15th ICCRTS

“The Evolution of C2”

Paper 001: On Facilitating Stability Operations:
A Net-Centric, Federated Approach to Information Sharing

Topics:
1. Information Sharing and Collaboration Processes and Behaviors
2. C2 Architectures and Technologies

Gerard J. Christman
Associate Editor, the International C2 Journal, DoD CCRP
and
Sr. Systems Engineer, Femme Comp Inc.
Integrated Information and Communications Technology Support Directorate
Office of the Assistant Secretary of Defense for Networks and Information Integration
1235 S. Clark Street, Ste. 601
Arlington, VA 22202-4363

(703) 602-0549
gerard.christman@ieee.org

UNCLASSIFIED
Agenda

- Organization, Vision, Mission
- Roles/Mission and DoD policy
- Actions underway to improve unclassified information
- Next Steps for implementation and experimentation
- Conclusions and challenges
IIS Vision

A DoD enterprise that enables rapid, agile, and persistent sharing of civil-military information and situational awareness to facilitate coordination and cooperation with the interagency and external mission participants across the full range of irregular warfare and stability operations.

IIS Mission Statement

Develops and oversees policy that shapes ICT enablement of irregular warfare, stability operations, and theater security cooperation. IIS identifies ICT gaps, recommends solutions, and assesses the Department’s progress towards improved information sharing and more effective civil-military coordination, situational awareness, and decision making. IIS engages with the Joint Staff, Interagency, and external organizations to facilitate resolution of COCOM and Service contingency operation ICT support issues.
Data and Information Policy Guidance

• **DoD Directive 8320.02 Data Sharing in a Net-Centric Department of Defense; Certified Current as of April 23, 2007**

  4.1 **Data** is an essential enabler of network-centric warfare (NCW) and shall be made **visible, accessible, and understandable** to any potential user.

  4.2 **Data** assets shall be made visible by creating and associating metadata ("tagging"). All metadata shall be **discoverable, searchable, and retrievable** using DoD-wide capabilities.

• **DoD Instruction 8220.02 Information and Communications Technology (ICT) Capabilities for Support of Stabilization and Reconstruction, Disaster Relief, and Humanitarian and Civic Assistance Operations, April 30, 2009**

  4.a. To the extent authorized by law, ......**information-sharing activities** that facilitate coordination and cooperation between DoD and non-DoD partners will be established to enable common understanding of the stabilization and reconstruction, disaster relief, and humanitarian and civic assistance environment; and to support an integrated Whole-of-Government response capability.
“But for all the improvements of recent years, the United States’ interagency tool kit is still a hodgepodge of jury-rigged arrangements constrained by a dated and complex patchwork of authorities, persistent shortfalls in resources, and unwieldy processes.”

The Interagency Mission Statements:
DOS, S/CRS, USAID and OFDA

• **DOS** – To create a more secure, democratic, and prosperous world for the benefit of the American people and the international community.

• **S/CRS** - To lead, coordinate and institutionalize U.S. Government civilian capacity to prevent or prepare for post-conflict situations, and to help stabilize and reconstruct societies in transition from conflict or civil strife so they can reach a sustainable path towards peace, **democracy and a market economy**. The office, created in July 2004, is composed of an 88 member interagency staff, including 11 Active members of the Civilian Response Corps. This whole-of-government planning framework utilizes the Essential Task Matrix and compiles best practices for **Reconstruction and Stabilization** (R&S), developing common R&S training for civilians and the military.

• **USAID** – (An independent federal government agency that receives overall foreign policy guidance from the Secretary of State) To support long-term and equitable economic growth and advances U.S. foreign policy objectives by supporting:
  – economic growth, agriculture and trade;
  – global health; and,
  – democracy, conflict prevention and humanitarian assistance.

• **OFDA** - The Office of U.S. Foreign Disaster Assistance is the office within USAID responsible for facilitating and coordinating U.S. Govt emergency assistance overseas. As part of USAID’s Bureau for Democracy, Conflict, and Humanitarian Assistance (DCHA), OFDA provides **humanitarian assistance to save lives, alleviate human suffering**, and reduce the social and economic impact of humanitarian emergencies worldwide.
DoD Information Sharing Implementation Plan

Focus Area 6

Develop an enterprise approach that enables sharing of unclassified DoD information in support of civil support and Stability Operations

Current Efforts

- Federal Law
- Executive Orders
- Asia Pacific Area Network v.4
  - HarmonieWeb
  - inRelief.org
- Stability Operations Community of Interest
- OUSD(I) Efforts
- HD & ASA Efforts
- Inter Agency Efforts
  - JCTDs
  - LOEs

ISIP Focus Area 6 and Associated Actions

Policy, Technology and Cultural Change that leads to enhanced information sharing for both Civ Mil and Stab Ops missions

Planned Outcomes

Analysis Partnerships Collaboration Staffing
Enable Processes with Information

**Enablers**
- Provide Web Enabled Forms
- Use Web to Coordinate
- Forward for approvals
- Provide Document Manager For staffing
- Provide repository For archiving

**HOW:**
1. Expose Data and expose services
2. Use Open System Standards
The Problem Set: What Information is Common to All Responders?

Key Information Requirements

- Imagery
- Assessments
- Incident Reports
- Maps
- Org Charts
- Foreign Disclosure guidance
- Situational Awareness
- Ops/Intel Fusion
- Access to SMEs
- In Depth Country Knowledge
- High Level Contacts

Relevance to Key Consumers

- Assess what is going on
  - Situation
  - Possible actions
  - Actions of others
  - Resources needed
  - Resources available

- Decide on possible actions
- Self-identify my interest, intended actions, and resources
- Network
- Collaborate
- Synchronize Actions
What Information is Common to All Responders

Key Information Requirements Relevance to Key Consumers

- What is happening?
- Do I care?
- What do I care about?
- What can I do about it?
- What can’t I do? Why?
- What do I want to happen?
- Who agrees with me?
- Can I help/work with others who share my goals and objectives?
- Can someone help me with my gaps?
- How do I find them?
- How do they find me?
- How can we work together?

- In Depth Country Knowledge
- Foreign Disclosure guidance
- High Level Contacts
- In Depth Country Knowledge
- Situational Awareness
- Ops/Intel Fusion
- Access to SMEs
- What is happening?
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- How do they find me?
- How can we work together?
Organizations that DO NOT expose their data sources outside the firewall

Facilitates Development of user defined, Focused Views

For this experiment, a location was provided for these organizations to Publish outside the firewall

Hosted on APAN or HarmonieWeb
OASD(NII) Stab Ops Pilot Operational View Architecture
Paper to Net-Enabled Processes
USD(AT&L) TISC JCTD in Support of Operation Unified Response (Haiti Earthquake)

13 Jan 2010:
SOUTHCOM directs use of APAN Web 2.0 Group for all DoD unclas info sharing in support of the response.

17 Feb 2010:
United Nations OCHA rep states US DoD level of information sharing surpassed all expectations – resulting in reduced loss of life.

Next Steps:
• RSS Feed to UN (oneresponse.org)
• RSS Feed to WHO (Strategic Health Operations Center)
Strategy to Achieve Unclassified Information Sharing Capability for the DoD Enterprise Service

Multiple Solutions
Today

Issue Memo directing COCOMs to APAN

Governance, funding, configuration control, R&D, testing, etc
(no more studies)

Achieve Interim Integration

Desired Endstate:
A Standardized Portal Environment

Migrate to RMD 700 Architecture using existing solutions. Add Governance; and other management efficiencies
Standardized Assessment Areas

- Small Farms / Displaced persons
- Police
- Forest
- Culture & Livestock
- Market/Store
- Police and Security Forces
- Arts and Monuments Storage

Field Operations Guide
For Disaster Assessment and Response

TCAPF-Tactical Conflict Assessment Planning Framework

- Village Health
- Hospital/Clinic
- Sewage System
- Trash
- Civilian Engagement
Integrate Standardized Collection Tools
Enablers

Diverse content and formats across 5 sectors to form an extensive knowledge base
Repository Services

DSpace is an open source dynamic digital repository designed to handle any format from simple text documents to datasets and digital video.

- **Operations Officer**
  - USAID FSO
  - S/CRS

- **DoS Bureau**

- **USAID Bureau**

- **DoD APAN**

- **Federated Data**
  - Over the Web

- **End-user**
  - User benefits from content being exposed

- **Collection Curator**

- **Knowledge Managers**

- **HA/DR Assessment**

- **Stab Ops Assessment**

- **BPC Assessment**

Connecting the Dots: Who are the Stakeholders and how are they working this?

**OASD(NII) - Stab Ops COI WG Pilot**

**JFCOM Warfighter Challenge**

- DDR&E - Common Ground JCTD
- DDR&E - TEDS JCTD
- USACE - IKE/GATER
- 95th CA BDE - WCID/CAOS
- DOT&E - J-CIM Test

- DDR&E Provides JCTD
- DDR&E - TISC JCTD
- DDR&E - CSE JCTD
- JFCOM - CABP LOE

- UN OCHA
- DoS HIU
- InterAction
- World Health Organization
Shared Enterprise Data Mediation Services for U-Core, C2-Core, JC3IEDM
Conceptual System View
MIP-Based Concept for Future Research

MIL to MIL w/NATO Unclass Civ-Mil portal

Diagram showing interactions between Coalition MIL, MIL, CIV-MIL, and CIV.
AFPAK TF: Focus on Unclassified Information Sharing
Initial Concept 2009

The only common network in Afghanistan shared by all U.S. military, coalition military partners, state funded aid organizations, and NGOs is the Internet.
Afghanistan Unclassified Networks

Afghan National Security Forces (ANSF)
Government Communications Network (GCN)
District Communication Network (DCN)
Village Communication Network (VCN)

INTERNET

INTERNET

Ring Road Fiber

Afghan Mission Network – UNCLASS (AMN-U)
Afghan Mission Network – SECRET (AMN-S)

NATO Unclassified Network (NATO UNCLAS)
NIPRNET

Protected Internet Exchange (PIX)
Tabulae
NGA TIG (Proposed)
INDURE

FIREWALL

UNCLASSIFIED
“Ronna” Harmonieweb Screenshot

https://ronna-afghan.harmonieweb.org/Pages/Default.aspx

The Guiding Light - Afghanistan

History of Islamist Extremism in Afghanistan
Political and/or extremist Islam was not a significant force in Afghanistan before the 1979 Soviet invasion; how or why did it become such a dominant force (if, indeed, it really is one). A history or survey of known information about how Afghans were proselytized by fundamentalist preachers would add to our in-depth long-term understanding of the process of religious radicalization in the area. read more
Next Steps 1 of 2

Implement Standardized Assessments developed by J-CIM Joint Test

Implement Shared Enterprise Service (TISC/APAN)

Develop data mediation services to support MIP, U-Core, C2-Core data standards to/from the dot org to/from the dot mil

Integrate civ-mil data sources beginning with IKE/GATER tool used by Army Civ Affairs

Publish civ-mil data to C2 systems
Consider strong repository services to aid in discoverability and collection federation
Leverage JFCOM Warfighter Challenge, JCTDs, Exercises to assess then close gaps
Complete ISIP FA 6 POA&M and submit recommendations to ISIP lead
Conclusions / Challenges

- Not build new systems - Integrated, non stove-piped data must be the focus for interoperability
  - Visible, discoverable, searchable, accessible, retrievable, and understandable

- DoD is moving forward with implementing an enterprise level service for unclassified external sharing

- Resourcing solutions that meet guidance and IPLs

- Successful transition of solutions for long term sustainment – where does it belong
Potential Next Steps for Collaboration with NATO

Recommend a partnership between NC3A, NATO ACT and OASD(NII) to:

1. Develop a proposal for a net-centric unclassified information sharing demonstration at one or more of the following:
   - CWID
   - Combined Endeavor
   - MIP – Greding
   - Other?

2. Once demonstrated, resource production quality capability

3. Develop a plan to field, train, and maintain the capability
Gerard “Gerry” Christman
Systems Engineer II and Program Manager for OSD Technical Services
Integrated ICT Support Directorate
Office of the Assistant Secretary of Defense for Networks and Information Integration
35 South Clark Street, Ste 601
Washington, VA 22202-4363

(3) 602-0549
gerard.christman.ctr@osd.mil