SAFe Principles and Practices at DHS
Approach, Progress, and Challenges in Agile Scaling and Transformation at DHS
Bill Pratt
Director, Strategic Technology Mgt.
DHS Office of the Chief Technology Officer

Roland Cuellar
VP Digital Transformation
LitheSpeed
About DHS

- Formed after 9/11/2001
- “Merger” of many major government entities
- Arguably one of the largest and most complex organizations in the world
SAFe Principles & Practices at DHS

Creating Alignment and Cultural Change Through Leadership
Many folks come to SAFe looking for "a process"
Or they equate SAFe with PI Planning
PI Planning is GREAT but it is nowhere near sufficient
There is no recipe for developing large complex systems

If there is an answer, it is in the broad application of the principles across the organization
SAFe is a holistic system for organizational change
And only management can make the changes needed for SAFe to succeed
SAFe Principles

#1-Take an economic view
#2-Apply systems thinking
#3-Assume variability; preserve options
#4-Build incrementally with fast, integrated learning cycles
#5-Base milestones on objective evaluation of working systems
#6-Visualize and limit WIP, reduce batch sizes, and manage queue lengths
#7-Apply cadence, synchronize with cross-domain planning
#8-Unlock the intrinsic motivation of knowledge workers
#9-Decentralize decision-making

Figure 1. SAFe Lean-Agile Principles
Base Milestones on Objective Evaluation of Working Systems

- New DHS Agile Measurement system
- Encourages early and frequent testing through automation
- Encourages frequent deployment
- Programs are starting to transition to the new measurement system

- Number of production deployments per quarter
- Percentage of unit test coverage
- Percentage of automated tests
- Average production deployment lead time
CALMR: Culture, Automation, Lean + Decentralized Decision Making

Team Managed Deployments policy allow teams to deploy to production without a gate review … under strict conditions:

- Very frequent deployment
- Automated testing of all kinds
- Automated and frequent security scans
- Automated deployment
- Use of an approved pipeline

This guidance is intended to further encourage widespread use of very frequent, very small software deployments.
Assume Variability, Preserve Options

- New requirements guidance for DHS
- Encourages higher level requirements / objective based outcomes
- Encourages exploration of solutions
- Discourages detailed, fixed scope requirements
- Encourages SAFe-style roadmaps and planning
Build Incrementally With Fast, Integrated Learning Cycles

Results at USCIS:
Software Delivery Times Drastically Reduced

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Repetitive reductions in delivery cycle time
Measure Everything

- Number of Production Deployments
- Zero-Downtime-Deployments
- Unit Test Coverage
- Production Issues
Apply Cadence, Synchronization, and Cross-Domain Planning

- PI Planning at TSA and other components
- Demos Scheduled
- I&A Workshops Scheduled
- Feature-level delivery
- RRR & CCB Scheduled
- Deployment Scheduled

- Cadence-based, schedule-driven deliveries vs scope-driven
Culture of Shared Responsibility + Respect for People

- A very robust, long-term education system
- Not “one and done” training
- Many roles and many levels
- Several classes a week, over a period of years!
- Forums for peer interaction
- Frequent communications
- Highly effective, and necessary, in driving organizational change
Putting SAFe Core Values into Action

RECOMMENDATION

Develop a revised governance approach that aligns with the iterative nature of Agile and enables programs to establish Continuous Integration Continuous Delivery (CI/CD) pipelines and emphasize communication of program planning, processes, issues and risks through naturally occurring artifacts. Implement Agile governance and review models to increase transparency and feedback throughout the Obtain phase and O&M.
Additional Agile Leadership at DHS

It is not enough that management commit themselves to quality and productivity, they must know what it is they must do.

Such a responsibility cannot be delegated.

—W. Edwards Deming
DHS Management Is Enabling Scaled Agile to Succeed

1. Updated Agile Instruction Guidelines
2. Core Metrics added to INVEST
3. Developed Agile Requirements Guidance
4. Weekly Agile COI meetings, biweekly Coaches Corners, 1600+ users
5. Host annual Agile Expo at HSAI
6. Certifying Agile projects (in accordance with FITARA)
7. Driving implementation of the 18 Agile Acquisition Action Plans
8. Closed 11 Action Plans by the end of FY18
9. Developing the Streamlined Software Acquisition Process (SSAP)
Additional Agile Leadership at DHS

1. Agile Center of Excellence website was created to share information and is continually updated with new material

2. Agile Building Blocks concept to assess level of Agile adoption and identify gaps in programs, components, and DHS overall

3. Providing tools (Jira, other Atlassian tools) to DHS Programs/Projects

4. CPO Procurement Innovation Lab (PIL) working with pilot programs to experiment with and develop Agile contracting techniques

5. DHS DevOps IPT established to work together on a common flexible DevOps framework for enterprise use
Next Steps for Agile at DHS

1. Continue implementing the Agile Acquisition Pilot action plans
2. Compile and continually report on the state of Agile adoption using Agile Building Blocks responses
3. Develop Agile coaching strategy/curriculum
4. Identify Major/non-Major program candidates for Agile assistance
5. Begin filling knowledge gaps and executing Agile community outreach through Agile coaching and application of toolsets
6. Coordinate with CPO for concurrent Agile contracting coaching
7. Track Agile Metrics compliance and pilot Document Review/Approval tool
8. Reassess and adjust often (Hey, we are Agile!)
DHS Management Is Changing the System

- SAFe is not a "software development" thing
- Nor is it only “PI Planning”
- It is a holistic application of lean principles across all functions
- To create a system of inter-related and synergistic enablement processes
  - Business Requirements
  - Procurement / Contracting
  - Governance
  - Program Management
  - Technology
  - HR
  - Operations

"People are already doing their best; the problems are with the system."

—W. Edwards Deming