Information Systems Summit II (ISS II)

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C4ISR Division

Baltimore, Md
April 4-6, 2011
ISS II Introduction
Hyatt Regency Baltimore, Md
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ISS II Program Summary

• Commercial Experience with Agile Software Development & Test

• Information Sharing, Assurance and User expectations

• IT policy, management and CIO imperatives to deliver Information System solutions
ISS History
ISS I convened Jan 2009

Improving Defense
Information System
(IS)
Acquisition:

Testing IS Capability in a Network Enterprise
DOD IT is a National “Asset”

- National security industrial base key components
  - C4 (decision support, command execution, information-sharing, connectivity, and situational understanding)
  - ISR (means and tools which generate the data)
  - IT (provides infrastructure and support)

- Directly tied to war fighting
  - Defend the networks and systems
  - Attack our enemies networks and systems

- Network-enabled C4ISR/IT capabilities
  - On the ground situational awareness
  - Enhances our warfighting capabilities
Stakeholder Recommendations

• Defense Science Board
  – Developmental Test and Evaluation, May 2008
  – DOD Policies and Procedures for the Acquisition of Information Technology, March 2009

• 2010 National Defense Authorization Act (Sec 804)
  – Implementation of a New Acquisition Process for Information Technology Systems

• NDIA-OUUSD (AT&L) System Engineering Division/Development T&E Committee and Software Industry Experts
  – Software T&E Summit/Workshop September 2009
  – Joint Authored White Paper, Dec 2009

• National Academies of Science Study
  – Achieving Effective Acquisition of Information Technology in the Department of Defense, December 2009
New Emerging DOD IT Landscape

• 804 Compliance: FY2010 National Defense Authorization Act, Section 804
  • New IT system acquisition process required
    – Multiple rapid capability increment
    – Early prototyping for evolutionary approach
  
  • Early & continual user involvement
  • Multiple, rapidly executed capability increments or releases
  • Early, successive prototyping to support evolutionary approach
  • Modular, open-systems approach
DOD Agile IT Precepts

1) achieve significant time and cost resource efficiencies

2) support software application “sprints”

3) provide tailored test environments established on demand

4) create a virtual library of systems and services to avoid having to stand up physical systems for every test

5) establish a DOD wide accepted restructured IT T&E process
DOD Agile IT Challenges

- Incremental Requirements (IT Box)
- Incremental Budgets
- Iterative S&T Investments
- Iterative Systems Engineering
Closing Comments

- IT systems are different than weapons systems…current DOD 5000 inappropriate for both

- DOD agile developed IT systems/applications are on the horizon……IT “sprints” projects will cause closer collaboration between users, developers and testers

- Serial or “soda straw” T&E to migrate towards –
  - parallel acceptance, certification, accreditation, interoperability and integration
  - test once, accept by all.
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