Hot Topics in NCO Deployment Maturity

NDIA Net Centric Operations Conference
Waterside Marriott -- Norfolk, VA
March 13th, 2006

Moderator: C. Stephen Kuehl AI AA NCO PC Chairman
An Overview of AIAA

Mission
AIAA advances the state of aerospace science, engineering, and technological leadership.

Vision
AIAA is the shaping, dynamic force in aerospace – THE forum for innovation, excellence and global leadership.

- Non-profit under 501(c)(3) since 1963
- World’s Largest Professional Society in Aviation, Space, & Defense Engineering/Science
- 31,000 members (5000 International) Across 7 Geographical Regions
- 66 Technical Committees Spanning Aerospace Science & Technology
- Aerospace Experts (Fellows – 706, Associate Fellows – 3562, Honorary Fellows – 79)
- 30+ Yrs Experience in Delivering Objective Congressional Testimony on Aerospace Issues & Policy Guidance
- Aerospace ISO Standards Body
- Aerospace Professional Development Course Provider (Distance Learning)
- Prestigious Aerospace Publisher – Books, Journals, & Technical Papers
- Pre-College Educational Outreach (K-12)
NCO Society Focus

NCO Liaisons

- **Congressional**
  - Congressional Visits Day
  - Congressional Position Papers

- **DoD, NASA, NIST, DISA, FAA, FCC**
  - Policy Changes
  - Funding
  - Technology Roadmaps

- **NSF, DARPA - Research Bodies**
  - Policy
  - Funding
  - Technology Roadmaps

- **NDIA, NCOIC, AFEI, INCOSE, W2COG**
  - Joint Conferences

- **COTS Trades Associations**
  - Standards
  - Technology Roadmaps

NCO PC

- **Chairman**
- **Steering Committee (5)**

IBSC

- W/Deputy Chairman
- 10-20 People
- Focused Liaison

CBSC

- W/Deputy Chairman
- 10-20 People
- Focused Liaison

AIAA Staff

- AIAA EXECUTIVE DIRECTOR
- Business Development/Marketing
- Public Policy
- Professional Development
- TAC/RSAC Support

AIAA Governing Body

- Board of Directors with Supporting Committees (Emerging Technologies)

AIAA TAC

- VP-TAC & PC Coordinator
- NIS + Seven Directorates
- 35+ Technical Committees
- Conference/Workshop Organizers

AIAA RSAC

- Local Sections
- US Regions
- International Regions

Earned-Value Collaboration
1st Tutorial Overview

DoD’s NetCentric Data Strategy

Dan Risacher – OSD

The Department of Defense Net Centric Data Strategy provides a key enabler of the Department’s Transformation, by establishing a foundation for managing the Department’s data in a NetCentric environment. The tutorial will describe the implementation of this strategy and how it will make information visible, accessible, and understandable.

08:30 AM -- 9:30 AM
Break  9:30AM – 9:45 AM
9:45 AM – 10:45 AM
Mediate Cross Domain Information Flow: Enhanced Cross Domain Solution Decomposition

Jared Cohen - North Star Consulting Solutions (Enterprise IA Architecture & Systems Engineering Office)

This tutorial provides an overall architectural understanding of the Cross Domain Space (CDS) in the GIG. It describes the current Vision of CDS with respects to Mediate Cross Domain Information Flow while describing the architectural alternatives for future Increments. This architectural approach is implementation independent and assumes some process and/or core services will be available and deployed to support this approach. The tutorial recommends research and standards activities in this area for the entire development and integration community.

10:45 AM → 12:15 PM
3rd Tutorial Overview

Challenges and Recommendations in Building a Net-Centric System-of-Systems

James Smith – Carnegie Mellon SEI (AIAA NCO PC)

This tutorial will present current perspectives and recommendations on critical programmatic and technical challenges confronting organizations developing, acquiring, fielding, and sustaining a heterogeneous network-centric System of Systems comprising a mixture of COTS/GOTS/other reuse and developed systems. Topics include programmatic/organizational interoperability, cost and schedule estimation, system migration, and current technology limitations, enablers, and forecasts.

1:00 PM - 1:45 PM --- Intro/purpose/overview
1:45 PM - 2:00 PM ---- "Traditional" systems
2:00 PM - 2:15 PM ---- Net-Centric motivation
BREAK 2:15 PM -- 2:30 PM
2:30 PM - 2:45 PM ---- Why is Net-Centric different?
2:45 PM - 3:15 PM ---- What to do about it?
3:15 PM - 3:45 PM ---- Technology issues
BREAK 3:45 PM -- 4:00 PM
4:00 PM - 4:15 PM Unresolved issues
4:15 PM - 4:30 PM Recommendations
4:30 PM - 5:00 PM Audience Discussion