Advanced Technology Academic Research Center
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SOFTWARE FACTORY WORKING GROUP
CHARTER

Mission Statement

ATARC's Software Factory Working Group unites government and private sector leaders to share and compare best practices, how to improve efficiencies, lessons learned, presenting use cases, tackling scalability and other challenges currently faced within their agencies.

Context

Government technology leaders continually review strategic approaches to build secure and resilient government services. One key strategic initiative is deploying Software Factories. A software factory approach enables technologists to leverage assets produced from developing similar applications. This enables technologists to configure extensive tools, processes, and content using a template based on approved development and security architectures to automate the development and maintenance of variants of a product by adapting, assembling, and configuring framework-based components.

Scope

The scope of the Software Factory Working Group activities includes discovery, analysis, development, dissemination, and communications. We will provide analytical work products related to supporting the development, implementation, and governance of policies related to Software Factories and the federal government. We will survey existing software factories to establish and facilitate best practices to be shared across government.

Objective

The Software Factory Working Group will identify a framework for a federal software factory that can be applied to each area of government services. A key component of the Working Group will also identify Use Cases that can be applied. This adaptable framework will enable the information sharing and vetted processes that will provide the foundation for leveraging key software components to improve the security, speed, and agility of software solutions for government services.

The Software Factory Working Group will have a Lab Project Team. The Lab Project Team will consist of industry and government Subject Matter Experts (SME) whose experiences align to developing and managing software deliverable solutions utilizing best business practices and processes. The Lab Project Team will build a framework based on government and open standards Software Factory with an adaptable solutions architecture that can be applied to each area of government services to improve security, speed and agility.

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Deliverables

The Software Factory Working Group will create a document that can be used as a guide for government groups creating a software factory, analyzing effectiveness of software factory, and adjusting a mature software factory for process improvements. This process can be mapped to a maturity model for software factories with guidance for each level of software factory maturity.

Key Deliverables for the Software Factory Working Group:
- Create a list of baseline patterns and a framework of working software that meets NIST standards
    - Identify Outcomes from a Software Factory
    - Increase efficiency and measure maturity against standard metrics for new and existing software factories.

The Software Factory Working Group Lab Project Team will build an open, flexible framework in the ATARC Lab environment based on government and open standards Software Factory with an adaptable solutions architecture. The ATARC Lab Environment will serve as a digital proving ground that can orchestrate the delivery of all project software artifacts, computing infrastructure and patches, from source code check-in through production deployment for all IT customers, fully automated with requisite security and quality in place. This Lab environment will create use cases with templates listed below.

Key Deliverables for the Lab Project Team:
- Create a software factory based open standards (ex: from NIST and others) that can be downloaded by feds, utilized and extended.
- Create a software factory framework that maximizes:
    - o Speed
    - o Agility
    - o Reusability
    - o Continuous Delivery of Software
    - o Flow
    - o Tight Feedback Groups
    - o Culture of Innovation
    - o Improve ability to deliver faster and securely
- Use Cases with Templates:
    - o Web Server
    - o Application Server
    - o Database Server
    - o A running application
        - ▪ Batch embedded
        - ▪ Mobile app
- Additional Use Cases:
    - o Human Centered Design Templates
    - o Banking Template
    - o Lightweight frontend
    - o API management platform
    - o Logic is at the backend

Working Group Membership

Working Group Chairs

John Soscia, IRS, Government Co-Chair
Stephen King, IRS, Government Co-Chair
Nicholas Weekes, IRS, Government Vice Chair
Claire Bailey, Veracode, Industry Chair
Sameer Kamani, GitLab, Industry Co-Vice Chair
David Wray, Micro Focus, Industry Co-Vice Chair

Working Group Chairs will:
- Attend and contribute to each Working Group meeting
- Prepare the meeting agenda, solicit topics for discussion, assign members to address discussion topics, and distribute meeting materials
- Share information of relevance; provide an update/introduction at the beginning of each meeting to encourage member engagement
- Define Working Group initiatives and activities
- Assist in forming and providing feedback on deliverables

Working Group Members
Working Group Members will:
- Participate in meetings, including exchanging technical information, experiences, and best practices to develop a shared understanding of the topic(s)
- Gather information and work on group deliverables outside of meetings as needed
- Provide feedback on draft deliverables as requested
- Co-lead or participate in Sub-Working Groups (breakout teams/project teams) as needed
- Provide input on meeting agendas as requested

ATARC Support

Elizabeth Wyckoff, Working Group Program Manager
Chris Kirkendale, Working Group and Lab Coordinator
Tim Harvey, Director of Government Engagement

ATARC support will:
- Serve as program manager for the Working Group
- Coordinate and drive group projects and deliverables forward
- Schedule Working Group meetings
- Develop Working Group meeting agendas along with the chairs
- Facilitate Working Group meetings along with the chairs
- Assist in distributing relevant documents and materials to Working Group members
- Send meeting minutes, post-meeting decisions, and action items to Working Group members after each meeting
- Assist in preparing final proposals/recommendations
- Provide marketing services for the Working Group (promoting completed deliverables, etc.)

- Develop strategies to improve Working Group engagement, including applicable cross-overs with other Working Groups and relevant events
- Coordinate Working Group Labs as applicable

Rules of Engagement

The Working Group rules of engagement are described as below:
- Meet bi-weekly from 2022 to 2024, or until amended by ATARC Support
- Follow the Working Group's ground rules developed in the charter
- Join Working Group meetings prepared and with requested action items completed
- Provide respectful and constructive feedback to yield the best decisions for the Working Group's objectives
- Final decisions are made by the Working Group Co-Chairs and ATARC Support

The Working Group will:
- Meet every other Friday from 9:00-10:00 AM EST.
- Form Sub-Working Groups (breakout teams/project teams) as needed
- Follow the group's ground rules developed at one of the Working Group meetings
- Strive to make decisions by unanimous agreement. All members of the Working Group have a voice and will be listened to.
- If a Working Group member misses a meeting, decisions will be made in their absence. The Working Group will decide on a case by case basis if a decision made in the absence of a member shall be revisited.

File Sharing and Collaboration Tools

Access to the ATARC Box Account is managed by ATARC Support.

Disclaimer: Products and communications by ATARC's Software Factory Working Group do not necessarily represent the plans or preferences of any company or government agency.