Agile Transformation

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RIVA’s experience with Agile transformations has taught us that each organization’s journey is unique, and complex. Success relies on understanding the current people, process, and technologies. Agile transformation starts with an understanding our customers executive vision and benefits Agile will bring to them. We will decompose that vision into prioritized requirements as a roadmap. The Roadmap will detail where the organization needs to go, requirements are refined into actionable tasks (EPICS that can be developed into an MVP) that rely on understanding the organization’s Agile Maturity. We use the requirements to get from “as is” to the “to be” state. Below shows a model for our approach, as we transition from a vision to execution, incrementally growing the “body of knowledge,” buy-in, and maturing its Agile governance model.

AGILE TRANSFORMATION ROADMAP

Establish the Vision: “Remember the Future” is one of several techniques we use to work with leadership, so we fully understand the objectives, and the practices, principles, and technologies on which to focus. Our approach is based on the understanding that “Agile” is not an end unto itself, but a path to a leaner and effective organization. For an organization we typically recommend one of the four versions of SAFe for Lean Enterprises – Essential SAFe, Portfolio SAFe, Large Solution SAFe, and Full SAFe; we need to establish which best enables lean and efficient services. We need to understand, of the different “Agile” practices – including Kanban, Scrum, Feature Driven Development, and the hybrids (i.e. Scrumban), will enhance the ability to accelerate the deployment of capabilities and ensure they exhibit greater user acceptance and operational value. Somewhat independent of the techniques and practices, the transition plan focuses on establishing an “Agile Mindset” across the organization, enabling Teams increasing autonomy to select the best techniques for the problems with which they have been tasked (Agile principle #11 – Self Organizing Teams). Decentralized decision making (SAFe principle #9) is the key in Agile adoption, it is critical to fostering buy-in, and shapes organizational structure.

The plan that we develop together will ensure that we capture the scope, style, and specific topics of collaboration with the other groups. It must ensure mechanisms exist for close, daily cooperation between geographically dispersed business people and developers (Agile Principle #4). Our plan focuses on competence in Agile-related practices like value stream mapping and User Experience Design (UXD) so the technical services align with the priorities and the desires of the users of those services. We document the vision, present it to stakeholders, and seek executive sponsorship of the core Agile principles and the vision we are transitioning to.

Determine Maturity: A Roadmap has no value if you don’t know where you are. To determine maturity, we will look at what other cultural influences there have been on the organization’s Agile practices such as commissioned studies that led to the decision to adopt Agile and the core values and message conveyed. If the organization has tried adoption of Agile previously, we will review the results and lessons learned. We will interview those practicing Agile today to determine if they are executing enthusiastically or by fiat. we review if there are toolsets or vendors that affect individual or Team perceptions of what Agile is and the value it brings. Companies and tools like IBM Rational (Collaborative Lifecycle Model), Atlassian (Jira), and CA (Agile Central) bring strong opinions that dramatically influence culture. Understanding all these elements of maturity become the “levers” to develop buy-in and impact the organizational structure. Understanding the organization’s maturity level in Agile provides me the ability to zone in on the specific areas that need to be addressed. We use a layered maturity model that measures three simple objectives – do you deliver quality, stability, and do it in a timely manner? This embodies Agile principle #7 - working software is the principal measure of progress. Our maturity model uses industry standard metrics and all SLAs for each contract for development (e.g. code coverage) and operations (e.g. mean time to recovery) but puts them in the context of governance (do you have control over the discipline?) and impact (how important is improving this area to your mission?). These measures drive training priorities reveal obstacles to adoption and provide measurable outcomes. They suggest areas within disciplines to prioritize (e.g. improve quality by focusing on automated testing as DevSecOps practice matures with Agile adoption).

The assessment of maturity also explores constraints. This effort must assess if the organization can change structures, roles, or practices; or if there are funding, mandates, or organizations that might impact the ability to realize the vision. We assess maturity through a lens of experience - understanding that isolated Teams, diverge from each other in
practice. All these factors define a baseline maturity from which we will develop, with the organization’s leadership, a full Roadmap.

**Transition:** With a vision of where to go and an understanding of the situation on the ground, a fully developed Roadmap is created. Key success factors are that it must be adaptive, be incremental, enable self-organization, foster broad acceptance and buy-in, enable seamless operations, and scale based on early successes. To accomplish this, our plan begins with a pilot as we briefly touched upon in today’s meeting, validates that the lessons and content produced by the pilot apply at an enterprise level, and define how to scale the adoption.

**Pilot.** We will work with leadership to define a pilot project to fully flesh out the body of knowledge and governance required for an enterprise scale transition to and sustain practice of Agile. Our pilot should have included at least two Teams on the project to fully explore governance and collaboration. The plan anticipates that those involved in the pilot will become internal Agile champions. The pilot must have real delivery commitments, keeping in mind that it is a lab for developing a successful Agile adoption strategy, so must capture its lessons in the form of the body of knowledge and governance practices. We will work with leadership to select a project that includes full lifecycle development through transition and operations. The pilot should last three to six months, with one release to customers so the team fully executes operational readiness. The Pilot begins by providing training that reflects project requirements, Agile vision, and mentoring. We know from past transformations, Agile relies on Teams with broad skills (some practitioners call these specializing generalists). While we are looking at coaching and mentoring Agile skills, we also are looking to augment Team member’s primary technical skills with secondary skills – this enables the Team to be self-organizing. This opportunity to expand skills is often an incentive that staff sees as part of an adoption rollout and is leveraged to encourage buy-in and enthusiasm. During the Pilot, training and coaching is intense, hands-on, and performed by Agile SME coaches and practitioners. In support of hands-on experience, we favor developing staff through certifications such as Certified Scrum Master, SAFe Agilest, PMI Agile Certified Professional (PMI-ACP) as well as expertise in related practices including DevOps Foundation Certificate, and basic competence in Business analysis and User Centered Design.

To execute the pilot, together we establish an oversight organization we refer to as an Adaptive PMO (aPMO). Adaptive like Agile principle #12 (Regular adaptation to changing circumstance) or SAFe principle #4 (build [an Agile organization] incrementally with fast, integrated learning cycles). Our aPMO guides the pilot through seven foundational practices focusing on the differences between Waterfall and Agile, the mastery and tailoring of which will guide a scaled transition then finally how to incorporate continuous integration, testing and deployment to achieve DevSecOps. Situational Awareness is ensuring there a mechanism to make status visible real-time and transparent. The tools available today allow us to create a portal or dashboard model to provide 100% transparency into project and impacted portfolio visibility (some practitioners refer to this as an information radiator). It is important to establish a Common Vocabulary, which smooths ambiguities in terminology across practices and terms that transition from, and therefore have overloaded meaning, to current Waterfall practices. A Release in Agile is a “time-boxed” set of work – quite different from the concept of a deployment typically used in Waterfall. For consistent planning, we must ensure consistency even as Agile Standards organizations use different taxonomies when decomposing portfolio to themes to epics to user stories.

All large transformations start with small success stories. Starting on a large, complex project as a trial run for Agile, a process that is new to your organization, is probably not the best idea.

As each project is unique, we utilize the Project Practice Selection to select the best Agile practice for their specific project (i.e. Kanban, SCRUM, Scrumban, etc.). Focuses on delivering a core value of Agile which is its ability to iteratively move business and technology requirements to a “known state” so that planning produces predictable results and timeframes. The teams are coached in a variety of Agile techniques to move from uncertainty to “known” and ready to execute. Working to position research activities in Agile context “spikes” in Scrum or a list of activities from which to “pull” in Kanban. Our aPMO develops the Team’s excellence in Requirements Management, aligning the backlog of requirements to business interests, determining the scope
(Portfolio, Program, Project), and using it as input to further define roles of the Teams that will deliver from the comprehensive, integrated backlog.

The aPMO will use the Requirement backlog to establish a Team Organization. Looking at the constraints captured in the maturity phase. Together we will determine, for example, if it is practical to have each team interacting with stakeholders, or if it is more cost-effective to have a team of UI/UX, Architects, and Business Analysts (BAs) to develop specifications for the development teams to then implement. The approach to Agile favors a highly integrated backlog that includes bug and issues (or links to issues), and so considers how to construct teams to provide support for solutions such that SLAs are met development while schedules are not disrupted. Composing the skills sets and leadership qualities of teams based on our understanding of the need to Participate or Lead Systems Thinking.

Systems thinking is the ability for teams to look at projects from the right scope. Teams composition establishes who is responsible to identify and promote reusable components (think SAFe enablers), shared data definitions, or a common look and feel across interfaces. Differentiating between participating where the current organization has forums and leading where the structures for collaboration do not exist and the Team must establish them. Training includes lightweight techniques such as “scrum of scrums” to manage small dependencies across the Team, and full SAFe to establish enterprise governance and define release roles and strategies to manage scaled complexity.

The aPMO oversees the mastery of these areas as they change based on the differences between Waterfall and Agile. These are key success factors in evolving an Agile organization. Anticipating the final Agile structure to shape the pilot, we identify existing Teams that are operationally using Agile today. We will construct the pilot team with the expectation that teams performing ITIL functions (e.g., Help Desk) will remain discrete Teams that evolve Agile practices appropriate to their tasks (e.g., it is a common industry practice to use Kanban “pull” model for service-driven functions). We would foster cross team collaboration models to promote synergy of practices like DevSecOps.

To enable Scrum Teams to engage these shared resources, while maintaining the Scrum cadence, we experiment in the pilot with assigning a member of the Scrum Team as a “scrum proxy” for the shared service Team member. The proxy presents the shared members status at daily standups, helps manage what tasks within user stories they commit to, and manages participation in ceremonies like planning, reviews, and retrospectives, enabling the member with the scales skill to participate virtually in many scrum Teams. When properly facilitated, this not only expands the scope of the limited SME resources, but grooms’ generalists on the Teams to specialize in the area for which they have been a proxy. We will capture how to leverage this Agile form of “osmotic” communication across Team structures and geographies. Because this is a pilot, the allocation of time to the capture of lessons for continuous improvement is increased and targets not just this project or this Team’s improvement, but lessons that impact the transition plan.

Validate. The aPMO will deliver a pilot to establish the operational aspects of Agile, a baseline body of knowledge, and established a governance model across a relatively simple scope; three Teams vs. the enterprise. Looking at an enterprise level view, and tailor the approach to the broader organization, considering people, process, and technology as shown below.

Organizational Change is the practice for controlled realignment of organization to modern approaches. Looking at changes to practice such as embedding testing into development Teams or promoting collaboration between development, security, and operations Teams (DevSecOps). we are mindful of change fatigue - a sense of apathy or passive resignation towards change that causes a significant number of transformations to fail and consider what learned by talking to both positive and nay-sayer participants (both in current practice and the pilot). Must be mindful of the staff perspective – are we inviting people to participate or “doing this to them?” Relational Contracting addresses how to contract for Agile services, moving from a fixed set of requirements and deliverables to more of a statement of
objectives with delivery based on collaboration and Teaming. we elaborate on my thoughts on structuring agile contracts at the bottom of page 8 under Agile Contract Management. Review Best Practices to help the organization establish a robust position on the Agile practices they will adopt, focusing on Agile as a mindset that can be realized by many practice styles. The “body of knowledge” aligns practices from industry, organization specific, and lessons learned.

The aPMO, is the central governance and forum for collaboration and change. Validating that the organization after transition will support delivery of technology from two perspectives. Promote thinking broadly of Agile and Team support for “what you build” as a Portfolio Based Architecture and it enables reuse of solution components and build and deployment strategies. This is both an outcome and an enabler of an Agile organization because decoupling enables Teams to be highly focused on incremental changes to components. Adoption of DevSecOps is a people, process, and technology that underpins Agile adoption, adding efficiency to “how you build.” Promote a very broad scope for the DevSecOps pipeline to enable Agile organizations - from the tools that manage the integrated requirements backlog; continuous testing, integration and deployment; infrastructure as code; and self-service support enabled by chatbots. We validate that the Agile pilot has sufficiently defined each of these areas as the relate to standing up a successful Agile-based modern IT practice. The validation process establishes the requirements for the next step in the enterprise Agile transformation.

Scale. At this point we will be ready to scale with a vision with executive support, a body of knowledge and governance model validated as able to support a broader rollout to the enterprise, aPMO with hands-on organization-specific experience in place to lead the rollout, and cross-discipline SMEs that function as “seeds” as the aPMO spins up additional Agile Teams. Scaling has these characteristics: 1) It is Incremental and executes changes at a pace the organization can absorb, 2) it is adaptable to make course corrections, 3) the aPMO maintains the body of knowledge and governance models with time and resource allotted to incorporate lessons learned through feedback loops built into Agile and SAFe processes, and 4) all global actions are approved by the organization’s leadership, while Teams continue delivery with minimal service interruptions.

As RIVA modernized the SAMSHA development contract to a fully automated CI/CD agile environment we use “lunch and learn” sessions and videos that describe the practice and value specific to our customers. We developed materials to address the specific concerns of personnel. For Example, automated testing does not eliminate testing jobs; it changes them from execution to design. Agile is not a “no requirements” approach that turns control over to developers; it increases control to the stakeholders. Agile projects have consistent schedules because scope varies against time and resources – but this does not mean there is “no planning”; it means planning is continuous across the project.

Paradigm shifts require a very explicit and tailored Call to Action and the plan will be explicit in what staff should do to prepare, including how they can engage. Preparation includes suggestions for books, publications, online training, and certifications. As scaling of the transition progresses, organization emerges that enables each Team to apply Agile practices to manage work in the most effective manner, but with full oversight by the aPMO to ensure standardization in vocabulary, practice and communications.

Teams practicing scrum, for development requiring a predictable cadence, may function as standalone feature Teams or a hybrid of specialized Teams as depicted above. Teams functioning with less scheduled milestones, such as operations and help desk, remain as function-oriented Teams, but rotate members to participate in Scrum Teams to expand knowledge and “shift left” operational requirements into development. Areas not having enough skilled resources to support self-contained scrum Teams participate across Teams through the Scrum-Proxy model or by concentrating skills in Design or Deployment Teams that typically can support multiple development Teams. In areas where Teams cannot be structured to meet all ideal Agile practices (e.g.  

![Diagram](image-url)
size, location, reporting structures), the aPMO leverages the collaborative nature of DevSecOps across disciplines for Agile systems thinking, institutionalizing the best practices though process definition and automation of those processes.

Training is scaled to the enterprise to roll out a common understanding and practice of Agile, and targets broader technical and domain skills to create “specializing generalists” able to fill multiple roles on Teams. Teams are highly flexible in what they can address and therefore able to remain together over sustained periods once they are high functioning - out of the “forming, storming, norming and now high performing” to reference Tuckman’s model of Team formation and Development. By continuously measuring the “lean outcomes” of Agile adoption through our maturity models, we demonstrate successful transition through the value it realizes, and produce optional plans to sustain that success.

CONCLUSION

RIVA’s Agile Transformation approach begins by designating a leadership team, setting goals, and creating a roadmap. A communication plan is essential to ensure the entire organization understands the objectives and is continually notified of progress against the goals. As this is such a large endeavor, smaller pilots are conducted before an organization-wide rollout. Assembling cross-functional teams is key, creating groups of 5-7 individuals that have enough expertise and talent between them to take on projects from inception to completion. Project assignment also shifts from the individual to team approach. The team is evaluated for different projects and specific staff is not cherry picked for a particular engagement. Employees will also need continual Agile coaching and professional development to make the most of an organization’s agile transformation. These are new concepts and best practices for most staff, so investments in training and mentoring are key to buy-in. This includes empowering employees to work independently and solve problems themselves while also educating managers on how to evaluate and reward staff in this new paradigm. New processes must be developed, and new tools and solutions may be acquired to facilitate these new workflows. Each will need ownership, training, and dissemination throughout the organization. Agile transformation enables organizations to be more reactive, do more with less and better serve the interests of their customers. RIVA can provide you with a successful agile transformation that will revolutionize how organizations manage projects, addresses customer needs, and grows its business.

NEXT STEPS

An agile transformation organization will take time and effort. You’re changing the culture, and how people do business on a day to day basis. RIVA’s Agile Coaches are experienced in educating development teams and government to delineate the Product Owners, Scrum Master and developers’ roles to help facilitate the agile transformation.

Contact RIVA now to start your revolution into the “Agile Way” of doing business.

For more information on this white paper contact David Callner directly at dcallner@rivasolutionsinc.com.
ABOUT RIVA SOLUTIONS

Headquartered in McLean, Virginia, right outside of our Nation's capital, RIVA Solutions, Inc. (RIVA) is a larger 8(a) small disadvantaged business (SDB) working with the Federal government to provide innovative best practices in Management Consulting, Science and Engineering, Cyber, Agile, Cloud, IT Operations and Modernization, Artificial Intelligence/ Machine Learning, and Robotic Process Automation.
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