NASCIO 2018 State IT Recognition Awards

Title: Project Lifecycle Methodology Process Integration

Category: Business Process Innovations

State: Colorado

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Project Dates:

    Initiation Date: October 2016

    End Date: December 2017

Executive Summary

In late 2016, the Customer Office within the Governor's Office of Information Technology (OIT) embarked on an initiative to improve their core process for project delivery - the Project Lifecycle Methodology (PLM). This effort included three touchpoints: people, process, and technology.

From a people perspective, Customer Office management recognized that at the core of project delivery are the project managers, program managers, and portfolio managers who manage the projects that deliver services to our executive branch agency customers as well as internal stakeholders. To ensure that staff have the training and tools to influence positive project outcomes, they invested heavily on training staff in both technical and soft skills.

Next, from a process perspective, a core group of staff with broad and diverse skill sets took what was at the time a foundational yet disjointed process, and using Lean principles streamlined it to ensure effective and efficient project phase gate review and solution delivery. Organizational Change Management (OCM), Agile practices, and intersections with internal processes, which are part of project delivery such as the OIT Procurement process and the Secure System Development Life Cycle (SSDLC), were also integrated into the framework.

Lastly, the organization focused on technology. The project framework leverages CA Clarity Portfolio and Project Management (CA PPM), the enterprise portfolio and project management tool used to manage all facets of a project: scope, budget, risks, issues, as well as provide status reporting. The tool was first implemented in 2013 and had many customer processes built into it that had outgrown its business value. To make the tool more efficient, the team embarked on a system upgrade, something that had been unsuccessfully attempted over the prior two years, to bring the tool to a supportable version and ensure it was configured to current business process. The team also developed the PLM Knowledge Base, which ties people, process, and technology together - a veritable one-stop shop for everything related to project management in the Customer Office. Through this all, the Customer Office continuously improved its people, process and technology to ensure successful project delivery and positive project outcomes.

Concept

People

The project focused on the staff charged with managing approximately 300 projects in the portfolio that provides enterprise or agency-specific services. The project managers, program managers, and portfolio managers that make up the staff that deliver projects come from a wide range of experience; experienced state staff, staff whose careers have primarily been in the private sector, or new employees with less experience in project management. To ensure staff have a foundational experience in key skill sets, the Customer Office invested $50K over a twelve-month period to provide training in a variety of areas, with the goal of offering training focused more on the "people side" of project management.

The first offering was Organizational Change Management (OCM). Nearly all large projects, be it a new software solution or a new telephone system, have an OCM component that leads to adoption of the new technology and realize the business value. Training staff in the key themes of OCM enabled them to understand how OCM fits into project delivery. The second offering, while more technical, was Agile Project Management. More and more systems that are fielded in Colorado are implemented using an Agile delivery method. While Agile has been used for nearly 20 years, it is growing more prevalent in state software projects. This training provided staff an understanding of the methodology, key concepts, principles, tools and techniques. The third offering was Influential Communications and Leadership training. This offering provided staff with skills in effective communications, active listening, conflict management, and team leadership. The last investment in training came in the form of formal training on how to use our enterprise portfolio and project management tool, CA PPM. By creatively leveraging the relationship with our vendor, we were able to secure approximately $50K in training on the CA PPM tool to ensure that staff were trained in the tool according to our processes. Previous to this project, there was no formal training on how to use the various modules of the system to effectively manage project scope, budget, schedule, risks/issues or change requests. By teaming with our IT EcoSystem Program Manager, we were able to engage CA to develop and deliver a core set of training to all staff so that they are using the tool in a consistent and effective manner. This training also ensured that we use the full capabilities of the system to better deliver projects to our agency customers and accurately report project status. These training offerings are now included in new employee onboarding for project managers, program managers, and portfolio managers to make sure all staff have the same fundamental knowledge when they join the OIT team.

Process

The project also focused on the Project Lifecycle Methodology (PLM) and business process improvement. In Colorado, small to medium sized projects are governed by portfolio managers at the local level, while major or high risk projects are governed by PMO Governance staff at the executive level. This means two PLM models were in place based solely on project size. This led to confusion and in some cases, the wrong model being applied to a project.

In October 2016, a core group of staff with broad and diverse skill sets was charged with reviewing the existing PLM which had two components based on project governance level, and streamline them into a

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single PLM that could be used regardless of project size. To create a single PLM, the team removed redundancy, better defined phase gate requirements, and incorporated OCM and Agile practices into the methodology. The new model was better defined and easier to understand and execute by staff (Figure 1).
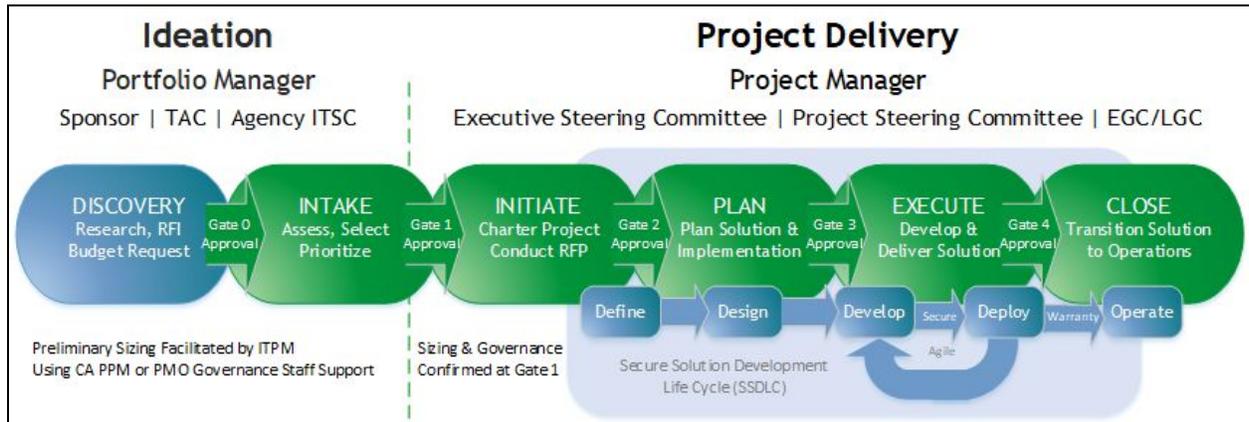

Figure 1. Project Lifecycle Methodology Overview

Continuing the transformation of this process through 2017, staff integrated a variety of other processes into the PLM, including the OIT procurement process and the SSDLC process. As part of this business process improvement, a number of cross-phase tools and processes were put into place to provide staff additional resources to ensure successful project delivery. Additionally, all phase gate deliverables were reviewed and updated to reflect current operations and to meet the needs of the customer, eliminating redundant or non-value add deliverables.

Technology

The project addressed the technology used to deliver projects or support the PLM. As previously mentioned, CA PPM is the system of record for our project management activities. The system was first implemented in 2013 and various business processes were built into the system that added value to the management of projects. However, over time as the organization matured, some processes grew stale and were no longer adding value to project delivery. In 2015, the organization started to examine what it would take to upgrade the system to a vendor supported version. This analysis led to some people determining that we would not be able to upgrade, and others determining that we needed to start from scratch with a base configuration. Since no consensus could be reached, each attempt to upgrade the system failed. In 2017, staff again examined what it would take to upgrade the system, however, this time taking a hybrid approach to the upgrade. The business case to support the upgrade was that it would reach a version of the system that was supported by the vendor, as well as removing stale business processes at the same time. Staff organized the upgrade as they would with any project. They created a project charter for the upgrade, developed high level business requirements, determined the business, technical and consultant resources that would be needed to execute the upgrade, and developed the timeline that would best support the upgrade activities while taking into consideration ongoing project work. The upgrade, which was long thought to be unattainable, was completed in five months and brought the tool into alignment with the PLM.

Key changes to the system included:

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- A Project Status Report that is easy to update and maintain (Figure 2).
- New process around Budget management.
- Integration of a Project Status Calculation Tool for status around Scope, Schedule and Budget.
- A new Active Project Dashboard used by OIT's Executive Leadership Team for project status.

Figure 2. Project Status Report

The second system that was developed was a new method for organizing PLM processes, tools, information, and resources. Staff created the PLM Knowledge Base which is based on Google Sites technology. The Knowledge Base (Figure 3) is organized in such a way that all operational processes and procedures, job aids, and user guides are organized and presented in a single repository accessible via the web by staff. It is easy to maintain and, because it is based on Google technology, very easy to update, and core processes have to be updated to meet business needs.

Figure 3. PLM Knowledge Base

Significance

Prior to this project, the three pillars that were focused on - people, process, and technology - were siloed and did not support the overall goals of successful project delivery and positive project outcomes. Previous business process improvements related to the PLM were often single-threaded and did not consider the downstream impacts to other processes or the touchpoints with other internal processes necessary for successful project delivery. The key to this effort was the careful consideration between how changes to one of the pillars would affect the others. For example, streamlining the PLM into one version used for all types and sizes of projects had potential impacts to the CA PPM system. Those had to be documented and considered when the system was upgraded. Another critical component was the involvement with other internal customers within OIT to identify and document the touch points between the PLM and other internal processes, specifically the OIT procurement process and the SSDLC. This aided in providing a 360 degree view of how these internal processes impact successful project delivery and aid staff in managing projects more effectively. By incorporating these processes into our project delivery flow, it brings the interaction between processes front and center. This is important because prior to this effort, the handoff between various processes were somewhat disjointed even though the individual processes were clear. This effort improved project delivery across the organization. Below is the PLM Project Delivery Flow which shows the touch points with the OIT procurement process and SSDLC.
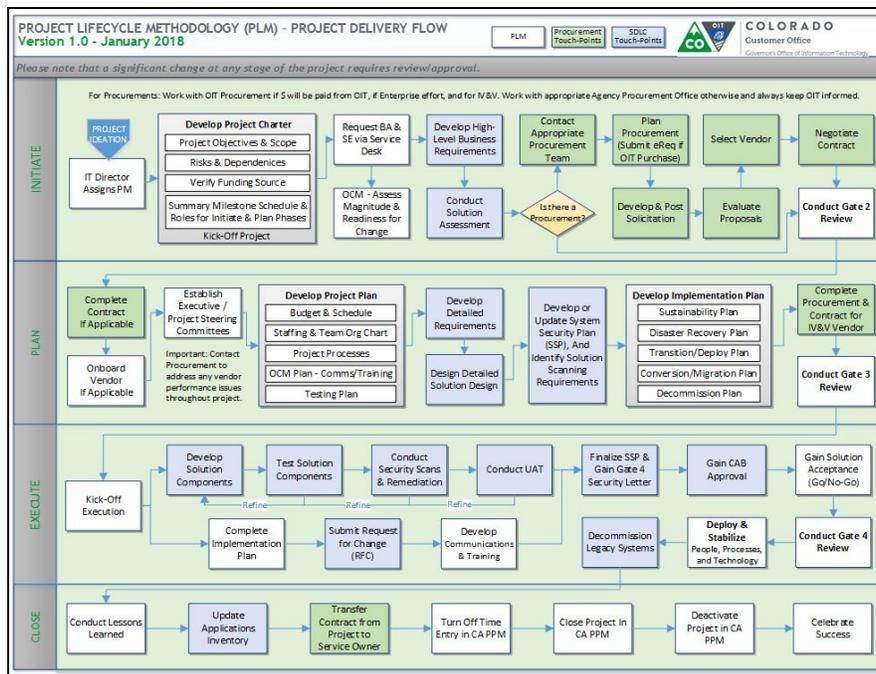

Figure 4. PLM Project Delivery Flow

Impact

The impact of these improvements to people, process and technology are important and drive value in project delivery on a number of fronts. First, by focusing on people, the most important component of

project delivery, we have reached a level of maturity that we did not have before. By providing staff training in key areas relevant to their craft, we ensure that all staff have the same level of training, understand how the training topics are relevant to project management, and aid in staff engagement within the Customer Office by enhancing their skill set as project managers.

Next, the integration of key processes into the PLM resulted in the identification of a number of touchpoints between the PLM and the OIT procurement and SSDLC processes, providing more efficient management of resources, and proper handoff between internal organizational processes. The outcome was an efficient and elegant handoff between internal teams. By identifying touch points between the OIT procurement and SSDLC processes with the PLM, this effort supported the PLM's goal to be relevant, practical, and flexible for maximizing value-add, positive project outcomes for customers.

Lastly, the focus on technology ties everything together. Since CA PPM is our enterprise tool for portfolio and project management, we had to ensure changes to the PLM were reflected in the tool itself. The effort to upgrade the tool to a more current version eliminated the stale business process built into the system, and enabled us to more efficiently manage projects using the tool. By creating the PLM Knowledge Base, the integration effort was able to put the updated process "front and center" to our internal customers. Leveraging an online method for distributing and prophesying the process improvement builds buy-in from our agency customers by reminding them of their role in successful project delivery and customer satisfaction. The impact is an integrated, standardized process which leverages digital technology and lean principles to ensure continuous improvement in the long term.