DoD Transformation to a Net-Centric Organization

C4 Community transformation

Leadership for Data Strategy and Service Oriented Architecture Implementation
  - Warfighter
  - Intelligence
  - Business

Changing DoD Processes

- Requirements
- Acquisition
- Budgeting

- Accreditation & Certification
- Testing
- Engineering

Research Community
  - DARPA, Labs focusing on helping us solve the hard problems

Congressional Support

STRATEGIC LEADERSHIP
C4 Transformation

- The Network is a Joint Enterprise, not a set of enclaves owned by individual services or agencies.
- It operates under a common rule set:  
  - Configuration Management  
  - Defense-in-Depth from an Enterprise perspective  
  - Situational Awareness and Command and Control to the edge (NetOps)
C4 Community Transformation

- Computing and transport are collapsing
  - Moving from Functional Ownership of Systems to Network Ownership of server sites and database storage sites
    - Functional community owns data and access to the data
    - No “Box huggers”, no rice bowls
- A hierarchical infrastructure for accountability, but not operations
- Focus on the information
  - Information to the edge
  - Life Cycle Management of Information
  - New skill-sets for C4 professionals
    - Focus on information, not infrastructure
C4 Community Transformation

• All mission partners must participate
  – Intelligence community
  – Homeland Defense community
  – Allies and Coalition partners
  – When you connect to the GIG, you are part of the Enterprise

• Work more collaboratively, but with discipline
  – Common rules, common standards set by JTF-GNO
  – Clear Command and Control of the network

• Moving to an infrastructure of Controlled Access to Data rather than separate infrastructure by classification
Implementing the Data Strategy and Moving to a Service Oriented Architecture

Why it’s Different
GCCCCS-J Functional Overview – External Interfaces
Task: Order a Book
Task: Global Strike Mission Planning

Operational Context Service
Situation Awareness Service
COA Service

Net-Centric Enterprise Services
IA/Security
Discovery
Messaging
Enterprise Service Management (ESM)
Storage
User Assistant
Application
Collaboration
Mediation
Task: Global Strike
Mission Planning
Changing DoD Processes
Changing DoD Processes

• Requirements
  - Dynamic Requirements Process (users groups)
    - Beta Testers
    - Subject Matter Experts
    - Gamers

• Acquisition
  - IT acquisition cycle must be fast to match commercial development cycles
  - Federated Development & Certification Environment (FDCE) becomes the entry point to the GIG
    - Push out a “70% solution” that meets today’s needs NOW

• Budgeting/POM
  – Move to capability-based Budget and POM process
Changing DoD Processes

• Certification and Accreditation Process
  – Need a certifying body for system accreditors, like an ISO 9000 process review
  – Delegation of authority with control of standards

• Testing
  – A factory approach, not an event approach
  – Testing under FDCE recognized as the standard
  – Continuous and integrated throughout development (Information Assurance, Interoperability Certification, Developmental Testing, Operational Testing)

• Engineering
  – End-to-End Systems Engineering required
    – Transport
    – Computing
    - Application Design
The Federated Development and Certification Environment (FDCE) is the set of processes and supporting infrastructure that is needed to support the conduct of net-centric Capability Provisioning Activities (CPA).
Research Community
Research Community

• Individually driven projects vs. defined research areas to solve hard problems
  – Change the method of project selection
• Need more focus on software assurance
• Need more focus on delivery of the National Security Agency “Information Assurance architecture”
Congressional Support
Congressional Support

- Net-Centricity: Hard to explain concept with many moving parts
  - Need a core of people on the Hill we can educate to be our advocates
- A cut in one program effects many capabilities
- For true Net-Centric capability, Congress must support

No constituency for Net Centric capability or the GIG