Information Sharing – Enabling an Enterprise Approach

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Agenda

• Information Sharing and the New Defense Strategy
• What is the Defense Intelligence Information Enterprise (DI2E)?
• Recognizing The Need to Share
• Some Recent Lessons Learned
• What Do We Want to Achieve…What We Need to Do?
• Challenges for Enterprise Architecture
• Intelligence as the “First Line of Defense”
• Shift to small footprint / Counter-terrorism strategy in Middle East and Asia-Pacific
• New investments for Asia posture
• Premium on global coverage
• Avoid strategic surprise

Threats expanding in scope and complexity require greater connectivity, sharing and operational agility.
The Need To Share…It’s An Imperative!

**WHO**
- Department of Defense
- Intelligence Community
- Federal Government / Homeland Security (i.e. Law Enforcement; State/Local/Tribal; CT; Natural Disasters)
- “Coalition Partners”

**WHAT**
- Single Integrated Information Enterprise

**HOW**
- Coordinated Governance With Shared Vision
  - Intelligence Community CIO
  - DoD CIO
  - Defense Intelligence Information Enterprise
  - Program Manager-Information Sharing Environment
  - DoD Intelligence Information System

**WHY**
- Improve Effectiveness
- Budget Pressures
- Advances in IT

Expand Your Aperture!
Go Beyond Department, Agency, and Community Boundaries
The Challenge: Unique Environments

Must Operate Across A Broad Spectrum: White House to the Foxhole

- TS Networks Dominate
- Fixed Facilities
- Stable Mission Set
- Stable Communities of Interest
- Enduring Problem Sets
- High Bandwidth/Reliable Comms
- Single Functional Agencies (i.e. HUMINT, SIGINT, GEOINT)

- SECRET, REL, UNCLAS & Open Networks Dominate
- Mix of Fixed, Temporary and Mobile Platforms
- Dynamic Mission Sets
- Dynamic Coalitions
- Mission-based Intelligence Problems
- Mix of Comms (Reliable/Bandwidth Constrained) capabilities
- Multi-Functional Military Services, COCOMs & CSA'
The Intelligence Community Is Not Small

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Creating a bridge within the IC is critical...Each agency is responsible to both ODNI and DoD
Some Recent Lessons Learned

- Capability to Share on Day 1
- “Plug & play” coalition-enabled network
- Both “Push” and “Pull” access
- Assured dissemination & cross domain
- Intelligence /Operations/Communications Partnership
- Releasability policy & write-for-release mindset

- Contested and non-benign environments
- Non-traditional coalition partners
  - Varying levels of capabilities
  - Elevate partner capabilities
- Coalition mission network = New Normal

Ensure Accurate, Timely & Dependable Information Across the Enterprise
Is This Really The Best We Can Do?
DI2E Key Thrusts and Goals

**Key Goals**

- Integrated Information Enterprise
- Assured Access and Security
- Coordinated Governance

**Leverages:** Cloud Technology, Service/Agency Exploitation & Analytical Tools & Data Sources and Rapid Fielding

**Incorporates:** DI2E QRC, Cloud Pilots, & OEF, OIF and OUP Lessons Learned

**Built Upon:** Keystones Services; Focuses Governance On These Shared Interests
The Keystone is the Secret...

**Keystone Services** are those minimal critical enabling services that allow disparate information enterprises to operate as a virtually-single, intelligence information enterprise.

- **Identity and Authentication Management**
  - Security Marking / Tagging
  - Data Tagging
  - Audit
  - Content Discovery and Retrieval
  - Service Discovery
  - Data Visualization
  - Collaboration
  - Content Management

Keystone Services Are The Focus
Understand the baseline. Coordinate a collective way forward. Move there at a pace that makes sense.

- Cloud Technology
- Some legacy may remain
- Enabled by KEYSTONE services
Coordinated Governance

Our Biggest Challenge

- Contractor Community
- DoD Community
- National Intelligence Community
- Other Federal Government
- Coalition Partners

Shared Trust
Shared Risk
Shared Investment
Shared Decision Making
‘Best of Breed’ Components
Enterprise Implementations

Coordinated Governance = Enhanced Operational Effectiveness
What We Need From You

• **Work Broadly. Build robust bridges across communities**
  - Address mission needs for your information beyond organizational control
  - Select Use Cases that find the seams and stress the intersections
  - Help us achieve Coordinated Governance

• **Build ARCHitectures that enable “KEYSTONE” Services**
  - Focus on those critical enabling services of shared interest
  - Build for reuse

• **Bake-in security at the start, Don’t treat as an after thought**
  - Enable trusted, secure information sharing

• **Be Transformational; Make EA relevant**
  - Create adaptive, agile practices and rapid-response teams
  - Build for a modular, recomposable dynamic environment
  - Plan for unanticipated, low-tech, non-traditional partners, and intermittent access

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One *Team*... One *Vision*... One *Community!*
Together...We Can Do Better
BACKUP
(U) Defense Intelligence Enterprise

(U) DI2E Includes COCOM JIOCs, DCGS, Coalition Partners, & IC Support
Importance of a Common Service Interface

DCGS-A  DCGS-N  DCGS-AF  DCGS-MC  DoDIIS  CWE  
NSA Net  NGA Net  AMN  BICES  JIOCS

To facilitate travelers' use of personal electric devices, adapters are available to permit the interconnection of normally incompatible plugs and sockets. Such adapters overcome only the physical incompatibilities between plugs and sockets built to different standards; often a voltage converter is required for electrical compatibility. (From Wikipedia, the free encyclopedia)

Need to define a “common socket” & standard voltage
The **Defense Intelligence Information Enterprise (DI2E)** is the component of the Defense Intelligence Enterprise that:

- **Transforms information** for intelligence needs into forms suitable for further analysis or action
- **Provides the ability to integrate, evaluate, and interpret information** from multiple sources to enable situational awareness
- **Provides the ability to present intelligence information and products** that are easily accessible and enable understanding of the operational environment

The DI2E consists of... people, technology, policy, doctrine, activities, standards, specifications, tools, and governance processes

**USD(I) requested “NRO take the lead in the Department’s acquisition activities for the DI2E framework.”**

- Establish a DoD-level web services factory to develop common core services
- Document and update DI2E reference implementation
- Oversee compliance with DI2E framework standards
- Provide a DI2E store front for DoD, IC and other communities to share services and service components
- For the JIOCs... deliver and sustain the DI2E framework

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<td>DI2E ≠ Cloud</td>
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<td>DI2E = Convergence &amp; Integration via a Framework</td>
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What Do We Want to Achieve?

From Stovepipes:
- Unique Architecture
- Disparate
- Local
- Inaccessible
- Proprietary Only
- Monolithic
- Cylinders of Excellence
- Vulnerable

To Integrated Information Enterprise:
- Common
- Interoperable
- Global
- Discoverable
- Open Standards
- Modular
- Shared Expertise
- Secure/Auditable

Key Goals
- Integrated Information Enterprise
- Assured Access and Security
- Coordinated Governance
CDRE - Content Discovery and Retrieval Engine
DIB - DCGS Integration Backbone
ER2 - Enterprise Registry & Repository
GVS - GEOINT Visualization Services
IdAM - Identity and Access Management
IRS - Incident Reporting System (formally CIDNE)
JDL - JIOC Data Layer / ORION
OWF - Ozone Widget Framework
VIP-C - Virtual Imagery Processor Capability