

Creating a Secure Information Sharing Environment for Coalition Partners

Overview

Timely, reliable and secure information sharing is mandatory for coalition partners supporting wartime missions in Afghanistan and Iraq, as well as other ongoing contingency operations. The Defense Information Systems Agency Multinational Information Sharing Program Management Office is partially responsible for streamlining the vital information stored on coalition networks worldwide so that it can be leveraged in real time for mission success.

Challenge

Previous information sharing efforts focused on collaboration tools, such as email, chat and file sharing. Now, the intent is to integrate the command and control systems of foreign mission partners in a coalition network so that they can interoperate effectively. Currently, many command and control networks essentially are locked up within the proprietary systems of individual nations. When there's a need to share information, it's uploaded to a Web portal. This process is not timely, reliable or secure.

One needs to look no further than U.S. history to begin to understand the magnitude of this information integration challenge. In the past, America's military services operated more independently than they do today under the auspices of a joint U.S. Combatant Command, aimed at maintaining synergies between the Army, Navy, Air Force and Marines. Growing pains remain trying to certify interoperability across U.S. Military services, let alone trying to build a shared information network with other countries. The coalition involves numerous entities, including each nation's military services, different levels of infrastructure, and a variety of information networks.

Warfighting partners must be able to share information and communicate effectively, particularly since every future war is likely to be fought in a coalition environment. This coalition may consist of only two countries or a multitude of countries, including our closest allies or those that comprise a temporary contingency.

Approach

Information from the battlefield enters individual country command and control systems, typically organized by operational mission categories, such as battle command, situational awareness, intelligence, surveillance, reconnaissance, logistics and fires. The goal of the new coalition network is to ensure that the information loaded at each of these data entry points matches the data that ultimately appears on the shared network, regardless of the various hardware systems and software versions encountered en route.

This is the first time an integrated coalition network will encompass all operational mission parameters, and allow coalition partners to effectively manage their information. While networks are converged to reduce infrastructure, coalition partners will have the flexibility to customize their data, sharing appropriate information without security concerns, and maintaining confidentiality for high-risk data.

DigiFlight Expertise

DigiFlight is part of the Coalition Interoperability Assurance and Validation Working Group, which is connecting partners in a Coalition Test and Evaluation Environment to simulate the actual warfighting network environment and test operational capacity before deploying the capability to the field. DigiFlight's experienced people bring an understanding of complex issues and challenges, as well as innovative ideas, to this early-stage program, enabling flexible and agile capabilities development. The goal is to focus on priorities rather than try to deliver a 100 percent solution. Constant adjustments are required in response to changing schedule and resource constraints. Military personnel are deployed to training and theaters of operation with little advance notice. Fast and creative problem resolution is mandatory to maintain schedules, accomplish objectives, and ensure mission success.

Accelerating Mission Success

As the war effort continues, all work on the shared network will be fast paced, subject to continuous improvement, and completed from a mission-ready perspective. Testing and tweaking the coalition network in the lab environment prior to deployment validates real-time operational capacity and accelerates mission success. The model Coalition Test and Evaluation Environment built and tested in the lab today will evolve into an established and validated architecture that serves the critical communication needs of coalition partners for many years to come.

To find out more about how DigiFlight can help you accelerate mission success, please contact us at dfhr@digiFlight.com or 703.774.1080/866.DIGI.FLT (866.344.4358)

ABOUT DIGIFLIGHT

DigiFlight helps government and commercial customers accelerate mission success with technology solutions that protect our national security. Our unique core competencies enable us to deliver integrated support services for all critical phases of acquisition and technology management—Aerospace Technical & Acquisition Solutions, Compliant Solution Architectures, Cybersecurity, Integrated Acquisition & Technology Management, Systems and Software Development, Systems Engineering & Technical Assistance and Test & Evaluation. Highly skilled DigiFlight teams apply a holistic mindset to ensure that our customers' capabilities interoperate securely and effectively in operations and warfare environments.

Coalition Test and Evaluation Environment

Phase One (March - August 2010)

- Technology and network assessments
- Documentation
- Relationship building
- Capabilities definition
- Lab setup
- Identification of equipment needs
- Connectivity established between a federation of labs
- Interoperability and Information Assurance validation
- Techniques, tactics and procedures

Phase Two (September 2010 - January 2011)

- Planning
- Equipment procurement for robust lab
- Lab architecture
- Network architecture
- Demonstration of end-to-end connectivity between coalition networks
- Test and evaluation of mission network in lab environment
- Mission-oriented test scenario development
- Capabilities and Limitations assessment
- Requirements reviews and refinements