Process Mismatch with COTS-Based Systems: Problems and Solutions

GSAW Breakout Session

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Demands of COTS-Based Systems

New challenges
- COTS products designed to be used “as is” to meet vendor’s perceived market needs; not a specific organization’s
  - Products presume business processes
  - Products presume an architecture

Project approaches are failing
- Some simply “glue” COTS products together => system that is not supportable
- Some use traditional requirements practices => find no suitable COTS products

New approaches needed
COTS-Based Systems Demand A New Approach

Traditional Engineering Approach

- Requirements
- Architecture & Design
- Implementation

Requirements-driven

Required COTS Approach

- Stakeholder Needs/Business Processes
- Simultaneous Definition and Tradeoffs
- Architecture Design
- Programmatics/Risk
- Marketplace

Negotiation-driven
Selected Effects of Process Mismatch

Requirements processes
- Detailed requirements defined up-front can preclude using COTS products; may limit technology refresh
- COTS-dependent requirements can cause significant disruption to operational users

Architecture processes
- Forming an COTS-independent architecture can limit viable COTS product choices
- An architecture formed around specific COTS products can lock a program to limited products and their versions

New skills, responsibilities, and processes are needed
Breakout Session Overview

Objective
• Recommend suitable processes for acquiring, developing and maintaining COTS-Based Ground Systems

Format
• Short presentations to stimulate ideas
• Facilitated discussion to characterize mismatches
• Focused discussion to form recommendations

No more whining!
Building systems using COTS products is already a fact of life. This is YOUR opportunity to explore processes that will support these systems.
Breakout Outline

Mismatches in processes for developing and negotiating requirements
  • What’s different about COTS-based systems?
  • Discuss a sample commercial approach
  • Discuss a traditional DoD approach
  • Form recommendations for new and changed DoD processes
  • (*discuss mismatches in tracking and managing requirements)

(break)

Mismatches in processes for creating and validating architectures
  • What’s different about COTS-based systems?
  • Discuss a sample commercial approach
  • Discuss a traditional DoD approach
  • Form recommendations for new and changed DoD processes
  • (*discuss mismatches in maintaining and evolving architectures)

* as time allows