



# ***Developing and Operating within A Net-Centric Environment***

***USD(I) Panel  
NDIA NET CENTRIC OPERATIONS CONFERENCE***

*Mr. Jim Martin  
Director, IA&E, DUSD(MIP)  
James.martin@osd.mil*

*March 7, 2007*



# Panel Objective

- **Address the challenges of developing systems and operating within a Net Centric environment.**
- **Examines the challenges of the information producers and users who work in a net-centric environment.**



# Panel Introduction and Agenda

- **Jim Martin, Director, Implementation, Assessment & Execution (IA&E) DUSD(MIP)**
  - Panel Moderator
- **COL Rob Montgomery, Deputy Director, IA&E**
  - OSD Perspective: DCGS Governance/Coordination
- **Vince Snyder, BEA Corporation**
  - Managing a Multi-Service Approach to Net-Centricity
- **CAPT “Rock” Madsen, Deputy PM DCGS-Navy**
  - USN C4I Migration to a Service Oriented Architecture and Common Computing Environment
- **Jeff Malapit, System of Systems Analytics, Inc.**
  - DCGS-Army: Challenges with Multiple SOA Approaches

# ***Distributed Common Ground/Surface Systems (DCGS)***

***COL Robert Montgomery  
Deputy Director, IA&E, DUSD(MIP)  
Robert.montgomery@osd.mil***



# Distributed Common Ground/Surface System (DCGS)

DCGS is...

- An ISR System that processes and exploits US and selected coalition sensor data
- Optimized for JTF and below
- Operational today supporting GWOT/OIF/OEF
- Posts consumable Intelligence within the ISR Enterprise
- Evolving to a net-centric capability

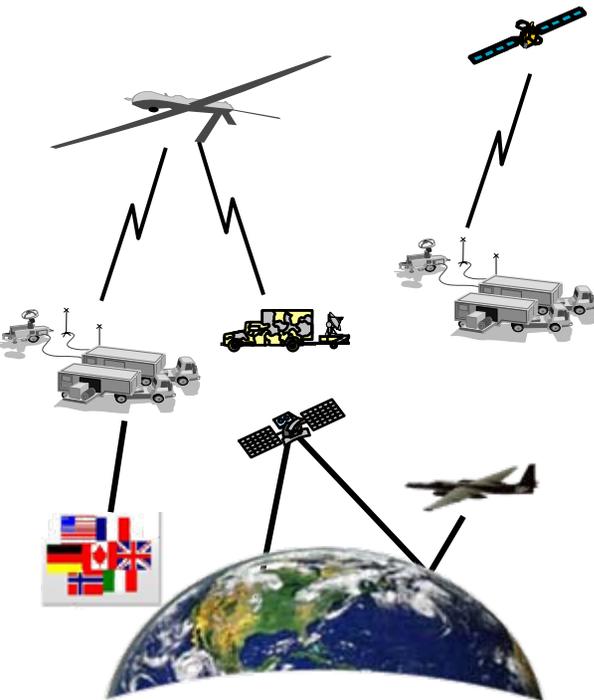


**“DCGS is ...  
the Processing and Exploitation  
Component of the ISR Enterprise”**



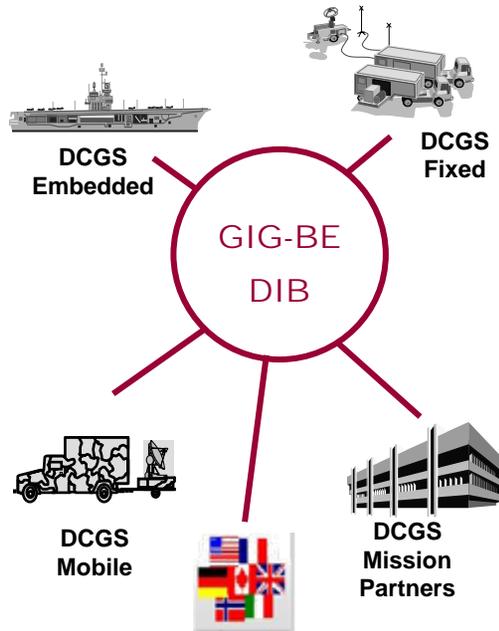
# Transforming DCGS to Net-Centricity

**“Net Enabled”**



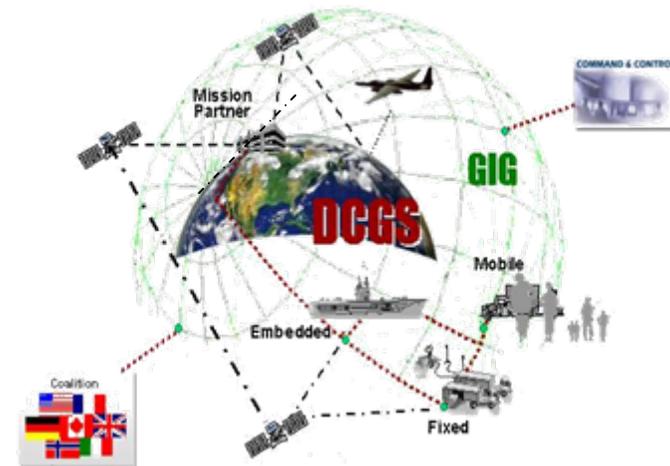
**“LEGACY”**

**“Net-Centric”  
DCGS**



**TRANSITION**

**“Net-Centric”  
ISR Enterprise**



**“TO BE”**

**Service-Mission Focus  
Technical Interoperability**

**Network – Centric  
Initial Transformation**

**Fully Integrated Networked  
Operations**



# Key Guiding Documents for DCGS Development

## Mission Area Initial Capabilities Document [6 Jan 03]

- Directed a “program to migrate to a multi-intelligence (multi-INT), common, interoperable, open systems ground systems architecture by the end of the program period.”

## DCGS Acquisition Decision Memorandum [24 Oct 03]

- Directed Services to incorporate the DCGS Integration Backbone (DIB) standards
- Requested USD(I) lead an effort to develop a more robust governance process

## JROCM 117-04 [9 Jul 04]

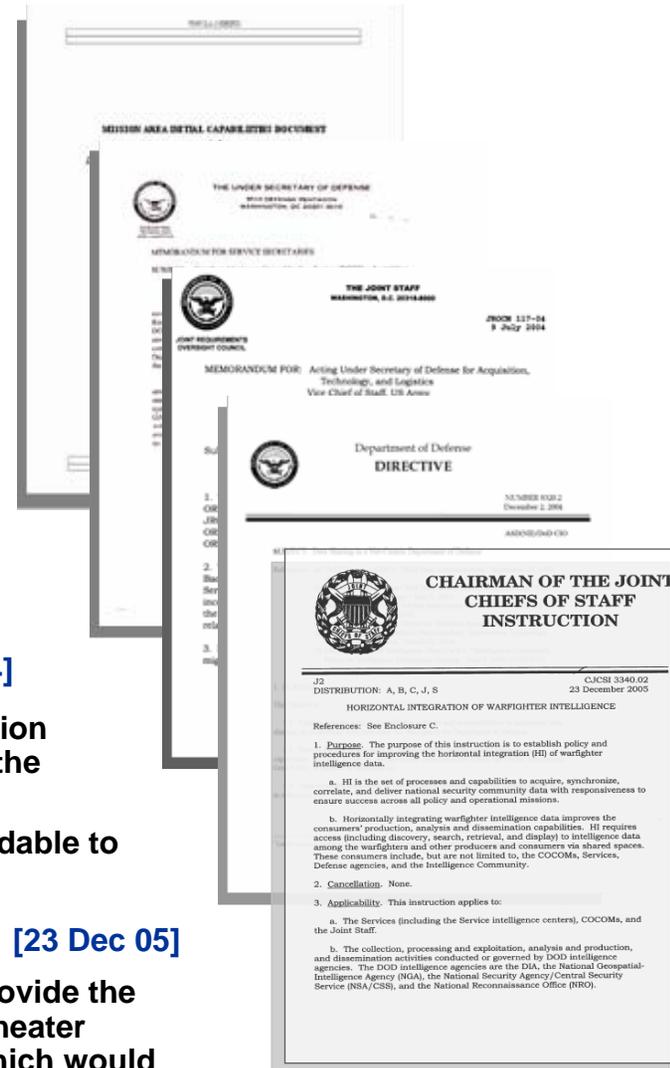
- Directed Service DCGS programs to incorporate the Air Force DCGS Block 10.2 DIB and the DIB architecture
- Directed all future Service DCGS related capabilities documents will include this requirement

## DODD 8320.2 - Data Sharing in a Net-Centric DoD [2 Dec 04]

- Directs the use of resources to implement data sharing among information capabilities, services, processes, and personnel interconnected within the Global Information Grid (GIG)
- Establishes DoD policy to make data visible, accessible, and understandable to any potential user

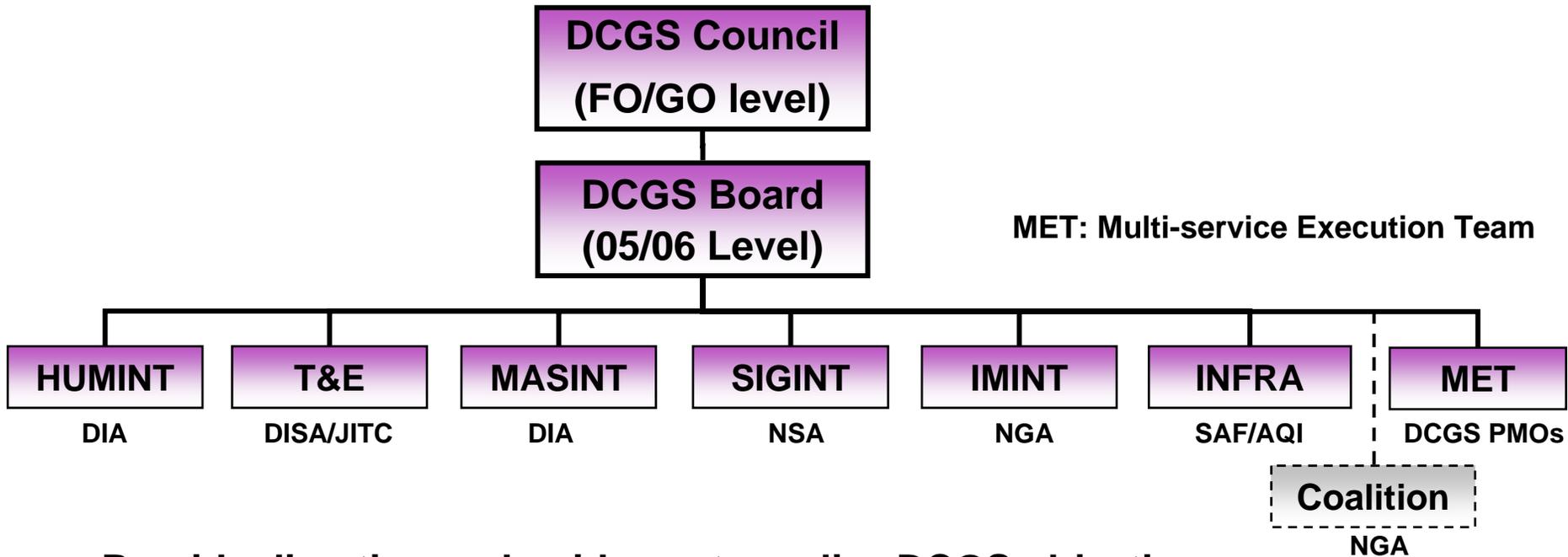
## CJCSI 3340.02 - Horizontal Integration of Warfighter Intel [23 Dec 05]

- Implements DoD policy that directs the COCOMs and the Services to provide the CSAs and Service Intelligence Centers with broad access to collected theater intelligence data along with the authority to store and distribute data which would otherwise be inaccessible, undiscoverable, and/or discarded.





# DCGS Governance - Today

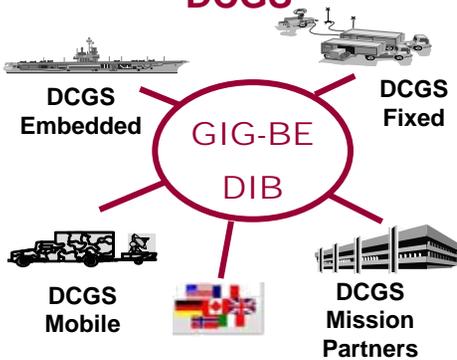


- Provide direction and guidance to realize DCGS objectives.
- Ensure alignment of Service DCGS effort with Defense Agency activities
- Address policy issues and resolves standards, formats, or technical conflicts.
- Coordinates implementation for multi-Service execution strategies for the DCGS Integrated Backbone (DIB).
- Ensure that the DIB meets the needs of all U.S. military Services



# Transforming DCGS to Net-Centricity

## “Net-Centric” DCGS



## TRANSITION

- Migration To a Service Oriented Architecture
- Integration with National Agency Systems
- Common Data Standards & Information Exchange Formats
- ISR & C2 Interoperability
- Interoperability with Allies

## “Net-Centric” ISR Enterprise



## “TO BE”

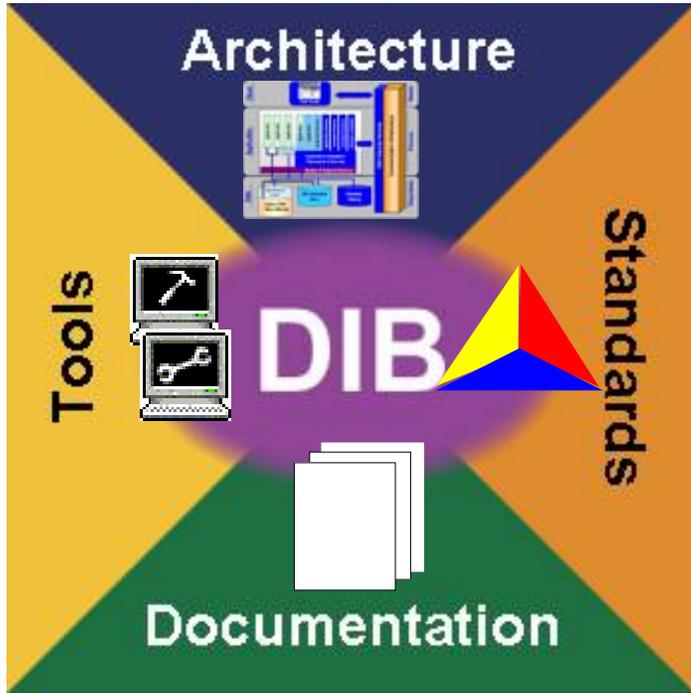
## QDR / PDM Enhancements Focused on “Attacking the Seams”

- Strengthening DCGS DIB Management
- Establishing an Environment for DCGS/DIB Development & Interoperability Testing
- Harmonizing DCGS Metadata with the CSAs
- Developing/Implementing Common CES
- Developing Joint ISR/DCGS Concept of Operations
- Supporting/Demonstrating Coalition Interoperability Initiatives



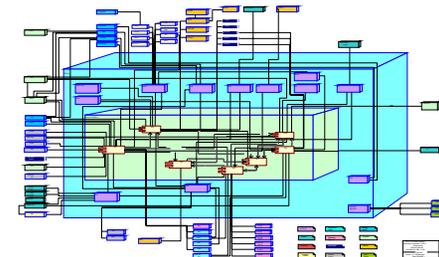
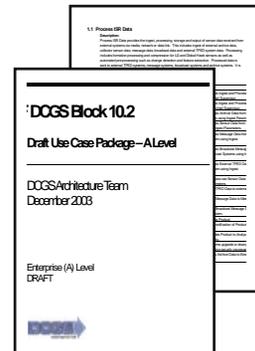
# DCGS Integration Backbone (DIB)

DIB: A common set of enterprise services and standards that serves as the foundation for the interoperability of the four Services' DCGS programs



Technical Standards Profile

Standard Category	Current NCES Standards
Security	PKI, SSL, SAML
Discovery	UDDI 3.0
Application Server	J2EE
Description	WSDL
Transport	SOAP, DIME, HTTP, FTP
Portlet	JSR-168 Java Specific
Data	XML (XML Registry), LDAP, ODBC, JDBC, SQL
Management	SNMP



**DIB is a Key Enabler for DCGS Family of Systems Interoperability**



# Need for DCGS Integration Backbone (DIB) Lead Component

- **Provide single DoD POC for DIB**
- **Decouple DIB development from AF-DCGS POR**
  - Dedicated Staff (DIB Management Office – DMO)
- **Lead efforts to ensure DIB remains relevant in meeting multi-Service DCGS requirements**
- **Develop and maintain a roadmap for the DIB transition from product to standards-based**
- **Manage Configuration of the DIB**
- **Harmonize/Coordinate DIB Migration with**
  - NCES
  - Combat Support Agencies / IC
  - DoDIIS
  - JIOC
  - All Service Needs

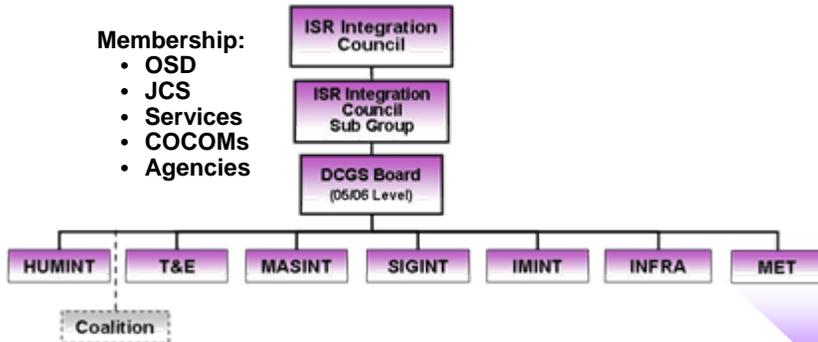
**The MET provides the environment for Multi-Service collaboration for the development & integration of the DIB**



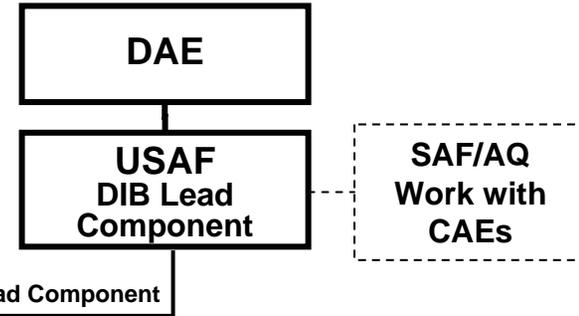
# DIB Governance Structure

## Relationship of DIB LC - MET - DMO

### POLICY and GUIDANCE



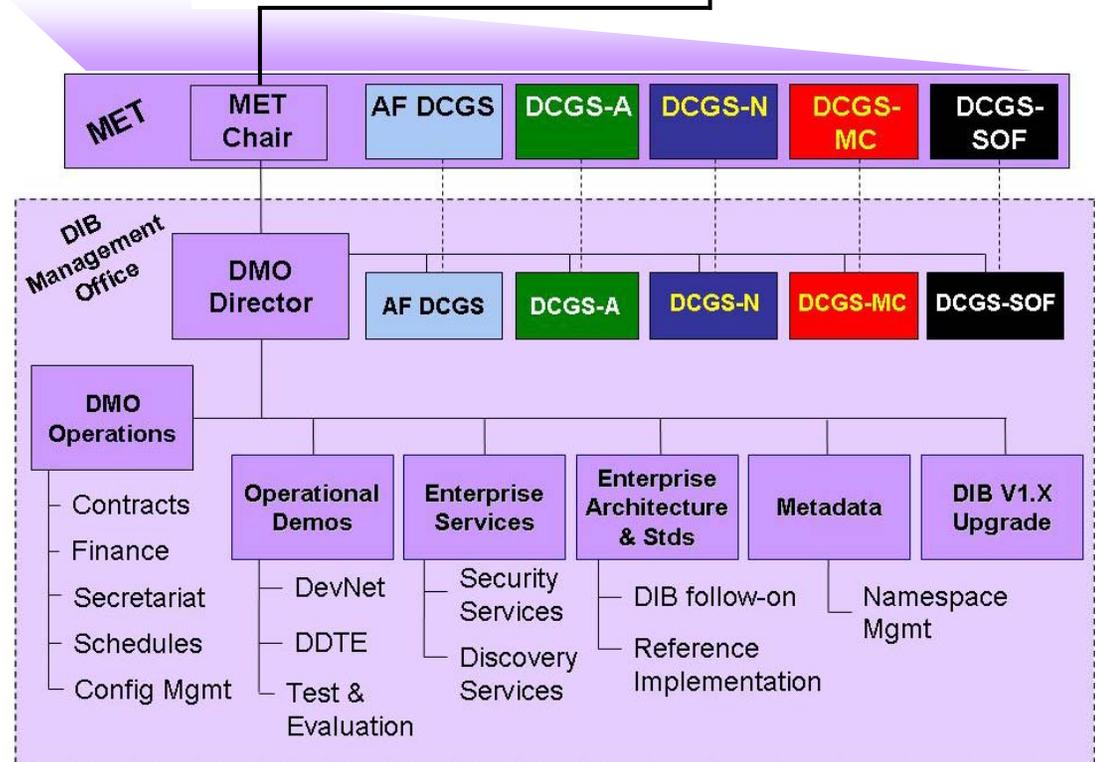
### ACQUISITION



- The MET Chair represents the MET as a member of the DCGS Board
- Lead Component provides DIB Management Office (DMO) to support the MET
- DMO is separate organization from AF DCGS PO

**A Strong Viable Governance Structure**

MET Chair: Appointed by Lead Component





# Summary

- **Migration to an ISR Enterprise is dependent on**
  - Cross Service/Agency Cooperation / Collaboration
  - Coordinated Governance
  - Adherence to the Data Strategy
- **OSD/JCS/COCOMs/Services/Agencies are working together as a Team**
  - We are making good progress; this is very complex
  - Many Challenges Remain; expectation management critical

# ***Distributed Common Ground/Surface Systems (DCGS)***

***Follow-Up Discussion Areas***



# DCGS All-Service OIPT

**On February 27, 2007 John Landon chaired an OIPT to review the Service and US Special Operations Command DCGS programs**

- **Results:**

- **OIPT endorsed Air Force designation as Lead Component for DIB development and management**
  - Implementation Plan to formalize the authorities, responsibilities and processes to manage, develop and sustain the DIB
- **OIPT recommended the following ACAT Level designations:**
  - ACAT IA for AF-DCGS, DCGS-A and DCGS-N programs
  - ACAT III for the DCGS-MC and DCGS-SOF programs
- **Services and USSOCOM may adjust their programs prior to making a final determination on the ACAT level**
- **Final ACAT decision expected with 30 days**



# DCGS Way Ahead

## Guidance & Documentation

- **DCGS Vision**
- **DCGS Roadmap**
  - Ch 8 of ISR Integration Roadmap
- **DCGS Joint Capability Document (JCD)**
  - Replaces the current DCGS MA-ICD
- **DCGS “To Be” CONOPS**
- **Service/Agency JCIDS Products**



# Ongoing Discussion Topics

- **How to maximize interoperability and utility of DCGS Data / Information provided to the Warfighter**
- **How to Manage and Govern an Enterprise**
  - Beyond DIB Management
- **What is the right approach for migrating to a product independent SOA**
  - Pilot demonstrating the DCGS-A Interface Specification Approach to Joint DCGS Interoperability
  - Leveraging ongoing efforts with NCES, JIOC-IT, DoDIIS
- **How to test / demonstrate DCGS Interoperability in a Net-Centric Environment**
  - Distributed Development & Test Enterprise (DDTE) Implementation Plan Approved
  - DDTE Management Plan in Coordination
- **What is the right approach to sharing information with Coalition Partners**

***Distributed Development & Test  
Enterprise (DDTE)***



# Distributed Development & Test Enterprise (DDTE) Governance

- **DCGS T&E Integrated Product Team**
  - **Manage DDTE Activities**
    - Annual review & update the DDTE Implementation & Management Plans
    - Event Schedule
    - Identify Funding Line Issues/Recommendations
    - Coordinate T&E Activities with OUSD(I) & Multi-Service Execution Team (MET)
  - **Ensure DDTE Remains Compliant with the OSD T&E Road Map & other DoD, Acquisition, Technology & Logistics (AT&L), & Joint Staff Policy**
  - **Report Issues to the DCGS Board (O6 Level)**



# DDTE Summary



## *DDTE will Make a Difference*

- **Enabling operationally realistic Joint environments for systems engineering and test and evaluation**
- **Integrating improved standards engineering and testing capabilities**
- **Integrating technical and operational digital data collection and analysis**
- **Leveraging data from user events for certification test and evaluation mission**

*Enabling Efficiency and Synergy in Joint Testing*