AF Software Intensive Systems Strategic Improvement Program (AFSSIP)

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ASC/EN
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Overview

- Background
- AFSSIP Approach
- Related Activities
- Way Ahead
Background

- FY03 Authorization Act (Pub. Law 107-314), Section 804
  - Services implement S/W acquisition improvement programs
  - Focus on Processes, Metrics, People, and Compliance

- Mar 03 OSD Memo
  - DoD SISSG oversight of services/agencies programs
  - Additional focus areas (e.g. Config. Management, T&E)

- Various process improvement activities already underway
  - Mix of systems focus, software focus, or both
  - Not integrated
Air Force Organizations With Major Acquisition Roles

Component Acquisition Executives

SAF/AQ
- AFPEO/AC
  - Aircraft Systems
- AFPEO/WP
  - Weapons
- AFPEO/C2&CS
  - Command & Control Systems
- AFPEO/F/A-22
  - F/A-22
- AFPEO/SV
  - Services
- AFPEO/SP
  - Space Systems

SAF/US

Related Commands

Organize, train, & equip

Integrity - Service - Excellence
AFSSIP Approach

- **Guidance from Dr. Sambur (SAF/AQ)**
  - Ensure AFSSIP meets Congressional intent
  - Focus on AF acquisition programs
  - Implement through AF Acquisition Executives & PEOs

- **Congressional Intent**
  - Based on October 2003 discussions with SASC staffers
  - Focus on MDAPs, not IT
  - Ensure software is properly addressed in program reviews
Program Purpose
- Evaluate efficiency and effectiveness of software management and processes as part of systems engineering and capability acquisition
- Identify changes that may be needed to improve them

Working Group Responsible to Execute
- Core team
- PEO representatives
- Industry representatives

Report results to CAEs by July 2004
Core Team

Membership
- Software experts from product and logistics centers, SAF/AQ, supporting organizations, SEI, and support contractors

Responsibilities
- Define overall AFSSIP approach
- Accomplish familiarization and feedback for PEOs
- Assist with data gathering from acquisition programs
- Define As-Is and To-Be states
- Perform gap analysis
- Define roadmap and implementation recommendations
- Accomplish all activities required to produce AFSSIP products and results
PEO Representatives

Membership
- Acquisition Program Representatives appointed by PEOs
- Senior program managers and engineers with software acquisition experience

Responsibilities
- Provide program experience and data
  - Information on section 804 focus areas
  - Problems encountered / success stories
  - Recommended best practices
- Review interim core team products and provide heading checks
Industry Representatives

Responsibilities similar to those of PEO Representatives:

- Solicited for input to As-Is and To-Be states
- Review and validate working group products and provide input to roadmap and recommendations
Desired Acquisition Program Information (Draft)

- Program description
- Policy & guidance (all levels)
- Organizational structure and practices
- People, training, and experience
- Resources, funding, and investment
- Processes
- Metrics
- Best Practices
- Technology development and insertion
- Potential improvement activities
Challenges

Achieving balance:
- Prescribed processes with program manager autonomy, responsibility, and accountability
- Integration within the systems engineering process with software stovepipes
- Level of software insight with acquisition workforce downsizing
- Need for speed of acquisition with adherence to disciplined processes

Additional challenges:
- Commonality across acquisition organizations
- Reporting
- Training
Related On-Going Activities

n Air Force Level
  n Systems Engineering Revitalization
  n Center for Systems Engineering (CSE)

n Air Force Materiel Command (AFMC) / Air Force Space Command (AFSPC)
  n Software Intensive Systems Steering Group

n Acquisition Center Initiatives
**Air Force Level Activities**

- **Systems Engineering Revitalization**
  - Focus on application of systems engineering practices through system life cycle
  - Incentivize contractors to perform more robust SE
  - Report status of SE processes/practices in program reviews

- **Center for Systems Engineering (CSE)**
  - Air Force & DoD SE Center of Excellence
  - Advocate, consult, implement, and provide training for SE
  - Repository for academic, government and industry SE best practices, processes, metrics and training
Software Intensive Systems Steering Group

- Foster collaboration among AFMC product, logistics and test centers
- Disseminate S/W development and sustainment best practices
- Source of resources for AFSSIP
- Organize, train, and equip
A Possible Outcome

- **Air Force**
  - Software addressed as an integral part of systems engineering policy

- **AFMC/AFSPC**
  - Joint policies and implementation guidance
  - Training

- **Centers**
  - Tailored implementations
  - Training
<table>
<thead>
<tr>
<th>Task</th>
<th>Complete</th>
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<tbody>
<tr>
<td>PEOs provide AFSSIP Working Group (WG) reps</td>
<td>30 Jan 04</td>
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<tr>
<td>Finalize AFSSIP WG Charter</td>
<td>2 Feb 04</td>
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<tr>
<td>Core Team Initial Activities</td>
<td>Mar 04</td>
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<tr>
<td>&quot;As Is&quot; State Draft</td>
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<td>&quot;To Be&quot; State Templates</td>
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<td>Planning for Working Group meeting</td>
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<tr>
<td>Working Group Session</td>
<td>Apr 04</td>
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<tr>
<td>&quot;As Is” &amp; “To Be” Gap Analysis</td>
<td>May 04</td>
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<tr>
<td>Develop Roadmap &amp; Implementation Recommendations</td>
<td>Jun 04</td>
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<tr>
<td>Brief Roadmap and recommendations to SAF/AQ/US</td>
<td>Jul 04</td>
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