



Agile in DHS: 5 Pilot Projects

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Presented by:

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Agenda

- The Bottom Line
- The DHS Path to Agile Acquisition
- Agile Acquisition Working Group (AAWG) Goals
- Pilot Framework
- Pilot-Specific Results & Accomplishments
- Recommendations Formulation
- Recommendations at a Glance
- Initial Results & Accomplishments



The Bottom Line

- Existing acquisition and oversight policies, based on legacy DoD policies, created obstacles to leveraging modern software delivery best practices
- DHS IT projects, particularly major programs, have been challenged by:
 - Delivering late and/or over budget
 - Poor transparency
 - Poor requirements development/traceability
- Agile Acquisition Working Group (AAWG) was established to provide embedded support and begin transforming a small set of critical DHS programs
 - Through the support of these pilot programs we have made significant progress and identified several opportunities for improvement
- DHS HQ Offices are working together to roll out these changes across the department to improve our ability to meet our mission, reduce our risk, and more effectively implement new technology



The DHS Path to Agile Acquisition

Conducted AAWG Pilots, and collected lessons learned and best practices

Feb 2016 –
Mar 2017

The implementation schedule was approved

August 2017

Focusing efforts on completing major Action Plans in FY18

Today

June 2017

Created 18 specific Action Plans that were endorsed by the USM and CxOs

Began driving implementation of the 18 Action Plans

Sept 2017



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AAWG Goals

Through the pilots and in implementing the Action Plans, we seek:

- ✓ **Faster Delivery:** Reduce cycle time and deliver capabilities as quickly as possible without sacrificing quality
- ✓ **Cost Effectiveness:** Deliver capabilities as inexpensively as possible without sacrificing quality
- ✓ **Business and Mission Value:** Deliver capabilities that are better aligned with mission & user needs
- ✓ **Reduced Risk:** Reduce probability of large, expensive failures
- ✓ **Increased Accountability & Oversight:** Provide detailed, continuous insight to progress & risks



Pilot Framework

Under Secretary signed an Acquisition Decision Memorandum on February 18, 2016, for the Agile pilot programs to be conducted

- **Five programs were selected for embedded support, as they were:**
 - On the Major Acquisition Oversight List (MAOL)
 - Representing different components
 - At varying stages of the ALF
 - Four out of the five programs were in breach or at risk of breach
 - One program (VER MOD) was successfully using Agile development

FEMA NFIP

FEMA GMM

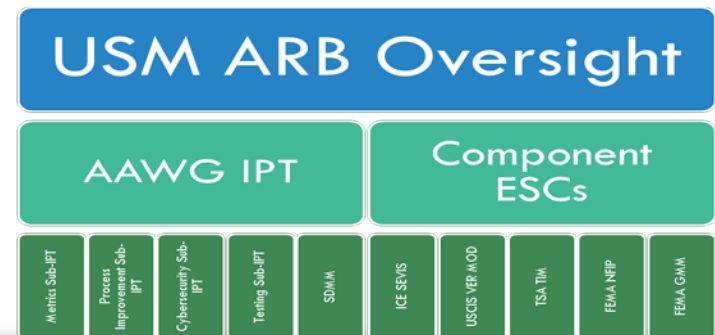
TSA TIM

USCIS VER MOD

ICE SEVIS

- **AAWG drove collaboration across HQ offices**
 - Office of Program Accountability and Risk Management (PARM)
 - Office of the Chief Procurement Officer (OCPO)
 - Joint Requirements Council (JRC)
 - Office of the Chief Information Officer (OCIO)
 - Office of the Chief Financial Officer (OCFO)
 - Science and Technology Directorate (S&T)

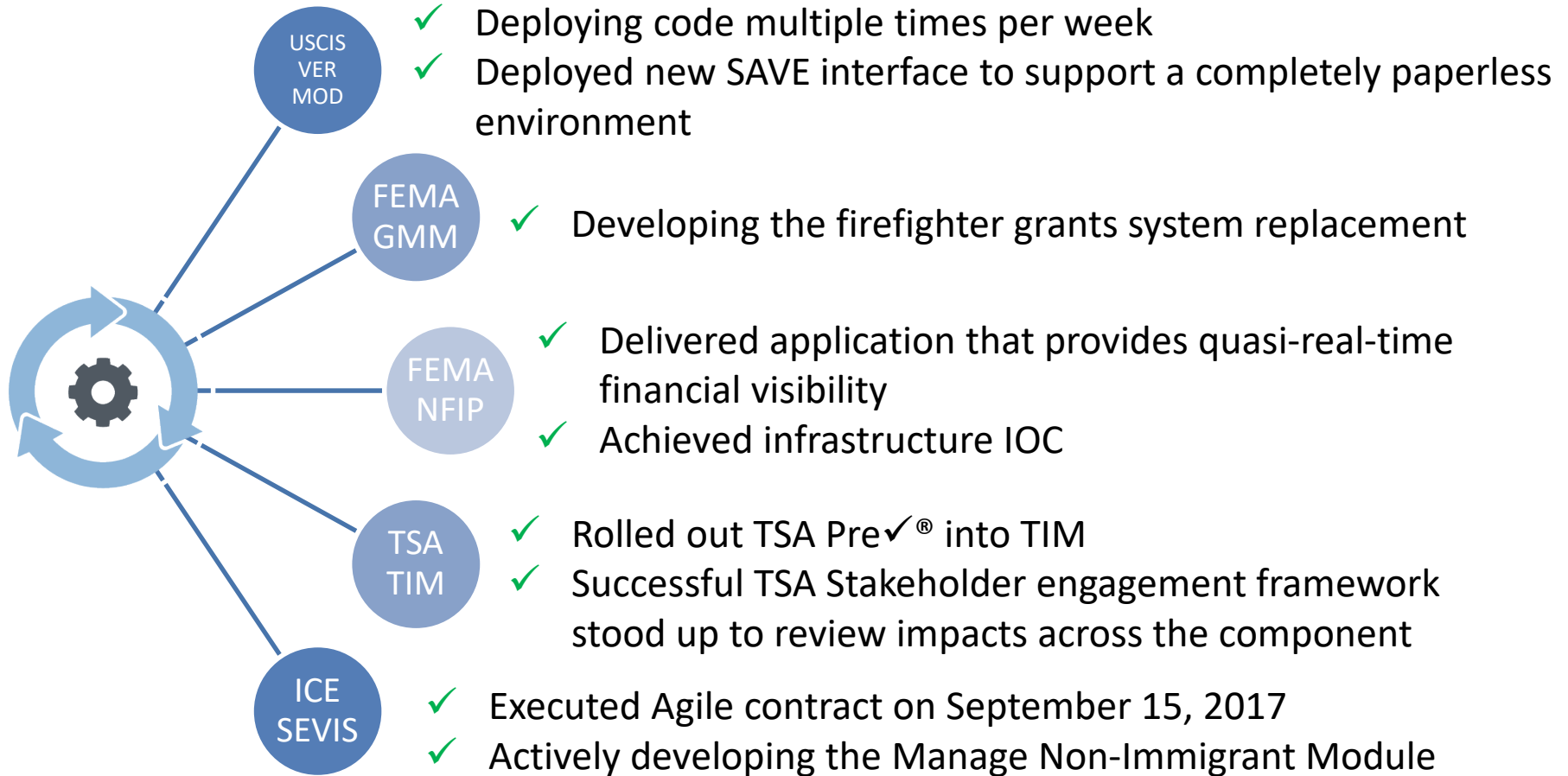
- **AAWG had five concentrated Sub IPTs**



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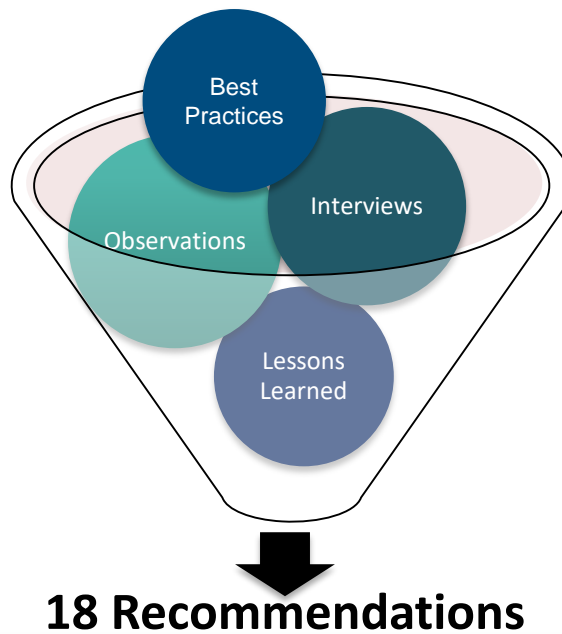
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Pilot- Specific Results & Accomplishments



Recommendations Formulation

- 18 recommendations were collected through retrospectives, observations, and independent interviews of various members of the AAWG IPT, including members of each of the five Acquisition pilots
- Recommendations were prioritized into three categories:
 - Critical
 - High
 - Moderate



Recommendations at a Glance

Critical Action Plans

1	Automated Workflow Tool for Artifact Review Improve the process for acquisition document review, adjudication, and approval, enabled by workflow management and process automation technology solutions	7	Requirements Identification Review DHS acquisition guidance, policy, and practices for the identification and management of requirements through the JRC
2	Unified Authority for Action Plan Implementation Establish a Unified Authority to govern, institutionalize, and manage the implementation of AAWG Action Plans and enable continuous improvement of IT acquisitions and delivery	8	Testing & Integration Guidance Update DHS acquisition guidance, policy, and practices for testing and evaluation to enable modern best practices in automated testing and continuous integration
3	Embedded Support for Agile Acquisition (NextGen AAWG) Establish a scalable future operating model for support of Level 1 and 2 acquisition and IT programs	9	Tech Solutions & AoA Update the DHS acquisition guidance, policy and practices for evaluation of technical solutions and vendors, including a lean AoA
4	Defined Roles & Responsibilities Define roles and responsibilities for each step or phase of the ALF and SELC	10	Agile Cost Estimation Update the DHS acquisition guidance, policy, and practices for initial cost estimation and LCCE reviews for multiyear IT programs
5	Agile Governance through Obtain Incorporate Agile governance and review models to increase transparency and feedback throughout the Obtain Phase and Operations and Maintenance (O&M)	11	Cyber Guidance Update the DHS acquisition guidance, policy and practices for cybersecurity considerations for IT acquisitions
6	Realigned 2A/2B Decision Points Modify principle acquisition decision points and production reviews, including ADE-2A and ADE-2B, Initial Operating Capability (IOC), Full Operating Capability (FOC), and Production Readiness Reviews	12	Value Stream Mapping Map current, future, and ideal state process relationships across the entire ALF/SELC to identify continuous improvement opportunities

Recommendations at a Glance

High Priority Action Plans

<p>1 3</p> <p>Agile ALF Templates Remove redundant requirements for program documentation and provide clarifying expectations for Agile tailored ALF artifacts</p>	<p>1 5</p> <p>Enterprise Architecture Touchpoints Enforce IT EA touchpoints within MD-103-02, ALF and SELC ensuring EA practices are embedded</p>
<p>1 4</p> <p>Agile Core Metrics Establish performance-based delivery metrics and measures to monitor program delivery health</p>	

Moderate Priority Action Plans

<p>1 6</p> <p>Operational Testing Authority Vendors Develop strategic sourcing strategy for Operational Test Authority vendors</p>	<p>1 8</p> <p>Data Analytics Pursue text and business analytics tools leveraging automation capabilities to increase effectiveness of program analysis</p>
<p>1 7</p> <p>Assessment Using Maturity Models Codify, implement, and apply the Software Delivery Maturity Model, Agile Maturity Model, in Program Health Assessments for DHS Component organizations and programs</p>	



Initial Results & Accomplishments

Faster Delivery

- ✓ Delivered the MVP of the workflow tool, which will ultimately lead to faster delivery by streamlining HQ review of acquisition artifacts. Currently used by 13 programs across CBP, ICE, TSA, USCG, and USSS

Cost Effectiveness

- ✓ Established methodology for improved cost estimation for software programs

Improved Business & Mission Value

- ✓ Developed Streamlined Software Acquisition Process that will reduce the likelihood of breaches by strengthening planning ahead of ADE-2B
- ✓ Developed consistent automated testing processes through updates to the Agile TEMP guidance and produced an Agile TEMP Template



Initial Results & Accomplishments (cont'd)

Reduced Risk

- ✓ Updating the JRIMS Instruction to include Cybersecurity and Privacy requirements

Increased Accountability & Oversight

- ✓ Requiring six-month ARB reviews for software programs after ADE-2B
- ✓ Developed the Agile Core Metrics and the DHS Delivery Metrics Playbook, leading to increased accountability and oversight of software delivery and business value





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