

Workflows for Enhancing Enterprise Level Project Management, PMO Efficiency, Process Improvement and IT Service Management

Nagendra Roy

Project Manager – Information Technology, Aptude Inc.

Chair - Executive Board, PMI Atlanta Chapter

Member – Advisory Board, SAUPO

Public Speaker & Mentor

Email: nagendrasroy@yahoo.com



<https://www.linkedin.com/in/nagendrasinghroy/>

This page is intentionally left blank.

Contents

Introduction 4

Right Partnerships as a fertile ground to Realize the Advantage: School Administration . 4

Microsoft Technology - The right Key to Unlock the Potential 4

Case 1: Enterprise Level Process Analysis, Improvement and Optimization for the school district..... 5

Case 2: Automation of tasks in the Project Portfolio Management Solution driving the PMO Processes..... 7

Case 3: Transforming Processes, Components and Ownership of IT Core Services into Visio Workflows 11

Summary 15

Introduction

The term *workflow* illustrates the procedures that are involved in completing the tasks (defined sequence of steps required to produce results. While working in a team to create a new product or system, or to execute a project, it is extremely important to order activities and tasks into a meaningful sequence.

As Managers working on Projects/Programs, or Business Analysts working on Process Improvement, using a defined workflow, we can structure our projects/programs and streamline our portfolio. We can optimize the repeated actions in our processes, improve the communication and collaboration among the key stakeholders and measure the progress according to predefined criteria.

Right Partnerships as a fertile ground to Realize the Advantage: School Administration

We partnered with Fulton County Schools (FCS), Atlanta's largest School district, on a strategic engagement with multiple high-value initiatives, including Enterprise Process Assessment, Data Warehouse Development, PMO Enablement, Vendor Evaluation, IT Service Management and Governance engagements.

FCS Administration has been revamping and evolving into one of the highly mature School Districts, which is one of its kind in Georgia, and among the top few in the US. We are engaged with FCS in all the above-mentioned initiatives, wherein we are leveraging process analysis, assessment and improvement, using workflows and automation.

Microsoft Technology - The right Key to Unlock the Potential

We have been practicing and leveraging Microsoft Technology in IT for over five years now, operating as a Microsoft Gold Partner.

The stack of applications provided by Microsoft, are best serving their purpose during our past and ongoing engagements.

We have built an expert team over time and are extensively leveraging Microsoft Project, Project Online, SharePoint Online, Microsoft Teams and Microsoft Visio for Project Management, Business Analysis and Change Management endeavors.

Each engagement has been providing us room for exploring and implementing tremendous potential that Microsoft can deliver.

Case 1: Enterprise Level Process Analysis, Improvement and Optimization for the school district

Process Analysis and Assessments at the Enterprise level involve a high level of detail, depth and understanding of the people, processes, tools/systems, functionalities, inputs and outputs of the processes.

Here, we are talking about a school district with over 12000 employees – teaching and administrative staff, 96000 students. The school district runs on a cohesion and collaborative drive of over 35 process groups, with over 20 Process Owners who are the heads of several departments, following an organizational hierarchy of reporting.

We first classified the district administration into FOUR major categories – HR/Talent, Finance, Operations, Information Technology, and then grouped the process groups under each of the above four divisions.

All this was an Enterprise Process Improvement Engagement wherein the district's leadership was aiming to understand, assess, and optimize or revamp its enterprise processes and also revamp/re-platform its existing ERP System that was implemented over a decade ago.

We assessed the current state of over 178 sub-processes that fall under the above-mentioned 35 process groups/4 divisions. What was helpful was Microsoft Visio, which we extensively leveraged to develop process workflows for all the 178 processes.

On an average, each process flow diagram consisted of over 45 steps, with feeds spanning across at least 11-14 actors / swim-lanes.

Template development

We initially developed a preliminary template for each process group, that contains some of the common swim-lanes and task/action boxes (process / decisions / data input and output). We leveraged the benefit of assigning themes to the workflows from the Microsoft provided list, with some further customizations in terms of color, text size, and connector size.

Case 2: Automation of tasks in the Project Portfolio Management Solution driving the PMO Processes

During the same timeline of the enterprise assessment project mentioned in the above case 1, started another high value project of the district, that marked a major cultural shift like the ERP re-platforming, but far distinct and unique in its scope – Project & Portfolio Management Practice Evolvement and Maturation of the IT Program Management Office of FCS.

Building on Microsoft Technology Footprint, we developed a unique and robust solution by integration several applications and functionalities available at the Microsoft Shop. This solution (named as Navigator) evolved to be the backbone of the PMO operations and Project Management Processes at the district's IT Center today.

Right from conceptualization of the data flow required to be fed to the solution, up to customization and tailoring the solution as per FCS's requirements, we extensively used workflows of several forms – flow of data, information, decisions, process state and project status.

Discovering and Optimizing the flow of project data

We leveraged Visio workflows to discover, understand and streamline the flow of project data across several components of the solution, starting from the Project Schedules to Power BI Dashboards for Leadership, Program, Project level reporting.

Once the necessary optimizations to the flow of project data was accomplished, we implemented the approved solution into the FCS environment.

Post implementation, we developed the analytics bundle in the same environment.

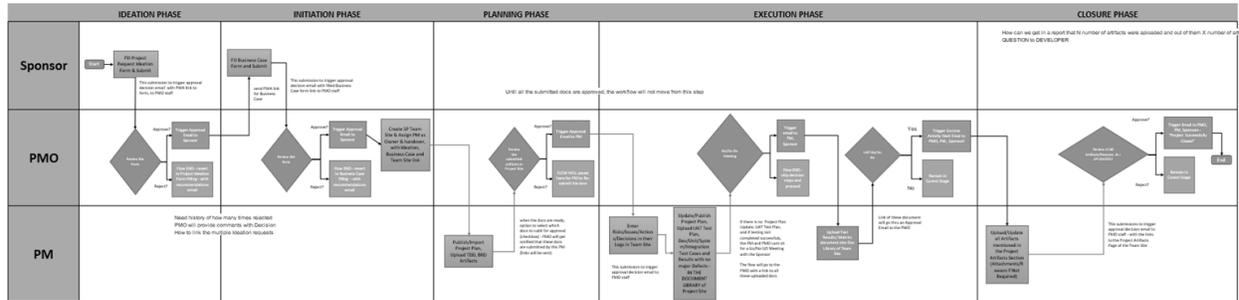
Realization of Manual Efforts

In due course, it was only because we transformed the PMO's required governance processes (approvals, notifications and updates) into detailed process workflows using Microsoft Visio, that we were able to realize the amount of manual effort involved in these processes.

Visio diagramming enabled us to see the big picture and triggered the idea of developing advanced and automated workflows so as to streamline and automate the approval, notifications and update decisions/processes. This ended up increasing the collaboration and communication between the project managers

Workflows for Enhancing Enterprise Level Project Management, PMO Efficiency, Process Improvement and IT Service Management

and program managers, Portfolio Executives and other selected leadership parties.



We named these PMO workflows as stage-gate approval workflows that had key milestones called toll-gates wherein the leadership gets to verify, validate and make informed decisions.

Below is the description of a typical stage gate approval workflow, which is more of our approach:

The stage gate approval workflow aids the PMO office to better collaborate, and monitor all the ongoing and new projects under its discretion. The Sponsor, PMO Team and Project Manager are key players/users for this stage gate approval model workflow. It is briefly categorized into 5 phases –

- Ideation Phase
- Initiation Phase
- Planning Phase
- Execution Phase
- Closure Phase

Each of these phases is designed in such a way that they have one decision point (approval) based on which the rest of the flow depends.

The steps describing the workflow are given below:

1. The Sponsor will submit the project idea through an ideation form – the template of which is predefined by the PMO.
2. The PMO will receive and review the idea mentioned in the form and provide its decision, whether to go forward or not. If approved, an approval email will be sent to the Sponsor. If denied, a denial email with reason and needed corrections/modifications will be sent to the Sponsor, who will then make the

necessary modifications and re-submit the ideation form. This time as well, the PMO reviews and approves at its discretion.

3. Upon approval, the PMMO will request the Sponsor (thru email) to refine the idea and submit as a business case. The Sponsor will then submit a formal business case form to the PMO.
4. The PMO then does portfolio analysis – prioritization of all the business cases that refer to different project proposals. Once prioritized, it will start assigning a Project Manager to the project on top of its list. This assignment will trigger an email to the assigned project manager, followed by formal handover meetings. From here on, the Project Manager will take over the major execution of the project
5. The Project Manager will prepare and submit the project charter to the PMO for review and approval. Here comes the initiation stage gate. The PMO team will review and provide its decision. If approved, the document will be stored in the project artifacts repository in PPM, and an approval email is sent. If denied, it will provide a denial reason and request to review, modify and resubmit the charter for review and approval.
6. We move into the Planning phase wherein the project manager decides on the execution methodology of the Project (Agile or Waterfall). If waterfall, the Planning, Functional Design and Technical Design for the project are drafted and pushed for approval. Consolidating the efforts into a schedule, the manager will forward the Project plan for approval, to the PMO.
7. The PMO will review the plan and provide a planning stage-gate decision – approval or denial with request to modify and resubmit.
8. Once approved, the project moves to the execution phase wherein development and testing are done. The PMO will monitor project health during execution - through the PMO Dashboards (Portfolio Dashboards, Project Manager Dashboards, Risk Dashboards and more – provided as a part of the PPM360 solution). If any discrepancies are found or observed by the PMO, it will request halt in execution and collaborate with the Project manager for issues and risks, and will work on them to restore the health to a GREEN. If everything is good, the project moves to implementation and then to closure, wherein our final stage gate awaits. The Project Manager submits project artifacts and testing results to PMO for review. The PMO will provide its decision – if approved, the project will commence towards closure; if denied – the PMO will request for suggested fixes, which the Project Manager will implement and resubmit the artifacts and testing

results. Upon final approval from the PMO, the Project Manager will initiate formal closure and lessons learned.

We follow the Trigger-Action-Condition-Notification format per phase, for constructing and implementing this workflow through SharePoint Designer. Below are high level representations:

Ideation Phase Stage Gate:

- Trigger: Submit/Upload Ideation Form and Business Case for Approval
- Action: APPROVAL/DENIAL DECISION
- Condition: Review docs and ensure they meet standards and strategic objective
- Notification: EMAIL to STAKEHOLDER and PM about the approval decision

Initiation Phase Stage Gate:

- Trigger: Submit/Upload Project Charter
- Action: APPROVAL/DENIAL DECISION
- Condition: Review docs and ensure they meet standards and strategic objective
- Notification: EMAIL to PM about the approval decision, or denial with request to modify

Planning Phase Stage Gate:

- Trigger: Submit/Upload Project PLAN MPP File
- Action: APPROVAL/DENIAL DECISION
- Condition: Review PLAN and ensure they meet standards and strategic objective
- Notification: EMAIL to PM about the approval decision, or denial with request to modify

Execution Phase Stage Gate:

- Trigger: Enter Risks/Issues in the SharePoint List, Manual Tracking of Work Plan

- Action: GO/NO-GO Decision
- Condition: Risk Rating (Red), Plan behind schedule, over-budget
- Notification: EMAIL to PM about status, meetings, mitigation steps

Closure Phase Stage Gate:

- Trigger: All specified project artifacts uploaded into library
- Action: APPROVE/DENY
- Condition: Review and input: Testing Results – Satisfactory YES/NO, Meeting Standards YES/NO
- Notification: EMAIL to PM, PMO team about status, meetings, mitigation steps

We developed an approval workflow using Visio, and then translated it into SharePoint based automated workflows, that triggers several other input/output and notification based activities (collaborative) to the leadership, at almost every stage of the project, thereby ensuring maximum transparency to the PMO projects.

It was clearly due to the enablement by Visio workflows that we could see where we were lacking in terms of excess manual effort around approvals, decision making and notifying. We then leveraged SharePoint to replicate the earlier mentioned Visio Workflow. Currently FCS is leveraging an automated workflow for Project Approvals.

We are working on intelligent process modelling by integrating Visio, Microsoft Flow and Power BI, leveraging Visio plugins into Power BI, and further enhancing workflow-based Project and Portfolio Management process enhancement.

Case 3: Transforming Processes, Components and Ownership of IT Core Services into Visio Workflows

IT Core services form the key value drivers of the organization's IT, and periodically, there is a necessity to assess these core services, and refine them.

In another high-value project with FCS IT, we are working on developing an IT Core Services Catalog, wherein we aim to enhance the IT departments' visibility across the organization and the customers/end-users.

We started with a comprehensive end-to-end assessment of the department-level services.

Each service comprises of several components – functionalities processes and sub-services, that are executed/performed in a optimal sequence so as to realize the intended value and deliver it to the customers. Services are associated with costs that come from the department's budget. It can be said that the more efficient, optimized and streamlines these services (components) are, the more cost-efficient the service will be.

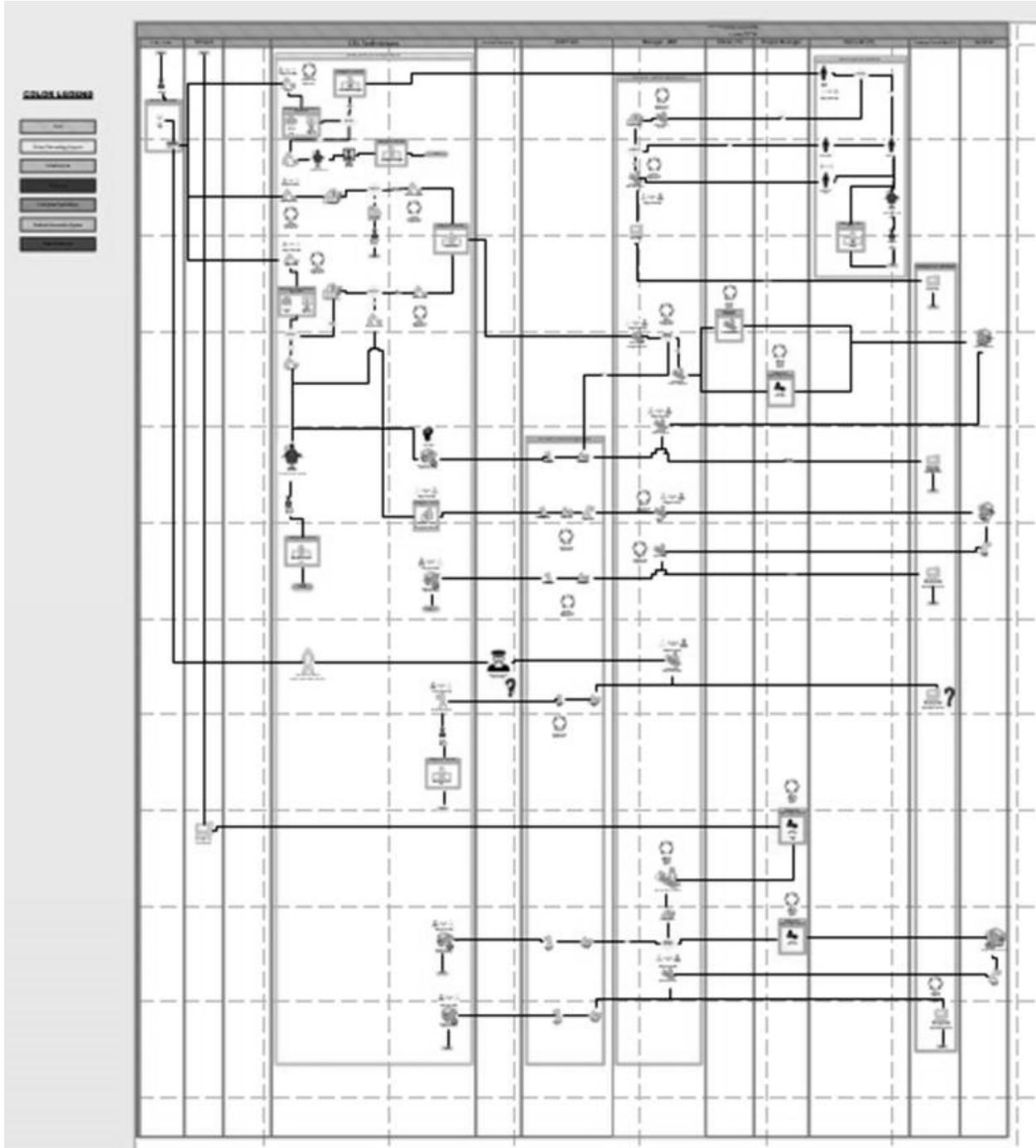
In order to drill down to granular details about each of the 37+ identified services so far, we developed a concept and a method to design service workflows using Microsoft Visio.

Starting from Template development in Visio

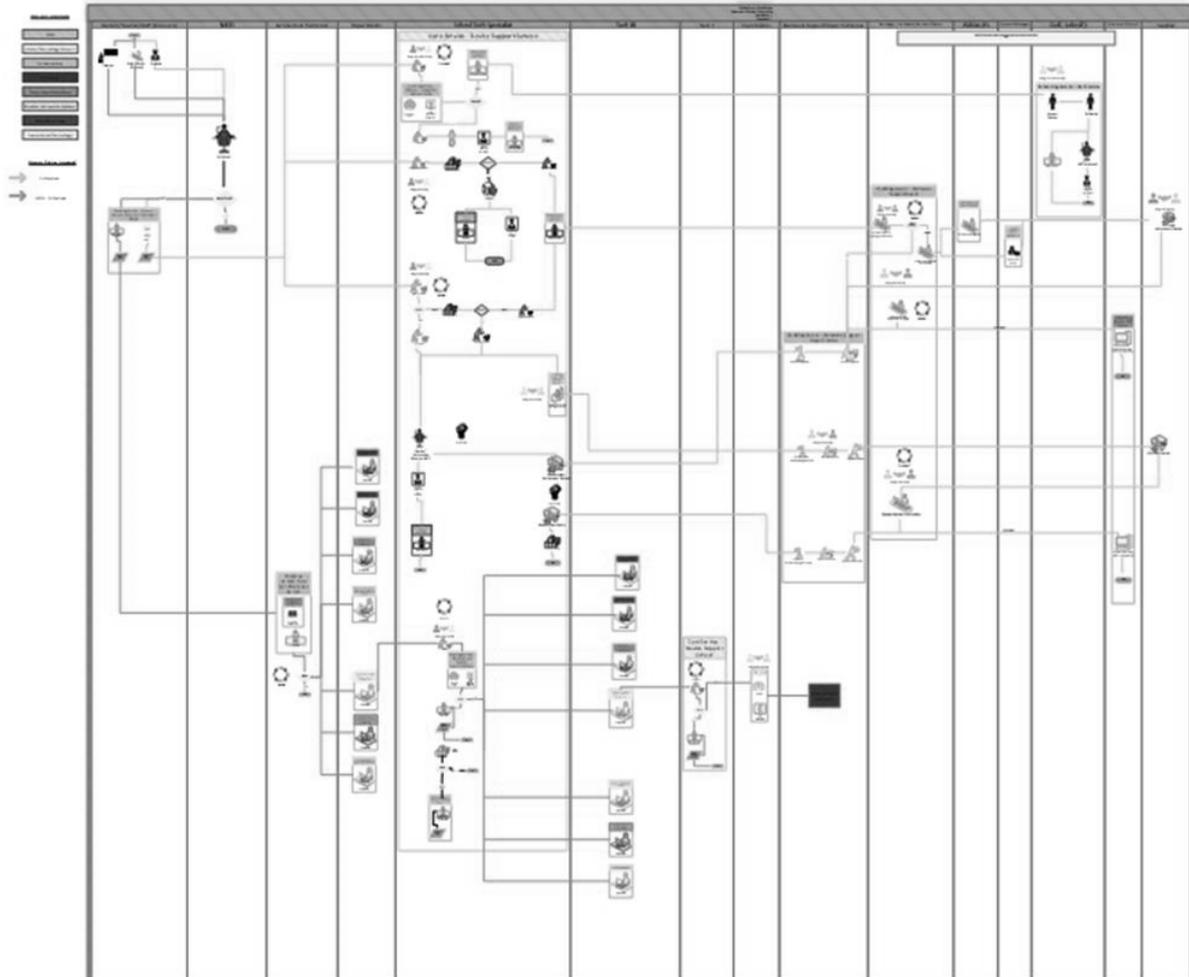
To achieve this objective, we first developed a workflow template, wherein we could leverage the diverse functionalities of Visio in creating Containers, color coding, dynamic on and off-page connectors, industry-related icons/symbols. Containers proved to be one of the valuable add-ons that Visio provided, as we could group several components and processes by the departments that owned them. We used this entire template in transforming the service assessment discussion pointers into service workflows, that illustrates the services end-to-end.

We could leverage the advanced functionalities of Visio in differentiating and highlighting the involvement of several departments in providing each service – using color coding, containers, connectors, along with the realized service enablers, enhancers, and business pain points.

Workflows for Enhancing Enterprise Level Project Management, PMO Efficiency, Process Improvement and IT Service Management



Workflows for Enhancing Enterprise Level Project Management, PMO Efficiency, Process Improvement and IT Service Management



Additionally, owing to the industry-based symbols and icons available in Visio, we could also show the transfer of ownership among different departments, while working together collaboratively in providing the service.

The leadership has approved the technology utilization and the output workflow, and we are in the process further enhancing the workflows by integrating them with Microsoft's Flow and Power BI, to uncover advanced analytics about the services.

Summary

Reflecting on the above cases, from basic to advanced, all the functionalities of Microsoft Visio have been quite resourceful wherein we were able to leverage them to the best, in multiple cases as mentioned above. We realized the following advantages by using Microsoft Visio, Flow and SharePoint:

1. Implementation and monitoring of business rules into the processes
2. Process improvements in multiple dimensions
3. Better definition of responsibilities
4. Better prediction of start and end points to tasks, processes and related activities, along with deadlines
5. Increased visibility to stakeholders
6. Efficient identification of business pain points, risks and opportunities
7. Enhancement of collaboration and communication among the team and the work environment as a whole.