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Volume I: Factor I: Management and Technical Capabilities

# TEAM REI Overview

Incorporated in 1989 as a business entity doing work for the U.S. Federal Government, REI Systems, Inc. (REI) is a well-established, private, employee-owned company with 700+ employees focused on serving government customers by addressing mission-critical challenges through Information Technology (IT) solutions. From building solutions that disburse and manage more than $47B in grants each year to creating the advanced analytics and data visualization platforms that have supported the last three U.S. presidents’ open data initiatives, our solutions are key to making Government more **effective, efficient, and transparent**.

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Description automatically generatedSince its founding in 1989, REI has developed and sustained decades-long customer relationships with grant-making federal agencies, including the National Aeronautics and Space Administration (NASA), the Department of Justice (DOJ), the Federal Emergency Management Agency (FEMA), and the Health Resources and Services Administration (HRSA). Further, in the last few years, REI’s flagship grants management solution, GovGrants®, has served grants management needs for several state and local government entities and leading non-profits.

REI has partnered with Stealth Solutions – a longstanding teammate - on this opportunity. Together, Team REI represents the best aggregate team for achieving IAF’s programmatic objectives while also helping IAF attain its small business requirements.

# Understanding of Requirements and Ability to Provide Services

Team REI understands that the Bureau of the Fiscal Service (BFS) within the Division of Procurement Services (DPS) is seeking a vendor who can provide a Commercial-off-the-Shelf (COTS), cloud-based full lifecycle Grants Management System (GMS) for the Inter-American Foundation (IAF). REI fully understands the objectives that IAF seeks to meet and is 100% confident in meeting these objectives by leveraging our **cloud-based, low-code, Federal Integrated Business Framework (FIBF)-ready, accessible, role-based, and highly secure grants management platform** – **GovGrants®**.

****GovGrants is the culmination of Team REI’s experience developing grants management solutions for public sector agencies since 1996. GovGrants represents many of the grant best practices and insights Team REI has developed over the past 20+ years while implementing grants management solutions for several federal and state agencies, local governments, and non-profits. These insights include innovations for system navigation, user interface design, business process automation, ease of use, and business process optimizations. Our customers partner with us to ensure both compliance and performance of their grant programs. As a cloud-based solution, GovGrants is an enterprise-class, fully modular, highly configurable, and entirely electronic and comprehensive GMS. It provides web-based portals for IAF staff as well as IAF applicants and grantees.

Upon reviewing the IAF’s high-level functional requirements, Team REI is confident that GovGrants' “As a Grantor” capability can meet most of IAF’s requirements out-of-the-box.   
**Figure 1** below shows the full set of capabilities provided by GovGrants to support IAF’s grants management needs for its staff, proponents, and grantees across the entire grants lifecycle.

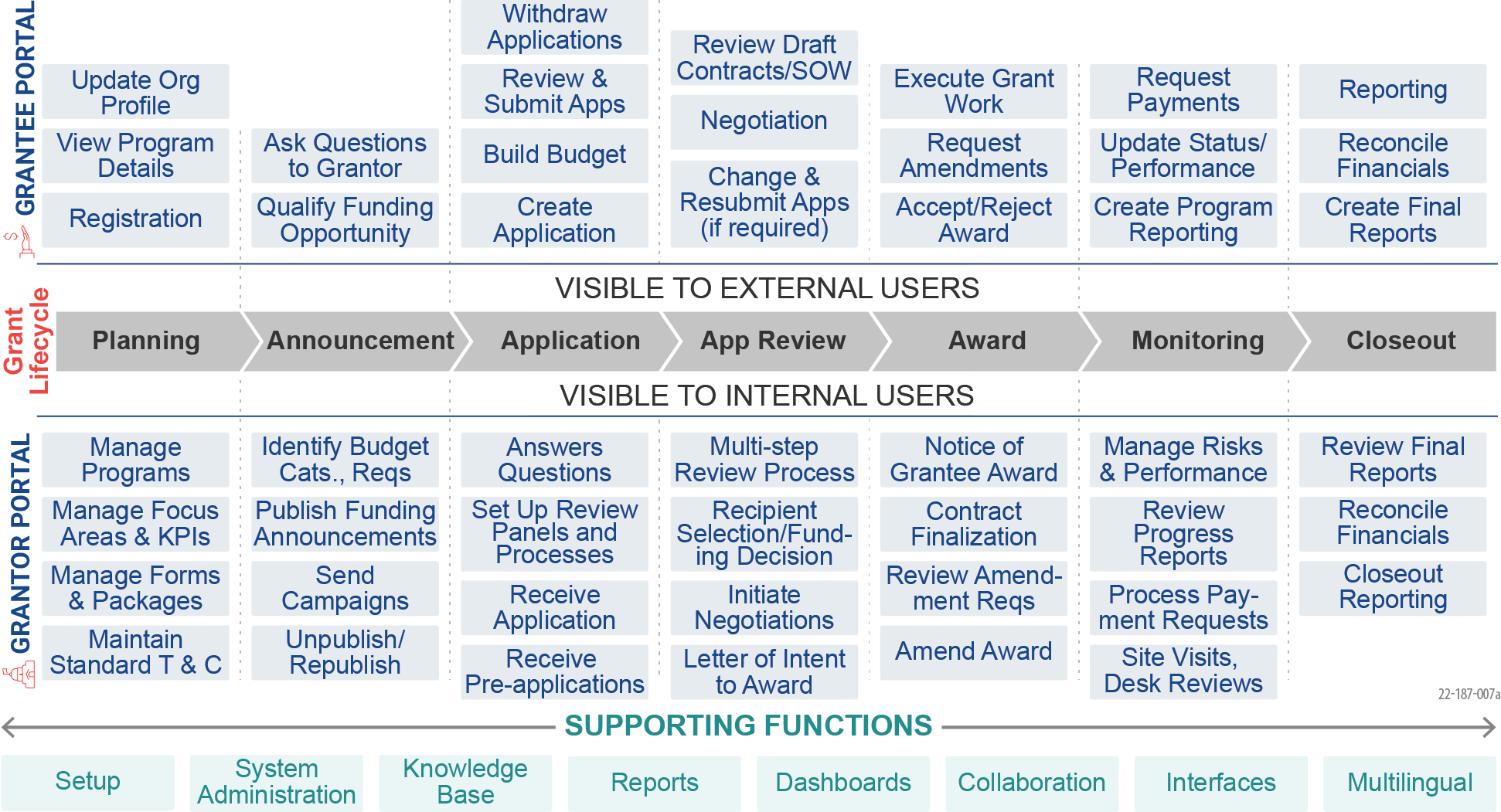


Figure 1: GovGrants offers a comprehensive set of grants management capabilities through an internal and an external portal.

**Table 1** below summarizes our understanding of IAF’s objectives for its new GMS. The table also captures Team REI’s relevant capabilities as applicable to each IAF objective.

Table 1: Team REI Capabilities That Will Help Meet the IAF Objectives

| **IAF Objectives** | **Team REI Capabilities** |
| --- | --- |
| Allow IAF to manage the disbursement of grant funding centrally (as a grantor), with the capability to manage applications, review, issue progress reports, make obligations and disbursements, and record site visits, amendments, and other oversight documents. | GovGrants supports end-to-end grants management capabilities, from grant planning to closeout (Exhibit A), to allow IAF to manage their grant programs using an internal portal for IAF staff (100+ users) and an external portal for IAF grant proponents and grantees (5000+ users). In addition, GovGrants has robust programmatic reporting functionality that Team REI can configure to meet IAF reporting requirements, including Data Act and Foreign Assistance Reports. Finally, the GovGrants Analytics module supports canned reports using native reporting functionality and dashboards out-of-the-box for all grants management processes, including advanced dashboarding capabilities powered by Salesforce Analytics (Tableau). |
| Adheres to FIBF, established recently by Federal Government through its Grants QSMO, with specific emphasis on Addendum 2 (Discretionary Grants). | GovGrants is one of the first COTS-based grant solutions to be FIBF-ready with support for discretionary grants. It supports all FIBF lifecycle functions and activities, including Grant Program Administration, Pre-Award Management, Award Management, Post-Award Management, Closeout, Program Oversight, and Recipient Oversight. |
| Support multilingual capabilities for system users in 24 countries across Latin America and the Caribbean. | Team REI will partner with IAF-provided translation services and linguistic support staff to understand multilingual requirements. We will implement these requirements in GovGrants by leveraging ‘Google Translate’ translation capabilities. Google Translate currently supports all languages desired by IAF. |
| Provide a secure and easy financial integration with the Oracle Financial System hosted by BFS and other external systems outlined in the Performance Work Statement (PWS). | Team REI has supported the integration of GovGrants with various grant financial systems in most of its implementations and occasionally with other (non-financial) external systems. We have integrated GovGrants with Oracle’s PeopleSoft and Oracle’s NetSuite. We have used various integration approaches, including complex API-based two-way integration with or without middleware and simple flat file-based integration to export/import data. |
| Support the Federal Government standards for accessibility (Section 508), system availability, and security (FEDRAMP, FISMA, NIST). | GovGrants is a COTS SaaS solution built on the world’s leading cloud platform – Salesforce.com. Salesforce conducts a security review of GovGrants annually to ensure it complies with Salesforce's internal security controls. Team REI will host IAF’s GovGrants instance on Salesforce’s FedRAMP-certified, NIST-compliant, FISMA-moderate Government Cloud Plus for the highest performance and data center standards. GovGrants is also 508 compliant (VPAT provided herein). |
| Accommodate all data migrated from IAF’s existing grants system, WebGrants. | Team REI designed GovGrants so it can easily host our customer’s past, current, and future grants data. We have supported complex data migrations in GovGrants for several state and local governments and non-profit customers. In Volume 3 of the technical response, we describe our data migration approach. |

To meet IAF objectives, Team REI is committed to providing the best functional and technical Grants Subject Matter Experts (SME) from its corporate pool to support the implementation of the new GMS. Team REI’s grants SMEs will be available to engage in the project from Day 1, starting with the gap analysis and continuing to provide support for system requirements, development, testing, User Acceptance Testing (UAT), and training.

In summary, Team REI fully understands the importance and functional requirements of IAF’s mission-critical new GMS. Team REI stands ready to meet and exceed all requirements in the PWS. Team REI has the deep organizational experience, an established track record of success in the grants domain, and experienced executive, management, functional, and technical staff essential for implementing and rolling out the new GMS for IAF. We are confident in our ability to deliver in accordance with IAF’s proposed timelines.

# Technical Demonstration of Capabilities

This section describes our strategy, technical solution, and plan to meet IAF objectives and PWS requirements using our COTS solution, GovGrants. **With GovGrants, IAF will get the desired end state that it seeks to achieve through this PWS. GovGrants is a highly configurable grants management system capable of storing all grant records in a fully secure and compliant format. It will promote effective and efficient grant process flow across the grants’ lifecycle -**starting with applications, review, revision, approval, follow-up, post-award monitoring, and amending of grants.It will also integrate with the required IAF systems to ensure a single source of grants truth. **Table 2** belowsummarizes our elements, processes, and functions to meet the end-state desired by IAF.

Table 2: Approach to Deliver IAF’s Desired End-State

| **PWS Tasks** | **Strategy, Solutions, and Plan for PWS task** |
| --- | --- |
| Build a new multilingual, FIBF-ready, accessible GMS that supports end-to-end grants management processes from applications to closeout. | We use our COTS solution, GovGrants, which offers a comprehensive set of grants management capabilities. GovGrants is a full lifecycle solution - starting from grants planning and ending at closeout. It is fully accessible (Section 508 compliant) and supports FIBF grant standards. As part of the implementation, we will identify the gaps between IAF business processes and GovGrants capabilities through the gap-analysis process, leverage GovGrants configuration options to configure modules per IAF’s requirements, and, where needed, customize GovGrants after careful design considerations. |
| The new GMS integrates with the BFS Oracle Financial system and other external systems. | GovGrants offers several integration options. After discussions with IAF stakeholders, we leverage the most viable integration approach for integrating GovGrants with each external system. Finally, we agree on an integration schedule with IAF stakeholders for each system integration and work collaboratively to develop and test integration requirements. |
| The new GMS meets the desired standards for system availability and security. | We host IAF’s GovGrants instance on Salesforce’s FedRAMP-certified Government Cloud Plus for the highest performance, security and data center standards. Salesforce provides services to more than 150,000 organizations around the globe. It supports more than a billion transactions a day. As a result, Salesforce greatly emphasizes business continuity and disaster recovery. Further, we work with the Government to obtain Authorization to Operate (ATO) clearance for GovGrants before the system Go-Live. |
| The new GMS hosts past, current, and future grant management records. | We configure and customize GovGrants to add data fields, data validations, and business processes that support IAF’s grants management needs. We then use our robust and proven approach to data and file migration to ensure the IAF’s past data is migrated successfully and adheres to industry best practices and standards on data governance and data sanctity. Finally, we test to ensure that the system works per IAF’s requirements, not only for the migrated data but also for any future data. |
| The new GMS is of high quality and is available for use in production within a year of the project kick-off. | We leverage our project management methodology to prepare a plan for developing and implementing the new GMS and then build, integrate, and test the new GMS internally before engaging the system users for UAT and training. We apply quality processes from our Quality Control Plan to ensure the quality of deliverables. Finally, we deploy the new GMS in production and transition to steady-state support within 90-days of Go-Live. |

Over the past few years, Team REI has successfully developed a standard Three-Phase Implementation model to roll out GovGrants for our customers, as we have outlined on the following page in **Figure 2**. Team REI will work closely with IAF on multiple tasks in each phase of the implementation to generate and deliver the key deliverables for the phase. We describe our project management methodology and plan in the Contractor Project Management Plan (CPMP) provided in **Appendix A**. Team REI welcomes feedback on the CPMP from IAF and will provide an updated CPMP after the project kick-off.

Throughout the project execution, the Team REI Project Manager (PM) will provide a Bi-Weekly Status Report to the IAF PM and the Contracting Officer’s Representative (COR) to report on the actual progress of ongoing project tasks compared to the approved schedule, highlight any schedule delays, and outline the key upcoming milestones, risks, issues, and action items. In addition, Team REI will leverage its Quality Assurance (QA) methodology, described below in **Section 6,** in each phase of the implementation to deliver high-quality system deliverables and documentation to meet IAF’s Quality Assurance Surveillance Plan (QASP) requirements. Below, we elaborate on all phases of our Three-Phase Implementation Model.

**Envision Phase:** In this phase, Team REI will collaborate with IAF to provide a comprehensive project kick-off with clear consensus and agreements on the project governance process, project baseline, and the CPMP with IAF stakeholders. Further, we will set up sandbox environments (DEV, QA) for IAF-specific development with IAF branding requirements (logo images, color schemes, etc.).

Table

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Figure 2: Team REI will use its proven Three-Phase Implementation Model.

Within a week of the project kick-off, Team REI grant SMEs will kick-start the gap analysis to provide a detailed walkthrough of the GovGrants functionality to IAF. This allows IAF staff to gain insight into GovGrants’ capabilities and discuss gaps between the IAF’s grants process and GovGrants’ base capabilities. Team REI will document all the IAF-specific gaps in a product backlog and engage in-house business and technical experts to design customizations that will meet immediate and anticipated business needs in the future. After adjudicating the resolution and priority of the identified gaps in the product backlog with IAF and before commencing the Build phase, Team REI will finalize the updated project baseline by conducting an Integrated Baseline Review with IAF to ensure an explicit agreement and consensus with IAF.

REI will leverage its experienced grants SMEs to implement the new GMS for IAF.

REI’s grant SMEs will demonstrate their deep knowledge of GovGrants and grants domain and understanding of the right set of questions to ask to discover ‘As-Is’ IAF processes, related gaps, and requirements.

**Build Phase:** The primary purpose of the Build phase is to configure and tailor GovGrants per the gaps identified in the Envision phase. Team REI uses Agile Scrum methodology to configure, develop, and test, with each sprint lasting for two weeks. After each sprint, Team REI will demonstrate usable functionality to IAF staff to solicit early comments and implement them, if prioritized, in subsequent sprints to deliver a highly acceptable system for UAT. The Build phase includes data migration in Team REI’s sandbox (DEV, QA) environments and the development and testing of relevant integration capabilities required between GovGrants and Government systems. We migrate data using our well-proven data migration process, as described in Volume 3 of this proposal. GovGrants also provides multiple mechanisms to receive and send data to other external systems. **Figure 3** outlines the different integration options that GovGrants provides, which allow easy integration with any external system.

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Figure 3: GovGrants Integration Options

**Deploy Phase:** After completing the in-house testing in the Build phase, Team REI initiates the Deploy phase by conducting a UAT for system acceptance with a subset of system users appointed by IAF. The UAT participants get an opportunity to test the system using migrated data and new data. We work closely with IAF to triage and address critical UAT issues and comments before Go-Live and agree on a resolution timeline for all remaining items. We finally deploy the code and migrate the data to production. To ensure that system users are ready to use the new GMS on Day 1, Team REI delivers four different types of training to system users, as outlined in **Figure 4**.

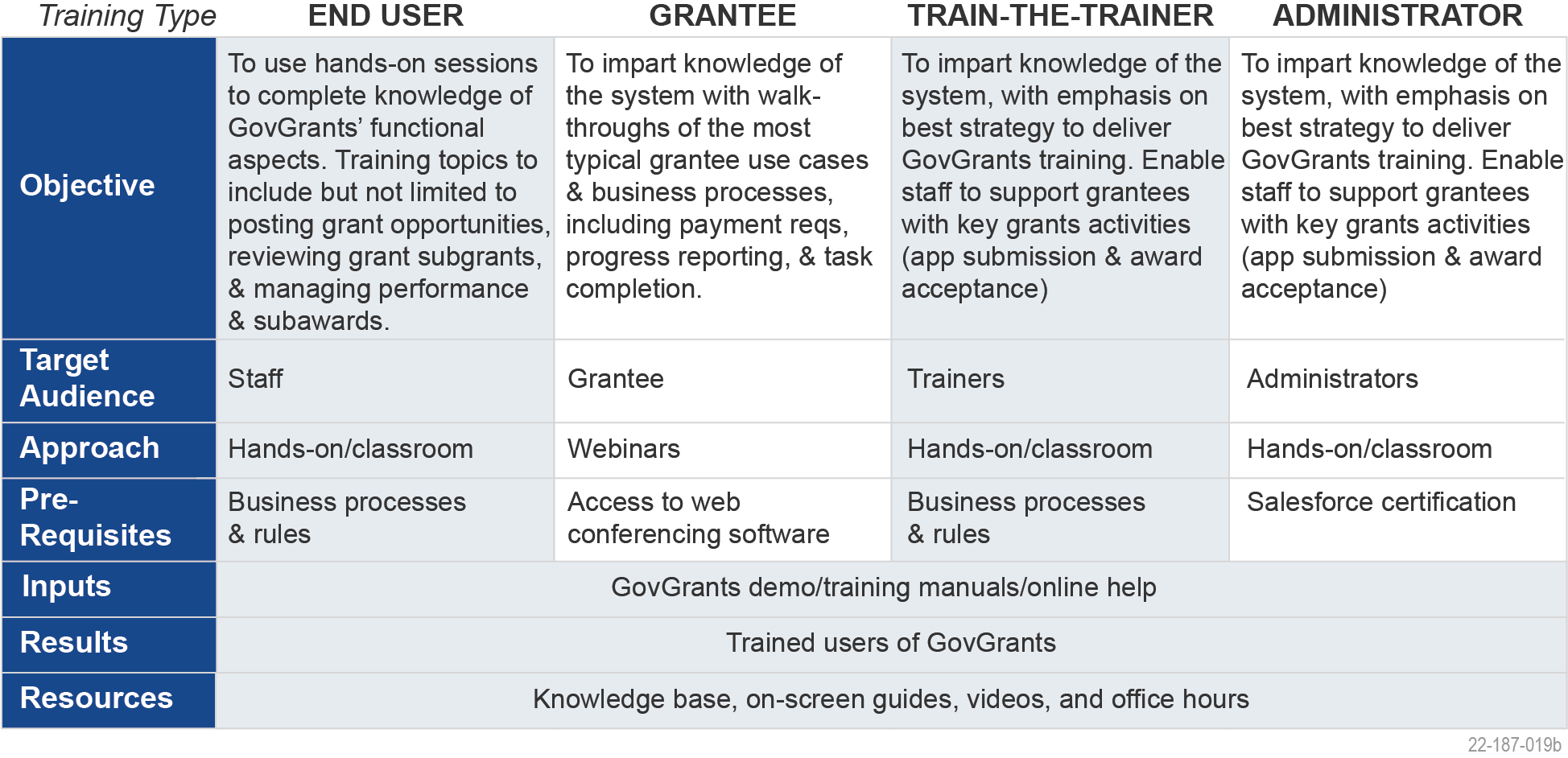


Figure 4: Team REI provides a multitude of training types to GovGrants users.

To ensure ongoing support and successful system adoption post-Go-Live, our development team will transition the IAF GMS to the GovGrants Customer Success Team (CST) completely within 90 days of Go-Live. The GovGrants CST team consists of developers, analysts, and a customer success manager who will collaborate with IAF Tier-I (Helpdesk) staff to provide Tier-II technical support throughout the life of the contract. The CST will fix issues reported in production, answer user questions escalated by IAF’s Helpdesk, and implement any additional changes or enhancements requested and approved by IAF.

# Logistics and Schedule

GovGrants’ past implementations have provided numerous valuable lessons and best practices that enable our customers to deploy a successful grants management solution in a low-risk manner. The following bullets describe our key recommendations from past lessons learned:

* **Robust Project Governance:** Project success depends not only on selecting the right vendor and solution but also on the contributions and availability of the IAF stakeholders in collaboration. We aspire to create a single core GMS team. Team REI proposes that IAF set up a core GMS team led by at least one decision maker or product owner that represents different grant programs and serves as the voice to standardize grant processes across IAF. In addition, Team REI proposes to set up a Project Governance Board (PGB) that includes IAF project sponsors and executives supported by an REI executive overseeing the project execution. The PGB will prioritize system capabilities and provide directions on any risks and issues related to project scope and change management.
* **Seek to Standardize Where Possible:** There are times when we encounter customers who struggle with disparate processes, approvals, business rules, and more. To maximize the benefits of an enterprise grants system, we highly recommend that IAF drive enterprise-level standards and commonality wherever possible. This will not only reduce project execution risk but also improve the usability and simplicity of the system and minimize customization.
* **Take an iterative approach to requirements:** A few of our customers tried to codify all functional and technical requirements in detail before the start of the implementation. Unfortunately, this can lead to excessive debate and discussions during the Gap Analysis, thus delaying the Build and Deploy timelines. To keep the project on schedule and allow IAF to realize the system value sooner than later, we recommend rolling out a Minimum Viable GMS (MVG) that works for IAF to address the vast majority of use cases and needs while simultaneously identifying a backlog of missing capabilities and improvement areas. Our recommended approach will allow stakeholders to gain enough familiarity with the system to provide meaningful feedback that adds business value and ensures optimum utilization of government dollars. Upon the Government’s direction, we stand ready to triage the backlog with the core GMS team and work closely with IAF to improve the system after the initial rollout of MVG is complete. The availability of additional languages post-initial deployment is an example of this iterative, prioritization-based approach.
* **Focus on User Adoption:** Another challenge we have encountered in projects of similar size and complexity is the system adoption by internal and external users post-Go-Live. To address this challenge, we emphasized the engagement of key stakeholders throughout the project, including the gap analysis, system demonstrations in the Build phase, user acceptance testing, and user training. Further, we highly recommend that IAF apply a robust set of Organizational Change Management (OCM) practices to get buy-in from all stakeholders to increase the rate of user adoption and system usage.

Team REI will deliver the new GMS to IAF using a single release encompassing all three implementation phases, and this release will include support for all languages requested by IAF. Team REI will work with IAF to determine the need for any subsequent releases.

Based on our understanding of IAF’s requirements, we anticipate an approximately seven-month implementation schedule, starting in October 2022 and ending in April 2023. **Table 3** summarizes our proposed delivery milestones to meet the timelines requested by IAF in the PWS. Upon conclusion of the gap analysis and as part of the Integrated Baseline Review of the project, Team REI will revise the schedule in consultation with IAF stakeholders.

Table 3: REI’s Proposed Milestones to Deliver IAF GMS Assuming October 2022 Start

| **Milestone** | **Timeline** | **Month/Year** |
| --- | --- | --- |
| Complete Project Kick-off | Within five business days of the award | October 2022 |
| Kick-off UAT with IAF | Within 90 business days/18 weeks of kick-off meeting | February 2023 |
| IAF Completes UAT | Within two weeks of UAT kick-off | March 2023 |
| REI Completes UAT Fixes | Within two weeks of UAT completion | March 2023 |
| Complete Training | Within four to five weeks of UAT completion | April 2023 |
| GMS Go-Live | Within five weeks of UAT completion | April 2023 |
| Transition to REI CST | Within 90 calendar days of Go-Live | July 2023 |

**Figure 5** outlines the proposed timeline and the key milestones occurring within each phase.

Timeline

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Figure 5: Our timeline delivers IAF Grants Management System capabilities.

Team REI’s PM will create a detailed project schedule post-project kick-off and share it with IAF PM for review and baseline. Post gap analysis completion, we will discuss any deviation to the schedule with IAF stakeholders and, if needed, revise the baseline schedule. Soon after, Team REI will complete the implementation of prioritized IAF gaps, and once the implementation is complete, we request IAF staff to conduct the UAT. Team REI will address the high severity defects and high priority comments from the UAT before conducting the system training and deploying the code in production for Go-Live. Along with the UAT kick-off, Team REI will initiate the ATO process with the IAF IT Security team to complete the FISMA documentation and a security audit before Go-Live. Additionally, we will enable various types of user licenses that GovGrants provides based on the access level of different types of users using the system. This will help in optimizing the annual license cost for IAF. Finally, after Go-Live, our project team will work closely with our CST to provide extended support during the 90-day warranty period and fully transition the GMS to CST for continuity of operations and support to ensure a successful launch for IAF.

# Risk Management

TeamREI draws on extensive experience and lessons learned from supporting implementations of comparable size and complexity to identify, evaluate and mitigate technical, financial, security, and business risks in concert with IAF stakeholders. Using this approach, Team REI and the IAF team will better understand and proactively manage risks to ensure a successful rollout of the new GMS for IAF. A key component of the Team REI risk management approach includes the Project Governance Board (PGB). The PGB will be the focal point for managing critical risks and will include key project and executive leadership from both Team REI and IAF. While the Team REI and IAF PMs will manage most risks at the project level, a PGB will provide the PMs from both Team REI and IAF with an escalation path to make collective decisions around risk mitigation and contingencies. Our risk management approach is presented below in **Figure 6**. Further, we have provided a detailed project risk management and assessment strategy as part of the CPMP in **Appendix A**.



Figure 6: Team REI’s Risk Management Process ensures successful delivery.

Our risk management methodology is grounded in the belief that each project activity will have some risk associated with timing, resources, stakeholders, and budget. Therefore, our approach focuses on proactively identifying risks, logging them in the risk register, and addressing them continuously. At the start of the project and during execution, our team will seek input from IAF participants and other stakeholders deemed appropriate by IAF leadership to identify any risks and mitigation steps. In addition, we examine all internal and external dependencies to raise project risks early in the development cycle. Team REI’s PM will manage the project risk register in coordination with the IAF PM. Both PMs will collaborate weekly to discuss newly identified risks, analyze risk probability and impact, and agree on risk mitigation response and contingency plans, along with clear action items for timely follow-up and continuous monitoring.

With more than 30 years of experience supporting federal agencies on mission-critical, high-priority initiatives, we have regularly encountered and successfully overcome technical and project risks. We look forward to applying our experience while building the GMS for IAF.

# Quality Assurance

Team REI is appraised at CMMI Level 3, certified by the International Standards Organization (ISO) 9001:2015 for the design, installation, and service of IT solutions and products. **Figure 7** depicts our QA methodology built on CMMI, and ISO standards, which provides the approach we use to inspect all services and software requested by IAF in the PWS. We expand on our QA methodology in our Quality Control Plan (QCP) in **Appendix B** of this volume, where we describe our inspection process for all services and software (PWS 9.1.1), the methods we use to identify and prevent defects (PWS 9.1.2), and records we keep to document inspection results along with corrective or preventive actions (PWS 9.1.3).

Timeline

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Figure 7: Team REI’s QA Methodology reduces risks and improves execution by ensuring quality throughout the project lifecycle.

Our QA methodology guides project teams to deliver projects using Team REI-defined, well-proven process guidelines that support robust project management practices and high-quality development, verification, validation of software, and related documentation. In addition, projects have the flexibility to tailor project processes, if necessary, to meet customer needs. Team REI’s QA methodology allows for continuous identification of root causes and implementation of process improvements that help apply robust quality control procedures to deliver high-quality products (software, documentation) to our customers. The REI PM follows an established procedure for reporting, escalating, and tracking any non-compliance issues, including issues from areas other than audits. This allows REI PM to resolve the issues before they pose a significant risk. For problems that need additional oversight or facilitation, the PM escalates to REI Executive Management as required. REI reporting procedures entail weekly meetings with IAF COR to review the project schedule and risks and issues emerging from quality control activities. The weekly meeting with IAF COR provides updates on the corrective action status requiring attention and, upon COR’s request, will provide records for all inspections and corrective actions. Throughout this process, Team REI consults with the IAF PGB for awareness and to ensure a satisfactory resolution.

To monitor contract performance, Team REI employs a QCP that identifies and mitigates quality defects throughout the project life cycle. Our QCP guides the monitoring and reporting of tasks and deliverables, which actively oversee the performance and technical measures and provide monthly updates with progress details. In addition, for all tasks and deliverables, we review and audit our work to confirm that all deliverables and work products satisfy or exceed expectations set by IAF’s QASP. **Figure 7** on the previous page depicts four phases of REI’s inspection processes to ensure all services and software from the PWS are high-quality, complete, correct, and timely. The four phases illustrate that quality is a continuous activity, not a one-time activity. The phases include **planning** with an emphasis on integrating quality into each project activity, **preventing** by employing best practices throughout the project to avert defects, **detecting** to audit work products and record results, and **improving,** which provides a feedback loop to continuously improve quality. Please refer to “**section B1 of Appendix B1 – QCP”** for further details on REI’s proposed inspection system.

REI regularly performs scheduled and unscheduled processes and product inspections for the identification and prevention of application defects. The methods for inspection include deliverable reviews, continuous testing, peer review, process reviews, and quality audits. REI proposed QCP defines inspection methods, frequency, and responsible inspector for each desired outcome from IAF’s QASP. The details are in “**sections B2** **and B3** **of** **Appendix B - QCP.”**

Reports and outcomes from quality control activities such as deliverables audits, test results from functional, security, performance, and accessibility testing, and corrective and preventive actions are documented and maintained in the Team REI SharePoint Project repository and Team Foundation Server (a tool used by REI for managing software development activities). These inspection records and corrective actions will be available to IAF upon request and throughout the contract performance period. Details of different record types, their purpose, and storage location in codified in QCP and available in “**section B4** **of** **Appendix B - QCP.”**

As a professional services company focused on providing cutting-edge IT solutions for government agencies, we use a holistic approach to assess the overall health of a project and identify improvement areas that address root causes, such as employee morale, to support more substantial project outcomes, of which quality is an integral part.

# Contractor Project Management Plan (PWS 6.3)

Team REI has included, as **Appendix A,** a draft CPMP that describes our project management plan based on our project management methodology. We will update the CPMP based on IAF’s feedback after the contract is awarded.

1. Contractor Project Management Plan (PWS 6.3)
   1. Purpose

This Contractor Project Management Plan (CPMP) describes the processes and approaches for managing (i.e., planning, monitoring, and controlling) the Inter-American Foundation (IAF) Grants Management System (GMS) Implementation project. The information in this CPMP and its subsidiary plans provide the basis for communication and understanding amongst the project team or work group members and all other stakeholders. This plan will be updated as necessary during the life of the IAF GMS contract.

* 1. Project Introduction

The IAF is a small, transformative government agency that advances U.S. development priorities in Latin America and the Caribbean. Congress created the IAF with a very clear niche—IAF engages directly with innovators, entrepreneurs, and local leaders in underserved areas to create more prosperous, peaceful, and democratic communities. The IAF works across 24 countries in Latin America and the Caribbean. The IAF prioritizes funding based on the potential of grants to benefit from our bottom-up approach and to advance the strategic goals of the U.S. Government.

* + 1. Project Overview

Since 1972, the IAF has awarded approximately 5,000 grants valued at more than $680 million. IAF grants empower local organizations to develop their ideas for generating economic opportunities and strengthening civic participation. Across its portfolio, women artisans professionalize their craft; coffee cooperatives improve their margins; indigenous groups protect watersheds; community groups inspire at-risk youth to reimagine their possibilities in high-crime areas; and countless other such efforts. In common among its grantees is a commitment to improving how their organizations operate. Beyond IAF’s direct grant-making, IAF promotes learning among its grantees and builds partnerships to expand its model.

IAF is currently seeking to modernize its grants management system. The scope of this project is to implement a new cloud-hosted grants-management system that supports multilingual capabilities for IAF grantees. Also, the Federal Government recently established a Grants Quality Service Management Office (QSMO) to advise agencies on standards of practice for grants management systems. The IAF wants to follow the QSMO’s Federal Integrated Business Framework (FIBF) for the subsequent software implementation.

* + 1. Project Vision

The project vision is to enable IAF staff to continue to manage and support grants and grantees from proposal reception, review, and approval; to grant management and oversight; to grant close-out.

* + 1. Project Quality Objectives

This project has established the following quality objectives in accordance with the REI Quality Management System (QMS) Manual and business goals. The QMS manual documents the quality policies, procedures, and guidelines Team REI follows during the contract. The high-level project quality objectives are defined below.

* Maintain a high level of customer satisfaction by being responsive to customer needs.
* Provide a quality GMS and documentation for the project across the different lifecycles.
* Maintain the GMS release quality that adheres to IAF’s Quality Assurance Surveillance Plan (QASP) requirements and meets IAF's core business needs.
* Manage project risks to minimize the impact on project objectives and goals.
* Meet program milestones and deliver within budget.
* Continually improve program processes based on lessons learned and user feedback.
  + 1. Project Scope

Team REI is responsible for the implementation and support of the Grants Management System (GovGrants®) that is configured on a Commercial-off-the-Shelf (COTS) platform in accordance with IAF requirements and specifications. Team REI will provide a grant management system that ensures ease of integration with current infrastructure and migrate existing data as required to the new platform. The Work Breakdown Structure (WBS) shown in **Table 4** below reflects the scope of work proposed for this contract based on the Performance Work Statement (PWS).

Table 4: Work Breakdown Structure (WBS)

|  |
| --- |
| IAF WBS |
| A1 Grants Management Process Mapping |
| A1.1 Gap Analysis  A1.2 Document IAF Specific Customizations Requirements  A1.3 System Design (Customizations, Integrations) |
| A2 System Implementation |
| A2.1 GMS Setup  A2.2 GMS Configuration  A2.3 IAF Specific Customization (Agile Implementation)  A2.4 GMS Demo  A2.5 GMS Testing  A2.6 Authorization to Operate (ATO)  A2.7 User Training |
| A3 System Operations & Maintenance |
| A2.1 System and Security Administration  A2.2 Technical and Platform Support  A2.3 Training |

* + 1. Project Schedule

Team REI will deliver the new GMS to IAF using a single release encompassing all three implementation phases (Envision, Build, and Deploy), and this release will include support for all languages requested by IAF. Below, we elaborate on all three phases of our Three-Phase Implementation Model.

Envision Phase

In this phase, Team REI will collaborate with IAF to provide a comprehensive project kick-off with clear consensus and agreement on the project governance process, project baseline, and the CPMP with IAF Stakeholders. Further, we will set up sandbox environments (DEV, QA) for IAF-specific development with IAF branding requirements (logo images, color schemes, etc.). Team REI will conduct the gap analysis to provide a detailed walkthrough of the GovGrants functionality to IAF. This allows IAF staff to gain insight into GovGrants’ capabilities and discuss gaps between the IAF’s grants process and GovGrants’ base capabilities. Team REI will document all the IAF-specific gaps in a product backlog and engage in-house business and technical experts to design customizations that will meet immediate and anticipated business needs in the future.

Build Phase

The primary purpose of the Build phase is to configure and tailor GovGrants per the gaps identified in the Envision phase. The Build phase includes data migration in Team REI’s sandbox (DEV, QA) environments and the development and testing of relevant integration capabilities required between GovGrants and government systems.

Deploy Phase

After completing the in-house testing in the Build phase, Team REI initiates the Deploy phase by conducting a User Acceptance Testing (UAT) for system acceptance with a subset of system users appointed by IAF. We work closely with IAF to triage and address critical issues and comments before Go-Live and agree on a resolution timeline for all remaining items. To ensure that system users are ready to use the new GMS, Team REI delivers different types of training to system users.

Based on our understanding of IAF’s requirements, we anticipate an approximately seven-month implementation schedule, starting in October 2022 and ending in April 2023. We hold a project kick-off meeting within five business days (one week) of the award, deliver the GMS to IAF for UAT within 90 business days (18 weeks) of the kick-off meeting, support IAF to complete the UAT within two weeks followed by implementation of UAT fixes within two weeks, and finally take an additional five weeks to obtain Authorization to Operate (ATO), conduct training, and deploy code in production. Upon conclusion of the gap analysis and as part of the Integrated Baseline Review (IBR) of the project, Team REI will revise the schedule in consultation with IAF Stakeholders. **Figure 8** below outlines the proposed timeline and the key milestones occurring within each phase.

Timeline

Description automatically generated

Figure 8: Our timeline rapidly delivers IAF Grants Management System capabilities.

Team REI’s Project Manager (PM) will create a detailed project schedule post-project kick-off and share it with IAF PM for review and baseline. We will discuss any deviation to the schedule with IAF Stakeholders and, if needed, revise the baseline schedule.

Soon after, Team REI will complete the implementation of prioritized IAF gaps, and once the implementation is complete, IAF staff will get an opportunity to conduct the UAT. Team REI will address the critical and high severity defects and high priority comments from the UAT before conducting the system training and deploying the code in production for Go-Live. Based on our experience supporting similar-sized implementations of GovGrants, Team REI anticipates completion of UAT and implementation of UAT fixes and prioritized comments within four weeks.

Along with the UAT kick-off, Team REI will initiate the ATO process with the IAF IT Security team to complete the FISMA documentation and a security audit before Go-Live.

Finally, after Go-Live, our project team will work closely with our Customer Success Team (CST) to provide extended support during the 90-day warranty period and fully transition the GMS to CST for continuity of operations and support. This will ensure a successful launch for IAF.

* + 1. Key Deliverables

Provided below are the key deliverables for this project.

* Project Kick-off Deck
* Bi-Weekly Project Status Report
* Revised Contractor Project Management Plan
* Gap Analysis Document
* System Design Document
* Quality Control Plan (QCP)
* Integrated Baseline Review Report
* Functional Requirements Document
* User Stories (IAF Specific Configuration and Customization)
* Product Backlog
* Data Migration Plan
* UAT Scenarios
* User Manuals
* Maintenance Support Plan
* ATO Documentation
* Monthly Post-Production Support Tickets Report
  1. Agile – Scrum Development Lifecycle

REI’s Agile philosophy and practices detail the standardization in software development to promote quick response to changing environments, changes in user requirements, and accelerated project deadlines. The project uses the Agile Scrum methodology shown in **Figure 9**.

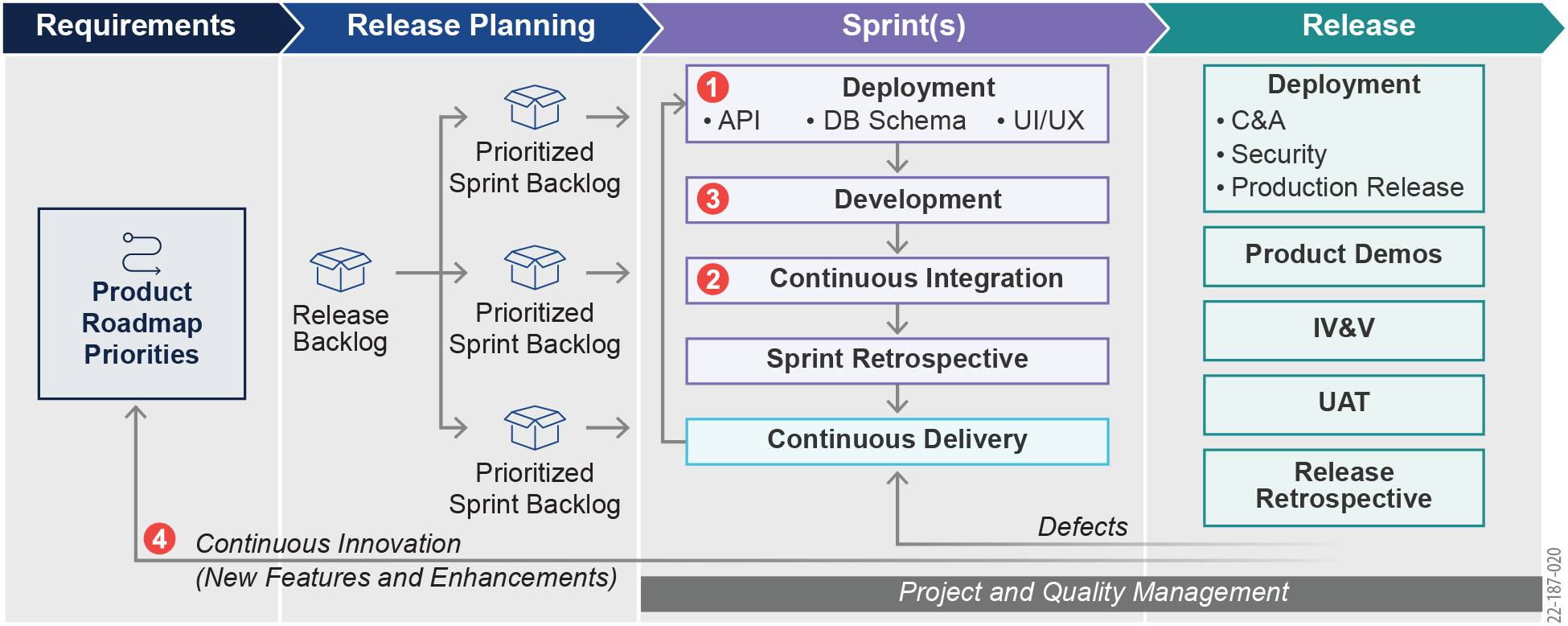


Figure 9: Agile-Scrum Lifecycle

* + 1. Project Planning

During the Envision Phase, the PM and Business Analyst (BA)/Functional Lead conduct successive meetings with the client to map their business process with the system and further understand the project needs and priorities.

Based on the inputs from the client, the following activities define the Project Planning process.

* The high-level WBS (located in Section 2.4) was prepared at the project level in alignment with the PWS and determines the overall scope of the work. REI’s proposed project schedule is aligned with IAF’s high-level implementation timeline. The project is organized in Agile sprints to enable incremental implementation of the system. The application matures progressively with each incremental sprint.
* REI’s Agile Team capacity planning process uses a wide range of opinions from experienced resources and a group of experts who are knowledgeable about the development environment and product to estimate the effort required. The PM will make the necessary adjustments to the level of effort depending on the skill level of the resources allocated to the project. Based on the adjusted effort, the capacity of the Agile Team is calculated.
* Fibonacci sizing estimation is applied for the user stories to determine the size of the user stories. Each user story is broken down into smaller components/tasks. Then, individual estimates are aggregated to determine the effort needed to complete the prioritized user stories for each sprint.
* Once the estimate is established, a charge code is created to track the effort on the project. The PM works with the REI Accounting Department to establish charge codes.
* Once the project estimate is established, and the charge code is created, a detailed project schedule is created based on the development tasks and estimates provided in Team Foundation Server (TFS).
  + 1. Project Monitoring and Control Process

The Team REI Project Monitoring and Control Process includes the following activities.

* The team conducts daily stand-up meetings to monitor and control the project/sprint-related activities. Issues raised during the meetings are resolved, and any unresolved issues are documented as an action item. The Action Items list is maintained in the Team REI project Sharepoint repository. Access to the repository will be provided to IAF Stakeholders.
* The team monitors the burn-down charts and task board in TFS throughout the sprint/release lifecycle and takes necessary corrective action.
* Project progress is discussed with the IAF Project Manager, IAF Contracting Officer’s Representative (COR), GovGrants Account Manager, and Team REI Senior Management.
* TFS is continuously monitored and tracked, revised, and re-baselined if there is a scope change (changes in the requirements) that require additional resources or a schedule to complete. The Technical Delivery Manager (TDM) performs the impact analysis of any change requests and obtains approval from the PM to re-baseline the schedule.
* A standard Status Report that contains the project progress, risks, issues, action items, and upcoming activities/milestones is developed and discussed with IAF Stakeholders.
* Team REI coordinates with the IAF PM and COR to submit the reports documented as part of the PWS.
* Any ad hoc data requests from IAF Stakeholders will be documented by the PM. The Team REI PM will provide the expected date of completion for the request and work with the team to provide the information on and before the due date.
* Team REI’s Project Health Card (PHC) is submitted to Senior Management every month. The PHC collects data about critical attributes of every project, including information about project funding, cost/schedule variance, customer satisfaction, quality control, team morale, and project status. It provides Senior Management with the information necessary to help correct issues, mitigate risks and execute corrective actions, if necessary.
* The PM computes the planned monthly cost and hours based on the task allocations and project schedule. This forecast is then tracked by the PM by comparing the planned vs. actual accomplishment. The PM will also forecast to show if the project is tracking to the plan. If not, the PM considers strategies for getting the project back on track or revising the plan to show the overruns.
* The PM is responsible for tracking project-related issues, risks, and action items and escalating the critical issues and risks to the IAF Stakeholders and Senior Management. These are all maintained in Excel and stored in the project SharePoint repository.
* The PM and TDM continually review the assumptions, constraints, and risks to the project and ensure that appropriate mitigation plans are in place. All risks are managed according to the Risk Management Plan outlined below in Section 3.3.
* The PM reviews the scheduled vs. actual milestones, estimated vs. actual labor hours, and total costs every week and monthly to ensure project progress is on plan. Potential risks are proactively identified, so that appropriate mitigation action is taken with IAF’s approval.
  + 1. Risk Management

Team REI’s approach to Risk Management includes the following activities.

* The project’s risk management and assessment strategy are designed to identify critical risks and associated risk factors on a continuous basis. All risks are identified and categorized as to their potential impact on the project and their probability of occurring. Mitigation plans are defined to prevent the risks from occurring. Risks are updated with progress, as needed, to ensure information is current, and the risk is monitored and controlled. All risks will be reported to IAF Stakeholders and Team REI Senior Management and shared with the Quality Assurance Office (QAO) via a consolidated risk list. Both technical and non-technical risks are identified, and necessary actions are taken to manage them before they impact the success criteria of the project.
* Risks will be identified by internal and external stakeholders at various stages of the project.
* Risks will be analyzed, and appropriate mitigation/contingency plans will be developed.
* Risks will be recorded in the consolidated risk list and corporate PHC tool.
* Risks will be reported to IAF Stakeholders through status reports.
* Risks will be reported to Senior Management during monthly PHC reviews.
* Mitigation and contingency plans are determined based on the Risk Management process guidelines. (Refer to **Table 9: Risk Strategy**)
* The Technical Deliver Manager, in coordination with the PM, maintains the risks list.
* Risks will be re-evaluated periodically and updated as needed.
  + - 1. Risk Category

**Table 5** lists Team REI’s Risk Categories.

Table 5: Risk Categories

| Risk Category List |
| --- |
| Scope |
| Cost |
| Management |
| Quality |
| Resource |
| Schedule |
| Security |

* + - 1. Risk Source

**Table 6** lists Team REI’s Risk Source List.

Table 6: Risk Source List

| Risk Source List |
| --- |
| Budget |
| Communication |
| Complexity |
| Contract |
| Data |
| External Stakeholder |
| Hardware |
| Human Resources |
| Knowledge Deficiencies |
| Peer Reviews |
| Process |
| Product Quality |
| Requirement |
| Schedule |
| Scope/Requirement Changes |
| Security |
| Software |
| System Dependencies |
| Technology |
| Other |

* + - 1. Risk Impact Definition

**Table 7** lists Team REI’s Risk Impact Definitions.

Table 7: Risk Impact Definition

|  |  |  |
| --- | --- | --- |
| Label | Impact Definition | Value |
| Very Low | The project impact is estimated to be negligible or barely noticeable. | 1 |
| Low | The project impact is estimated to be minor. | 2 |
| Medium | The project impact is estimated to result in <10% cost variance or schedule slippage, or result in an acceptable impact on scope or quality. | 3 |
| High | The project impact is estimated to result in 10%–20% cost or schedule variance or schedule slippage, or result in an unacceptable scope or quality reduction (in the case of a negative risk), or a desirable increase in scope or quality (in the case of a positive risk). | 4 |
| Very High | >20% cost or schedule variance, or possible project termination (in the case of a negative risk), or possible additional work (in the case of a positive risk). | 5 |

* + - 1. Risk Probability Definition

**Table 8** lists Team REI’s Risk Probability Definitions.

Table 8: Risk Probability Definition

|  |  |  |
| --- | --- | --- |
| Label | Probability Definition | Value |
| Very Low | This risk has never occurred before, but it could occur. | 1 |
| Low | This risk has occurred on occasion with other projects. | 2 |
| Medium | This risk occurs sometimes, but not always. | 3 |
| High | This risk will occur most of the time. | 4 |
| Very High | This risk occurs all the time, but there is a chance that it may not occur. | 5 |

Once risks have been identified and assessed, the PM must first prioritize them and then identify a strategy for each risk. A strategy identifies the approach that will be followed for handling the risk based on the risk conditions. The strategies to manage the risk fall into one or more of these four major categories: Accept, Avoid, Mitigate, and Transfer.

The PM should use team members’ input when determining solutions to identified risks. The strategies and their descriptions are listed below in **Table 9**.

* + - 1. Risk Strategy

**Table 9** lists Team REI’s Risk Strategies.

Table 9: Risk Strategy

| Risk Strategy | Description | Mitigation Plan Required | Contingency Plan Required |
| --- | --- | --- | --- |
| Accept | When the risk has minimal impact and the effort to mitigate it is not justifiable. These risks should remain open and monitored until they are closed. | No | No |
| Avoid | Not performing an activity that could carry the risk. The risk cost is too high, and the benefit of the integrated activity is too low. | No | No |
| Mitigate | The goal of such a strategy is to minimize effects or avoid the occurrence of the risk. This strategy requires a mitigation and contingency plan. | Yes | Yes |
| Transfer | To properly address the risk, the PM assigns the risk to a third party such as the customer, another project, or an organizational group. | No | No |

* + 1. Requirements Development and Management

The PM and BA meet with IAF to detail the IAF-specific requirements that are not supported by the system out-of-the-box and populate the product backlog. The PM and BA will prioritize the product backlog in consultation with IAF Stakeholders. Based on the prioritized backlog, the BA develops the user stories for implementation.

During the implementation, requirements may change due to a clarification or a new feature requested by IAF. In this case, the change in requirements is updated in the product backlog. The product backlog will be maintained by the BA and prioritized by IAF. Changes are also discussed during the backlog refinements sessions.

All feedback received from IAF is communicated by the BA to the Agile Team. Based on the high-level epics/features/user stories, mockups/wireframes for the customer-specific customizations are developed to communicate with IAF and to receive feedback before finalizing the user story.

The Team REI Technical Lead (TL) will make an initial assessment of any new or changed requirements; if the change request has no impact on cost, schedule, business rules, and existing processes, Team REI can opt to take care of it at its discretion with no explicit COR approval needed. For all other changes, Team REI will assess the level of effort and impact on schedule and add it to the product backlog for review, approval, and prioritization with the customer.

The definition of priority is described below in **Table 10**.

Table 10: Requirement Priority Classification

| Priority | Description |
| --- | --- |
| 1 – Urgent/Critical | A mission-critical requirement; required for the release. |
| 2 – Quick turnaround/High | Requirements without which the product/application is not acceptable unless these requirements are satisfied. |
| 3 – Normal Course of action/Medium | Requirements that support necessary system operations; required eventually but could wait until a later release if necessary. |
| 4 – Can wait/Low | A functional or quality enhancement; would be nice to have someday if resources permit. |

* + 1. Design and Development

The Agile Team takes an incremental approach to architecture/design and development. The team focuses on architecture/design throughout the entire process. The team determines if any component(s) need to be developed or re-used based on the defined criteria. Alternative solutions will be developed to select the right solutions in terms of cost, performance, and risk.

Developers follow REI-approved coding practices. Updates to requirements identified during the implementation stage are captured via email, documented in TFS, and follow the change management process. During major development, Senior Developers conduct peer reviews in accordance with REI guidelines on selected configuration items to ensure requirements are being met and coding guidelines are being followed. The review results and the action items are communicated to the Developers as peer review tasks in TFS and tracked to closure. Periodic meetings with the Developers are conducted by the TDM to review progress and resource allocation, assign tasks, and discuss open issues, if any.

The team performs continuous integration of new/modified code and continuous testing after each check-in or build. Test automation will be developed to perform regression testing.

The Dev, Testing, UAT/Staging, and Production environments are hosted on the Salesforce GovCloud Plus, which is rated at a FISMA-High compliance level.

Product integration with external systems is developed by the Agile Team by understanding the external interfaces and technological constraints in collaboration with the IAF technical team or system vendor. The Agile Team takes into account the design considerations to ensure it aligns with the architecture of the product.

The Development Team performs unit testing to ensure that product meets the acceptance criteria. The results are analyzed to ensure that the system meets the acceptance criteria and is ready for deployment on the testing server.

* + 1. Peer Reviews / Quality Reviews

The project artifacts listed in **Table 11** will be peer-reviewed by the team. Peer reviews are requested by the PM, Team Leads, or the artifact author. Peer Reviews are completed based on the complexity and control level of the artifact.

Table 11: Peer Reviews

|  |  |  |
| --- | --- | --- |
| **Item** | **Applicable?** | **Justification (Only if not applicable)** |
| Mock-Ups Peer Review | Yes |  |
| Design Peer Review | Yes |  |
| Code Peer Review | Yes |  |
| Test Cases Peer Review | Yes |  |

* + 1. System and Integration Testing Approach
       1. Test Case Preparation

The Quality Assurance Specialist (QAS) is responsible for documenting functional and non-functional test cases based on the user stories identified in the Sprint backlog. This will maintain the traceability of the user stories to the test cases. Once the test cases are completed, they may be reviewed using the peer review process. The team ensures that the test environment has been set up ahead of time for testing. The testing team/tester identifies the data required for testing. The team ensures that the data is prepared in the test environment before testing begins.

The test cases are executed, and the results (Pass or Fail) are recorded. If any test cases fail, the defect is logged in the TFS tool.

* + - 1. Test Execution

During the Testing, the team uses a number of processes to ensure that the requirements, design, development, test artifacts, and other products satisfy their content and quality requirements. Testing in each Sprint starts as soon as any development task or story is complete and, once completed, is ready to be reviewed.

The project uses a combination of black-box (functional) testing and User Interface (UI) testing to ensure that all user requirements are met. Other types of testing executed are Section 508 testing, performance/load testing, security, and testing on various browsers (e.g., Internet Explorer, Firefox, etc.). Additional types of testing may be performed depending on the specific needs of a project.

Refer to our Quality Assurance Plan (QAP) for the details. This document is stored in Sharepoint.

* + - 1. Testing Defects Management

The team will rely on “on-the-spot fixes’ for all issues identified during the Sprint. The QAS will work with the developers to address any issues found. Any major or critical defects which are not fixed within the Sprint will be logged in TFS for the next Sprint’s backlog, prioritized, and tracked till closure. The team performs analysis on the defects found during the Sprint/release.

* + 1. Sprint Review / User Validation

Sprint review and UAT validates with stakeholders the product being developed to ensure that the product meets their business needs. The team provides a Sprint demo to IAF Stakeholders after every Sprint and makes sure the acceptance criteria are met for the stories to be accepted in the Sprint.

UAT is one of the critical phases of a project and occurs before the system is deployed into production. The team prepares the environment for UAT and creates test data and scenarios needed for the UAT.

An internal dry-run is performed by the Agile Team and Functional Lead to make sure that all the acceptance criteria are met before the stakeholders start validating the work product.

Any feedback from the UAT will be documented in an Excel sheet (UAT feedback) by the UAT participants, reviewed, and prioritized by IAF for implementation. These feedback items are reported to the Development Team as defects or suggested enhancements in TFS. The critical issues reported are fixed before releasing the product in production. Other feedback is consolidated, discussed with IAF, and prioritized in the backlog before being incorporated and implemented.

* 1. Decision Analysis Resolution

A formal Decision Analysis Resolution (DAR) process should be used for making major or significant project decisions, such as the selection of a third-party product to be integrated with the system or the selection of a technical approach or design.

Major project decisions that require more formal analysis and resolution are identified by the PM or TDM. The PM or TDM will initiate the DAR process when established thresholds are crossed. The Thresholds are listed below in **Table 12**.

Table 12: DAR Process Thresholds

| Decision Type | DAR Recommended | DAR Mandatory |
| --- | --- | --- |
| Priority/Impact Rating | |
| Technical Risk | Medium | High |
| Management Risk | Medium | High |
| Customer Visibility | Medium | High |
| Strategic Importance | Medium | High |
| Duration of Implementation (Percent of Project Schedule in calendar days) | >10% and <20% | >20% |
| Percent of Overall Project Cost | >10% and <20% | >20% |
| COTS Product | ----- | >$5000 |

The PM sets up the DAR team and assigns a DAR Lead. The DAR Team will identify the evaluation/analysis method.

DAR Team resources are assigned to perform research, analyze alternative solutions, and recommend the best solution for the PM’s approval. The analysis includes identifying alternative solutions and applying specific evaluation methods based on REI-IAF guidelines and evaluation criteria.

The results of this analysis and recommended solution are captured in the DAR Recommendation Report and submitted to the PM for approval. The DAR reports are stored in Sharepoint and are made available to IAF.

* 1. Configuration Management

The files related to GovGrants product code, software configuration, process documentation, and customer deliverables are controlled and managed as configuration items. Github is being used as the main version control tool and Configuration Management (CM) repository for all of the software. SharePoint is used for documentation requiring version control. TFS is the project management tool used for tracking all implementation tasks. In addition, Github and TFS are used to organize the development, control and track the composition of releases, and track post-release corrections. The TDM ensures that all team members have required access to Github, Sharepoint, and TFS.

Baselines for software code are established with each successful release to the production environment. The GovGrants base product code becomes the baseline for the start of the project. All files constituting a production release of GMS are tagged with a unique identifier or release ID.

The procedures for setting up the test environment and for conducting tests on system functionality and system interfaces, if applicable, are described in the QCP. GovGrants code is promoted to the testing environment and production environments by the TL checking out the latest version of code currently checked into Github. Branching is used for code promotion and may be used at other times during the development cycle as circumstances warrant.

The configuration audit process is the responsibility of the TDM, TL, and QAS team members who test the proposed changes on the development, testing, and staging systems to verify the code is working as required. The TDM or designated person approves the changes for production. For delta releases involving partial builds (i.e., releases of an application after the 1st release), the TL also verifies the list of files provided by developers in TFS issues against the list of files modified as per the Github listing. Any configuration issues that are detected are resolved prior to deploying the application into the next environment. After the modified code is deployed on the production system, the QAS performs a sanity test to verify that the entire system is working correctly.

**Table 14** and **Table 15** below list the standard source control and data management tools that will be used by the Team REI project implementation team.

* + 1. Environment and Tools

The project will use various environments throughout the project lifecycle to support development, testing, and deployment. **Table 13** below includes the list of project environments, purpose, frequency, and the location for where the environment is stored/detailed.

Table 13: REI Environments

| **Environments** | **Purpose** | **Frequency** | **Location/Links** |
| --- | --- | --- | --- |
| Testing | Environment for QAS/developers to test base product, newly developed features, configurations, and integration with external systems. | Prior to the first code drop and then, each sprint | To be Decided (TBD) |
| UAT/Staging | Environment for QAS/BA to test base product, newly developed features, configurations, and integration with external systems.  Mirrored environment to production to ensure that the proposed release is stable. | Two to three days prior to the UAT date and production release date | TBD |
| Production | Publicly accessible GMS. | As dictated by the Project Schedule | TBD |

**Table 14** lists the tools used by the project team.

Table 14: Tools Used

| **Tools** | **Server** | **Location** |
| --- | --- | --- |
| TFS | TFS Server | TBD |
| SharePoint | SharePoint Server | TBD |
| Github | Github Server | TBD |

* + 1. Data Management Plan

Data Management is focused on capturing, tracking, and maintaining information related to the project using software tools. The data being stored serves as a central knowledge repository for process and project information and promotes integration and data exchange among all stakeholders who interact with the project.

The objectives of the Data Management Plan are to ensure that:

* Data is stored at the correct location/folder path (as per the location identified in the plan)
* Access to data is controlled (as per the access privileges identified in the plan)
* All required data is maintained.

Table 15: Data Management

| Project Data | Deliverable to  IAF or Internal Document | Access Control  (Read-R, Write-W) | Storage Location/Tools |
| --- | --- | --- | --- |
| Progress Reports | Client | PM, SM, TDM – R/W  Project team – R | Sharepoint |
| Monthly Invoices | Client | PM – R/W | Email, maintained by Contracts department. |
| Wireframes/Mockups | Client | Project team – R/W | Email, Sharepoint, TFS |
| Risk List/Log | Client | PM, TDM – R/W  Project team – R | Excel, Sharepoint |
| User Acceptance Test Scenarios | Client | Project team – R/W | Email, Sharepoint |
| User Guides | Client | Project team – R/W | Email, Sharepoint, DSIP |
| Project Management Plan (PMP) | Internal | PM – R/W  Project team – R | SharePoint |
| Wireframes/Mockups | Internal | Project team – R/W | Email, TFS |
| Risk List/Log | Internal | PM, TDM – R/W  Project team – R | SharePoint and PHC |
| Technical Design Document (TDD) | Internal | Project team – RW | Sharepoint |
| Quality Control Plan | Client | Project team – R/W | Sharepoint |
| Product Backlog | Client | Project team – R/W | TFS |
| Sprint Backlog | Client | Project Team – R/W | TFS |
| Test Scripts/Cases | Internal | QAS – R/W  Other Project Team – R | Sharepoint |
| Developed Software | Client | Project Team – R/W | Github Code Repository |
| DAR Report | Internal | Project Team – R/W | Sharepoint |
| Peer Reviews | Internal | Project Team – R/W | TFS |
| PHC | Internal | PM – R/W | PHC Tool |
| Action Items | Internal | Project Team – R | Excel, SharePoint |
| Actual Cost and Hours | Internal | PM – R | RDW |
| Sprint Retrospectives | Internal | Project Team – R/W | Retrium |

*R – Read; W – Write; PM – Project Manager; SM – Scrum Master; TDM – Technical Delivery Manager; QAS – Quality Assurance Specialist; BA – Business Analyst;*

Team REI uses Github, and TFS, to manage the software development process. All source code, including the database scripts, is stored in a source control database. All versions of all code files are stored and are available for use. This enables the re-creation of any file to the way it was at any point in time.

The team uses version-labeled files to deploy. The deployment process is automated and uses a tool (ClickDeploy) to improve speed, accuracy, and efficiency. Github stores information on files that needs to be deployed. Therefore, manual intervention is only required when the deployment of any file fails.

The versioning of files allows Team REI to maintain multiple copies of the application and deploy consistent versions for different environments. Files are deployed to different sandboxes as needed, and the team adjusts the frequency of the deployment until a stable release version is assembled. The stable version of the files is tagged and locked before deploying it to production.

* + - 1. Configuration Audit

Configuration Audits are performed by the project team to ensure the integrity of code baselines. The configuration audit is performed prior to the production code drop. Any issue identified during the configuration audit is logged in TFS and tracked to closure.

* + - 1. Document Management

Code, deliverables, and plans should be under configuration control, assigned a naming standard and version number determined by the project, and stored within a designated location in the project repository in Sharepoint. Team REI will provide Sharepoint repository access to IAF Stakeholders post-project kick-off.

* 1. Process and Product Quality Assurance

The purpose of the Process and Product Quality Assurance (PPQA) Process is to ensure that the processes (e.g., Project Planning, Project Monitoring, Solution Engineering, Testing, Validation, etc.) followed in the project are clearly defined and meet or exceed the requirements for various processes described in the REI Process Asset Library (PAL) at the corporate level.

The PPQA Process objectively evaluates the quality of a process or product, but it does not include actual testing procedures. Ensuring product quality through testing of software products is defined within this document in Section 3.7.

* + 1. Ensuring Process Quality

The process QA function is a corporate responsibility to ensure that standard and consistent processes are followed. The QAO verifies compliance against defined performance criteria and determines corrective actions. **Table 16** below describes the artifacts evaluated by the QAO.

The following are key QA activities:

* Conducting Internal audits to ensure ISO 9001, CMMI-Dev Level 3 compliance
* Conducting QA walkthroughs of key project deliverables
* Participating in peer reviews to analyze their effectiveness
* Notifying the program management team of any identified non-conformances

Table 16: Evaluated Processes/Products

| Deliverable (Process/ Product) | Deliverable  Type | Internal or External | Method (Template or Checklist) | Audit Responsibility (Project or QAO) | Additional Comments/Audit Frequency |
| --- | --- | --- | --- | --- | --- |
| Project Planning/Integrated Project Management | Process | Internal | Checklist | QAO | Once a year |
| Project Monitoring and Control | Process | Internal | Checklist | QAO | Once a year |
| Requirements Management | Process | Internal | Checklist | QAO | Once a year |
| Process and Product Quality Assurance | Process | Internal | Checklist | QAO | Once a year |
| Configuration Management | Process | Internal | Checklist | QAO | Once a year |
| Measurement and Analysis | Process | Internal | Checklist | QAO | Once a year |
| Requirements Development | Process | Internal | Checklist | QAO | Once a year |
| Technical Solution | Process | Internal | Checklist | QAO | Once a year |
| Product Integration | Process | Internal | Checklist | QAO | Once a year |
| Verification/Validation | Process | Internal | Checklist | QAO | Once a year |
| Risk Management | Process | Internal | Checklist | QAO | Once a year |
| DAR | Process | Internal | Checklist | QAO | Once a year |
| Monthly Business Meeting | Product | External | Template | Project | Monthly |
| Data Management | Process | Internal | Checklist | Project | Annually |
| CPMP | Product | Internal | Checklist | QAO/Project | Once a year |

The QAO schedules compliance reviews with the project team to ensure process quality.

The project team ensures that the corrective action is taken within the agreed-upon timeline and any non-conformances are closed. The project team also ensures that the necessary actions are taken to improve the project processes based on the improvement opportunities identified by the QAO Audit team.

If a non-conformance is identified and not closed within the agreed-upon timeframe, the item will then be escalated to IAF Stakeholders and Senior Management to ensure there is a proper corrective action in place and the item is promptly closed.

* + 1. Ensuring Product Quality

Product quality standards for the project will be defined collaboratively by IAF and Team REI through acceptance criteria for the project’s deliverable. Team REI will focus on the software development processes used for product development, such as planning, project management, envisioning, design, configuration and development, testing and business user validation, and deployment activities. The QCP will guide Team REI to make sure that product quality satisfies or exceeds expectations set by the IAF QASP.

* 1. Measurement and Analysis

The objectives of the Measurement and Analysis process are to:

* Keep the project within budget
* Deliver products on schedule
* Manage risks
* Minimize defects in work products

Team REI follows the measurement and analysis processes and procedures for collecting, analyzing, and reporting performance metrics using the Measurement and Analysis Process Description in the REI Process Asset Library. The data collection includes project funding status, cost/schedule variance, customer satisfaction, quality control, team morale, and project risks. REI’s corporate PHC tool is used for the collection of this data.

Team REI’s PM will report the metrics listed in **Table 17** to the IAF PM and COR as part of the status report. In addition, any applicable Service Level Agreements (SLA) will be defined in discussion with IAF Stakeholders after the project kick-off.

Table 17: Project Metrics Collected and Reported to IAF

| Metric | Description of Measure | Frequency | Owner | Reported To | Data Collection Tools |
| --- | --- | --- | --- | --- | --- |
| Schedule Variance | Capture the variance from the baseline schedule | Bi-Weekly | REI PM | IAF PM, IAF COR, GovGrants Account ManagerREI Executives | PHC Tool, |
| Customer Satisfaction | The metric measures IAF Stakeholders’ satisfaction with Team REI | Monthly | REI PM | IAF PM, IAF COR, GovGrants Account Manager,  REI Executives | PHC Tool, |
| UAT Defects | These metrics will be used to assess quality of the UAT release. | One-time | REI PM | IAF PM, REI QAO | TFS |
| Post Production Defects | These metrics will be used to assess quality. | Monthly | REI PM | IAF PM, REI QAO | Zendesk, PHC |
| Post Production Support Resolution Time | These metrics will be used to assess the resolution time for post-production requests received by REI Customer Success Team. | Monthly | REI PM | IAF PM | Zendesk |

* 1. Stakeholder Involvement
     1. Organization Chart

The IAF Leadership oversees that the project is meeting the strategic objectives established for the GMS. Leadership reviews progress reports, which include risks, issues, and progress. All decisions related to the contract and significant schedules are communicated and concurred by this group.

Project execution is managed by the Team REI PM in coordination with the Project Manager from IAF. The IAF PM coordinates decisions and issues affecting the project with the executive management.

**Figure 10: Organization Chart** shows the organization structure and the reporting relationships within the project. The established reporting relationship provides a governance structure for the project.

Diagram

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Figure 10: Organization Chart

* + 1. Customer Stakeholder

**Table 18** summarizes the IAF resources needed to successfully execute the GovGrants implementation.

Table 18: Roles and Responsibilities

| Organization | Stakeholder Role | Responsibilities |
| --- | --- | --- |
| IAF | Project Sponsor | * Provide a unified direction to the project team. * Lead change management and associated organization-wide communications on project importance. * Ensure the necessary IAF resources are made available during the contracted period of performance. * Assign an IAF Project Manager. * Lead project governance body and be responsible for resolving any contractual issues. * Conduct a monthly meeting with an REI Executive to address blockers and other project-level escalations. |
| IAF | Project Manager | * Facilitate communication between IAF and REI Systems project teams and among all stakeholders. * Define the project constraints (i.e., scope, time, costs, and quality). * Monitor project progress. * Identify internal and external risks (in conjunction with the REI PM. |
| IAF | Contracting Officer Representative COR | * Approve/authorize all work performed under the contract. * Conduct oversight of contract performance and timely delivery of deliverables. * Set program schedule. * Receive and approve Bi-Weekly Reports and Financial Statements submitted by REI. |
| IAF | Functional Lead | * Provide enterprise grant program details as a Subject Matter Expert (SME), including business form details, workflows, approvals, and business rules. * Represent the voice of all programs (aggregator of requirements) and/or bring grant staff to the table. * Support Gap Analysis sessions. * Answer any IAF-specific policy questions. * Perform quality assurance from the user perspective. * Serve as IAF POC for user training. |
| IAF | Technical Lead | * Understand the complete technical landscape of IAF grants management application stacks. * Provide knowledge transfer to the Team REI technical team. * Review and approve technical designs for IAF-specific changes. * Serve as POC for the Team REI technical team during implementation. |

* + 1. Internal Stakeholders / Staffing Plan

**Table 19** summarizes Team REI resources that have a direct role or the monitoring function in the project.

Table 19: Stakeholder, Role, and Responsibilities

|  |  |  |
| --- | --- | --- |
| Role | Stakeholder Name | Responsibilities |
| Executive Management | Scott Fletcher | * Conduct executive oversight. * Review project metrics (Dashboards) and provide corrective actions and guidance. |
| GovGrants Account Manager | Name withheld.  To be shared upon award. | * Review Status Reports and report project metrics to Senior Management. * Identify risks and recommend mitigation strategies. * Manage resources. |

**Table 20** summarizes the Team Roles and Responsibilities.

Table 20: Team Roles and Responsibilities

| Role | Team Member Name | Responsibilities |
| --- | --- | --- |
| Project Manager | Name withheld.  Identified and to be shared upon award. | * Identify risk and recommend mitigation strategies. * Monitor project progress and issue corrective actions where needed. * Serve as an executive touchpoint with clients. * Generate project estimates for budget and schedule. * Develop and approve project plans. * Report status to IAF Stakeholders and Senior Management. * Approve major requirements changes. * Assign resources to project tasks. * Identify and manage project risks. * Identify needs for formal decision action and assigns resources. * Attend client meetings. * Interface with the client to gather requirements. * Review and approve project documents. |
| Technical Manager | Name withheld.  Identified and to be shared upon award | * Manage and collaborate on technical activities such as integration approach, documentation support for ATO, design updates, design reviews, technical solutions, and technical documentation. * Help speed up the technical solutions and design of the IAF customizations. |
| Business Analyst | Name withheld.  Identified and to be shared upon award | * Be responsible for the project’s functional activities such as gap analysis, requirements elicitation, functional requirement documentation, requirements management, system demos, UAT support, change impact analysis, training documentation, and user training. |
| Scrum Master | TBD | * Oversee and guide the execution of the development work using Agile Scrum methodology. * Perform Scrum Ceremonies, release management, and status reporting. * Motivate teams and remove impediments. |
| Technical Lead | TBD | * Be responsible for the technical delivery of the full solution. * Guide the developers and undertake the development of complex tasks such as integration with external systems. |
| QAS | TBD | * Support the testing of IAF-specific configurations and customizations per the IAF requirements. * Be responsible for maintaining the test automation framework, automation, and manual testing, regression integration testing, and supporting UAT. |
| Developer | TBD | * Support the configuration and customization of GovGrants per the IAF requirements. * Provide functionality development and unit testing. * Troubleshoot and fix issues reported internally or externally by system users. |

* + 1. Skill Matrix

**Table 21** lists responsibilities by role.

Table 21: Team REI Skills Matrix

| **Roles /**  **Skills Required** | **Project Manager** | **Technical Manager** | **Technical Lead** | **Scrum Master** | **BA** | **QAS** | **Devs** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Program Management | X |  |  |  |  |  |  |
| Project Management | X |  |  |  |  |  |  |
| * Leadership * Risk Management * Adobe | X | X | X | X |  | X |  |
| * Communication * Microsoft Office * Analytical Skills * Documentation * TFS * SharePoint * Wiki * Agile Methodology * SharePoint | X | X | X | X | X | X | X |
| Salesforce Technologies |  | X | X |  |  |  | X |
| Customer Engagement | X | X |  |  |  |  |  |
| Microsoft Project | X | X |  | X |  |  |  |

* + 1. Training Plan

The Training Plan is summarized in **Table 22** below. This matrix identifies the particular process areas for which a given role should receive training. Continual ongoing training is a key factor in developing effective solutions and providing quality support.

New team members are given on-the-job training as needed in the first month on the job and on an as-needed basis. The project shall adhere to the REI process descriptions and training for the REI processes (available via Computer Based Training (CBT)). The Technical and Functional Leads have received (and continue to receive) internal REI process area training for their respective process areas. These training sessions are planned and conducted by the QAO.

At a project level, a detailed overview is provided of the project, its objectives, and its roadmap. These project documents are available on SharePoint. The junior members are mentored by the senior team members.

Table 22: Training Plan Matrix

| Training Required | Participants | Date |
| --- | --- | --- |
| REI New Employee Orientation Training | New employees | Ongoing |
| Project overview briefing | New employees | Ongoing |
| Use of project tools, such as CM, portal, bug tracking, test tools, etc. | New employees and all employees when any new tools are added | Ongoing |
| On-the-Job Training (OJT) will be provided to introduce the use of project tools and procedures. New employees will be assigned a mentor within the project who will answer questions, provide guidance on company policy and procedures, help to resolve concerns, and answer questions. | New employees and all employees when any new tools and procedures are added | Ongoing |
| Grants Management, Salesforce Technologies, and GovGrants Base Product Training | New employees | Ongoing |

**Table 23** contains a matrix that describes the required training for each role.

Table 23: Training Plan by Role Matrix

| **REI Process Training** | **REI Agile Project Management** | **REI Agile Scrum Master** | **REI Agile Project Team** |
| --- | --- | --- | --- |
| Project Planning (PP) | X | X |  |
| Project Management and Control (PMC) | X | X |  |
| Risk Management (RSKM) | X | X | X |
| Decision Analysis and Resolution (DAR) |  | X | X |
| Requirements Development (RD) |  | X | X |
| Requirements Management (REQM) |  | X |  |
| Verification(VER) |  | X | X |
| Validation(VAL) |  | X | X |
| Process and Product Quality Assurance (PPQA) |  | X | X |
| Configuration Management (CM) | X | X | X |
| Measurement and Analysis (MA) | X | X |  |
| Product Integration (PI) |  | X | X |
| **Participants** | Project Manager, Technical Manager | Scrum Master | BA, Teach. Lead, Dev, QAS, and any team member involved in the project |

* + 1. Communication Plan

**Table 24** lists the formal communication schedule.

Table 24: Communication Plan

| Item | Audience | Medium | Responsibility of Initiating | Date or Frequency |
| --- | --- | --- | --- | --- |
| Daily Stand Up | REI resource | In-person / MS Teams | Scrum Master | Once Daily |
| Interim Progress Reports | Client, REI resource | PowerPoint, SharePoint | REI PM | Weekly |
| Sprint Retrospective | REI Team | In-person / MS Teams | Scrum Master | Once at the end of every Sprint |
| Sprint Planning | BA and REI Team | In-person / MS Teams | Scrum Master | Once at the beginning of every Sprint |
| Project Status review | Client, Project Manager, Tech Manager | MS Teams | REI PM | Weekly |
| Project Team Meetings | REI Team | In-person / MS Teams | REI PM | Bi-monthly |
| Risk Register | PM | SharePoint Project Page | REI PM | Once a month or as risk arises |

* 1. Subcontractor Management

The PM/TDM acquires subcontractor personnel through only one type of acquisition: an external contractual agreement.

The PM/TDM notify REI’s Contracts Administrator of the need for subcontractor personnel. The Contracts Administrator submits the information to selected preferred suppliers, requesting resumes of viable candidates. The vendor submits resumes for review, and the PM/TDM identifies those who should be interviewed.

The process used to augment the project team by onboarding subcontractors is outlined below:

* The required resource skills are identified by the TDM in consultation with the PM.
* Selected suppliers (vendors) are contacted, and the required skills/experiences are communicated to them.
* The recruiting department coordinates the interview process. Each contractor is interviewed by key members of the project team, who focus on the contractor’s most useful hard and soft skills. Based on the contractors’ responses, recommendations are made to the PM.
* The decision about the contractor is communicated to the supplier. For selected candidates, the required contractual requirements are completed and vendor agreements executed. A mutually agreed upon start date is identified.
* Transition processes are initiated by the PM. The team provides orientation for the individual when he/she starts at REI, based on the Training Plan in Section 8.5.
* Contractor Performance Evaluations are completed by the PM and are forwarded to the Contracts Administrator for analysis and reporting to Senior Management, who will help to resolve Contractor issues with the supplier.

To meet varying client needs, REI maintains a pool of preferred suppliers with whom we have worked over the past 3-4 years and with whom we have been successful in delivering projects together.

The subcontractor proposed for the IAF project, Stealth Solutions, has been a long-term REI partner helping deliver GovGrants for seven customers for more than eight years. The REI PM works closely as an integrated team with Stealth Solution and oversees its resources working on the implementation. The performance metrics and SLAs associated with the project are also applicable to Stealth Solutions in the same manner as REI. The REI PM escalates any resource concerns/issues to Stealth Solutions’ leadership for timely agreed-upon resolutions. If necessary, REI requests Stealth Solutions to provide replacement resources from its pool of resources who have GovGrants and grants domain experience.

* 1. Post-Production Technical Support

REI staffs a Customer Success Team (CST) led by a Customer Support Manager to support the GMS post-production. Post-implementation, IAF is assigned a Customer Support Representative to provide ongoing support and training.

This team will provide technical product support throughout the life of the IAF contract. The Customer Success Team is available weekdays (Monday – Friday) from 8:00 a.m. to 6:00 p.m. EST, with the exception of U.S. Federal Government holidays.

In addition, during the first 90 days from production rollout, Team REI will provide 24x7 operational support for the IAF GMS. Team REI’s Customer Success Team staff will be available on call during off-hours to address any issue reported by GMS users.

This team will provide broadly two levels of support: Technical Product Support (Tier II) and Platform Support (Tier III). The scope of each support tier is listed below.

* **Tier II (Product Support)**: Tier II support serves to address all product-level issues and defects.
* **Tier III (Platform Support)**: Tier III addresses any issue related to the underlying Salesforce platform. If any such issue were to arise, Tier II staff would initiate engagement with Salesforce’s technical team.

REI has a well-established support initiation and resolution process for engaging with the Customer Success Team. Once the project execution phase is complete and the system has been deployed, IAF should report any product issues to the Customer Success Team following our standard Support Engagement model as outlined below in **Figure 11**. This graphic shows the engagement model for how IAF reports issues, errors, and requests with their GMS and how our Customer Success Team responds and provides resolutions to all requests categorized as Tier II and Tier III.

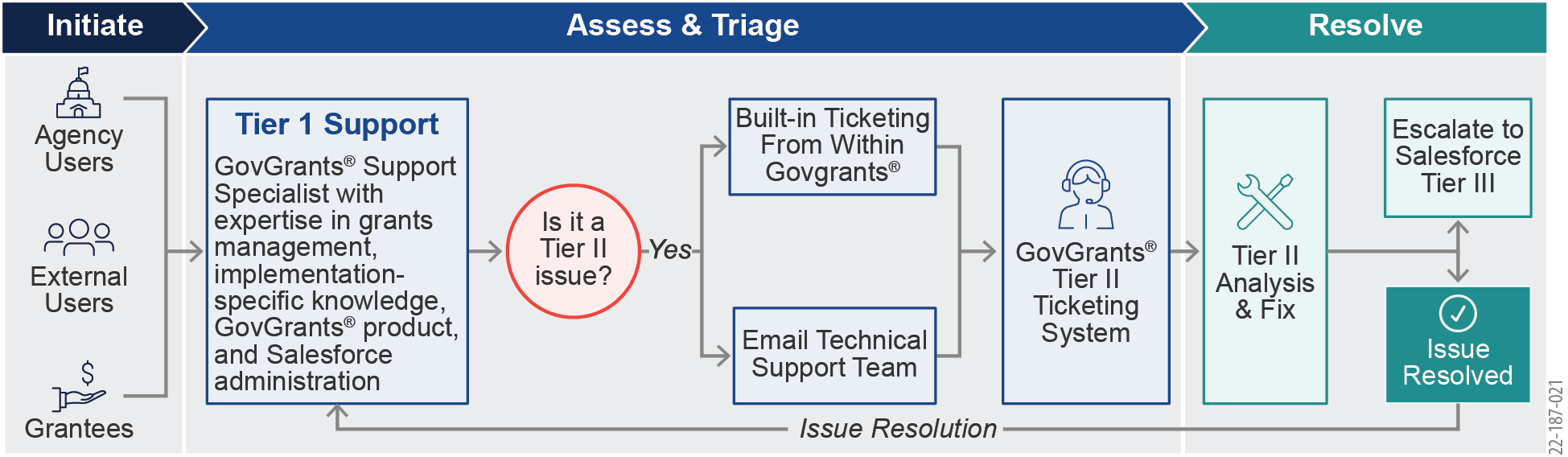


Figure 11: Engagement Model for GMS Users

All emails handled by the Customer Success Team are logged in a Ticketing System (Zendesk). Zendesk provides the number, type, and resolution time of the inquiries. This information is used to monitor activities and analyze requests to make continuous improvements, streamline processes, and come up with innovative solutions for user support.

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1. Quality Control Plan (PWS 9.1) – Draft

The following pages describe the proposed QCP for the IAF Grants Management System implementation. This draft QCP will be reviewed and revised based on IAF’s feedback, and upon the COR’s approval, the final QCP will be formally submitted to IAF along with the CPMP.

* 1. Description of the Inspection System to Cover all Services and Software Applications (PWS 9.1.1)

Team REI employs a QCP that identifies and mitigates defects throughout the project lifecycle. For all tasks and deliverables, we review and audit our work to confirm we are following IAF’s approved control procedures while maintaining required documentation and providing reports that accurately reflect all activity statuses. Team REI’s QCP consists of the following four phases, depicted in **Figure 12** below**.**

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Figure 12: Team REI’s QA Methodology reduces risks and improves execution by ensuring quality throughout the project lifecycle.

* **Plan:** We begin by planning for quality and integrating it into each project activity. Our methods require quality coverage for functional as well as non-functional requirements for software performance, security, usability, Section 508/accessibility, and availability.
* **Prevent:** We utilize established practices in Incident, Problem, and Change management throughout the project to prevent and detect defects through our collection of quality checks.
* **Detect:** We audit our work to confirm that we follow proper control procedures, maintain required documentation, and provide accurate reports.
* **Improve:** Agile Teams implement improvements via Sprint and Release retrospectives, led by a Scrum Master. Additionally, we utilize surveys and informal instruments to gather feedback from all stakeholders.
  1. Description of the Methods Used for Identifying and Preventing Defects (PWS 9.1.2)

Team REI regularly performs scheduled and unscheduled processes and product inspections which are tracked from project start to completion. These Team REI methods incorporate the following reviews and audits for the identification and prevention of application defects:

* **Deliverable Reviews:** Team REI inspects all deliverables and interim work products to ensure compliance with Acceptable Quality Levels (AQLs). Additionally, Team REI integrates a fully automated **Continuous Testing** process, as depicted in **Figure 13** below, into the System Development Life Cycle (SDLC) to ensure the delivered solution is of high quality.
* **Peer Reviews:** Conduct internal team peer and document assessment reviews. These reviews are especially useful when evaluating documents or deliverable content for accuracy and completeness.
* **Process Reviews and Audits**: Conduct process reviews throughout the lifecycle to ensure the teams conduct all work in accordance with Team REI’s CMMI and ISO-compliant best practices and, as appropriate, meet contractual requirements.
* **Quality Audits:** Team REI’s corporate Project Management Organization (PMO) conducts proactive reviews to identify problem and performance issues and establishes any needed course corrections.

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Figure 13: Team REI’s continuous testing, when implemented diligently, results in flawless delivery of a high-quality solution.

* 1. Areas of Inspection and Inspection Records (PWS 9.1.1.)

**Table 25** below provides specifics on the records to be inspected on a scheduled and unscheduled basis, frequency of inspections, and individuals responsible for the inspection.

Table 25: Areas of Inspection and Inspection Types for Services and Software from the PWS

| Areas of Inspection | Inspection Type | Frequency | Inspector |
| --- | --- | --- | --- |
| Kick-off Meetings and Meeting Minutes | * Peer Review | * Scheduled for all formal meetings | * Project Manager |
| Bi-Weekly Status Report | * Peer Review | * Scheduled – Bi-Weekly | * Project Manager |
| Contractor Project Management Plan (CPMP) | * Deliverable Review | * Scheduled | * REI Corporate |
| Test System Deliverables (Includes Unit Integration and Regression Testing conducted by Team REI) | * Automated and Manual Testing of Software for functionality, accessibility, performance, etc. | * Automated testing scheduled weekly * Manual testing is part of each Sprint and prior to User Acceptance Testing | * Quality Assurance Specialist * Business Analyst |
| System  Documentation | * Deliverable Review | * Scheduled | * Business Analyst * Project Manager * Technical Manager * Quality Assurance Specialist * REI Corporate |
| Training | * Deliverable Review * Training Evaluation | * Scheduled | * Trainer * Business Analyst * IAF Training Participants |
| User Acceptance Testing | * Inspection by IAF | * Scheduled | * IAF Participants |
| Final System  Deliverables | * Deliverable Review | * Scheduled | * Business Analyst * Project Manager * Technical Manager * Quality Assurance Specialist * REI Corporate |
| Migrated Grants Data | * Automated and Manual Verification | * Scheduled | * Business Analyst * Quality Assurance Specialist |
| Customer Support | * Process Reviews and Audits * Customer Feedback | * Unscheduled | * REI PMO * REI Customer Success Manager * IAF Users |
| FISMA  Documentation | * Deliverable Review | * Scheduled | * Technical Manager |
| Overall Project Health | * Quality Audits * Process Reviews | * Unscheduled | * REI PMO |

* 1. Description of the records to be kept to document inspections and corrective or preventive actions taken (PWS 9.1.3)

Reports and outcomes from quality control activities such as deliverables audits, user stories reviews, and test results from functional, security, performance, and accessibility testing are documented and maintained in the Team REI SharePoint Project repository and the Team Foundation Server (TFS), a tool used by Team REI for managing software development activities. The changes to the GovGrants product are maintained and backed through Team REI’s proprietary Continuous Integration and Continuous Delivery (CICD) tool. GovGrants’ product real-time availability information is maintained at Trust.salesforce.com. Refer to **Table 26** below for details on records created and maintained to document inspection results and corrective and preventive actions. These records will be made available to IAF on request throughout the contract performance period.

Table 26: Description of Records Created and Maintained from Inspection Activities

| **Record Type** | **Description** | **Repository** |
| --- | --- | --- |
| Product Backlog and Prioritization | Envision phase from the Team REI implementation approach results in the development of the IAF product backlog. The backlog includes epics, features, and user stories implemented during the releases. The backlog is reviewed and prioritized by IAF stakeholders. | Product backlog feedback and prioritization are captured in the TFS tool. |
| User Stories Feedback | Team REI uses Agile Scrum methodology and codifies required changes as User Stories. User Stories go through Peer and Customer Reviews. | Feedback is captured in the TFS tool. |
| Automation Test Results | To ensure high quality and timeliness of deliverables, Team REI extensively leverages automation testing, including regression testing, performance, testing, and security testing. | Test results from regression, performance, and security testing are stored in the Project SharePoint repository. |
| Manual Testing Results | Team REI regularly conducts manual testing such as functional testing, integration testing, regression testing, and accessibility testing. | Inspection results are captured in TFS. |
| User Acceptance Testing (UAT) Results | Conducted by the customer to confirm product acceptance. | Inspection results are captured in TFS |
| Defect Resolutions and Corrections | Defects reported from automation testing, manual testing, and UAT are captured in TFS as bugs. Bugs also record proposed resolution, prioritization, severity, and the correction status. | Defect details and corrections are captured in the TFS |
| Deployment/Promotion Results | Team REI follows a methodical approach when promoting changes from lower to higher environments. We maintain a checklist recording the results from each deployment. | Stored in Project SharePoint repository |
| Lessons Learned, Corrective and Preventive Actions | Lessons learned and corrective and preventive actions are raised from Sprint reviews, customer feedback, and internal audits. | Stored in Project SharePoint repository |
| Deliverables / Document Review | All documents are versioned, and feedback is typically captured as comments within the documents. | Stored in Project SharePoint repository |
| Data Migration Verification | Detailed pass and failure reports are generated from our Data Migration Tools. | Results of passed and failed migration are stored Project SharePoint repository. |

The proposed QCP is based on REI’s QA methodology, which induces quality from the inception of the project and is a foundation for delivering high-quality, complete, correct, and timely grants management system implementation for IAF. The proposed QCP is structured to exceed IAF’s QASP performance standards and is further tailored based on IAF feedback.

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