Panel: Agile Software Development Operations

Myth-busters Style

Anita Carleton, Steve Foote, Wes Haga, Heddy Stern, Eileen Wrubel

Software Engineering Institute Carnegie Mellon University Pittsburgh, PA 15213



Copyright 2018 Carnegie Mellon University. All Rights Reserved.

This material is based upon work funded and supported by the Department of Defense under Contract No. FA8702-15-D-0002 with Carnegie Mellon University for the operation of the Software Engineering Institute, a federally funded research and development center.

The view, opinions, and/or findings contained in this material are those of the author(s) and should not be construed as an official Government position, policy, or decision, unless designated by other documentation.

NO WARRANTY. THIS CARNEGIE MELLON UNIVERSITY AND SOFTWARE ENGINEERING INSTITUTE MATERIAL IS FURNISHED ON AN "AS-IS" BASIS. CARNEGIE MELLON UNIVERSITY MAKES NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, AS TO ANY MATTER INCLUDING, BUT NOT LIMITED TO, WARRANTY OF FITNESS FOR PURPOSE OR MERCHANTABILITY, EXCLUSIVITY, OR RESULTS OBTAINED FROM USE OF THE MATERIAL. CARNEGIE MELLON UNIVERSITY DOES NOT MAKE ANY WARRANTY OF ANY KIND WITH RESPECT TO FREEDOM FROM PATENT, TRADEMARK, OR COPYRIGHT INFRINGEMENT.

[DISTRIBUTION STATEMENT A] This material has been approved for public release and unlimited distribution. Please see Copyright notice for non-US Government use and distribution.

This material may be reproduced in its entirety, without modification, and freely distributed in written or electronic form without requesting formal permission. Permission is required for any other use. Requests for permission should be directed to the Software Engineering Institute at permission@sei.cmu.edu.

DM18-0263

Introduction

Agility Is the Future of Software Development, says Air Force General

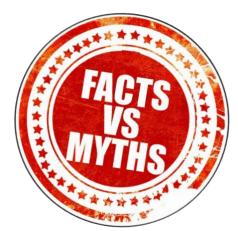
Defense Systems, July 14, 2017

The agile software development model is the next generation of software acquisition and it will streamline software development and acquisition for the Air Force as well, said Gen. Ellen M. Pawlikowski, Commander of Air Force Material Command.

Agile Practices on the Rise in the Latest NDAA

Federal Times, February 6, 2018

The latest NDAA shows that Congress increasingly recognizes the benefits of Agile practices and believes that greater adoption by the DoD will help to deliver the best project and program outcomes moving forward. The bill includes several provisions aimed at increasing Agile approaches within the DoD.



Air Force Pushes Faster, More Agile IT Acquisition

Defense Systems, November 17, 2017

Maj. Gen. Zabel [recommends] focusing on key areas and implementing new methods that will streamline the agile acquisition process. The future of agile acquisition means focusing on data management, the intellectual property behind the technology, and open mission systems architecture. It also means using agile software development methods, rapid operational testing, and having a constant stream of funds.

Panelists

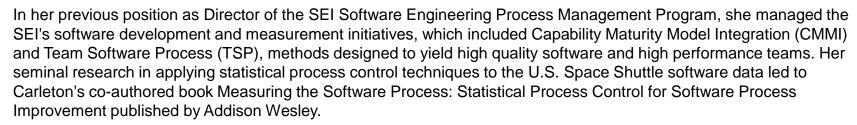


- Anita Carleton, Software Solutions Deputy Director, Software Engineering Institute
- Steve Foote, Technical Director, Software Engineering Technical Center, MITRE Corporation
- Wes Haga, Distinguished Engineer, Booz Allen Hamilton
- Heddy Stern, Associate Director, Boston Labs Team, Pivotal
- Eileen Wrubel, Lead, Agile in Government Team, Software Engineering Institute

Anita Carleton Software Solutions Deputy Director Software Engineering Institute, Carnegie Mellon University

Anita Carleton is currently the Deputy Director of the Software Solutions Division at the Software Engineering Institute, Carnegie Mellon University, where she has more than 25 years of technical and senior leadership experience in the software engineering industry. She provides leadership

for the research, development, and transition of methods and technologies that encapsulate best practices for software engineering, management, and measurement for national defense.



Before joining the SEI, Carleton held technical and management positions in industry. Carleton received her degree in Applied Mathematics from Carnegie Mellon University. She is currently pursuing an Executive MBA at the MIT Sloan School of Management.



Steve Foote Technical Director Software Engineering Technical Center, MITRE Corporation

Steve Foote is the Technical Director of MITRE's Software Engineering Technical Center comprised of 440+ architects, engineers, and human factors scientists in several geographically dispersed locations.



At MITRE, Steve is applying his extensive knowledge of distributed software engineering, computer architecture, security, mobile technologies, web services, and enterprise applications to a variety of Departments and Agencies within the United States Federal Government, including law enforcement, intelligence, military, judicial, treasury, and healthcare applications.

Presently, Steve's primary focus is running MITRE's Lines of Business for Agile Software Development, Cloud Engineering, and DevOps technology areas. Steve leverages MITRE's extensive research and experimentation efforts to instantiate software factories for a wide spectrum of government programs' most critical programs. These factories apply state-of-the-art software engineering practices (agile, cloud, mobile computing, DevOps) with cognitive scientific/human factors expertise to produce advanced capabilities based upon commercially available technologies.

Steve received his Bachelor of Science in Electrical Engineering (Software Engineering), his Masters of Engineering in Computer/Information Systems, and his Masters of Computer Systems Engineering (Enterprise Software Development) from Northeastern University.

Panel: Agile Software Development Operations

© 2018 Carnegie Mellon University

Wes Haga Distinguished Engineer Booz Allen Hamilton

M. Wes Haga is a New York–based Booz Allen Hamilton Director, where he provides technical leadership for the firm's scientist and engineering workforce, specializing in C4ISR and Information Technology based Weapon Systems. Mr. Haga has 33 years of combined experience in DoD and IC resource and acquisition management, scientific research, engineering development, risk management, and fielding of Enterprise Information Technology (IT) Systems. He held the two following positions previous to his role at Booz Allen Hamiltion:

- Chief, Mission Applications & Infrastructure Programs, AFRL Information Directorate (AFRL/RIEBB) where he led a team of Civilian, Military, and contracted personnel in execution of a \$1B Intelligence Information Systems portfolio providing global mission capabilities to the DoD Intelligence Community.
- Chief Architect and Program Manager for the OA DCGS Risk Reduction. Where he led his team to developed the
 modernization and transformation strategy for the USAF DCGS Program. Created the risk reduction project/model for
 execution and evaluation of transformation requirements through the implementation of SAFe across the Weapon System.

Prior to joining Federal Civil Service, Mr. Haga was Enlisted in the USAF where he retired after 20 years of service. Mr. Haga holds a BS in Computer Science from Troy State University and is a DAU Level III certified Engineer.

Heddy Stern
Associate Director, Boston Labs team
Pivotal

Heddy Stern is the Associate Director of the Boston Pivotal Labs team, an agile consultancy of software engineers, product managers, and product designers. She leads a team that works



with start-up, enterprise, and government clients on how to utilize user-centered design, lean product thinking, and eXtreme Programming practices to improve their software development process. Heddy has been a practice lead of the Product and Design team for 2 years in Boston. She was named one of the 40 most influential product managers in 2016. Before joining Pivotal, she worked with start-ups and angel investors on various products for the media, music, entertainment, and travel industries.

Eileen Wrubel Lead, Agile in Government Team Software Engineering Institute, Carnegie Mellon University

Eileen Wrubel is the technical lead for the SEI's Agile in Government program, which works to assist the federal government in effectively utilizing innovative software and systems acquisition and development approaches that leverage Agile and lean-based software engineering practices.

Her research efforts focus on Agile in acquisition, particularly on identifying and addressing adoption barriers in the Department of Defense (DoD) and other highly regulated settings.

In 14 years with the SEI, she has worked with a variety of DoD and federal acquisition programs, providing advice and assistance on software related issues.

Prior to joining the SEI, Eileen served in software project and program management and customer relationship management positions with firms such as Sabre, Logistics.com (now Manhattan Associates), and Akamai Technologies. She has also worked in a USAF acquisition program office, and spent 6 years in the Air National Guard as a Communications and Information Officer.

She is a certified SAFe Program Consultant and holds a BS in applied mathematics from Carnegie Mellon University and an MS in project management from the University of Wisconsin-Platteville.



Call for Audience Participation

We welcome audience participation:

- Debating whether these statements are myths or not
- Additional points or counterpoints to the myth discussion
- Suggesting potential myths that they would like our panel to tackle

Agile = Success

"Take two Sprints and call me in the morning, when your Program succeeds"



Discussion led by Steve Foote

Agile Won't Stick in DoD Environments



Discussion led by Eileen Wrubel

The Warfighter Needs a Fully Featured Product

...an MVP (minimum viable product) will just confuse them and waste time.



Discussion led by Heddy Stern

If You Just Implement DevOps, You Will Succeed

...after all, the existing organizations will readily accept the culture change.



Discussion led by Wes Haga