Intelligence Software Sustainment Considerations

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Key Takeaways

- **Post Deployment and Production Software Support (PDSS/PPSS)** is a critical engineering activity in the acquisition lifecycle – it ensures operational and cybersecurity readiness of *Programs of Record (PoR)*

- PPSS mission for *Command, Control, Communications, Computers, Intelligence Surveillance and Reconnaissance (C4ISR)* systems has grown significantly over the past decade

- Complexity and software intensive nature of today’s C4ISR PoRs present unique challenges

- CECOM SEC is exploring improved engineering principles and practices to shape and influence software acquisitions to provide agile, sustainable solutions in support of Warfighter needs.
CECOM SEC in the Army Team

Secretary of the Army
Chief of Staff of the Army

Commanding General
US Army Materiel Command
CG, US Army Materiel Command

Communications-Electronics Command
CG, CECOM LCMC

APEX Directorate
PEO EIS
PEO IEWS
PEO C3T

Configuration Management
Enterprise Business Systems
Intel, Electronic Warfare & Sensors
Mission Command

ISEC
LRC
CTSF
SEC
TYAD

IT Infrastructure
Hardware Sustainment
Interoperability Testing
Software Sustainment
Repair and Maintenance

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SEC’s Role in the Acquisition Lifecycle

Software Acquisition Support – SEC provides software engineering technical expertise as matrix employees to PMs. This support includes defining software requirement, overseeing software testing, performing configuration management and guiding acquisition decisions to reduce life-cycle support costs.

Post Deployment Software Support – From the point a system is provided to the First Unit Equipped (FUE) to the end of production (there are exceptions – this is the general rule). Funding is the responsibility of the PM and generally funded with OPA or OMA.

Post Production Software Support – Starts first year after production ends until item divested by the Army. Funded with OMA from Depot Maintenance (Army G4) accounts.
Evolving Environment

- Army re-balancing from a decade(+) years of major deployments
- Focus on equipping readiness, capacity and sustainability
- Fiscal constraints and turbulent budget conditions
- Continuously evolving standards and protocols
- Significant growth of IT related technologies
- Regionally Aligned Forces that are Globally engaged
  - Adversaries who will challenge advantages in all domains (land, air, maritime, space, and cyberspace)
  - Part of joint, inter-organizational, multinational teams

DCGS-A is a critical enabler for “units to possess the ability to operate dispersed over wide areas because they are able to integrate intelligence and operations to develop situational understanding through action”

Army Operating Concept (2014)
Improving system/software design improves the ability to maintain, disseminate and incorporate software engineering support to afford a rapid response to changes the Army will require in support of the Warfighting Domains, while reducing the cost drivers during the systems sustainment phase.

**Focus Areas During Acquisition**

- Teaming/Collaboration with Government and Industry Team
- Continuous Quality Assurance
- Continuous Information Assurance Engineering/Cyber
- Configuration Management
- Robust Testing Strategy
- Evaluation of COTS vs. GOTS vs. new development/Data Rights
- Establishing **core** PPSS capabilities
- Focus on Ease-of-Use/Incorporation
- Licensing Strategy (Reduction)
Conclusions

If the system isn’t sustainable, it’s not usable

If the system isn’t usable, the mission fails

If the mission fails, we’ve failed the Soldier

So...

✓ **Consider how early decisions impact the equipping and sustainment of the force.**

**Decisions made** during technology development and engineering and manufacturing development *will impact the supportability and sustainability of the system for the Soldier.*