SAFe Services Acquisition

Guidance on developing Requests for Information (RFI) and Requests for Proposal (RFP) for Scaled Agile services

Cynthia Ferreira - Scaled Agile, Inc.
Robin Yeman – Project and Team
Duane Edghill - MAXIMUS
Dr. Suzette Johnson – Northrop Grumman
Derek Gesin – Stratera Technologies
David Gellen – Northrop Grumman
Saahil Panikar – Atlas Revolutions
Jon Ruark – Sandia National Laboratories
Jordan Stoner – Lockheed Martin

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Introduction

This paper was sponsored by Scaled Agile and authored by a cross-functional team of Agile subject matter experts with extensive domain experience supporting government programs. This article is applicable for federal, state and local government.

The layout of this paper:

- Overview of the intent of the paper
- Background of current need
- Overview of the new acquisition pathway
- Example of questions to be used in an RFI
- Example of a fictitious RFP with Statement of Objectives
- Mitigation strategies for anti-patterns

Purpose

This paper provides guidance on developing Requests for Information (RFI) and Requests for Proposal (RFP) for government officials wishing to procure goods and services from the industrial base.

Rationale

To help the acquisition community overcome challenges seen in the transition from traditional Waterfall to Agile RFIs and RFPs, this document, and the included sample RFI and RFP, are provided to assist the government acquisition community by providing language and recommendations for RFIs and RFPs that are aligned with modern ways of working. This includes addressing the challenges seen when using mixed methodologies involving hybrid waterfall-agile approaches often found in federal acquisition requests that result in agencies inability to gain the desired results from using Lean-Agile and DevOps.

This document also explains how traditional processes and phase gates activities are incorporated into SAFe.

This guidance provides the contract structure with the flexibility needed to support large Agile programs. Current acquisition environments are built on solid oversight, which can lead to adversarial relationships between the government and the offeror (GAO-20-590G). While the Agile Manifesto advises that Agile teams should prioritize customer collaboration over contract negotiations , a more collaborative contract should be written to allow the Contracting Officer (CO) assurance that requirements are being met. Agile teams provide oversight through established feedback loops with customer stakeholders to ensure the product provides value to the customer organization. Contracts should be developed to require these feedback loops and promote collaboration.

Important note: This document describes the information that should be part of an Acquisition Strategy for Agile programs. It is not intended to describe a complete acquisition strategy document. This document may still require information not called out for statutory or regulatory reasons. The government will make decisions about other required elements of an acquisition strategy. As understanding of successful strategies for Agile software acquisition emerge, this guidance is expected to evolve and change.

Federal Government Barriers to Achieving Expected Outcomes with Agile

Analysis shows that many Federal Agile efforts perform only marginally better than Waterfall. This is partly due to discrepancies in the data used to evaluate performance and clearer OMB guidance concerning reporting is needed (GAO-16-469). In the 2020 GAO Agile Assessment Guide (GAO-20-590G) 14 areas were identified where Federal agencies have struggled to adopt Agile. These systemic challenges result in Federal agencies failing to achieve the cost and schedule savings that can be realized with Agile adoption. A common root cause is a need for more alignment between the work performed by Agile teams and the Waterfall-based acquisitions, contracting, program management, and IT governance practices and culture of the Federal Government. This document provides recommended language and guidance to facilitate better alignment between the technical solution, contracting, and government project management.

Topics Not Included

- Contract Language / Contract Types
- Teaching Agile/Agile Coaching

Background

Delivering products and services at the speed of relevance is critical for the United States to outpace our peer and near-peer adversaries. DoD 5000.1 has recently been updated with new acquisition pathways to support this need. However, there needs to be more information on how to modify the approach to create products and services using this new pathway effectively. Key considerations include the pace of delivery

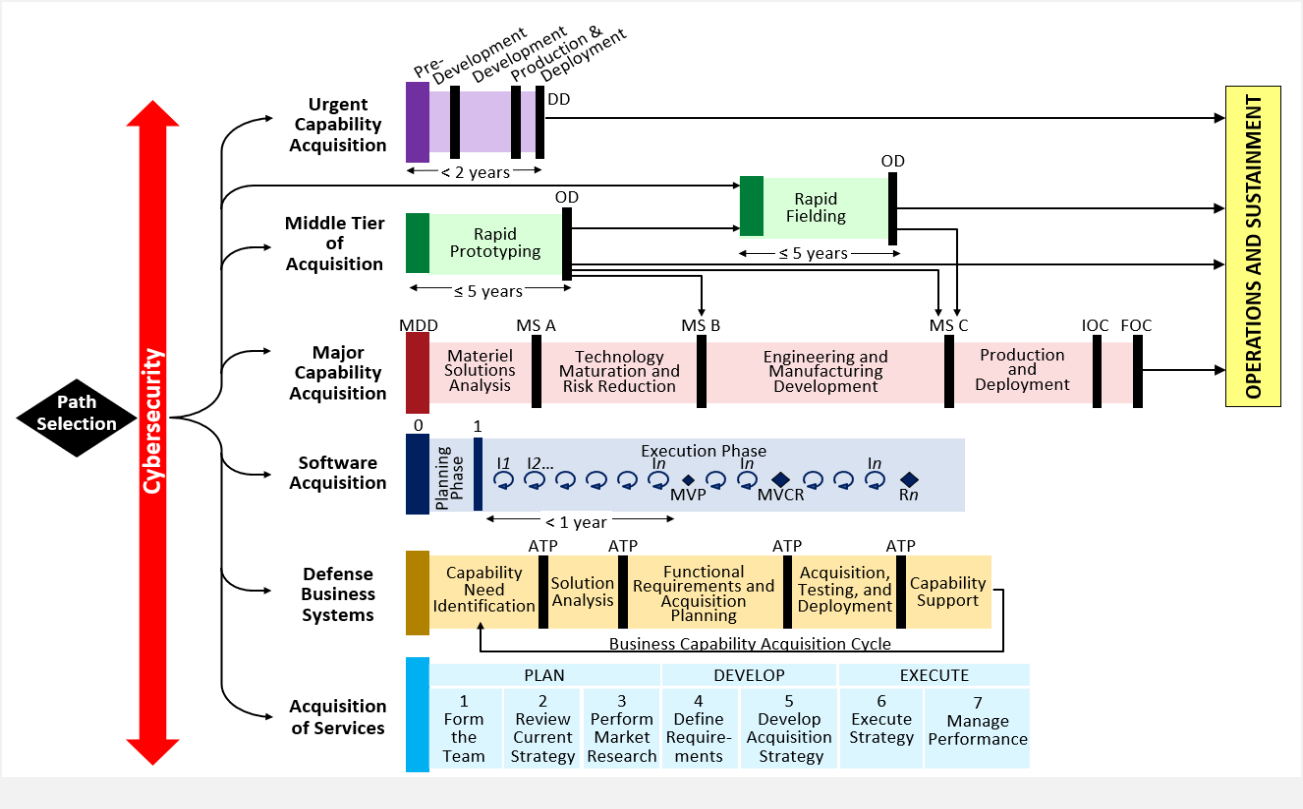

Figure 1: Acquisition Pathways

(i.e., lead times, flow metrics, etc.); focus on outcomes over outputs; aligning schedules and roadmaps; cost management, and funding long-term product teams rather than projects.

Acquisition Context

DoD 5000.1, a top-level policy, was rewritten in 2020 and added a software acquisition pathway, as illustrated in Figure 1, that significantly reduces complexity and shortens lead times in getting capabilities into the hands of stakeholders (customers and end-users). Additional information on these acquisition pathways can be found on the DAU website https://aaf.dau.edu/.

While the Adaptive Acquisition Framework (AAF) includes pathways for many types of acquisitions, this document focuses on the Software Acquisition Pathway.

RFI Exemplar

Request for Information (Technical Response for a solicitation)

1. Describe the Agile Framework being proposed to plan and execute this work. Include technical implementation and Agile management processes supporting the Agile delivery practice. (Look for a holistic approach to both technical development and product management.)
2. Describe how you manage the backlog of work, including challenges experienced and how you resolved them. (Look for the response to identify methods to plan, update, manage, and make all work to be performed visible. ALM tool to be used (either agency can mandate, or the offeror will suggest). Describe the lifecycle of how ideas that would enhance the product or service go from ideation to release.
3. Provide Corporate experience. (Look for both agency experience on similar scoped and sized programs, as well as experience with the use of SAFe either in government or in industry. Provide previous contract data on agile government acquisitions.)
4. Describe the intent to meet the MVP or MVCR requirements. Describe the frequency of deployments, collecting feedback, options, and techniques for minor experimental releases.
5. How will you demonstrate progress in this program? What metrics will be shared?
6. Does your organization have examples of previous engagements using the Scaled Agile Framework (SAFe) at the whole configuration level per ScaledAgileframework.com with similar complexity and similar domain and transitioning legacy systems and applications?
7. How would you suggest streamlining documentation artifacts and testing cycle time for releasing software applications using DevSecOps tools while meeting independent compliance requirements?
8. How do you know when an Agile team is failing? How do you remedy the situation?
9. Describe how you would manage an Agile project with external dependencies (for example, external data interfaces, hardware integration, application infrastructure, etc.).
10. Describe some of the challenges your team has faced in implementing Agile projects in the government and the steps you took to overcome them.
11. Describe the internal controls your company uses to report the performance of your Agile software development teams to your corporate leadership. How is performance corrected or rewarded?
12. How do you recruit and retain talent?
13. How do you train employees to practice Lean-Agile principles?

RFP Exemplar

The following is a <u>fictional</u> RFP designed to obtain responses that align with SAFe principles and practices.

This fictional example RFP is for a digital modernization of a Defense Travel System (DTS). This example was chosen as an easy-to-understand system and is used only for the purposes of instruction and is not intended to reflect any actual system.

The Scaled Agile Framework (SAFe®) applies the power of Agile, along with systems thinking, lean product development, customer experience, and increased employee engagement, to help agencies address the significant challenges of developing and delivering government solutions through the use of collaboration and support from industry. It is an online, open, and collaboratively sourced, freely revealed knowledge base of proven success patterns for achieving business agility.

Note: in the exemplar, text in a box is intended as a note to the reader and not part of the exemplar.

Section C Performance Statement of Objectives

Statement of Objectives (SOO) and Statement of Work (SOW) are documents used in government contracting to describe the requirements for a project or acquisition. SOO is used when the government wants to leave the design of the solution to the offeror, and the focus is on describing the desired outcomes or objectives that the answer should achieve. The offeror has more flexibility in proposing solutions that meet the purposes described in the SOO. In general, SOO is better aligned to Agile practices where only some requirements may be known in advance, and the solution is expected to evolve. Conversely, SOW is used when the government has already determined the specific solution they want and how it should be implemented. The focus is on describing the work the offeror is expected to perform, including deliverables, timelines, and milestones.

Title: Fast Defense Travel System (FAST DTS)

Introduction

The Defense Travel System (DTS) is an online system that automates temporary duty (TDY) travel. It allows active-duty Army, Army Reserve, and Army National Guard members to create authorizations, book reservations, receive approval, generate payment vouchers, and direct payments to their bank accounts and Government Travel Charge Card (GTCC).

The agency seeks industry partners that can: (1) utilize Agile processes, procedures, and ceremonies in the right way to empower daily work; (2) ensure business value is delivered without introducing operational or executional risk; (3) measure delivery outcome based on customer value captured; (4) build lean, high-functioning teams with multi-talented resources that have depth across several functional areas; and (5) embrace the concept that Agile development (custom or configuration of commercial off-the-shelf [COTS] / government off-the-shelf [GOTS]) is inherently iterative, and scope discovery requires ongoing collaboration between business and technical resources. The agency continues to explore and evaluate available technologies to solve its modernization needs. A strong industry partner shall have insights into more than one possible solution to a problem and how to objectively weigh pros and cons for the government's interests and priorities. High-functioning teams shall include industry resources partnering with federal product owners to conceptualize, plan, and execute IT solutions that meet business goals and deliver measurable value to the agency's users, be it internal or external. A team's success in delivery of business capabilities is measured and documented in metrics, and adherence to critical standards and policies.

PRODUCT VISION

The existing DTS is over 20 years old and requires modernization to reflect industry best practices in booking and managing travel requests. Our vision is to provide secure smartphone and internet access to the travel data, allowing our customers to query travel options based on their preferences, book trips, select seats and hotel rooms that are within the per diem limits, and receive notification once the request has been approved. The lifecycle from request to approval should be turnkey with minimal intervention needed from an administrator unless the request falls outside the standard business rules. During travel, the end user can store receipts for each day of travel, and easily submit a reimbursement request to the original approved request. Using this travel data, we will track spending by location, division/unit and customer.

PURPOSE

This RFP aims to Modernize DTS to a new digital platform, the FAST DTS. New capabilities will provide a holistic digital experience in booking travel for the department. The system will be focused on delivering a user experience for travelers that consistently rates 4 out of 5 stars on average while providing full functionality, accessibility, and security while processing travel documents.

SCOPE

The product scope includes the following:

- Initial system design and implementation
- System configuration to support business processes.
- Integration for input and output methods
- Structure to support cloud encryption gateway technology.
- Data import of records collected from legacy systems.
- Training of end users on the new FAST system

The scope does not include the following:

- Help Desk

CUSTOMERS

The following customers have been identified for FAST DTS:

- End Users - Active-duty Army, Army Reserve, and Army National Guard members who will use the application to book and monitor travel reservations.
- Internal Users – Administrative staff and contractors processing travel and reimbursement requests to shorten the length of time to respond to requests while achieving a high satisfaction feedback score.

BACKLOG

Epics are high-level requirements that help shape the long-term vision of the product and inform the solution roadmap. Government is responsible for identifying epics and prioritizing the order of development. Epics are not too broad, nor too narrow in focus, and aligns with the agencies vision. Epics may be anonymous to WBS packages and take over 90 days to implement. Agile teams need to deconstruct epics to develop the functionality for the epic. This requires the team to create several features and stories in which to plan all the capabilities needed to satisfy the epic requirement. Government should provide epics that summate the objectives, customer segment impacted, in and out of high-level scope criteria, and budget and time estimates if available. If this is an ongoing program, the backlog should also include the features that support these epics and when possible, provide the current product backlog in the RFP to help the bidder understand the ongoing work.

The following backlog includes the initial known high-level epics and features for the FAST system. These are represented in priority order. The government will update this backlog after contract award regularly based on mission need and priority. We have included the impacted customer segment for each epic and feature. The attached backlog is the current snapshot in time.

Table 1: Sample FAST DTS Backlog of Epics and Features

Epic	Feature	Customer Segment
Web-hosted FAST application	Secure cloud platform to host FAST DTS	Internal Users
	Multi-factor authentication	End Users and Internal Users
	User Profile – Users Personal settings, travel preferences, and travel documentation	End Users
	Global policies that determine per diems for travelers based on location	End User

	Travel request approval	Internal Users
Travel Reports	Individual travel reports	End Users
	Administrative reports	Internal Users

PLACE AND PERIOD OF PERFORMANCE

{ENTER AGENCY REQUIRED LANGUAGE REGARDING PERIOD OF PERFORMANCE}

{ENTER AGENCY LANGUAGE REGARDING IN-PERSON, HYBRID, OR REMOTE WORKING REQUIREMENTS}

AGENCY OBJECTIVES

The agency's newly enhanced SAFe practices include business-based product owners, Scrum Masters, Agile coaches, Release Train Engineers (RTE), minimum viable products (MVPs), and deliberate retrospectives that capture clear lessons learned. Other proven methodologies at the agency include Kanban and DevOps—development (Dev) and support/operations (Ops).

A significant part of the agency's desire to support its user base more effectively is to move to a more Agile organization at all levels and support individual contributors, teams, and leaders to embrace the changes needed to do so. The agency understands that the organization as an entity will grow and mature during the shift from project-based planning to product line planning and is setting processes, metrics, and measures to define progress and lessons learned along the way to a high-performing agile organization.

Looking to the future, the agency aims for greater adoption of DevSecOps principles and practices. The 12 Factor app methodology3 to deliver software-as-a-service on cloud platforms and design-build methodologies that account for data needs (e.g., secure data capture, collection, storage, and management) are also elements of the future state vision.

The agency understands that this journey takes time and is currently implementing significant organizational change to enable and facilitate goal attainment. The agency's vision of a high-performing organization is multifaceted, focusing on the following areas:

Table 2: Organizational Focus Areas and Goals

Organizational Focus Area	Organizational Goal
Purpose and Intent	Executive Leadership has a deep understanding of Agile and is continuously improving the Agile model for the organization's IT Planning and Acquisition.
IT Planning and Acquisition	End-to-End Agile governance is optimized. The product line is managed through a cross-product, single Business Unit Backlog. Business Partners are fully integrated in Agile Working model.
Organizing Talent and Optimizing Roles	Long lasting teams are established and optimized for value delivery. Recruiting strategies focused on obtaining Agile practitioners for roles to support the organizational goals and Agile ways of working.
Enabling Agile Ways of Working	Smooth cadence of Agile delivery is established throughout the agency by all Agile teams with a focus on both speed, security and high quality. The customer is an integral part of all Agile processes and measures to integrate feedback into product backlog is established and operational. Cross-team collaboration is well established. Teams are self-organized and drive innovative solutions. Entire team commits to ambitious but sustainably achievable and predictable targets.
Measuring Outcomes	End-to-End Agile performance management is established and optimized for continuous improvement.
Setting the Technology Foundation	DevSecOps fully implemented and optimized. Large part of architecture modularized (Application Programming Interfaces [API's] established) Provisioning enabled according to best practices. Cloud first State of the art tooling landscape includes fully automated testing.

Change Management	Culture is based on SAFe principles, including a ‘Fail Fast’ environment. Fully transparent sharing of information. Highly collaborative attitude across organizations and functions. Leaders developed over ‘managers’ and servant leadership style throughout the organization. Strong affinity to teams. Success is celebrated.

The agency has formulated the following principles that guide all modernization decisions and technology investments, as follows:

Services:

- Cloud before you buy, buy before you build
- Apply and prosecute from anywhere and on any device
- Headless architecture and data-driven user interfaces (UIs)
- All services (no apps)
- AI chatbots and voice assistants
- Personalized digital experience
- Performance-based human-centered agile product delivery

Platforms:

- Commonality up to platforms
- End-to-end security
- Budget chargeback of platform, infrastructure, and operations services
- World-class support practices
- Fully automated continuous improvement/continuous delivery CI/CD environment Advanced identification and non-repudiation of users
- DevSecOps and proactive monitoring

Data and Analytics:

- Optimized data ecosystem (Master Data Management–MDM–, Classification, Data Quality and Data Loss Prevention–DLP)
- Open platform, open APIs, open source, open data

- Automate every step (RPA or digital)
- Process efficiency through analytics and AI/ML
- Proactive web and log analytics

Infrastructure:

- One consolidated architecture for the agency
- One physical data center only
- API smart mesh and service orchestration
- Cloud-native when possible
- Entirely on the cloud
- Software development and tech stack common standards
- Serverless NoOps environment
- End-to-end auto-scalability
- Business continuity on the cloud

PERFORMANCE OBJECTIVES

The government is pursuing the following objectives for this assessment:

Table 3: Key Objectives

	Objectives Description
1.	Government and the selected offeror follow values, principles, practices, and roles in the Scaled Agile Framework (SAFe®) to deliver value to stakeholders.
2.	The end state of this project is both a web-based, cloud hosted system as well as a mobile application that provide users the ability to schedule and manage travel.
3.	The solution consists of a minimal viable product (MVP) providing core functionality, with addition features delivered incrementally.
4.	The system is able to process up to 5 million transactions annually.

5.	The solution supports customizable travel policies. Special policies for specific travelers (such as c-level or a department that often must book last-minute flights) Global policies for nightly hotel rates Nightly hotel rate by city Global policies for maximum domestic and international flight cost Maximum flight cost for specific routes Minimum number of days required for advanced booking. Global maximum train cost Maximum train cost for certain routes
6.	The solution provides customizable approval workflows so that if anything falls outside of policy, the person booking a trip can request approval and save their trip details (instead of sending an email and losing all their hard work of selecting the right itinerary). The approval workflows are customizable, such as picking different approvers for different teams and customizing the level of strictness.
7.	The solution provides extensive data that includes per diem rates for all locations that are travel options. This includes both air, train and mileage rates, as well as the respective per diem and O&I rates.
8.	The solution provides the ability to generate reports on business travel. Examples include: • Travel expenditures by time. • Travel expenditures by department or team. • Travel expenditures booked out of policy. • Travel expenditures by project. In addition to generating reports, the travel management system includes the ability to add labels and tags to trips.
9.	The Solution provides consolidated invoicing

	……
N.	The travel management system integrates with the departments existing expense management system

Section L Instructions, Conditions, and Notice to Offerors

This request for proposal incorporates FAR 52.215-1 Instructions to Offerors-Competitive Acquisition by reference. Offerors are expected to examine the entire solicitation and all associated attachments and furnish information as required. A cover letter signed by the person authorized to commit the Offeror to contractual obligations that constitute the Offeror's acceptance of the terms and conditions of the FAST DTS is required.

Table 4: Proposal Component Guidance

Proposal Component	Volume	RFP Section Reference	Page Limit
Offer Volume	I	L.XX	50 Pages
Subfactor A: Technical Approach	I	L.XX	
Subfactor B: Management Approach	I	L.XX	
Subfactor C: Past Performance	II	L.XX	10 Pages
Subfactor D: Orals Challenge	III	L.XX	25 Slides

Subfactor A – Technical Approach

The government has adopted SAFe as the framework to plan and execute work for this product. This includes the ability to plan incrementally across agile teams, visualize the progress of capabilities being released to users, and adjust the work in progress based on user feedback, team predictability or other arising circumstances that warrant adjustments to plans. Section 4.7 provides a detailed description of the current SAFe adoption within the agency. Offerors should demonstrate experience delivering exceptional information technology and digital services/solutions using SAFe principles and processes.

The offeror shall provide a technical approach to design, build, and deploy the FAST DTS system that aligns with the department's SAFe process outlined in section 4.7.

L.A.1 Secure User/Human-Centered System Design - Provide proposed roles, tools, innovations, and automation to support the delivery of a Cloud-based, Secure, Usable, and Performant FAST DTS while maintaining the current operational capability of DTS.

L.A.2 Architecture - Provide an approach to provide an open, modular, secure, and scalable system.

L.A.3 Continuous Delivery - Provide an approach to ensuring application development continues when upgrades need to be completed, for example, when upgrading to a new platform.

L.A.4 Continuous Improvement - Provide an approach to improve development, deployment, and operational efficiencies continuously.

L.A.5 Collaboration - Provide a collaborative, cooperative approach that integrates and aligns the efforts of the government, the offeror, and other suppliers as required.

Subfactor B – Management Approach

The offeror shall provide a management approach to design, build, and deploy the FAST DTS that aligns with the department's SAFe strategy outlined in section 4.7.

L.B.1 Workforce -The offeror shall clearly and succinctly describe its ability to manage and retain a workforce capable of providing the products and services described in the SOO. The offeror will recommend the number of team members and the necessary skills required to sufficiently address bottlenecks when they occur to ensure a continuous flow of work.

L.B.2 Transparent Predictable Delivery – The offeror shall detail the approach and artifacts needed to provide transparent, predictable delivery of products and services and their associated

costs described in SOO. For example, define MVP and MVCR strategy and how many reviews are recommended.

L.B.3 Business Rhythms - The offeror shall clearly describe recommended business rhythms to optimize the review of work and the delivery of products and services described in SOO. This should be in the form of a demonstration of work completed after every iteration and a fully integrated and working solution at the end of every program increment (PI)period (roughly 12 weeks). The offeror will propose methods for collecting feedback from the government and key stakeholders on the fit for use and fit for the purpose of the solution.

L.B.4 Risks/ Opportunities -The offeror shall identify opportunities to improve the user experience as well as technical innovations that enhance both the functionality of the products as well as the delivery of the product as described in SOO. The offeror shall identify risks to the product capabilities and review and mitigate these risks on an iterative basis.

L.B.5 Performance Reporting - The offeror shall provide information required to support programmatic updates to the IT Dashboard, including:

- Risk level assessment
- Solution status
- Amount of current funding for development, modernization, and enhancement or operations and maintenance activities
- Whether the program has produced usable functionality
- Whether the program delivered releases every six months (or less), or provide a rationale if not

Subfactor C – Past Performance

The offeror shall provide a minimum of one and a maximum of three contracts in which it performed as the prime contractor delivering operational capabilities of similar size, scope, complexity, and delivery method with a Scaled Agile environment. Experience should demonstrate the offeror's success in using Agile practices at a large scale either within the agency, another agency with similar size and scope, or in the commercial sector.

The offeror shall provide the outcomes achieved and the lessons learned for each contract.

Subfactor D – Orals Challenge Problem

The offeror shall present an orals slide presentation outlining a scenario that illustrates their approach to delivering the first incremental delivery of FAST DTS to the department without negative impacts on the existing DTS operations.

The Scenario shall include an approach to:

- Stakeholder management
- Prioritization
- Artifacts
- User Centricity
- Communication / Collaboration
- Risks
- Metrics and measures of Performance
- Solution Details (Technology, Automation)
- Team Structure (Roles)

Section M Source Selection and Evaluation Factors

The government shall evaluate the offeror on the Subfactors outlined in Table 1.

Table 5: Subfactor Evaluation Weight

Subfactor	Points
Subfactor A: Technical Approach	400
Subfactor B: Management Approach	400
Subfactor C: Past Performance	200
Subfactor D: Oral Challenge Problem	200
Total Points	1200

Subfactor A – Technical Approach Evaluation

The government will evaluate the offeror's technical approach to determine the offeror's understanding of the technical requirements and how to align with the department's SAFe Approach outlined in section 4.7.

M.A.1 Secure User-Centered System Delivery – The offeror's approach to delivering a secure, usable, performant system is defined in L.A.1. The offeror will be evaluated for a comprehensive understanding of feasibility, effectiveness, and risk for having a solution.

M.A.2 Architecture - The offeror approach to architecture defined in L.A.2. The offeror will be evaluated for a comprehensive understanding of feasibility, effectiveness, and degree of risk for delivering a solution.

M.A.3 Continuous Delivery - The offeror's approach to continuous delivery is defined in L.A.3. The offeror will be evaluated for a comprehensive understanding of feasibility, effectiveness, and degree of risk for delivering a solution.

M.A.4 Continuous Improvement - The offeror's approach to continuous improvement is defined in L.A.4. The offeror will be evaluated for a comprehensive understanding of feasibility, effectiveness, and degree of risk for delivering a solution.

M.A.5 Performance Reporting - The offeror’s approach to performance data as defined in L.A.5. The offer will be evaluated for a holistic solution using the tools identified and supported in this acquisition to collect and report on key performance objectives.

Subfactor B – Management Approach Evaluation

The government will evaluate the offeror's management approach to determine the offeror's understanding of the technical requirements and how to align with the department's SAFe Approach outlined in section 4.7.

M.B.1 Workforce - The offeror's approach to Workforce is defined in L.B.1. The offeror will be evaluated for a comprehensive understanding of feasibility, efficiency, and effectiveness.

M.B.2 Transparent Predictable Delivery - The offeror’s approach to transparent, predictable delivery is defined in L.B.2. The offeror will be evaluated for a comprehensive understanding of feasibility, efficiency, and effectiveness.

M.B.3 Business Rhythms - The offeror's business rhythms are defined in L.B.3. The offeror will be evaluated for a comprehensive understanding of feasibility, efficiency, and effectiveness.

M.B.4 Risks/ Opportunities - The offeror's approach to risks/opportunities is defined in L.B.4. The offeror will be evaluated for a comprehensive understanding of feasibility, efficiency, and effectiveness.

M.B.5 Performance Reporting - The offeror approach to performance data as defined in L.B.5. The offeror will be evaluated for the comprehensive understanding of performance data and the ease and automation in which these data are made visible to management.

Subfactor C – Past Performance Evaluation

Offerors should demonstrate experience delivering exceptional Information Technology and Digital services/solutions using the SAFe Framework.

Past performance evaluation will be conducted per FAR 15.305(a)(2) proposal evaluation criteria.

Subfactor D – Orals Challenge Evaluation

The government will evaluate the offeror's orals response based on the offeror's demonstrated comprehensive understanding, feasibility, effectiveness, and degree of risk in accomplishing the requirements of the scenario.

Cost Proposal and Schedule Instructions

The Price Volume shall be organized and presented to allow an evaluation by the government. An Offeror’s proposal is presumed to represent the Offeror’s best efforts to respond to the RFP. Furthermore, the services priced in the price volume must be consistent with those described in Offeror’s other books of the proposal. Offerors must provide a straightforward crosswalk between the proposed technical solution and proposed costs.

The crosswalk is to include a detailed narrative on how proposed labor categories and hours support the offeror's proposed technical solution. The narrative will assist the government in ensuring the Offeror's pricing proposal aligns with its proposed technical solution. Inconsistency, if unexplained, raises a fundamental issue regarding the Offeror’s understanding of the RFP, as well as of the Offeror’s ability to meet the requirements of the RFP.

{AGENCY SHOULD PROVIDE CONTRACT TYPE.}[1]

[1] SAI will provide further guidance on contract types appropriate for SAFe acquisitions and recommendations for award fees based on agile performance in a forthcoming document.

Measures / Metrics

The following are recommended metrics that the agency is interested in. The offeror may suggest an initial set of metrics to monitor performance from the metrics outlined in the table below. These metrics allow the government to see trends over time and will be used to help predict future productivity of the agile teams. The goal is to understand if the Agile Release Trains (ARTs) are falling outside of predictable ranges, which can lead to discussions on why potential issues may be occurring and what improvement actions should be done to stabilize performance. The government recognizes that anomalies in data do not always indicate there is a performance issue, but can indicate that the work was adjusted based on evolving circumstances.

Table 6: Recommended Metrics

Metric	Description	Frequency	Value Proposition
Flow Distribution	The proportion of each backlog item type in flow (features, defects, debt, risk)	Continuously via dashboard	Demonstrates product quality and value for money.
Flow Velocity	Number of items over a period.	Continuously via dashboard	Demonstrates the rate that value is delivered.
Flow Time	Time elapsed from when an item enters the workflow to the time released to the customer.	Continuously via dashboard	Demonstrates average time to market (i.e., to the customer's hands).
Flow Load	Measures the number of flow items in progress.	Continuously via dashboard	Demonstrates (over or under) utilization which can lead to reduced productivity.
Flow Efficiency	The ratio of active time of flow elements out of flow elapsed time.	Continuously via dashboard	Identifies waste in the value stream and opportunities for improvement.

Flow Predictability	Overall Planned versus Actual Business Value.	Continuously via dashboard	Demonstrates the level of predictability in delivery.
Risk Exposure	The total amount or risk in dollars that teams are exposed to.	Continuously via dashboard	Demonstrates ability to complete the delivery.
Net Promoter Score	The percentage of users who would actively promote the product.	Continuously via dashboard of new capabilities.	Demonstrates that the product being delivered is the product the users needed.
Product Costs	How much money has been spent; how much money remains in the budget.	Monthly spend rate with projected date in which funds will be exhausted.	Demonstrates if solution is within budget and if either additional funding is needed or adjustments to spend rate are required.

Deliverables

Table 7: Deliverables

Item	Description	Frequency	Delivery Method
Roadmap	Living roadmap of the incremental deliveries of the travel system	Continuous	Dashboard
Risk Adjusted Product Backlog	Backlog of activities relating to managing risks in addition to the features associated with delivering value	Continuous	Product Backlog Access
Metrics Dashboard	Living dashboard within application lifecycle management tool that tracks the metrics described in section 4.5	Continuous	Dashboard
Cost Dashboard	Financial burndown report	Monthly	Electronic
Security Monitoring Dashboard	Living dashboard indicating the most recent security scans and trend of security violations found over last 10 builds	Continuous	Dashboard
Source Code, Security and Tests	Status of current build, security tests regressions tests and build results	Daily	Dashboard, Code Repository
Architectural Artifacts	Repository of design artifacts supporting architecture runway, tied to enabler features or stories in the backlog	End of each iteration	Wiki site

Department's SAFe Approach

The agency manages the intake of new epics and features through a portfolio kanban process, aligning the agency's strategy and execution using lean and systems thinking approaches. Governance of the Kanban portfolio is managed by government business owners, government enterprise architects and the Lean-Agile Center of Excellence. This group reviews spending, compliance, measurement, and reporting for all agile products within the agency. The operations of this group include:

- Facilitating portfolio events
- Work with the LACE to develop, harvest, and apply successful ART execution patterns across the portfolio
- Foster decentralized PI Planning and operational excellence
- Establishes objective metrics and reports progress toward mission agility
- Focuses the portfolio on measuring and improving value delivery
- Leads the move towards objective metrics, and milestones
- Establishes and maintains the systems and reporting capabilities
- Communicates and amplifies the portfolio's strategy
- Fosters Agile contracting standards

The agency will manage the work for the FAST DTS product with one or more Agile Release Trains (ARTs). Each ART is composed of multiple Agile teams that are working on a shared business or technology mission.

- All teams within an ART organize their work using two-week iterations to create a cadence within the development cycle and deliver new system value incrementally. Teams may use Scrum or Kanban to plan and manage their work.
- Kanban teams should include the following team activities:
    - Manage team backlog
    - Iteration planning
    - Decompose features into stories
    - Backlog refinement
    - Plan iteration goals
    - Release product capabilities at the request of the Product Owner (Release on demand)
    - Team syncs
    - System demonstrations
- Scrum teams should include the following team activities:
    - Iteration Planning
    - Decompose features into stories
    - Backlog refinement

    - Team syncs
    - Iteration review
    - Iteration retrospective
- The ART groups iterations into Planning Intervals (PIs). Each PI occurs within a ten or twelve-week period. Planned work shall use Kanban boards to visualize the backlog of work, collect metrics on the work planned and executed (see section 4.5) and includes the following activities:
    - PI Planning
    - System Demo
    - IP Iteration
    - Inspect and Adapt
- Teams utilize Features and Stories to describe requirements.
    - Stories should be developed using the INVEST principles.

The government will leverage the evolving Scaled Agile Framework to plan and manage the work and assess the quality of the offeror's work products/deliverables. This includes but is not limited to the close coordination with the Offeror, standard deliveries, ceremonies, and demos in the PI.

The Offeror shall use metrics to demonstrate the quality and performance of deliverables unless otherwise specified. Work shall meet the PI objectives in a manner that does not negatively impact system performance or availability.

Business Rhythms and Methods and Measures of Inspection

Table 8: Methods of Inspection

Activity	Method of Inspection	Frequency
System Demonstration	Demonstration by the ART teams to Business Owners, Product Manager(s), Product Owners, and any other key stakeholders of work completed in the current iteration	End of every iteration (2 weeks)
Working Capabilities (hardware, firmware, software)	Code checked into code repository and passes all build requirements	Varies based on the type of system – ideally multiple times per iteration if possible

Solution Roadmap (with milestones	Review and update to Roadmap	End of every PI or end of every quarter
Financial Burndown	Review	Monthly
PI Planning	Cadence-based event for the entire ART that aligns teams and stakeholders to a shared mission and vision.	Every 10 -12 weeks
I&A	Held at the end of each Program Increment (PI), the current state of the Solution is demonstrated and evaluated by the ART.	End of every PI or end of every quarter
PI Planning Prep	Pre–Program Increment (PI) Planning events are used to prepare for PI Planning for Agile Release Trains (ARTs).	30 days prior to PI Planning event
Portfolio Review	Focuses on realizing and improving the portfolio vision. It ensures continuous alignment of strategy, budget, and implementation. Review metrics of objectives and key results.	Quarterly

The offeror will demonstrate work completed and collect quantitative feedback from the government PO and customers. Using this feedback, the offeror will identify what needs to be improved with the solutions provided.

The government will leverage the SAFe Measure and Grow metrics model to collect data and assess the quality of the offeror's work products/deliverables, such as the close coordination with standard deliveries, SAFe events, and demos in the PI.

The Offeror will demonstrate the quality and performance of Deliverables at the end of every PI period. Work shall meet the PI objectives in a manner that does not negatively impact system performance or availability.

Examples may include, but are not limited to:

- Collection of data associated with releases, features, capabilities, and stories.
- The definition of “done” associated with a story shall identify the requirements that must be demonstrated to be considered complete and accepted.
- Work elements (story points, predictability), Kanban boards, and flow metrics to track progress and measure performance.
- The number of defects identified once the product is deployed into production.
- Deployed code shall not negatively impact system performance or availability.

Experienced Personnel

The government reserves the right to adjust the teams' staffing quantities/skill sets, for example, augmentation with other government and offeror personnel. For all CLINs, the size of the Agile team shall be 10 or fewer excluding government resources.

The agency requests specific labor categories along with pricing for Agile roles. Not all labor codes are in the GSA schedule. However, many of these roles are essential to execute a SAFe implementation.

Agile Coach

- Experience transforming initiatives to deliver lasting change within agencies focusing on providing value. Coaches may be required to work either:
    - At the team level, working with teams to ensure that delivery teams within agencies are adopting Agile and performing effectively,
    - At the portfolio or program level to help agencies to establish the right processes for managing a portfolio of work in an Agile way,
    - At the organization level, to drive strategic change across the organization and ensure that the adoption of Agile techniques is embedded from the most senior levels of the organization,
    - Across all levels to ensure that organizations adopt a pragmatic approach to govern the delivery and continuous improvement of digital services.
- Embeds an Agile culture using techniques from a wide range of Agile and lean methodologies and frameworks but be methodology agnostic.
- It helps to create an open and trust-based environment, which enables a focus on delivery and facilitates continuous improvement.
- Assesses the culture of a team or organization and the delivery processes in place to identify improvements and facilitate these improvements with the right type of support.
- Showcases relevant tools and techniques such as coaching, advising, workshops, and mentoring.
- Engages with stakeholders at all levels of the organization.
- Develops clear lines of escalation in agreement with senior managers.
- Ensures any stakeholder can easily find an accurate and current project or program status without disruption to delivery.
- Works effectively with other suppliers and agencies.
- Applies best tools and techniques to team roles, behaviors, structure and culture, SAFe events and practices, knowledge transfer and sharing, program management, cross-team coordination, and overall governance of digital service delivery.

- Ensures key metrics and requirements that support the team and delivery are well-defined and maintained.
- Equips staff with the ability to coach others.
- If organization level, executive coaching on the fundamental considerations of digital service delivery design.
- Supports PI Planning and PI execution.
- Coach SM/TCs in ART and Team events and practices
- Optimizes flow by establishing pull systems, ART flow measures and helps improve the flow of value.
- Facilitates value stream. Mapping
- Drives relentless improvement by leveraging core-competency self-assessments and collaborating with the Value Management Office (VMO) and LACE.

Agile Business Analyst

- Supports agencies by analyzing propositions and assessing decision-making factors, such as strategic alignment, cost/benefit, and risk.
- Works closely with the Product Manager to define a product approach to meet the specified user need.
- Defines skill requirements and maps resources for internal, agency, and external (partners/specialist offerors).
- Works with the owning agency to ensure they have the budget to cover the proposed approach and resource requirements during delivery and analyzes what provision they have for ongoing running costs.
- Analyzes and maps the risks of a product approach and proposes mitigation solutions.
- Defines how the predicted user and financial benefit can be realized and how to channel shift will be measured.
- Makes a recommendation for action against the analysis done.

Business Owner

- Partner with government business owners, who are ultimately responsible for business outcomes, to ensure alignment, availability, and performance of offeror resources within the Agile Release Train.
- Eliminate impediments and assist in the coordination of resources within the offeror organization.
- Actively participate in all SAFe ART level events, in concert with government Business Owners, to facilitate cohesiveness, alignment on vision, and relentless improvement within the ART leading to optimal value delivery.

- Embody lean-agile leadership qualities and adherence to SAFe Core Values
- Seek opportunities to employ Business Owner roles and responsibilities, as described by the SAFe, within the offeror sphere of influence, which contributes to the optimization of overall ART execution.
- Engage with Lean Portfolio Management to provide input on investment funding budgeting and refining strategic themes.
- Support PI planning by understanding business objectives, reviewing draft and final plans, and assigning business value to PI objectives.
- SAFe® Practice Consultant certification is preferred.

Computer Hardware Engineer

- Researches, designs, develops and tests computer or computer-related equipment.
- Oversees the manufacturing and installation of computer or computer-related equipment and components.

Computer Network Specialist

- Designs and implements computer and information networks, such as local area networks (LAN), wide area networks (WAN), intranets, and other data communications networks.
- Performs network modeling, analysis, and planning.
- Designs network and computer security measures.
- Researches and recommends network and data communications hardware and software.
- Analyzes, tests, troubleshoots, and evaluates existing network systems, such as local area network (LAN), vast area network (WAN), and Internet systems or a segment of a network system.
- Performs network maintenance to ensure networks operate correctly with minimal interruption.

Computer Systems Analyst

- Analyze science, engineering, business, and other data processing problems to implement and improve computer systems.
- Analyze user requirements, procedures, and problems to automate or improve existing systems and review computer system capabilities, workflow, and scheduling limitations.
- May analyze or recommend commercially available software.
- Provide IT and system support as required.

Database Administrator

- Provides all activities related to the administration of computerized databases.
- Projects long-range requirements for database administration and design in conjunction with other managers in the information systems function.
- Designs, create, and maintains databases in a client/server environment.
- Conducts quality control and auditing of databases in a client/server environment to ensure data's accurate and appropriate use.
- Advises users on access to various client/server databases.
- Designs, implements, and maintains complex databases concerning JCL, access methods, access time, device allocation, validation checks, organization, protection and security, documentation, and statistical methods.
- Applies knowledge and experience with database technologies, development methodologies, and front-end (COGNOS)/back-end programming languages (SQL).
- Performs database programming and supports systems design.
- Includes maintenance of database dictionaries, overall monitoring of standards and procedures, file design and storage, and integration of systems through database design.
- Database performance tuning, upgrades, and patching to all COTS database products.
- Database script writing, database storage management, database interfaces, external application database interfaces, and other systems database interfacing.
- Provides general operating system and application administration.
- Provides support from the hardware level to the applications running to support a service.
- Performance tuning, hardware replacement, firmware upgrades, and patching to all COTS software products, including operating systems.
- Script writing, data storage management, network interfaces, external peripheral interfaces, and other systems interfacing

Delivery Manager/Release Manager

- Delivers projects and products using the appropriate Agile project management methodology, learning & iterating frequently.
- Works with the Product Manager to define any product's roadmap and translate this into stories.
- Leads the collaborative, dynamic planning process – prioritizing the work that needs to be done against the capacity and capability of the team.
- Matrix-managing a multi-disciplinary team.
- Ensures all products are built to an appropriate level of quality for the stage (alpha/beta/production).
- Actively and openly shares knowledge of best practices.

Dev Ops Engineer

- Deploys and configures services using infrastructure as a service provider (Amazon Web Services, Microsoft Azure, Google Compute Engine, RackSpace/OpenStack).
- Configures and manages Linux-based servers to serve a dynamic website.
- Debugs cluster-based computing architectures.
- Uses scripting or basic programming skills to solve problems.
- Installs and manages open-source monitoring tools.
- Configures management tools (Puppet, Chef, Ansible, Salt).
- Architecture for continuous integration and deployment and continuous monitoring.
- Uses and works with containerization technologies (for example, LXC, Docker, Rocket).

Digital Performance Analyst

- Supports the Product Manager to make sure their service meets performance requirements.
- Communicates service performance against critical indicators to internal and external stakeholders.
- Ensures high-quality analysis of agency transaction data.
- Supports digital platforms and real-time collection and presentation of data.
- Shares examples of best practices in digital performance management across the government.
- Identifies delivery obstacles to improve transactional performance in agencies and works with teams to overcome those obstacles.

Help Desk Specialist

- Responds to and diagnoses problems through discussion with users.
- Ensures a timely process through which problems are controlled. Includes problem recognition, research, isolation, resolution, and follow-up steps.
- Supervises the help desk operation and serves as a focal point for customer concerns.
- Provides support to end users on a variety of issues.
- Identifies, researches, and resolves technical problems.
- Responds to telephone calls, email, and personnel requests for technical support.
- Documents, tracks, and monitors the problem to ensure a timely resolution.
- Provides second-tier support to end users for PC, server, or mainframe applications or hardware.
- Interacts with network services, software systems engineering, and applications development to restore service and identify and correct core.

Information Security Analyst

- Plans, implements, upgrades, or monitors security measures to protect computer networks and information.
- Ensures appropriate security controls are in place that will safeguard digital files and vital electronic infrastructure.
- Responds to computer security breaches and viruses.

Product Owner – (Available when justified as not an inherently uniquely governmental function)[2]

- Applies customer-centricity and design thinking to the product solution.
- Contributes to the overall product vision by representing the voice of the customer.
- Supports the team in delivering value.
- Maintaining the team backlog – Working with other stakeholders and organization members, the PO is primarily responsible for building and maintaining the team backlog.
- Iteration Planning – The PO reviews and reprioritizes the backlog as part of the prep work for Iteration Planning, including coordinating dependencies with other Pos. During the iteration planning meeting, the PO is the primary source for story detail(requirements) and priorities and is responsible for accepting the final iteration plan.
- Supporting Acceptance Test–Driven Development (ATDD) – POs participate in developing story acceptance criteria, draft them when feasible, and provide examples supporting ATDD specification by example.
- Accepting stories – The PO is the only team member to get stories done. This includes validation that the report meets acceptance criteria, has the appropriate, persistent acceptance tests, and otherwise complies with its definition of done (DoD). In so doing, the PO also assures a level of quality, focusing primarily on fitness for use.
- Understand enabler work – While POs are not expected to drive technological decisions, they are supposed to understand the scope of the upcoming enabler work and to collaborate with System and Solution Architect to assist with decision-making and sequencing of the critical technological infrastructures that will host the new business functionality. This can often be best accomplished by establishing a capacity allocation, as described in the team backlog article.

[2] Government may accept a technical Product Owner by Proxy (PObP) when the work to be implemented requires technical skills unique to the offeror and would be best suited to guide the team through the technical capabilities. This PObP would coordinate with the government Product Manager to ensure alignment on all objectives

- Participate in team demo and retrospective – As the person responsible for requirements, POs have an essential role in the team demo, reviewing and accepting stories. They also participate in the Iteration Retrospective, where the teams gather to improve their processes and are active in the Agile Release Train's (ART's) Inspect and Adapt (I&A) workshop.
- POs also participate in preparing the PI system demo and PO Sync meetings.
- Obtains feedback from customers and stakeholders.

Release Train Engineer

- Manages and optimizes the flow of value through the ART and Solution Train using various tools, such as the Program and Solution Kanban's and other information radiators.
- Facilitates PI Planning readiness by fostering the preparation of Vision and Backlogs and through Pre- and Post-PI Planning meetings.
- Facilitates the PI planning event.
- Assists in tracking the execution of features and capabilities.
- Assists with economic decision-making by facilitating feature and capability estimation by teams and the roll-up to Epics, where necessary.
- Coach leaders, teams, and Scrum Masters in Lean-Agile practices and mindsets.
- Helps manage risks and dependencies.
- Escalates and tracks impediments.
- Improves the flow of value through value streams using the Continuous Delivery Pipeline and DevOps.
- Facilitates System Demos and Solution Demos.
- Supports PI Planning and PI execution.
- Coach SM/TCs in ART and Team events and practices
- Optimizes flow by establishing pull systems, ART flow measures and helps improve the flow of value.
- Facilitates value stream mapping.
- Drives relentless improvement by leveraging core-competency self-assessments and collaborating with the Value Management Office (VMO) and LACE.
- Drives relentless improvement via Inspect and Adapt workshops; assesses the agility level of the ART and Solution Train and helps them improve.

Scrum Master/Team Coach

- Facilitates an Agile development team within the SAFe.
- Coaches the team on SAFe practices at the team level.
- Leads the organization and change agent for Lean-Agile techniques, processes, and principles.
- Helps the other team members communicate, coordinate, and cooperate; to assist the team in meeting their Iteration Objectives.
- Supports and reinforces the team working agreements.
- Facilitates the team's progress toward team goals. Continuously engaged in challenging the team to improve performance, quality, predictability, and velocity.
- Leads team efforts in relentless improvement – Helps the team improve and take responsibility for their actions; facilitates the team retrospective. Teaches problem-solving techniques and helps the team become better problem-solvers for themselves.
- Facilitates meetings – Facilitates all team meetings, including (where applicable) the Team Sync, Iteration Planning, Iteration Review, and Iteration Retrospective.
- Supports the Product Owner – The Scrum Master/Team Coach helps the Product Owner in their efforts to manage the backlog and guide the team while facilitating a healthy team dynamic concerning priorities and scope.
- Eliminates impediments – Many blocking issues will be beyond the team's authority or may require support from other teams. The Scrum Master/Team Coach actively addresses these issues so that the team can remain focused on achieving the objectives of the Iteration.
- Protects and communicates – Communicates with management and outside stakeholders; helps protect the team from uncontrolled work expansion.
- Facilitates preparation and readiness for ART events – Assists the team in preparation for ART activities, including PI Planning, System Demos, and Inspect and Adapt.
- Establishes team Kanban boards.
- Measures and optimizes the teams flow.
- Drives relentless improvement by leveraging core-competency self-assessments.

Security Engineer

- Performs security audits, risk analysis, application-level vulnerability testing, and security code reviews.
- Develops and implements technical solutions to help mitigate security vulnerabilities.

Pricing and Evaluation

The government will evaluate the Offeror's labor rates per team and CLIN for the base year and all option years. The Price Quote will be evaluated to ensure it is complete, reasonable, and realistic. A pricing template in MS Excel will be provided and completed (and returned in MS Excel) per the instructions embedded in the template.

Completeness - The Price Quote will be evaluated for completeness by assessing the responsiveness of the Quoter in providing accurate price data for all solicitation requirements and by evaluating the traceability of estimates with the quoted staffing solution. For the price data to be complete, the Quoter must provide all the data necessary to support the Quote as identified in the Pricing Template.

Reasonableness - The government will evaluate the reasonableness of quoted prices by assessing the acceptability of the Quoter's methodology used in developing the price estimates. For the price to be reasonable, in its nature and amount, it should not exceed that which a prudent person would incur in the conduct of competitive business. It represents a compromise between the seller's and the buyer's opinions of a fair price. Reasonableness will consider the context of the evaluation, including current market conditions and other factors that affect the ability of a Quoter to perform the contract requirements.

Realism - The government will evaluate salaries and fringe benefits proposed for the employees who will work under the task order for the government to assess its realism.

The government will evaluate all "Non-Price" Factors based on a confidence rating system, allowing the Evaluation Board to identify items that either increase or decrease confidence associated with each quote. In addition, the Pass/Fail definition is provided for the following Subfactors.

Table 9: Confidence Rating for Subfactors A and B

Rating	Definition
High Confidence	The government has high confidence that the Quoter understands the objectives and demonstrates similar corporate experience and will successfully perform with little to no government intervention.

Some Confidence	The government has some confidence that the Quoter understands the objectives and demonstrates similar corporate experience and will successfully perform with some government intervention.
Low Confidence	The government has low confidence that the Quoter understands the objectives and demonstrates similar corporate experience and will successfully perform even with government intervention.

Table 10: Confidence Rating for Subfactors C and D

Rating	Definition
High Confidence	The government has high confidence that the Quoter understands and demonstrates the ability to apply the SAFe Framework with little to no government intervention.
Some Confidence	The government has some confidence that the Quoter understands and demonstrates the ability to apply the SAFe Framework with some government intervention.
Low Confidence	The government has low confidence that the Quoter understands and demonstrates the ability to apply the SAFe Framework even with government intervention.

Conclusion

This paper has recognized the challenge that government acquisition organizations face transitioning from traditional Waterfall to Agile RFIs and RFPs. This guidance offers sample language that can be used to replace more conventional acquisition language. The sample SAFe RFP is amalgamated from numerous RFPs harvested from various government agencies and departments that have matured Agile Acquisition specifications. Our special thanks go to the SAFe Government Cohort (a coalition of government and contractor experts), who applied their collective subject matter expertise on SAFe, Agile execution, and leadership in government to influence this artifact and promote lean and agile ways of working.

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Appendix A – Antipatterns and Mitigation Strategies

Table 11: Antipatterns and Mitigation Strategies

Anti-pattern	Description	Mitigation Strategy
Story Points as a Measurement of Success	This anti-pattern occurs when the government measures the success of a project solely based on the number of story points delivered, without considering the actual outcomes or results achieved.	The government should focus on measuring outcomes instead of outputs. Using Agile metrics identified in this document, the government can align the overall goals and objectives of the project to the work being performed when accompanied by regularly reviewing and adjusting the planned work as needed.
Minimum Number of Story Points Delivered for each Iteration	This anti-pattern occurs when the government sets a minimum number of story points that must be delivered in each sprint, regardless of the team's actual capacity or the complexity of the work.	The government should work with the team to establish iteration goals that support the overall program objectives based on the team's capacity to perform the work. The complexity and the uncertainty of the work should be a consideration as well. The goal is to be flexible and adjust the planned work to ensure the team can complete and deliver high-quality work within each iteration.
Government Technical Monitor with Ability to Modify Team Estimations	This anti-pattern occurs when the government assigns a technical monitor with the ability to modify the team's estimations, leading to unrealistic expectations, devaluating the real estimate of effort to complete tasks and overburdening the team.	The government should work with the team to establish a clear and transparent estimation process based on data and analysis. The team should be responsible for providing the government with accurate and up-to-date information, and the government should avoid modifying the team's estimations. The government may question the estimate and ask for technical options that may lower the complexity of the uncertainty of the work as an option.

"Pre-filled" PI Planning Objectives	This anti-pattern occurs when the government sets predetermined PI planning objectives, potentially leading to unrealistic expectations, and limiting the team's ability to respond to changing priorities.	The government should work with the team to establish PI planning objectives that are based on the team's capacity and the complexity of the work. The objectives should be flexible and adjusted as needed to ensure that the team is able to respond to changing priorities and deliver high-quality work both within each iteration and at the end of the PI period.
High Ratio of Teams to Product Owners	This anti-pattern occurs when the government has a high ratio of teams to product owners, potentially creating delays in responding to team requests, miscommunication, confusion, and ineffective prioritization.	The government should work to decrease the ratio of teams to product owners. The ideal ratio should be one product owner per team, or no more than two teams.
Large Documentation Requirements with Big Bang Architectures	This anti-pattern occurs when the government requires large amounts of documentation for large upfront architecture. This leads to locking in to an expensive design that may not align with the needs of the users and leads to higher cost, delays and decreased agility.	The government should focus on delivering small, incremental releases and use iterative development approaches that allow for frequent feedback and adjustment. Documentation of design and architecture should be included as part of the “definition of done” applying small updates in each iteration. Similar to requirements, the architecture of the project should be seen as a “living” document that evolves over time.
Product Owners vs. Product Managers	This anti-pattern is when there is confusion between the roles of product owners and product managers, potentially leading to unclear expectations and ineffective decision making.	The government should work to clearly define the roles and responsibilities of product owners and product managers and ensure that the team is aware of these roles and responsibilities. The government should also ensure that the team has the necessary resources, training and support to fulfill these roles effectively.

Prescriptive GSA-Aligned LCATs	This anti-pattern is when the government requires prescriptive GSA-aligned LCATs, potentially limiting the team's ability to respond to changing priorities and making the acquisition process less agile.	The government should request agile roles in the RFP, as identified in this document, with clear expectations of responsibilities.

Appendix B - Common Language

Table 12: Common Language

Term	Description	Other Terms
Minimum Viable Product	An early version of the software to deliver or field basic capabilities to users to evaluate and provide feedback on. Insights from MVPs validate hypotheses about the chosen solution and help shape scope, requirements, and design.	Initial Operating Capability (IOC)
Minimum Viable Feature	A small-scale feature that can quickly be built and rolled out—using minimal resources—to a target population to test the feature's usefulness and adoption.	Operational Prototype
Epic	Agile epics are large pieces of work that can be broken down into smaller and more manageable work items, features, or stories. These series of work items share the same goal described by the epic.	Highest level requirement or capability
Capability	Sub-system of the overall solution. MVP capabilities are first versions that can be fielded to collect feedback and identify issues to be resolved and features to evolve.	Minimum Viable Capability Release (MVCR)
Feature	A feature is a service or function of the product that delivers business value and fulfils a specific user need.	
Stories	A small, desired behavior of the system based on a user scenario that can be implemented and demonstrated in one iteration. A story is comprised of one or more tasks. In software development and	Activities and Tasks

	product management, a story is an informal, natural language description of one or more features of a software system. Stories are written from the perspective of an end user or user of a system.	
Story Points	Units of measurement used to determine the relative effort required to complete a backlog item or any other piece of work. The team assigns story points based on the work's complexity, amount, and uncertainty and is sized relative to stories that have similar characteristics	
Outcomes	An outcome is a result. It's something a team or product has achieved. Not to be mistaken as outputs, which may lead to outcomes, but do not offer direct value to the user.	Minimum Viable Outcome
Business Value	Tangible and intangible benefits an agency can get from the capabilities of a product.	Earned Value
Planning Increment (PI)	A cadence-based timebox in which Agile Release Trains (ARTs) deliver continuous value to customers in the form of working, tested software and systems. PIs are typically 8 – 12 weeks long.	Rolling wave planning
Solution Intent	The repository for storing, managing, and communicating the knowledge of current and intended solution behavior and design. This can include both fixed and variable specifications and designs; reference to applicable standards, system models, functional and nonfunctional tests; and support for traceability.	Software Requirements Specification (SRS)

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