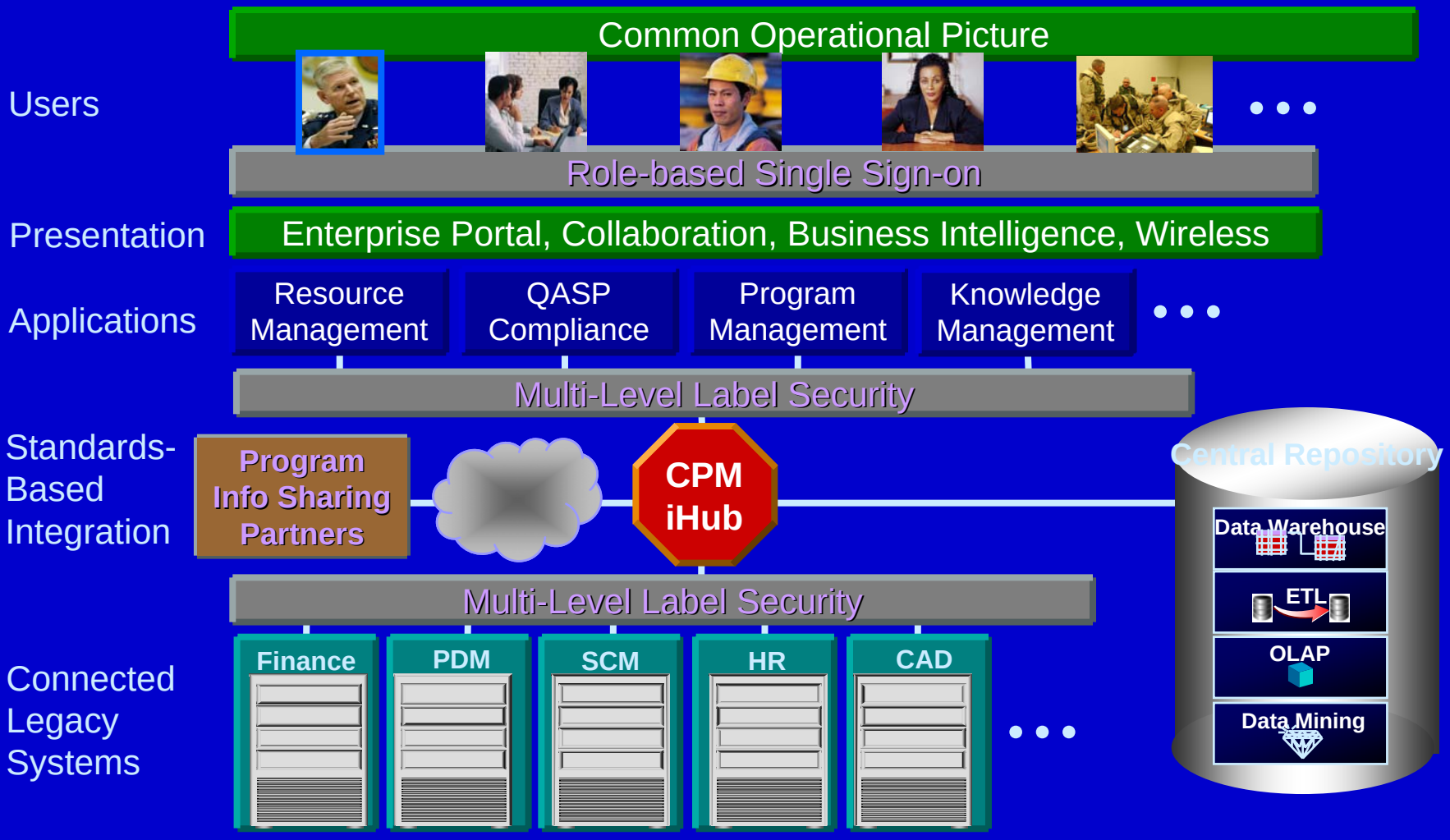
- Issues won't necessarily be around contracting, but around data assurance (DOD Dir 8500.1) that goes "to the edge" of data management, i.e. sense & respond
- Contract type shouldn't be an issue for interoperability capabilities
- Every contract is strongly encouraged to have an IDE associated with it (esp. performance based contracts) ... now it's a matter of linking contracts to the existing interoperability framework (DoD 5000.2-R)
- Assumption that standard industry flow-down clauses are applicable

There are no observed current FAR/DAR obstacles for contracting in a common data environment

Phase 3 Summary

- Recommendations to Government on Business Operational Strategies
- Assuming that Capability will be “Green”
- Risks and Mitigation for New Policy
  - Industry Buy-in with Customer-led Direction on Data Standards
  - Funding and Ownership Issues worked out
  - Data Security Measures Identified more specifically
- Coordination
  - Ensuring “no one is left out”
  - Acceptance and Adoption
  - Agreement on Standardization
- 8 month effort w/ report out in Nov 2006 (PSC Fall Conference

Proposed: Solution Architecture



CDE Steps Forward

- Vetting of proposed CDE not-for-profit activity throughout the Defense Community
- DOD to give “go-ahead” and select nonprofit provider as secretariat
- Nonprofit provider to establish not-for-profit common data environment activity
- Board seats filled
- MOA’s/MOU’s established with community technical associations
- Acceptance of the operational cell systems integrator
- Systems integrator establishes operations

Questions

Contact: Dick Engwall

President RLEngwall & Associates

Member of AIA PSC NII CDE

410 571-8623

rlengwall@aol.com