



# Adopting an Agile Development Methodology

## Becoming More Agile

Making the shift from Waterfall to Agile is a transition that involves changing organizational perception as well as developmental practices. As with learning any new process, guidance is needed for maximum success. With Agile experience and the ability to facilitate the transition from Waterfall development to Agile, Frontier Acquisitions, LLC provides the answers and direction you need to support your decision to move toward the Agile process, plus help to maximize the benefits of Agile practices.

Frontier Acquisitions has a 12-year history of delivering innovative, mission critical infrastructure and software solutions for Federal clients. Over the last several years, we have developed new programs leveraging Agile methodologies and transitioned existing programs from Waterfall to Agile. For instance, we developed Electronic Medical Record, Digital Imaging Communications of Medicine (DICOM) Picture Archiving and Communication System (PACS) and Cybersecurity Analytics systems. We also transitioned a critical health application which serves as the System of Record for the Department of Defense including over 10 million patient records. Based upon these experiences and others, Frontier Acquisitions has garnered expertise working in—and improving upon—software development processes.



## Moving Toward Agile

Frontier Acquisitions advises customers to consider critical factors and make key decisions prior to adopting Agile processes. We help our customers plan the transition before engaging in the first sprint. Our customers have learned that it is essential to commit resources and facilitate preparations for adoption of Agile practices, including investing in Agile coaching, training courses, and collaboration tools for the Agile teams. Our certified SAFe® and Scrum Alliance® professionals are globally recognized for their ability to support the successful transformation of organizations into Lean-Agile enterprises. Furthermore, Our professionals bring vast experience supporting Federal clients implementing agile process defined by the VA’s Digital Service Handbook and the DoD’s Defense Innovation Board’s publication (e.g., Ten Commandments of Software, Detecting Agile BS, etc.) Federal program executives and acquisition professionals can have confidence that their software projects bring the mission value of using agile development versus those that are simply waterfall or spiral development.



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### Frontier Acquisitions Expertise

- Frontier Acquisitions holds a *Capability Maturity Model Integration (CMMI)® Development Level 3* appraisal.
- Frontier Acquisitions brings experts with Scaled Agile Framework® (SAFe®) and Scrum Alliance® professional certifications
- Frontier Acquisitions is a Certified ISO 9001-2015 Company for a Quality Management System.





## Acclimating Stakeholders to Agile

Within our experience, Frontier Acquisitions has found that adopting Agile may be harder for some organizations than others. Using Agile, stakeholders are continuously involved in the development cycle. This is a significant shift from the typical level of involvement under the Waterfall approach. For that reason, we focus on assisting our customers in adjusting and adapting to the new process as well as adjusting Agile to fit them.

Stakeholder participation is very important to Agile teams so that they can work to build projects that reflect the understanding of what is needed. We adapt to the needs of the stakeholders that are driving the project. The more face time Agile teams can coordinate with the stakeholders, the more successful the projects will be.

**User Story Collaboration** – Stakeholders support cross-functional collaboration in the development of user stories and Frontier Acquisitions will work with the product owner or stakeholders to generate and prioritize user stories.

**Plain-Language Content Writing** – Frontier Acquisitions will develop written plain-language content that is easy for people to understand while accurately describing processes, requirements and other content within the user stories.

**User-Centered Design** – Frontier Acquisitions supports UX strategy, UI and visual design, rapid prototyping, and front-end engineering

**Product Management** – Frontier Acquisitions provides oversight, planning and strategy to design, develop, and deliver products. This includes defining the product roadmap and life cycles.

**Automated Testing** – Frontier Acquisitions helps our clients create and maintain an automated test suite for performing automated unit, functional and integration testing for user stories, regression testing, and usability testing (e.g., 508 testing). This ensure functionality and quality of the overall system.

**Customer Support** – Frontier Acquisitions ensure users can get support for the products we deliver. We provide direct Tier 1, 2 and/or 3 customer support capabilities. We offer the full spectrum of IT Service Management services.

**Deployment Activities** – Agile teams rely heavily on operations staff supporting continuous integration and continuous deployment (CI/CD). Frontier Acquisitions plan, create and validate the implementation and deployment of scripts for use during application deployment, and provide release planning and management support.

**DevOps** – Within Frontier Acquisitions Development Operation (DevOps) culture, deployments do not require planned or unplanned downtime nor outages. We work collaboratively and cross functionally with engineering and operations to implement CI/CD, production monitoring, and production support. We bring experience with modern commercial cloud environments and tools, and have experience deploying code to testing, staging, and production in a commercial cloud environment.

**Metrics Reporting and Analytics** – Measuring performance such as agile burn down charts, release roadmaps, and schedule, as well as analytics about product usage, such as number of users or transactions is essential to apply lean continuous improvement concepts to the user community experience. Frontier Acquisitions helps our clients implement system monitoring, error tracking, and user analytics. We will support integrated program, project, or product teams and agile teams to enhance communication, share lessons learned and facilitate rapid identification of dependencies between various functional entities to ensure that the projects deliver the right solutions and value to the business and end-users. Frontier Acquisitions is committed to helping our customers succeed and see a return on investment with their successful Agile project.

### Three (3) Dimensions of Agile Product Delivery

1. **Customer Centricity and Design Thinking**—Customer centricity puts the customer at the center of every decision.
2. **Develop on Cadence; Release on Demand**—Developing on cadence organizes the variability inherent in software development. Decoupling the release of value assures customers can get what they need when they need it
3. **DevOps and the Continuous Delivery Pipeline**—DevOps and the Continuous Delivery Pipeline is the foundation that enables Enterprises to release value at any time to meet customer and market demand.



Frontier Acquisitions Corporate Partnerships supporting Agile DevOps Architecture

- Amazon Web Services Consulting Partner
- Microsoft Azure

## Implementing Agile on Large Projects

Once Agile has been introduced and the shift in the organizational culture permits greater involvement, Frontier Acquisitions can facilitate the broader acceptance and use of Agile throughout the organization.

In larger projects, organizations may have teams of more than the recommended six to nine members per project. When the size of your Agile team grows beyond this, we recommended to organize into several smaller Agile teams. With this method, each development team will be assigned user stories enabling them to work as an Agile team and simultaneously deliver the complementary features. This reduces the coordination required because the majority of communication is held within the teams. This allows organizations to scale Agile for these large projects as the teams are basically groups of small teams each applying Agile methodologies.