Major DHS Operating Components

- Transportation Security Administration (TSA)
- U.S. Coast Guard (USGC)
- U.S. Secret Service (USSS)
- U.S. Customs and Border Protection (CBP)
- U.S. Citizenship and Immigration Services (CIS)
- U.S. Immigration and Customs Enforcement (ICE)
- Federal Emergency Management Agency (FEMA)
- Domestic Nuclear Detection Office (DNDO)
TSA Programs

Electronic Baggage Screening Program

Passenger Screening Program
USCG Air Programs

C27-J

HC-144

HC-130J

MH-60J

HH-65

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USCG Surface Programs

Fast Response Cutter

Motor Lifeboat

Offshore Patrol Cutter

National Security Cutter

Heavy Polar Icebreaker
ICE Programs

Student and Exchange Visitor Information System

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FEMA Programs

Integrated Public Alert and Warning System

National Flood Insurance Program

Logistics Supply Chain Management System

Grants Management Modernization
USCIS Programs

Transformation Program

- **Program Performance**
  - Supported the review of QASP standards and Measurement Planning
  - Supported the Program Performance goals by reporting QASP Metrics
- **Quality Assurance**
  - Program Product and Process Quality to meet CMMI Level 3 maturity
  - Led Product and Managed Program Quality and Accessibility testing (Section 508 compliance) throughout all Lifecycle Phases (Iterative and Agile)
  - Managed Process Audits, Facilitated Lessons Learned Sessions, Lead Root Cause Analysis, and Managed Program Risk
- **Waterfall to Agile Transition**
  - Tailored Agile Lifecycle, and Quality Review Methods to meet DHS SELC standards
- **Systems Operations and Maintenance**
  - Streamlined Internal User Provisioning Processes
  - Demonstrated improved efficiencies and timely User Provisioning

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SE Challenges in DHS

- Solutions encompass the entire Homeland Security Enterprise (HSE)
  - Diverse customer base, with different rules, restrictions, and users
  - Diverse “mission set” including security, immigration, trade/commerce, disaster planning, and response

- Significant IT and Embedded/Mixed IT Solutions
  - Privacy and security concerns related to sharing data
  - Controlling proprietary, business, or law enforcement-sensitive data

- Flexible and resilient solutions to respond to emergent threats and national disasters

- Procurement vs. acquisition mentality in many parts of the HSE

- Too much focus on compliance/templates vice critical analysis
SE Staffing Challenges

• DHS has a Level I, II, III SE Acquisition Certification program and activity instructing courses
  • Inconsistency/limited participation

• No consistent SE staffing within Acquisition programs and Component Acquisition oversight offices

• Secretary directed all major acquisition programs and Component Acquisition oversight offices to resource SE expertise
  • Initiative established in Secretary’s FY19-23 Resource Planning Guidance (for Components developing Resource Allocation Plans)
Weak Solution Analysis/Analysis of Alternatives prior to approval

AoAs have not been properly scoped and executed

• Frequently focused on all COTS, no COTS, or a mix, vice analyzing the operational and technical solution space
• Poor definition of alternatives and evaluation criteria
• Relative ranking of alternatives among each other vice against actual mission need/requirements
• AoAs often not informed by data from pilots/prototypes/testing
• AoAs as a process to document the acquisition, vice analyze, learn, and modify to enable better decisions
SE Challenges in DHS Acquisition Programs

Poorly developed Operational Requirements and CONOPS

• Limited CONOPS scope
  • Scenarios do not describe the complete operation or even all the tasks the proposed solution must perform (only small mission tasks that need improvement)
  • Boundaries, interfaces, key external stakeholders/systems of the proposed solution not clearly defined/understood

• Limited analysis leading to the actual Operational Requirement
  • Often not operationally focused
  • Often focused on “user needs” that reflect specific problems
  • Limited analysis to support Threshold and Objective performance values
SE Oversight Challenges

• HQ oversight has heavily focused on programmatic oversight
  • Focused on checklists and artifact existence
  • Limited evaluation of the quality/substance of artifacts

• In 2015, Secretary directed S&T to conduct Technical Assessments on major acquisition programs
  • SE-based Technical Assessments of major acquisition programs
  • Focused on quality, not quantity
  • Not if a program has operational requirements; are requirements
    • Feasible Testable
    • Clear Backed by objective analysis
  • Complements existing acquisition programmatic oversight processes
  • Conducted prior to commencement of design/development/integration
Technical Assessment Impacts

• Greater up-front analysis = technically stronger programs
  
  • Threshold and objective parameters of operational requirements, backed by objective analysis

  • CONOPS that better describe end-to-end system operation, not only parts of the system

  • Trade-off analysis during the Analysis of Alternatives that informs/refines operational requirements and CONOPS

• Holistic (programmatic and technical) perspective for Acquisition executives before design/development/integration activities

• More informed decision-making by Acquisition executives
Conclusion

- DHS enterprise has a wide range of mission areas and a civilian/law enforcement culture
- Acquisition still somewhat synonymous with procurement
- DHS realizes SE needs to be institutionalized across the Department and is making headway
- Developed rigorous SELC Guidance
- Implemented Technical Assessments for Major Acquisition Programs
- AoA, ORDs, CONOPS, etc. improving as SEs engage
- Looking to continue collaboration across government and industry