DISA

Defense Information Systems Agency

Department of Defense

Net-Centricity

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DoD Transformation to a Net-Centric Organization

DISA

C4 Community transformation

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

STRATEGIC LEADERSHIP

Changing DoD Processes

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

- Requirements
- Acquisition
- Budgeting
- Accreditation & Certification
- Testing
- Engineering

Congressional Support

C4 Transformation

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)**
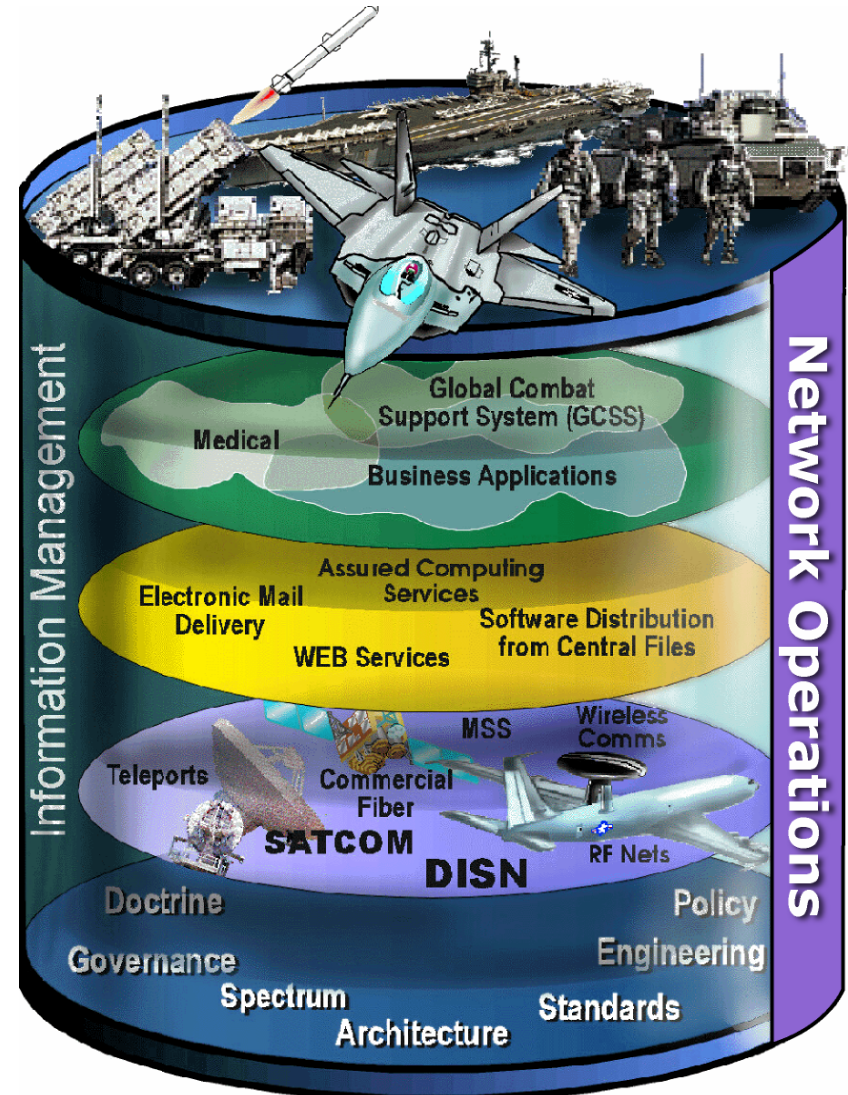
C4 Community Transformation

- **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**
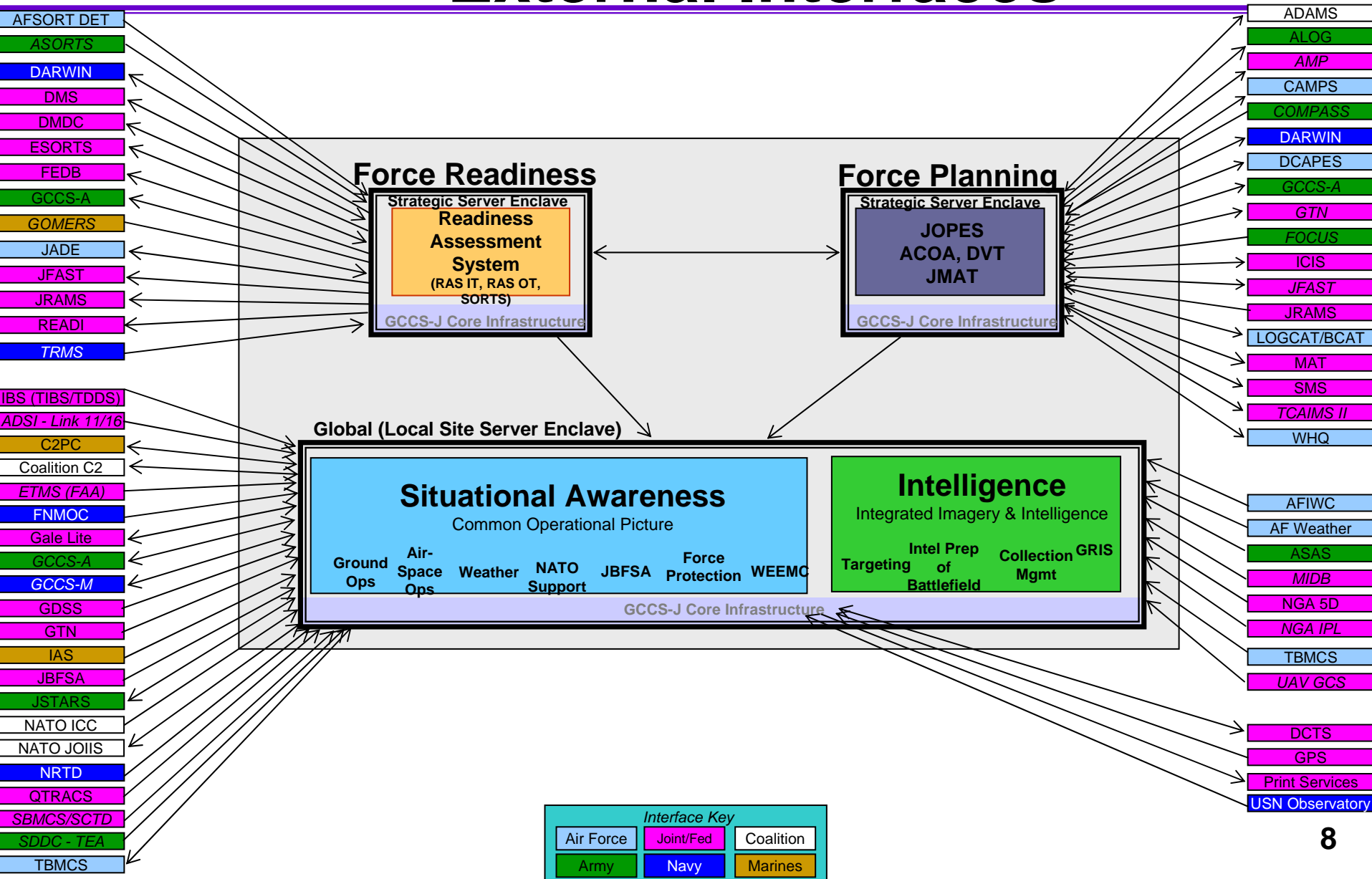
C4 Community Transformation

- **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**

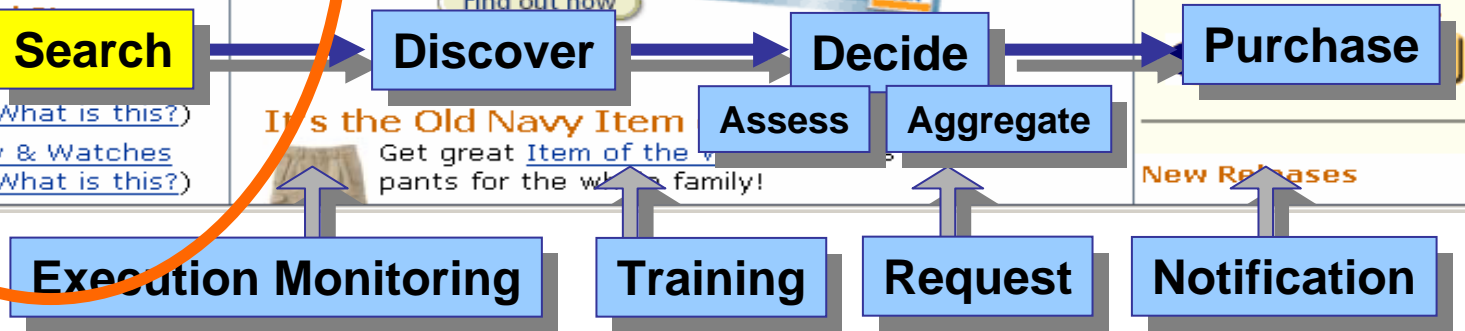# Implementing the Data Strategy and Moving to a Service Oriented Architecture

Why it's Different

DISA

Left column (external interfaces)

- AFSORT DET
- ASORTS
- DARWIN
- DMS
- DMDC
- ESORTS
- FEDB
- GCCS-A
- GOMERS
- JADE
- JFAST
- JRAMS
- READI
- TRMS
- IBS (TIBS/TDDS)
- ADSI - Link 11/16
- C2PC
- Coalition C2
- ETMS (FAA)
- FNMOC
- Gale Lite
- GCCS-A
- GCCS-M
- GDSS
- GTN
- IAS
- JBFSA
- JSTARS
- NATO ICC
- NATO JOIIS
- NRTD
- QTRACS
- SBMCS/SCTD
- SDDC - TEA
- TBMCS

Center diagram

Force Readiness
Strategic Server Enclave
Readiness Assessment System
(RAS IT, RAS OT, SORTS)
GCCS-J Core Infrastructure

Force Planning
Strategic Server Enclave
JOPES ACOA, DVT JMAT
GCCS-J Core Infrastructure

Global (Local Site Server Enclave)

Situational Awareness
Common Operational Picture
Ground Ops | Air-Space Ops | Weather | NATO Support | JBFSA | Force Protection | WEEMO
GCCS-J Core Infrastructure

Intelligence
Integrated Imagery & Intelligence
Targeting | Intel Prep of Battlefield | Collection Mgmt | GRIS
GCCS-J Core Infrastructure

Right column (external interfaces)

- ADAMS
- ALOG
- AMP
- CAMPS
- COMPASS
- DARWIN
- DCAPES
- GCCS-A
- GTN
- FOCUS
- ICIS
- JFAST
- JRAMS
- LOGCAT/BCAT
- MAT
- SMS
- TCAIMS II
- WHQ
- AFIWC
- AF Weather
- ASAS
- MIDB
- NGA 5D
- NGA IPL
- TBMCS
- UAV GCS
- DCTS
- GPS
- Print Services
- USN Observatory

Interface Key

Interface Key		
Air Force	Joint/Fed	Coalition
Army	Navy	Marines

Task: Order a Book

Search Service

Search → Discover → Decide → Purchase

Assess   Aggregate

Execution Monitoring   Training   Request   Notification

9

Task: Global Strike Mission Planning

CoMotion Web Interface - Microsoft Internet Explorer

File   Edit   View   Favorites   Tools   Help

Back | Search   Favorites   Media |

Address

Links »

Shared Works
- .LIBRARY
- Red Thunder W
- Red Thunder W
- SR EXSUM

Private Works
- vecchiog

Tools
- View Tools
  - Geospat
  - Timeline
  - Status V
  - Item De
  - Image V
  - Text Vie
  - Hierarch

New Items Pa
- Context It
  - Folder
  - Workspa
  - Asset

Exec Summary - COA DEVELOPMENT TEMPLATE

Miss. State. | CDR's Intent | C2 | Timeline | Other Guidance | COAs

COAs

COA Matrix	Wt	1 B-2	1 B-52: 12xAGM	1 B-52: 8xAGM	
Rank >		1	1	1	
a. Type		Stealth	Heavy Bomber	Cruise Missile	
b. All Weather		Y	Y	Y	
c. Civilians At Risk		MEDIUM	MEDIUM	MEDIUM	
d. Collateral Damage		VERY LOW	VERY LOW	VERY LOW	
e. Defense Suppression		4	4	0	
f. Personnel At Risk		10	25	11	
g. Force Package		MEDIUM	MEDIUM	MEDIUM	
j. Total Weapons		10	7	6	
k. Recover Notes		6-12 months	6-12 months	6-12 months	
Total					

Operational Context Service   **Situational Awareness Service**   **COA Service**

Net-Centric Enterprise Services

IA/Security   **Discovery**   **Messaging**   **Enterprise Service Management (ESM)**

Storage   **User Assistant**   **Application**   **Collaboration**   **Mediation**

Applet gov/cinc21/dfc2/comotion/applet/DFC2Applet started

Internet

DISA

NCES

Global Strike Targeting

Operational Context Service
Situational Awareness Service
COA Services

Enterprise Service Management

STRATCOM Legacy Targeting Data

Blue Force Tracking Data

Security Services

Blue Force Situational Awareness

STRATCOM JFCOM

Browser

A—B—C

Composed Global Strike

COCOM Information Dissemination Management Catalogs

Discovery Services

Federated Search

DIA Master Intel Database

National Geospatial Agency Integrated Product List

○— Denotes interface

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 <u>NOW</u>

- **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**   **- Application Design**
    - **Computing**

Federated Development and Certification Environment

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)
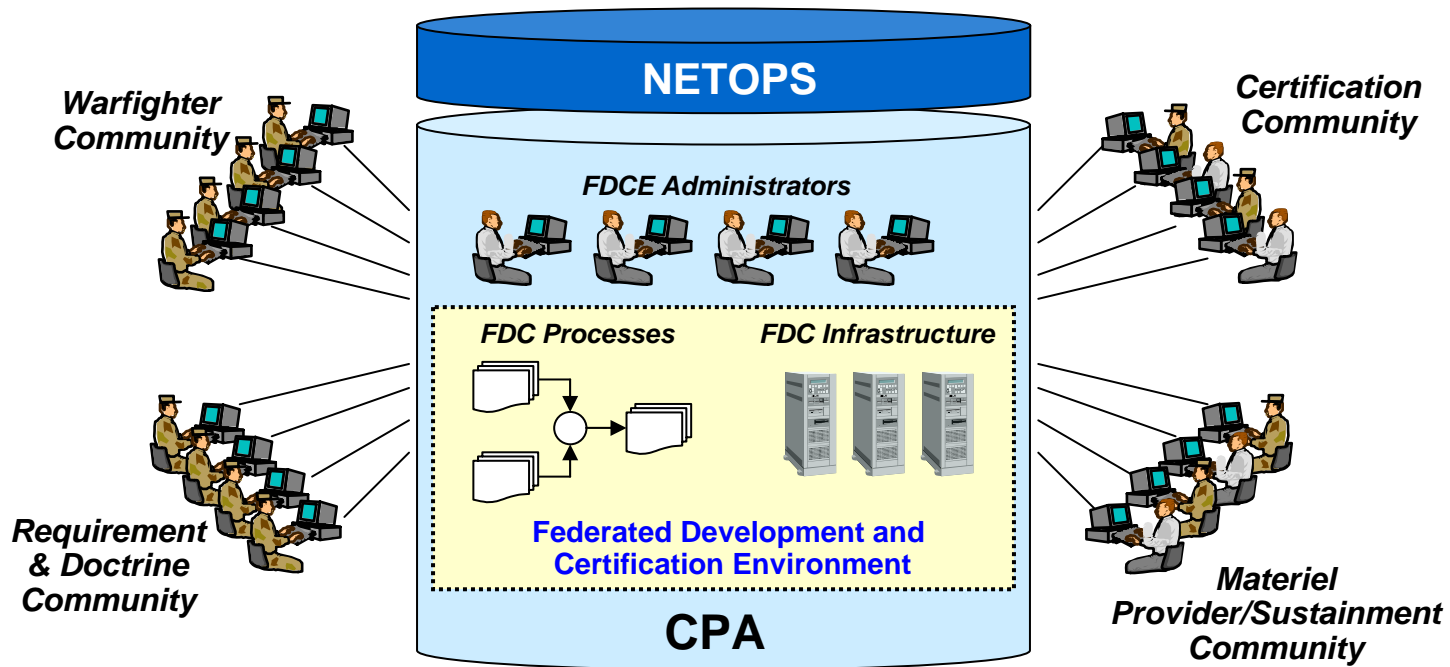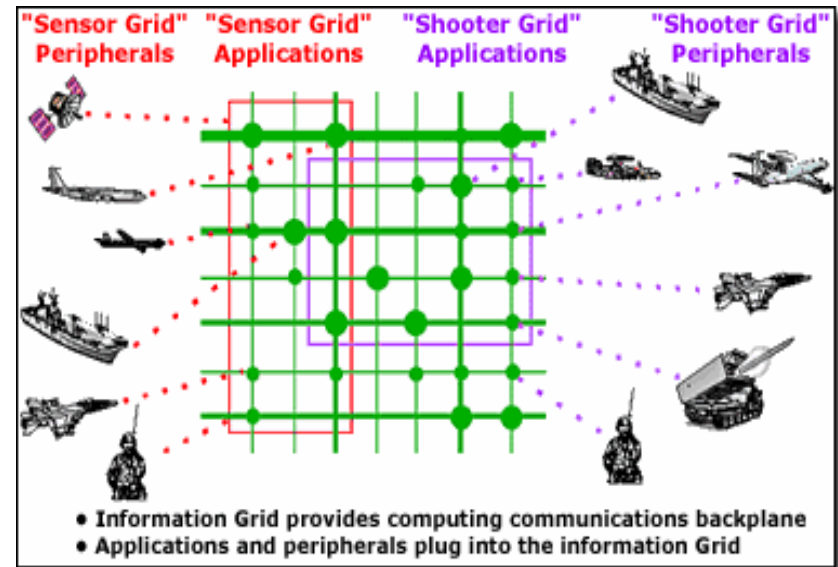
Research Community

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

- **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**

"Sensor Grid" Peripherals   "Sensor Grid" Applications   "Shooter Grid" Applications   "Shooter Grid" Peripherals

- Information Grid provides computing communications backplane
- Applications and peripherals plug into the information Grid

No constituency for Net Centric capability or the GIG