University of Michigan
NextGen Michigan Program
Project Management Guidebook

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Introduction

The purpose of Project Management is to drive a project to a successful completion by planning, coordinating, and monitoring day-to-day operational and tactical activities. The purpose of the Project Management Guidebook is to provide Project Managers with guidance and expectations to mobilize a project as well as execute it to completion; more specifically, the guidebook walks project managers through the phase-gating process. The deliverables listed serve as a guide to successfully executing a project; projects may need to work on additional deliverables depending on scope.

This guidebook is a *living* document that should be continually edited and updated by the NextGen Michigan Program Management Operations (PMO) Office.

All NextGen Michigan projects will be managed under the PMO office. The PMO office is responsible for establishing the management processes for all projects within the NextGen Michigan program. For more information, refer to the Program Management Operations Guidebook. It is expected that all NextGen Michigan projects will incorporate program policies, procedures (as well as management processes), tools, and services defined by the PMO office in the PMO Guidebook.

About the Project Management Guidebook

The Project Management Guidebook seeks to answer the following key questions:

- How to get a project started?
- How to obtain Sponsor sign-off?
- How to identify and resolve risks and issues, as well as how to escalate to the program as necessary?
- How to manage and control project scope?
- What is the interplay between project-level and program-level processes?

The Project Management Guidebook is divided into the following sections:

Program and Project Governance

The NextGen Michigan PMO office has established Program Governance that includes stakeholder groups, governance organization, escalation process, as well as management processes (i.e. risk and issue management, etc). Projects managed under the PMO office will follow the Program's Governance unless otherwise stipulated in the Project Charter[1]. NextGen Michigan projects should refer to the PMO Guidebook for more information on management processes.

The PMO Guidebook has developed capabilities that:

- Identify the stakeholder groups to represent in the governance organization.
- Define program structure and roles.
- Define the relationship between stakeholders and program/projects.
- Define decision making authority, and determine who makes what decisions.
- Define the process for making these decisions.
- Defines deliverables to be used by the Program Governance to manage the strategic direction.

Project Governance is a hierarchical breakdown of a project team, showing primary reporting responsibilities and lines of authority. It should also include the individuals and groups with whom the project team will regularly interface, including program management, sponsors, and stakeholders. It is developed and updated for changes in connection with organizing the project resources.

The team organization must reflect the proper consideration and balancing of the following factors:

- Type of Work – Aggregate tasks with similar skill requirements.
- Team Size – Aggregate closely related work within teams and recognize the span of control limits. Consider using work cells to reduce the number of deliverable hand-offs and to provide clear ownership of the deliverables created.
- Person/Job Match – Match capabilities with requirements.
- Risks – Assign the best resources to high-risk areas.
- Experience – Mix experienced and inexperienced persons to facilitate mentoring.
- Team Leaders – Select them primarily based on competence and experience.

This deliverable is developed as part of Organize Project Resources and updated as needed.

[1] A project may have unique governance requirements, which will need to be captured in the Project Definition document during project chartering.

Summary of Phase Gates

Phase-Gates are reflection points in the project's lifecycle where program management and/or project sponsors will ask questions to help ensure that sufficient value will be delivered within a reasonable timeframe at a reasonable cost. The phase-gates also align to the incremental investment approach of the program. Upon approval of a project, the program leadership will also approve incremental funding required to get to the next phase-gate.

The following figure illustrates the standard phases of a NextGen Michigan project and the types of questions that program and project leadership will address as a project moves through its lifecycle.

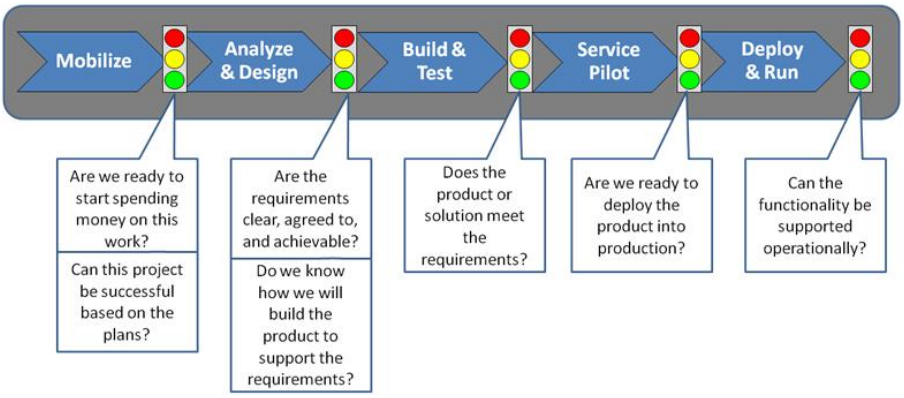


Figure 1: Questions answered at each Gate.

The Phase-Gate reviews help determine whether the project has achieved the exit criteria. Exit criteria provide control of the project milestone completion. Exit criteria are statements to confirm if the required tasks and steps were satisfactorily completed; the required deliverables completed, reviewed, and received sign-off before the stage is considered complete; and are ready for transition to the next phase.

Program Office Phase Gate Review Process

The steps below describe the Phase Gate review process. Projects should perform a gate review when they are nearing completion (90-95%) of a current phase.

1. Project Manager guided by Project Owner completes the NextGen_Gate Review Executive Summary Outline v5.pptx Template and email to Program Owner and Prgram Manager for review.
2. Upon review, Program Owner and Manager will provide feedback and request clarifications or updates (if needed)
3. If the project experienced any variance in business case or a significant scope change or project/timeline is at risk, please schedule a meeting with the Project Owner, Project Manager, Program Manager and Program Owner to discuss further.

4. Depending on the project status, Program Manager and Program Owner will share the Phase Gate document with Program Sponsors or schedule a meeting with the Project Owner and Project Manager if warranted.

The following chapters detail the exit criteria and final deliverables, as well as provide guidance to complete these deliverables at each phase.

Project Management Capabilities

Project Management deals with the day-to-day operational and tactical aspects of executing and monitoring project work. The Program Management Operations (PMO) office has established management processes, tools, and services to assist Project Managers (PMs). These tools can be used to monitor and control actual progress against the project work plan, communicate with sponsors and stakeholders, plan and manage iterations, and coordinate the effort within the existing program management structure. For more information on the management structure at the program level, refer to the PMO Guidebook.

The project management capabilities that will be used on regular basis are:

- Work Plan and Time Tracking management
- Performance and Status Reporting
- Issue Management
- Risk Management
- Scope Change Control Management

Work Planning

Work planning is an iterative effort that is typically performed at the end of each phase and/or at scope changes. Re-planning includes re-estimating of work effort, resource needs, completion schedule, and other cost figures. Throughout the lifecycle of the project, the Project Manager continues to monitor the project's progress toward the Business Case's benefits, to analyze any changes, to understand the potential effect on project metrics and Business Case, to work with the PMO to correct any inconsistencies in the way benefits have been assigned to the project and to communicate any additional opportunities identified for maximizing value. To learn more about PMO responsibilities, refer to the PMO Guidebook.

The Project Managers monitor project progress against the work plan to ensure progress remains within acceptable limits. The Project Managers should focus on high risk, high impact aspects of the project and be appropriate to the project scale. To do this:

- Review the start and finish dates for each task.
- Determine the specific changes to be made to the start or finish dates.
- Review the predecessor and successor tasks and understand the impact to other tasks based on changes to dates.
- Review the resources assigned to the task and the effort for each resources. Understand the impact to resources and leveling based on changes.
- For impacts across projects, ensure that changes are understood by the Project Managers and issues discussed/resolved.

The Project Work Plan

The Project Work Plan includes the tasks, milestones, schedule, dependencies, resources, start/end dates, and other information needed to manage the project's delivery. The Project Manager is the plan owner, and the PMO office will interact with this person to understand and discuss the project plan.

Standards in project plan

- There should be a 1-1 relationship between projects and work plans (each project has 1 plan, each plan represents 1 project).
- The work plan should encompass all work for the project, including functional, technical and change work (if applicable).
- A well constructed work plan should have project phases and milestones. Every phase should have milestones.
- The work plan must be constructed in MS Project and submitted for PMO review. Upon approval, the work plan will be loaded into Planview for progress tracking during the phase execution.
- Identify resource requirements in the subsequent phase (e.g. if you are in the planning phase, please name the resources in the Analyze/Design phase).

Example of a Project Plan Hierarchy

WS: Workstream
    Phase: [Planning, Analyze/Design, Build/Test, …]
        DEL: Deliverable 1
        MS: Milestone 1
        DEL: Deliverable 2
            Task 1
            Task 2
        MS: Milestone 2
        DEL: Deliverable 3
            Task 1
            Task 2
        MMS: Major Milestone 1

Definitions

- **Workstreams -** are a focused collection of work (think of mini-projects); an example would be a large project that may incorporate delivering a tool along with a process and metric capability. *In PlanView, workstreams require a WS prefix.*
- **Deliverables -** list the actual work products, located at the end of a hierarchy of activities. *In PlanView, deliverables require a DEL prefix.*
- **Milestones -** lists the key dates as determined by the project manager. A dependency is created for each milestone to the appropriate activity in the deliverables section. This predecessor can be any line item in the deliverables section that drives the milestone. No work is assigned to any of these milestones and their duration is zero. *In PlanView, milestones require a MS or MMS prefix. MS for Milestone and MMS for Major Milestone. Only Major Milestones will appear on the program status report.*
- **Tasks –** large units of work with a single major outcome. Tasks are composed of activities.

- **Activity –** smaller units of work that are performed by on individual or team to create a single primary outcome.

Multi-Workstream Projects

Large complex projects will likely be organized into workstreams. As defined above, workstreams are large collections of work within a project focused on a significant project deliverable. In some cases it may not be practical to require all individual workstreams to maintain the same gate review cadence throughout the project's life-cycle.

In order to deliver a multi-workstream project on-time, where the workstreams will exist in multiple phases, project managers must set clear expectations with sponsors prior to gate reviews. Sponsors will need to understand the process for the gate review, the expectation for phase sign-off and what is being asked of them to approve. Clear and easily discernable information regarding the status of workstreams at the gate review is critical and expected for sponsorship sign-off.

For phase-gate review, projects with workstreams in multiple phases will need to account for out of sequence workstreams in their phase-gate reviews. This means that projects will be asking sponsors to approve funding and advancement of workstreams at the phase-gates instead of the entire project. However, projects will need to get tentative acceptance of all workstreams and full funding for the next phase of entire project. Funding for workstreams that have not reached phase completion will be held for distribution by the PMO until the worksteam has successfully completed.

Time Tracking Management

Project Team Members are expected to record their time on a weekly basis. Project Managers should review project time and collect status. This involves the following:

- Review time reports and collect deliverable status on a weekly basis.
- Track actual work, schedule, resource, and effort, against the Work Plan.
    - Track actual work and identify variance between planned vs. actual hours spent on tasks.
    - Identify tasks that are past due. Highlight tasks that are past due in the Status Reports (refer to Performance and Status Reporting) and/or raise an issue or risk.

The following figure depicts the Work Plan and Time Management process. Notice the interaction between the Project (PM and Team Member) and the PMO office.

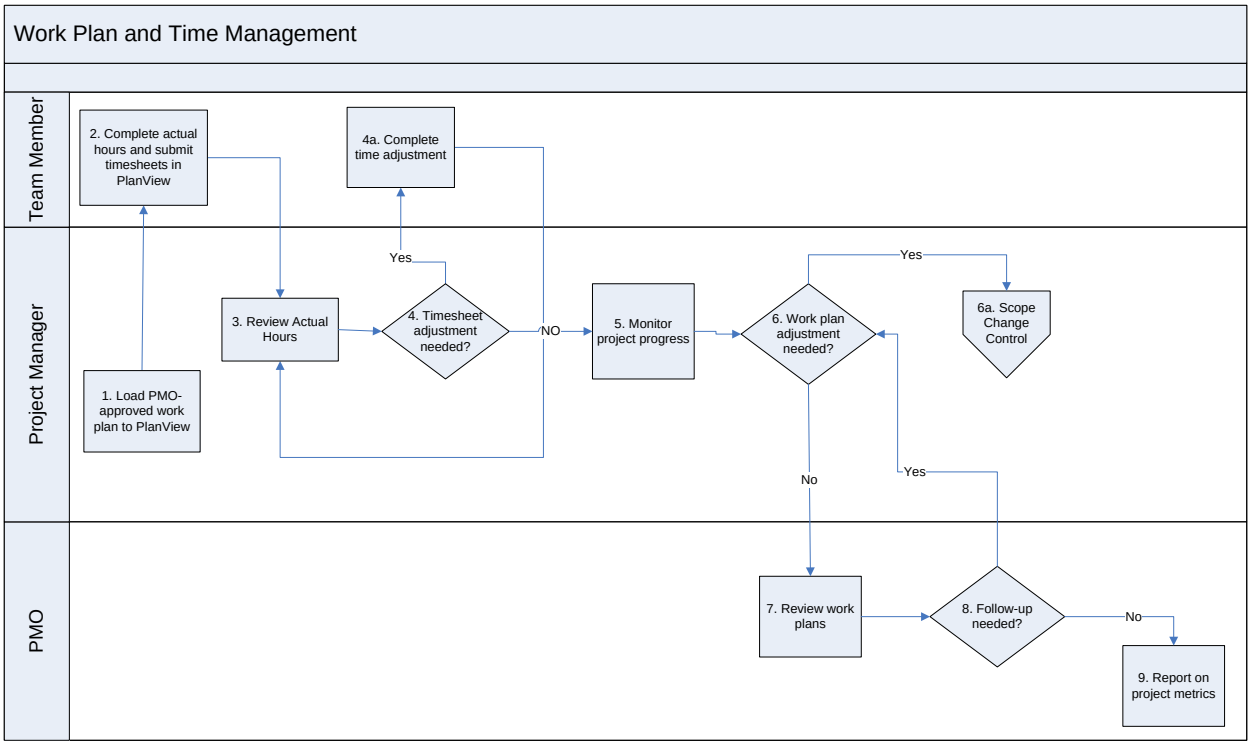


Figure 2: Work Plan and Time Management Workflow

The following table provides further detail on the Work Plan and Time Management process.

Table 1: Work Plan and Time Management Process Steps

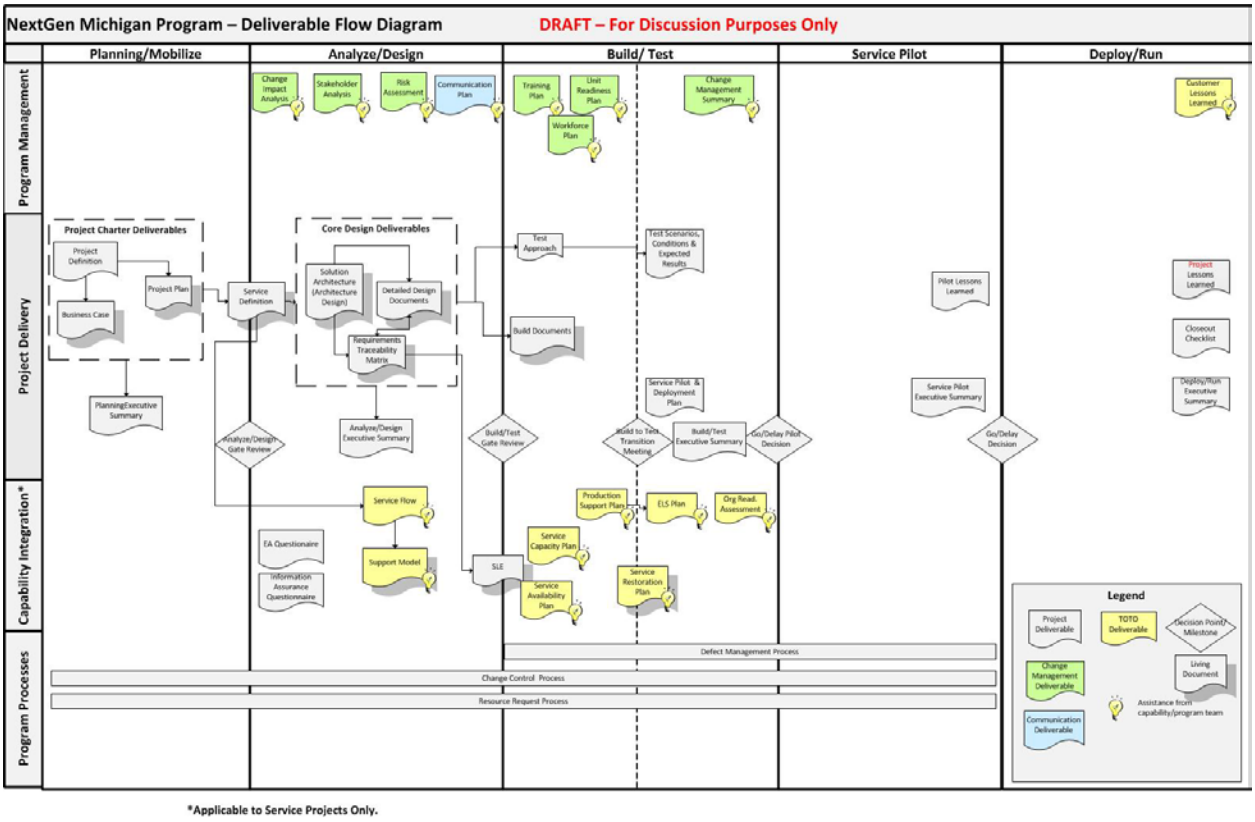
Step	Responsible	Description of Activity
1. Load PMO-approved work plan to Planview	Project Managers	Work plans are submitted to the PMO for approval at each phase gate (refer to section Project Approval Phase-Gate Process). Upon approval, load MS work plan to Planview.
2. Complete actual hours and submit timesheet in Planview.	Team Member	Submit timesheet on a weekly basis in Planview.
3. Review Actual Hours	Project Manager	Review team member's time in relation to tasks, deliverables or milestones.
4. Timesheet adjustment needed?	Project Manager	Determine if timesheet adjustment is needed. If changes to the time allocation are needed, inform the team member to correct his or her timesheet in Planview.
4a. Complete time adjustment	Team Member	Update timesheet in Planview. Reach out to Resource Manager for approval, if needed.
5. Monitor project progress	Project Manager	Monitor project progress against baseline to ensure progress remains on schedule and on budget.

6. Work plan adjustment needed?	Project Manager	Determine if rework/adjustment is needed based on project progress against work plan.
6a. Scope Change Control	Project Manager	If work plan rework is need, complete a change request form, determine mitigation plan, and follow the Scope Change Control Management process.
7. Review work plans	PMO	PMO has the following tasks/responsibilities: ▪ Validate the overall work and actual work efforts to ensure that they fall within the appropriate control limits. ▪ Review the start and finish dates, as well as resources assigned to the tasks and the effort for each resource. ▪ Understand the impact to resource and leveling based on changes. ▪ If Scope Change is needed **and** change was approved, the PMO confirms that changes schedule, budget, deliverables, or milestones have been approved. Note: Updates should be made in both MS Projects and Planview.
8. Follow-up needed?	PMO	Are there any discrepancies or pending questions/concerns regarding schedule, budget, milestones, or deliverables?
9. Report project metrics	PMO	The PMO will pull project status reports from Planview on a weekly basis. Set project health based on actual vs. baseline, issues and risk identified, as well as accomplishments made.

Planview Time Tracking Job Aid:
https://collaborate.adsroot.itcs.umich.edu/mais/products/pvhelp10-2/PlanView%20at%20ITS/Tracking%20Time%20and%20Adding%20Work%20to%20Timesheet.docx

Program Deliverable Management

As a part of the NextGen Program, certain deliverables are required for each phase to ensure the success of the Program. The following diagram outlines the required program deliverables by phase:



To see the most current version of this document, please refer to the Program Deliverable Flow.

Many of these deliverables are to provide integration with the various capabilities in NextGen. To understand proposed responsibility for each deliverable, please refer to the NextGen Deliverable RACI, also shown below.

NextGen- Program Deliverable RACI Matri		Program Team												Project Team				Capability Integration							
	Deliverable	Program Sponsors	Program Steering Group	Program Owner (LP)	Program Director(JG)	Program Manager (DT)	Program Operations Lead	Program Integration Lead (AB)	Change Management Lead (AP)	Workforce Strategy Lead (KS)	Communications Lead (SH)	Deployment Manager (bundle) (RM)	Project Owner	ProjectManager	Technical Lead(s)	Functional Lead/BSA	Enterprise Architect (Coach)	Customer Relationship Manager	Service Transition Manager	Service CenterManager	Operations and Availability	IT Cost Manager	Service Portfolio Owner	Security Manager	SME/Team that Provides Assistance
Planning	Project Definition				I	I	I	I	I		I		A	R				C					C		NextGen Program Office
	Project Plan					I	I						A	R				I							
	Business Case and Benefits Realization	I	I		C	I	I	I	I				A	R				I				C	I		Manoj Krishnan
	Planning Executive Summary			I	A	C	I	I			I		R	C	I		I	I	I		I		I		NextGen Program Office
	Service Definition					C	I	I	I		I		A	C		R	I	C	C		I	C	C		Service Management
Analyze/Design	Requirements Traceability Matrix					I	I	I					A	I	C	R		C	C		C	C	C	C	NextGen Program Office
	Solution Architecture					I		I					A	I	R		C		I		I		I		Chris Eagle
	Detailed Design Documents												A	I	R	C	I		I				I		
	Analyze/Design Executive Summary	I	I	I	A	C	I	I	I	I	I		R	C	I	C									NextGen Program Office
	Service Flow												A	I	C	C		I	R		I				Service Management
	Support Model								I				A	C	C	C		I	R	C		I	I		Service Management
	EA Questionaire												A	I	C		R								Chris Eagle
	Information Assurance Questionnaire												A	I	C	C								R	Information Assurance Team
	Change Impact Analysis				A	I			R				C	C					I						Change Management Team
	Stakeholder Analysis				A				R				C	C											Change Management Team
	Risk Assessment				A				R				C	C											Change Management Team
	Communication Plan				I	I					R		A	C		I			I						Communication Team
Build/Test	Test Approach							I					A	I	C	R			I						
	Test Scenarios, Conditions & Expected Results												A	I	C	R									
	Build Documents												A	I	R										
	Service Pilot & Deployment Plan					I	I	I	I			C	A	R	C			I	C				I		
	Build/Test Executive Summary			I	A	C	I	I			I		R	C	I		I	I	I				I		NextGen Program Office
	Production Support Plan					I							A	C	C	C		I	R	C	C				Service Management
	Early Life Support Plan												A	C	C	C		I	R	C	C				Service Management
	Service Restoration Plan												A	C		C		I	R						Service Management + O&A
	Service Availability Plan												A	C		C		I			R				Service Management + O&A
	Service Capacity Plan												A	C		C		I			R				Service Management + O&A
	Org Readiness Assessment					I	I			C			A	C	C	C			R						Service Management + O&A
	Service Level Expectations (SLE)					I							A	R	C			C	I		I				Customer Relationship Manager
	Training Plan				A	I			R	C			I	C					I						Change Management Team
	Unit Readiness Plan				A	I			R	C			I	C					I						Change Management Team
	Workforce Plan				A	I			I	R	I		I	C					I						Workforce Management Team
	Change Management Summary				A	I			R	C			I	C				C							Change Management Team
Service Bundle Deliverables	Service Bundle Test Approach*											C	A	I	C	R									
	Service Bundle Test Scenarios, Conditions & Expected Results*											I	A	I	C	R									
	Service Bundle Deployment Plan*		I	I	I	I	C	I	I	I	I	R	A	I					C		C				

The RACI should be used as an initial guideline, project circumstance and scope may require variance from this model. The RACI defines who is responsible, accountable, and should be consulted and informed throughout the lifecycle of the deliverable. The RACI definitions are outlined below:

Responsible
Those who do the work to achieve the task. There is typically one role with a participation type of Responsible, although others can be delegated to assist in the work required.

Accountable
The one ultimately answerable for the correct and thorough completion of the deliverable or task. Typically the Accountable role delegates the completion of the deliverable to the Responsible role. There must be only one Accountable specified for each task or deliverable.

Consulted
Those who possess subject matter expertise or knowledge that is critical to the creation of a deliverable or are highly dependent upon the deliverable.

Informed
Those who are kept up-to-date on status throughout the lifecycle of the deliverable, and with whom there is just one-way communication. These are the "key consumers" of the information.

Each of the required Program deliverables are described in further detail below in the corresponding phase section. For information on how to report the status of a deliverable, please refer to the Performance and Status Reporting Section of this document below.

Performance and Status Reporting

Performance and Status reporting involves evaluating and documenting the project's performance against the work plan. Performance reporting addresses the NextGen Michigan Program Management Office, and the Program Steering Committee. Performance assessment must be objective to be reliable.

Project Managers are expected to complete Project Status reports on a weekly basis. The Project Status report highlights project status based on deliverable/milestone status, summarizes recent progress and upcoming plans, as well as quantitative metrics, such as baseline and actual dates. Project Managers should analyze variances from project baselines to identify actual and potential problems, i.e. issues and risks, as well as forecast future performance.

Project Managers are also expected to complete a monthly Project Status report for publishing on the NextGen Michigan website. The monthly Project Status report provides campus with insight on the progress made by each project.

The figure below displays a sample of the NextGen Michigan Program Office Scorecard that consists of various project status reports.

NextGen Project Status by Sub-Program

Green	Program Dashboard	
Green	Program Budget	
Yellow	Deliverables On-Time	Delays in project charters
Yellow	Change Management	Program governance expected to become operational by end of June

Health	Sub-Program / Project Name	Project Manager	Workstream / Phase	Deliverables	Baseline Activity Finish	Actual / Scheduled Finish	Recent Progress	Last Updated
Green	Program Planning and Capabilities							
	Workforce Transition	Field, Samira			6/30/11	6/30/11		
Green			Planning			6/30/11		
Green				DEL: Time Distribution and Survey Materials	6/30/11	6/30/11	1. On track to finish by Original Baseline Finish Date	6/1/11
Green				DEL: IT Skills Inventory	6/30/11	6/30/11	1. Held Workforce Work Group Session #3 ? Focus on Skills (5/23) 2. Reviewed PeopleSoft skills repository progress	6/1/11
Green				DEL: Workforce Transition Strategy Refresh	6/30/11	6/30/11	1. Drafted key messages/talking points related to Workforce Transition 2. Discussed Workforce Strategy refresh plans and outline	6/1/11
Green	Service Release	Shudes, Chris			6/30/11	6/30/11		
Green			Planning		6/30/11	6/30/11		
Green				DEL: Updated NextGen Michigan Program Roadmap	6/30/11	6/30/11	1. On track to finish by Original Baseline Finish Date	6/2/11
Green				DEL: Program Milestones and Gating Requirements	6/1/11	6/15/11	1. Due to Chris Shudes scheduled vacation, the estimated completion has moved from 6/1 to 6/15. The change in completion date will not result in an increase in cost.	6/2/11
Green				DEL: Release #1 Plan	6/1/11	6/15/11	1. Due to Chris Shudes scheduled vacation, the estimated completion has moved from 6/1 to 6/15. The change in completion date will not result in an increase in cost.	6/2/11

Figure 3: NextGen Program Office Scorecard

The figure below depicts the Performance and Status Reporting process and the table provides further detail on process steps and responsible parties.

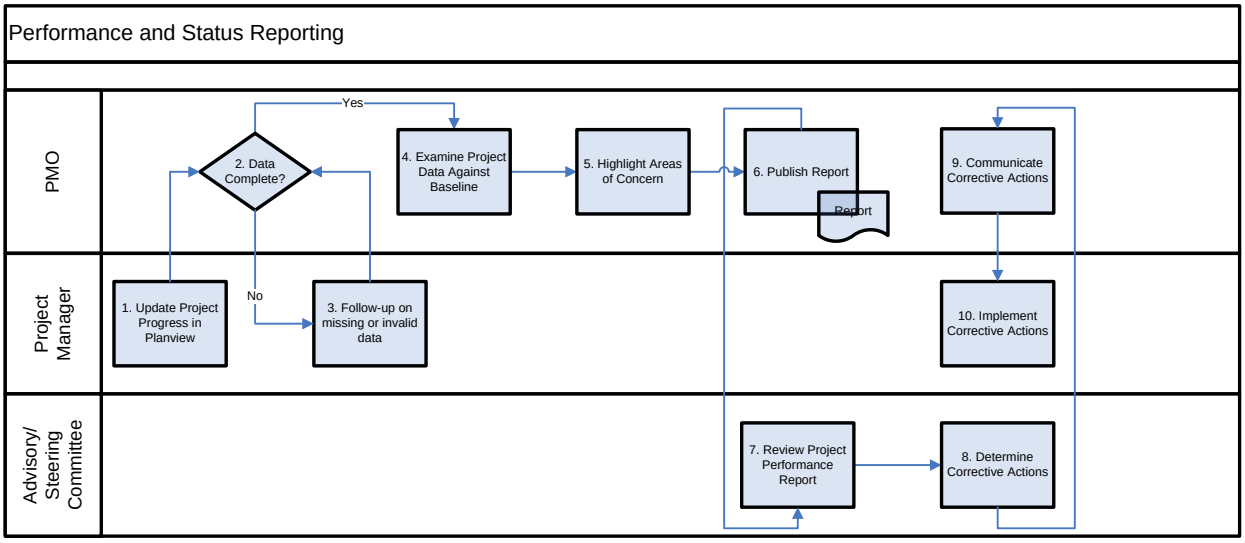


Figure 4: Performance and Status Reporting Workflow

Table 2: Performance and Status Reporting Process Steps

Process	Responsible	Description of Activity
1. Update Project Progress in Planview	Project Manager	On a weekly basis, Project Managers are responsible for submitting project progress updates in Planview. Each submission should include updates on: 1. Health of project deliverables (Green, Yellow, Red). 2. Accomplishments for the week. Refer to the table for Deliverable Health criteria.
2. Data Complete?	PMO	PMO will review the data and request any clarification/updates from the appropriate Project Manager. This data will consist of issues, risks, scope changes, progress status, schedule, benefits realization, etc. Refer to *Issue Management* and *Risk Management* for a description of the processes and data required.
3. Follow-Up on Invalid or Missing Data	Project Manager	Project Manager will provide additional data requested by the PMO.
4. Examine Project Data	PMO	PMO will analyze data for quality, adherence to processes, and impact to project against the baseline.

Against Baseline		
5. Highlight Areas of Concern	PMO	PMO will highlight areas of concern needed to be brought to the attention of the Program Manager(s), Program Advisory/Steering Committee, and Program Sponsor(s).
6. Publish Report	PMO	PMO will create a Performance Report based on the reporting cadence.
7. Review Report	Advisory/ Steering Committee	The Committee reviews the issues with a status of "Critical" or "High" and ensures the critical risks are being mitigated. The Committee monitors milestones progress and the overall Program/Project health.
8. Determine Corrective Actions	Advisory/ Steering Committee	Program Advisory/Steering Committee will address issues, risks, scope changes that are potential threats to the Program/Project. Determine corrective actions to ensure the Program/Project remains on budget and on schedule.
9. Communicate Corrective Actions	PMO	PMO will communicate corrective actions to be implemented by Project Manager.
10. Implement Corrective Actions	Project Manager	Project manager will implement corrective actions based direction from leadership to ensure the Program and Project remains on schedule and on budget.

On a weekly basis, Project Managers are expected to provide the health status on major project deliverables and/or milestones. The overall health of the project depends on the health of each major deliverable and/or milestone. Use the table below to determine the health of each major deliverable/milestone. The PMO office will determine the overall health of your project based on your weekly input. The PMO will use the following criteria to determine the overall health of a project:

- Green – The health status of all major deliverables/milestones is green.
- Yellow – The health status of one or more deliverables/milestones is yellow.
- Red – The health status of one or more deliverables/milestones is red.

The table below provides guidance on how to choose the health status of each deliverable.

Table 3: Deliverable Health Status Criteria

Category	Green	Yellow	Red
Scope	Scope is clearly defined and stable.	Scope is unstable with expected impacts.	Scope is not well defined, is unachievable or differs substantially

			from the project charter. Requires remediation.
Schedule	On schedule.	Task/activity contributing to the completion of the deliverable likely to be missed.	Major or several tasks/activities are likely to be missed, requires remediation.
Risk & Issues	Risks and/or issues identified and actively managed with reasonable expectation that they will not impact project success.	Risks and/or issues have not been identified, or known risk/issues pose a reasonable threat to deliverable success.	Risks have been realized (become issues) and have put deliverable success in jeopardy.
Resources	The properly number of resources are working to meet current expectations.	Potential issue in securing needed resources.	Needed resources not secured.
Overall Deliverable Status	Only if ALL of the above are green.	If ANY of the above are Yellow.	If ANY of the above are red. Project status report must include a plan to mitigate in the comments field.

Communication regarding project performance and overall project status, staffing, scope changes, issues, risks, and related corrective actions should be an ongoing process which includes both formal and informal interaction between the project manager, the project team, program management, and external teams (third parties, sponsor, etc.).

It is important that the program manager always be aware of any issues affecting performance of a project since there could be dependencies which could create a program-wide impact. Besides providing regularly scheduled communications and reporting, the project manager should understand when and how to escalate issues and/or risks to the program level to prevent causing an unforeseen impact to schedule, budget, or quality.

Issue Management

An issue is a problem that is **currently** happening. An issue might adversely affect a project's ability to deliver based on the agreed scope, schedule, budget, and quality, as well as ability to meet key stakeholders' expectations. An issue describes a situation where something has gone wrong and/or a decision needs to be made. Since an issue has already been realized, it can no longer be mitigated, and must instead be **resolved**. Issues may have started from risks that have been realized; if this is the case, then the issue should be linked to the original risk.

Project issues occur at all phases of the project. Issue identification is an ongoing process. Any team member can raise issues. The Issues Management process, established by the PMO office, defines how the project should raise, document, and, if appropriate, escalate an issue, as well as track it through closure. In addition, the PMO office has developed an Issue Log as tracking mechanism; however, the issue log should not be used as sole means of communication. Both formal (issues log) and informal (verbal communication with team members) should take place.

Project Managers and team members are expected to log issues on a continuous basis. Project Managers are expected to review and validate that new issues have the correct level of information needed. All project issues should be documented in Planview. If an issue started as a risk that was realized, then link the issue with the associated risk.

Review the Issue Management Approach depicted on the figure below to understand the process for identifying, analyzing, escalating, resolving, and reporting issues.

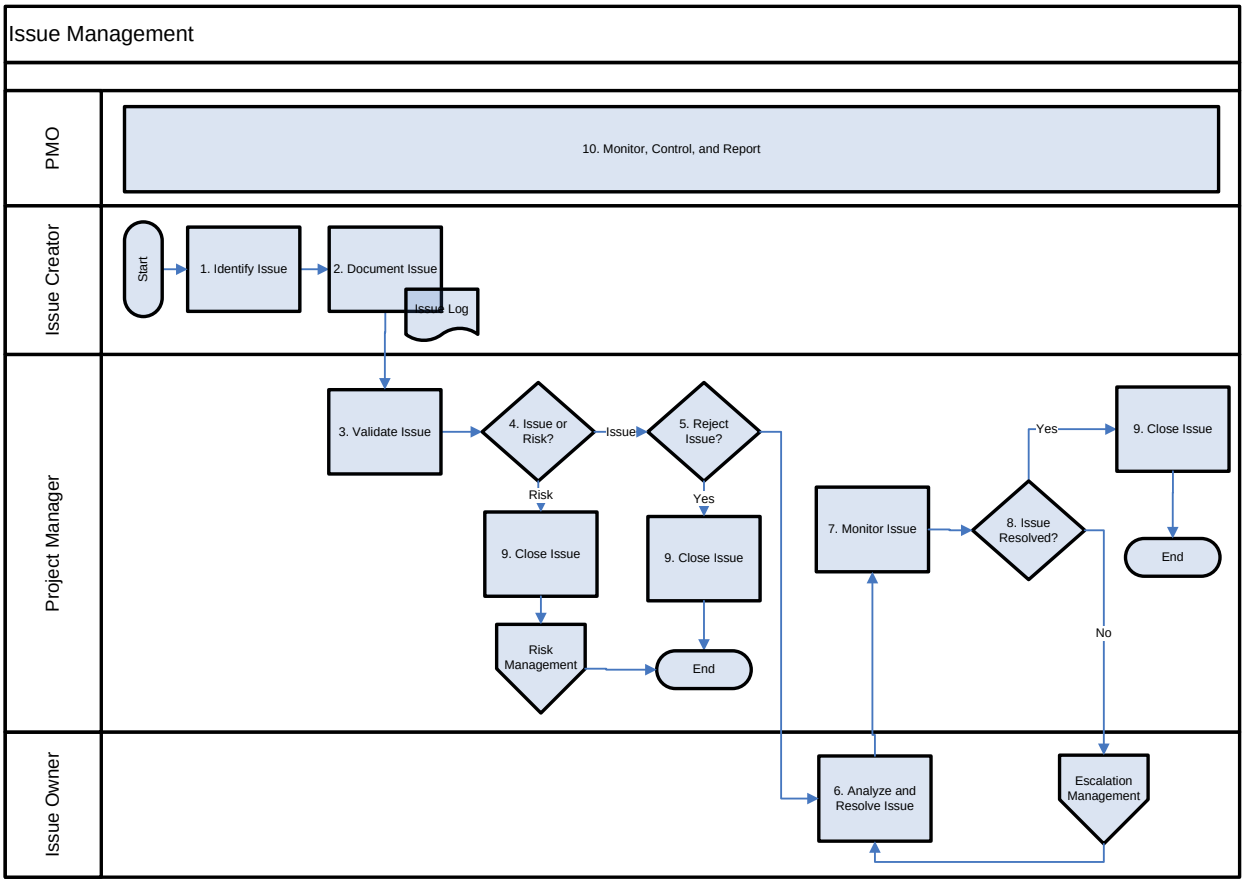


Figure 5: Issue Management Workflow

The table below provides more details on the Issue Management process and responsible parties.

Table 4: Issue Management Process Steps

Steps	Responsible	Description of Activity
1. Identify Issue	Issue Creator	Issue identification is an ongoing process, which is monitored and updated regularly. The Issue Creator will inform the Project Manager that there is a new project issue.
2. Document Issue	Issue Creator	Identified issues will be documented on the Issue Log (in Planview). Projects will document issues through the lifecycle of the project.
3. Validate Issue	Project Manager	All "Open" issues are validated by the Project Manager to ensure issue validity, priority assignment, and correct due date. If the issue requires additional information or clarification, then the Project Manager will request clarification from the Issue Creator. Valid issues will be assigned to an Issue Owner and a Target Resolution date.
4. Issue or Risk?	Project Manager	Project Manager reviews "Open" submissions and assesses their validity. Submissions assessed as risks rather than issues are set to "Closed" status and deferred to the Risk Management process. The Project Manager documents the rationale.
5. Reject Issue?	Project Manager	If the issue is not valid, then the Project Manager will set its status to "Rejected" and document the rationale.
6. Analyze and Resolve Issue	Issue Owner	The Issue Owner analyzes the issue, determines level of impact, researches resolution alternatives, and modifies the Due Date as needed. During this stage, the issue status remains "Open". After the issue has been analyzed, the Issue Owner will determine a feasible solution and update the issue log. The Issue Owner communicates the issue progress to the Project Manager. The implementation of the solution is planned accordingly.
7. Monitor Issue	Project Manager	Project Manager regularly assesses the status of the issue resolution progress and manages communication, notification, and, if necessary, escalation. The Project Manager reviews and agrees on an Action Plan, as well as monitors the resolution progress and determines the necessary escalation with all affected parties. The status will remain in "Open" until the issue is resolved.
8. Issue Resolved?	Project Manager	Once a solution has been implemented, the Project Manager monitors progress to determine the success of the implementation. If the issue cannot be resolved or implementation was not successful, the issue is escalated up the program governance and deferred to the Escalation Management process.
9. Close Issue	Project Manager	Once the issue has been addressed and the resolution has been implemented, then the Project Manager will document the

		resolution and set the status to "Closed".
10. Monitor, Control, and Report	PMO	PMO oversees the Issue Management process and supports the timely identification, validation, and resolution of issues. PMO monitors process compliance, manages the compilation of issue reports, and prepares analyses for the leadership team. PMO will report issues with a status equal to ***Critical*** or ***High***, as well as escalate them as deemed appropriate or based on the escalation criteria.

For each new issue, the following fields should contain information:

Table 5: Issue Log Fields in Planview

Planview Field Name	Description
CRI #	Number generated automatically in Planview to keep track of all issues.
CRI Status	The status of the issue. Dropdown field with the following choices: **Open:** The potential issue has been entered into the Issue Log, assigned to the appropriate resource for analysis, and is being actively investigated. **Rejected**: The potential issue has been rejected either because it is a duplicate or another valid reason. **Closed**: The potential issue has been reviewed, a resolution has been proposed, accepted, and acted upon. If a "**Closed**" issue becomes active, it should to be re-opened as a new issue. Within the new issue's **Description**, the Issue Creator should reference the "Closed" issue ID number to provide history. Also note that risks mistakenly submitted as issues will be set to "Closed" status using this process.
Initiated By	The user who created the issue. Automatically generated in Planview.
Issue Owner	The person responsible for following up on the issue. Responsible person can be selected from a list of Planview users.
Project Name	The project name associated with the issue. Automatically generated in Planview based on the project work plan. Naming convention: L8: DEL: Project PLAN: [Name of Project]
CRI Priority	The priority of the issue. Dropdown field with the following choices: **1 – Critical**: "I can't move forward until this issue is resolved." **2 – High**: "I'm fine for right now, but unless this issue is resolved by the due date, I won't be able to move forward."

	3 – Medium: "I'm fine for the right now, but this may impact my ability to move forward in the near future." **4 – Low**: "This issue is not impacting my ability to move forward." Refer to the Escalation Table below to determine the appropriate level of priority.
Description & Detail	Description field to be used as Issue Title. Detail field to be used as Issue Description (2-3 sentences)
Initiated On	The date the issue was identified. Automatically generated in Planview.
Target Resolution Date	The date by which the issue should be resolved. Select a specific (future) date.
CRI Type	The type of issue being raised. Dropdown field with the following options: **Cost** - Financial benefits, additional costs in changing/solving design, application program, or operational problems. **Scope** – The work that needs to be accomplished to deliver a product, service, or result with the specified features and functions. **Schedule** – Deliverables and/or Milestones deadlines. **Quality** – Deliverables or work products comply with project standards, expectations, and goals. **Resources** – Lack of resources with the appropriate skills to complete deliverables.
Action Plan & Issue Resolution	Clear and concise description of the proposed solution or final solution. May reference other documents as needed. If other documents are referenced, provide file name and location. There are two fields in Planview that capture this information. Action Plan is a text field where the user records the proposed solution to the issue. The Issue Resolution is a text field that captures the final resolution once the issue is closed.
Resolution Date	Date on which the issue was closed or deferred. User must select the date.

The table below provides information on the issue escalation process.

Table 6: Issue Escalation

Escalation Level	Description
Project Manager	All issues should begin with a priority level equal to ***Low*** or ***Medium*** in order to properly follow the escalation process. The PM is responsible for re-evaluating the priority of each new issue. The PM determines the level of impact, action plan, resolution alternatives, and Issue Owner. Along with the Issues Owner, the PM will monitor the resolution progress. If the issue cannot be resolved at the project level, the PM will change the priority to ***High***. At this point, the PMO will assess the issue.
PMO	The PMO is responsible for re-evaluating the priority of each new issue with a status of ***High***. Along with the Project Manager, the PMO will monitor the progress of the issue. If the issue cannot be resolved at the PMO level, the PMO will change the priority to ***Critical***. At this point, the PMO will escalate the issue to the Program Advisory/Steering Committee.
Steering Committee	The Program Management team will escalate all issues with a status of Critical to the Steering Committee is to guide and provide issue resolutions or approving a contingency plan.

Planview Issue Management Job Aid:
https://collaborate.adsroot.itcs.umich.edu/mais/products/pvhelp10-2/PlanView%20at%20ITS/Issue%20Details.pdf

Risk Management

Risk management and issue management are closely related, but distinctly different. A risk is an uncertain circumstance or event that could hinder a project from achieving its objectives. Issues are problems that currently affect the project's planned execution.

Any risk that the project fails to adequately respond to results in failure to obtain benefits. Conversely, approaches that successfully avoid risks and/or mitigate their impact clear the way for achieving benefits. Remember these relationships when assessing project performance, and highlight them in the project performance reporting.

Risk management is a systematic approach to identifying, evaluating, and mitigating risks. It is not about being risk averse. Rather, it is based on taking action to either minimize the impact of a risk and/or decreasing the likelihood of it occurring. It involves planning and being proactive.

Review the Risk Management Approach depicted and explained on the figure and table below. This process will be used to identify and evaluate risks. Work with the PMO to address any questions on the documented process. Reuse this process to evaluate all project-specific risks. Document your project-specific needs in the Risk Log.

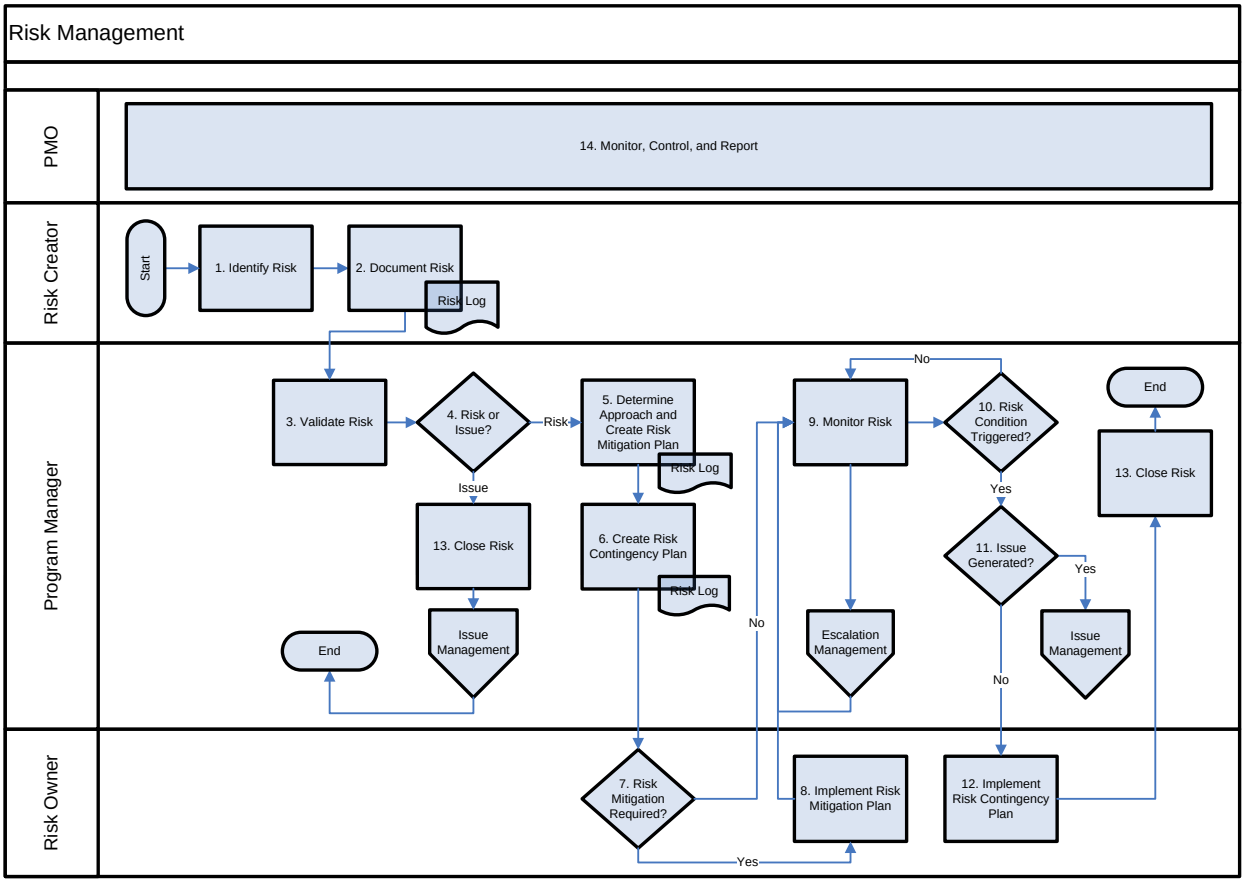


Figure 6: Risk Management

Table 7: Risk Management Process Steps

Process	Responsible	Description of Activity
1. Identify Risk	Risk Creator	Risk identification is an ongoing process, which is monitored and updated regularly, of uncovering circumstances, hazards, threats, and vulnerabilities that could affect the work efforts or the project's ability to meet its objectives. Risk sources are both internal and external. To be effective, do not focus on identifying every possible risk, but rather focus on identifying events that could negatively impact any of the following project areas, cost, scope, schedule, quality, or resources. In addition, please note that risk identification is not a focus on placement of blame. A risk will be discussed with the Project Manager prior to entering risk in Risk Log.

2. Document Risk	Risk Creator	Identified risks will be documented on the Risk Log. See the Table below for a description of the required fields of a Risk.
3. Validate Risk	Project Manager	All *"Open"* risks are analyzed by the Project Manager on at least a weekly basis to determine the appropriate probability and priority for all new risks. If the risk requires additional information or clarification, then the Project Managers will request clarification from the Item Creator.
4. Risk or Issue?	Project Manager	The Project Manager reviews *"Open"* submissions and assesses their validity. Valid risks are set to *"Open"* status. If the risk is in fact an issue, then the Project Manager will set its status to "Rejected" and document the rationale in the Detailed Description.
5. Determine Approach and Create Risk Mitigation Plan	Project Manager	The Project Manager will define a mitigation strategy for each risk. Identified Program members will work with the Project Manager in assessing and developing the mitigation and contingency plan, and updates the risk log. Risk mitigation alternatives are the set of options that may mitigate/subdue risk if implemented. A program's risk mitigation strategy is preventative in nature and designed to reduce impact or probability of risk occurrence. A risk mitigation strategy uses acceptance, avoidance, protection, reduction, research, and transfer to develop alternatives for risk resolution. Each strategy contains objectives, constraints, and alternatives. The contingency plan is executed if a risk is realized despite the implementation of the risk mitigation strategy.
6. Create Risk Contingency Plan	Project Manager	A Risk Contingency Plan describes the possible scenarios of risk problems that could occur from a solution and what to do to revert back to normal operation. Risk contingency planning involves creating one or more fallback plans that can be activated in case efforts to prevent the risk event fail. Contingency plans are necessary for all risks, including those that have mitigation plans. They address what to do if the risk occurs and how to minimize its impact. Risk triggers are established for the contingency plan based on the probability of risk, the severity of impact, and the level of control that may be encountered. Triggers are indicators that tell the engagement a certain condition is about to occur, or has occurred, and, therefore, it is time to

		put the contingency plan into effect. Contingency plans are created to: ▪ Identify the solutions or workarounds to resume normal business operations ▪ Prepare people who are responsible so they can respond quickly when problems occur ▪ Identify the right people to notify and/or implement actions
7. Risk Mitigation Required?	Risk Owner	The Risk Owner evaluates and determines whether to implement the mitigation plan.
8. Implement Risk Mitigation Plan	Risk Owner	Progress on the mitigation activities will be monitored and reported to the Project Manager on a periodic basis.
9. Monitor Risk	Project Manager	The Project Manager will have oversight on risk management activities. The Project Manager will act as the point of escalation if the risk is not manageable. If the risk is realized, the Project Manager could request a different risk handling approach or assign the risk to a different Risk Owner to assess and plan the mitigation strategy.
10. Risk Condition Triggered?	Project Manager	If risk triggers are realized, the Risk Owner implements the planned risk contingency approach. Progress on the mitigation activities will be monitored and reported to the Project Manager on a periodic basis.
11. Issue Generated?	Project Manager	If an issue is generated when the risk condition is triggered, defer the issue to the Issue Management process.
12. Implement Risk Contingency Plan	Risk Owner	The Risk Owner will carry out the contingency plan if the risk triggers are realized. After the contingency plan has been implemented or risk has become an issue, the Project Manager will document risk status in the appropriate fields; detailed description, contingency plan, actions to date, etc.
13. Close Risk	Project Manager	When a risk turns into an issue, expires, is diffused, or is removed through the implementation of the mitigation or contingency plan, the risk is then set to *"Closed"*.
14. Monitor, Control, and Report	PMO	The PMO oversees the Risk Management process and supports the timely identification, validation, and resolution of risks. The PMO monitors process compliance, manages the compilation of risk reports, and prepares analyses for the leadership team.

For each new risk, the following fields in Planview should contain information:

Table 8: Risk Log fields in Planview

Planview	Description

Field Name	
CRI#	Unique number to track risks. Planview automatically generates a unique number for each new risk.
CRI Status	The status of the risk. Dropdown field with the following options: **Open:** The potential risk has been entered into Risk Log, assigned to the appropriate resource for analysis, and is being actively investigated. **Rejected:** The potential risk has been rejected either because it is duplicate or another valid reason. **Closed:** The potential risk has been reviewed, a resolution has been proposed, accepted, and acted upon.
Initiated By	The user who logs the risk is the risk creator.
Risk Owner	The user to whom the risk is assigned. Planview allows the risk creator to assign a risk owner. Planview also records a risk owner's contact information.
Project Name	The project name associated with the risk. Automatically generated in Planview based on the project work plan. Naming convention: L8: DEL: Project PLAN: [Name of Project]
Risk Horizon and Risk Priority	Planview does not track severity of impact; however, it does track the Risk (Impact) Horizon and Risk Priority. The PMO will use these two fields to determine if escalation is necessary. Estimate the Risk Impact Horizon. This dropdown field has the following options: **Short Term:** within the next 3 months **Mid Term:** 3-6 months **Long Term:** greater than 6 months The Risk Priority dropdown field has the following options: **1 – Critical**: Threatens the success of the project. **2 – High**: Significant disruption to project schedule, cost, and products/services over the medium and long term. **3 – Medium**: Progress disrupted with large extensions to schedule and cost, across short and medium terms. **4 – Low**: Exposure is marginal.
Probability	The probability of the risk occurring. Text field. PMs should enter a percentage in intervals of 25% as listed below: **100%:** Expected occurrence **75% :** Probable occurrence **50% :** Possible occurrence **25% :** Unlikely occurrence
Description	This field serves as Risk Title. The "Detail" field should be used to provide 2-3 sentences describing the risk.

Initiated On	The date the risk was identified. Automatically recorded when the risk is created.
Resolution Date	The date the risk will be realized or closed.
CRI Type	The type of risk being raised. The dropdown field has the following options: **Cost** - Financial benefits, additional costs in changing/solving design, application program, or operational problems. **Scope** – The work that needs to be accomplished to deliver a product, service, or result with the specified features and functions. **Schedule** – Deliverables and/or Milestones deadlines. **Quality** – Deliverables or work products comply with project standards, expectations, and goals. project leaves; the project may be significantly impacted if it cannot replace the **Resources** – Lack of resources with the appropriate skills to complete deliverables.
Risk Triggers	The risk trigger is the event that would need to happen in order for the potential risk to become an issue. Risk triggers are usually expressed with some sort of dependency, or qualifier. For example, a risk trigger might be that a resource with critical skills or knowledge leaves project leaving a gap. When the risk trigger occurs, the risk is no longer a risk, but has materialized into an issue that needs resolution. This is a text field that captures situations that would allow for risk realization, or make it an issue.
Risk Response Plan (Mitigation/ Contingency)	The user will record both the Mitigation plan and Contingency plan in this text field. The Mitigation plan is the proposed solution to lessen the probability and/or impact of the risk. The contingency plan is the action to take if the risk is triggered. As part of the Mitigation plan, the Project Manager should document which strategy will be employed to mitigate the risk. See below for definitions of strategies. ▪ **Accept -** These describe the factors that may directly affect the success of the Project ABC, but are outside of the sphere of influence of the Project ABC Manager, and can therefore only be accepted. In addition, acceptance of risks as a response may be based on the cost-ineffectiveness of any available response or solution. An example: acceptance response could be created from a legislative or legal risk, over which no control could be leveraged. ▪ **Avoid -** Avoidance-based responses are employed at any point in the development lifecycle where future planning work is performed. Typically, most risk avoidance occurs during the project definition and planning phases of a project, where objectives, scope, key success factors, work breakdown, and project outputs or deliverables are defined. An example of risk avoidance is the use of a stable, established

	technical solution in preference to an untried or complex new technology. However, risk avoidance solutions may limit the ability to achieve high-level Project objectives, by unnecessarily constraining a desirable solution. ▪ **Mitigate** - Occurs at all points throughout the development lifecycle, and is typically the most common response. The Project Manager identifies an action or product that becomes part of the team or work plan, and is monitored and reported as part of the regular performance analysis and progress reporting of the Project. **Transfer -** Transfer-based responses target the party who is best placed to analyze and implement the response to the risk, based on their expertise, experience, and suitability. Typical transfer responses include the sub-contracting to specialist suppliers who are able to reduce the overall risk exposure.

The table below provides information on the risk escalation process.

Table 9: Risk Escalation

Escalation Level	Description
Project Manager	All risks should begin with a priority level equal to ***Low*** or ***Medium*** in order to properly follow the escalation process. The PM is responsible for re-evaluating the priority of each new risk. The PM determines the level of impact, action plan, resolution alternatives, and Risk Owner. Along with the Risk Owner, the PM will monitor the resolution progress. If the issue cannot be resolved at the project level, the PM will change the priority to ***High***. At this point, the PMO will assess the risk.
PMO	The PMO is responsible for re-evaluating the priority of each new risk with a status of ***High***. Along with the Project Manager, the PMO will monitor the progress of the risk. If the risk cannot be addressed at the PMO level, the PMO will change the priority to ***Critical***. At this point, the PMO will escalate the risk to the Advisory/Steering Committee.
Steering Committee	The Program Steering Committee is responsible for assessing all new risks with a status of ***Critical***, re-prioritizing critical risks, approving/providing mitigation/contingency plan.

Planview Risk Management Job Aid:
https://collaborate.adsroot.itcs.umich.edu/mais/products/pvhelp10-2/PlanView%20at%20ITS/Risk%20Details.pdf

Scope Change Control Management

This deliverable is a written request, from the project to the program, for a material change to the project. Program management must approve a Change Request before it can be

implemented by the project. Program management can also issue Change Requests to reflect approved changes requested by other stakeholders (e.g., sponsoring organization management, program management itself, other projects that may impact the current project, etc.) A project Change Request is an authorized (written and approved) material change to an active project typically affecting the baseline requirements such as scope, cost, schedule, resources, acceptance criteria, method of delivery, documentation, quality, risk, and/or performance characteristics.

Prepare this deliverable whenever a requested change affects the project baselines. If the change does not affect the project baselines, preparation of this deliverable is unnecessary. This deliverable is applicable to all projects.

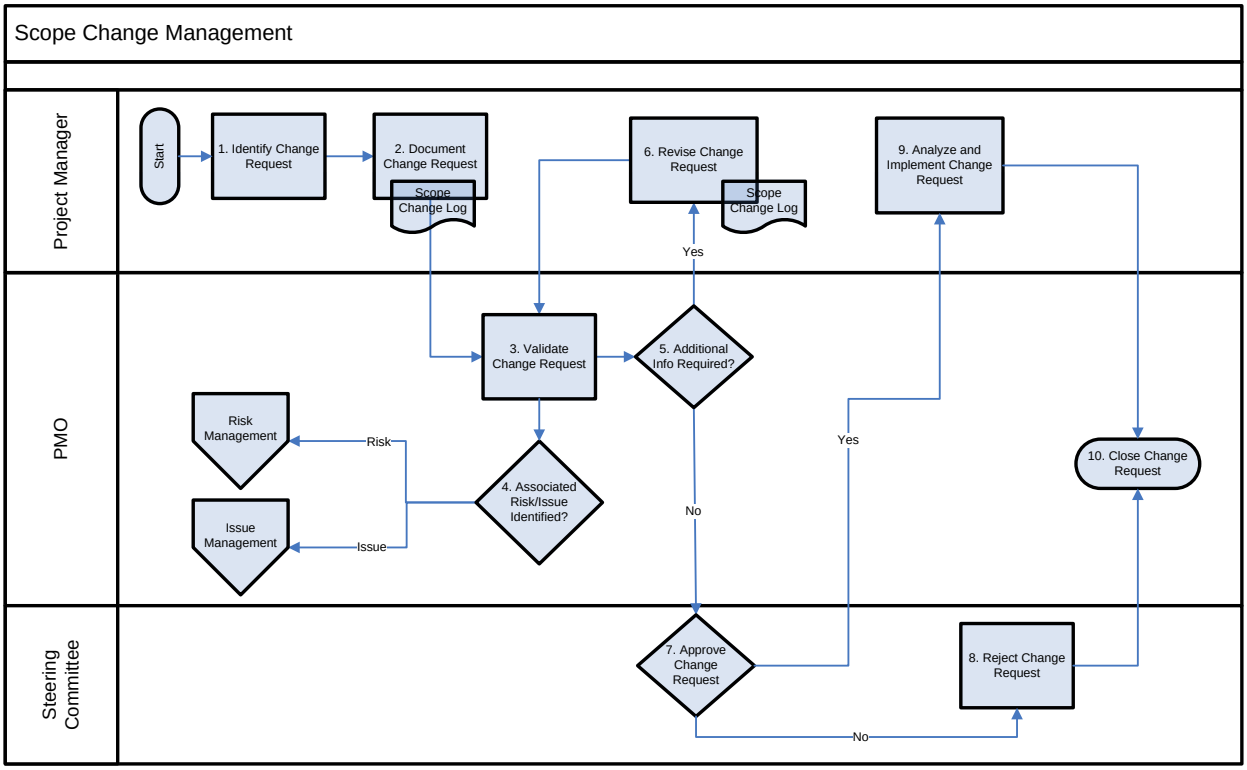


Figure 7: Scope Change Management Workflow

Table 10: Scope Change Process Flow

Process	Responsible	Description of Activity
1. Identify Change Request	Project Manager	Based on the project (work plan) progress and budget, the Project Manager will determine if a change request is needed in order to maintain the success of the project. The Project Manager identifies, documents, and is responsible for scope change follow through.

2. Document Change Request	Project Manager	The Project Manager will document identified scope changes in Scope Change Log.
3. Validate Change Request	PMO	All "*Open*" change requests are validated by the PMO to ensure change validity, and correct due date.
4. Associated Issue or Risk Identified?	PMO	The PMO reviews "Open" submissions and assesses if they create new risks or issues.
5. Additional Info Required?	PMO	The PMO may request additional information about the scope change request. Determine if additional information is required to process this scope change request.
6. Revise Change Request	Project Manager	The Project Manager revises the request, if needed, when requested by the PMO.
7. Approve Change Request	Steering Committee	PMO will escalate the change request to the Steering Committee. If the request is approved, the PMO will set the status of the request to "Approved."
8. Reject Change Request	Steering Committee	If the scope change is not approved, then the PMO will set its status to "*Rejected*" and document the rationale in the Detailed Description.
9. Analyze and Implement Change Request	Project Manager	The impacted project(s) is then responsible for assigning responsibility for implementing the approved Scope Change request. This includes updating the schedule(s), milestone(s), budget(s), requirement(s), and any other affected project deliverables in a synchronized manner. The Project Managers are responsible for coordinating the implementation of the changes across all impacted deliverables, such as work plans, test cases, etc., in their respective areas of responsibility.
10. Close Change Request	PMO	The change request is closed once the request has been resolved.

The Change Request template has the following required fields. Refer to the table below for further description of each field.

Table 11: Change Request Fields on form

Field Name	Description
Change Status	The status of the scope change: ▪ ***Open***: The scope change has been entered into Scope Change Log, assigned to the appropriate approver, and is awaiting approval. ▪ ***Approved:*** The scope change has been reviewed, accepted, and approved. ▪ ***Rejected***: The scope change has been rejected. ▪ ***Closed***: The scope change has been approved and work product has

	been updated to include the additional/subtracted scope. ▪ ***Deferred***: Decision
Date of Request	Date change request was created.
Created By	The user who created the scope change.
Implementation Date	The date by which the change should be implemented.
Project Name	The project name associated with the change.
Type of Change	▪ ***Business Change or Need:*** Changes in what the organization needs to be able to do, as a result changes to what the project delivers. ▪ ***Funding Source Plan Change:*** Changes in funding sources. ▪ ***Scope Change or Need:*** Changes in the magnitude or composition of the project. ▪ ***Schedule Change:*** Changes to the original work plan and/or due date for scheduled milestones/deliverables. ▪ ***Error Correction:*** Changes made to project scope or schedule in order to correct a new or overlooked error. ▪ ***Regulatory Requirement:*** Changes due to new external regulatory requirements. ▪ ***Other:*** *Changes not listed above.*
Description	A description of the change with rationale.
Priority	The priority of the scope change: **1 – *Critical*:** "I can't move forward until this change is resolved" **2 – *High***: "I'm fine for right now, but unless this change is resolved by the due date, I won't be able to move forward" **3 – *Medium***:"I'm fine for the right now, but this may impact my ability to move forward in the near future" **4 – *Low***: "This change is not impacting my ability to move forward"
Impact Severity	The severity of the scope change's impact on the business. ***1 - Critical Impact***: Threatens the success of the program ***2 - High Impact***: Significant disruption to program schedule, cost, or quality ***3 - Medium Impact***: Progress disrupted with manageable extensions to short-term schedule and cost **4 - *Low Impact***: Exposure is slight
Benefits of Proposed Change	The additional benefits the proposed change.
Alternatives	Any alternatives to the scope change that exist.
List of Impacted Deliverables	A list of deliverables impacted by the scope change.
Financial Impact ($)	The dollar amount of the scope change's impact.
Schedule Impact (in days)	The number of days by which the scope change affects the schedule.
Impact Summary	A summary of the impact of the scope change.
Authorized Approver	▪ Program Steering Committee ▪ Sponsor

	▪ Program Management Office (PMO) ▪ Customer/Stakeholder ▪ Other
Organization/Title	Title of the approver.
Date Approved	Date the Change Request Form was approved.

Planview Scope Change Control Management Job Aid:
https://collaborate.adsroot.itcs.umich.edu/mais/products/pvhelp10-2/PlanView%20at%20ITS/Forms/AllItems.aspx

Project Resource Requests

To request a project resource, please fill out the following forms and send them to the Program Operations Lead.

ITS Resource Request
Campus Resource Request

Planning Phase

Planning is the first phase of the project lifecycle. During this phase the Project Manager assembles and organizes all the necessary information to achieve the following objectives:

- Understand project stakeholder goals and expectations.
- Establish project governance to provide leadership and decision making support for the project.
- Confirm project scope, estimations, and roles.
- Develop project work plan.
- Estimate operating cost, savings, and benefits.

In order for a project to exit the Planning phase and receive approval to move to the next phase, the project must have:

- Identified the Project Sponsor, Owner and Manager who will be held accountable to the outcomes of the project.
- Identified stakeholders and developed a plan to manage their expectations.
- Defined high level objectives, scope, and assumptions.
- Identified risks and issues, and provided mitigation and contingency plans for the key business risks.
- Defined a high-level business case, which includes benefit realization tracking that is supported by the project sponsor.
- Developed high-level work and resource plan with clear effort estimation for the next phase of work.

Planning Deliverables

The following tables outlines the required program deliverables for the Planning phase.

Deliverable Name & Link to Template	Description
Project Definition	The project manager creates the Project Definition to define the overall scope of the project that is to be undertaken, as well as to maintain and operate the project. The Project Definition includes: ▪ Project Objectives ▪ Project Scope ▪ Assumptions, Risks, and Dependencies ▪ Stakeholder Identification and Plan to Align ▪ Communication Approvers ▪ Governance Requirements

Project Plan	The Project Plan includes the tasks, milestones, schedule, dependencies, resources, start/end dates, and other information needed to manage the project's delivery. The Project Manager is the plan owner, and the PMO office will interact with this person to understand and discuss the project plan. For project plan standards and recommendations, please refer to the Project Management Guidebook.
Business Case	the business case is a quantitative and qualitative model of benefits and costs used to approve an investment and guide the work conducted during the project life-cycle. The business case articulates the financial and non-financial rationale for proceeding or not proceeding with a project. It does the following: ▪ Quantifies the financial and non-financial implications of the investment. ▪ Supports business decisions/select value creation opportunities by weighing choices or options. ▪ Creates a way to track performance and measures success after making a decision. ▪ Gains alignment and management consensus for a project.
Service Level Expectations (SLE) Draft	The Service Level Expectations deliverable is intended to provide the definitive description and expectations for a given service in its run state. SLEs provide clarity to ITS staff, as well as customers and users by clearly articulating the nature of the service and also the commitments which ITS makes in delivering the service. This includes commitments for key service attributes such as service availability, performance, and response times for provisioning and support. During the Planning Phase of a project, an initial draft of the SLE is created andwill serve as a living document throughout the course of the project. During the Planning Phase, focus primarily on the 'Service Definition' section of the template in order to describe the nature of the service, intended consumers, value to customers, and governance roles (if known). If other aspects of the service are known at this time (such as service details, expectations), additional sections may be drafted as well. Changes to existing services (if known) should be applied to the current version of the SLE during this stage as well.
Planning Executive Summary	The Executive Summary is a PowerPoint presentation summarizing key information from the Project Definition, Project Plan, and Business Case. The Project Manager will use the Executive Summary presentation to obtain Sponsor buy-in. All four deliverables, Project Definition, Project Plan, Business Case, and Executive Summary, construct the Project Charter. The Sponsor signs off on the Project Charter. Upon achieving this milestone, the project may move forward to the Analyze/Design phase.

▪

Analyze/Design

The Analyze/Design phase has the following objectives:

- Understand current business processes.
- Understand current technical architecture
- Design future business processes.
- Understand and document technical requirements
- Use the business process requirements to drive out application and integration requirements and metrics.
- Create the technical architecture design to meet quality requirements, technical constraints, and performance requirements.
- Create the test approach and leverage the business requirements to start developing test conditions and expected results.

In order for a project to exit the Analyze/Design phase, it must have:

- Identified business requirements and received sign-off by the sponsor and appropriate stakeholders.
- Identified technical requirements and received sign-off by the technical domain owners.
- An approved blueprint of the solution that describes how the services, components, and support capability come together to meet objectives of the project.
- An agreed-upon functional and technical design that describes how the requirements will be satisfied.
- A Project Sponsor committed and accountable to manage the cost and deliver of the controllable benefits described in the refined business case.

Analyze/Design Deliverables

The following tables outlines the required program deliverables for the Analyze/Design phase.

Deliverable Name & Link to Template	Description
Solution Architecture Blueprint	The Solution Architecture Blueprint outlines the target-state of the solution, specifically the application or service, the technology or process, and training required to support it. The Solution Architecture Blueprint contains the design decisions for application, process, technology, as well as training and performance support. The solution blueprint typically does not contain detail specification of how each piece-part works; rather it defines what technology parts are used and how they interact.

Requirements Traceability Matrix	The Requirements Traceability Matrix captures high-level customer requirements, stated by business representatives, customers, and other stakeholders, which include functional, quality, interface/data, security and control, content, technical, training, performance support, and deployment requirements. The Requirements Traceability Matrix is updated throughout the project life-cycle to maintain cross-references as analysis, design, build, and test components.
Analyze/Design Executive Summary	The Executive Summary is a PowerPoint presentation summarizing key information from the Analyze/Design Phase. The Project Manager will use the Executive Summary presentation to obtain Sponsor buy-in. The Sponsor signs off on the Executive Summary and the required phase deliverables. Upon achieving this milestone, the project may move forward to the Build/Test Phase.
Service Flow	The Service Flow deliverable presents a high-level overview of the key service inputs, activities, and outputs in a visual diagram. The Transition Team creates this with input from the project team members that intimately know the Service. When complete, the diagram depicts the request fulfillment of the service from initial order through provisioning and identifies specific steps and roles. .
Support Model	The Support Model identifies key elements that impact the overall support strategy during both a transition and run state. Using these key elements, various tools are leveraged that help scope the support strategy, staffing needs, and logistics.
Updated Service Level Expectations (SLE)	During Analyze/Design, the initial draft of the SLE is updated by focusing primarily on updating the 'Service Definition' section as needed and providing the service details. If other aspects of the service are known at this time (such as service expectations), additional sections may be drafted as well.
EA Questionnaire	The EA Questionaire is a brief questionnaire to gauge the architecture significance of the project. This deliverable will be expanded during the review process and will be a key input into the Solution Architecture.
Information Assurance Questionnaire	The Information Assurance Questionnaire is used to gauge the potential information assurance risk associated with a service project and will be used to determine IIA's level of engagement with the project. This questionnaire should be completed early in the lifecycle of a project, typically during the project's early in the project's analyze/design phase, before any significant design or architecture decisions have been made.

Build/Test

The objectives of the Build/Test phase are to:

- Plan the testing of the product or application.
- Build and test the components of the product/application.
- Refine the customization, integration, and conversion of the product/service until they are concrete and detailed enough to implement.
- Prepare and execute the assembly test to ensure classes and components work correctly when integrated into a complete application/solution.
- Prepare and execute the test to ensure the solution meets the functional requirements and that all components work together.

In order for a project to exit the Build/Test phase, it must have:

- Verification and agreement by Project Sponsor that the service, component, or support capability meets the defined requirements.
- Commitment from pilot stakeholder group to participate in Service Pilot.
- Actual and ETC costs within an acceptable range of tolerance from baseline.

Build Deliverables

The following tables outlines the required program deliverables for the Build portion of the Build/Test phase.

Deliverable Name & Link to Template	Description
Build Documents	The program is intentionally not specific regarding this deliverable, as it varies based on the type of service project being completed. This deliverable should include the key the outputs of the project, and in many cases there may be more than one. For an End User Computing deliverable, an example might be the "Windows Build Image" – it should be essentially whatever the project is building during the Build/Test phase. This deliverable is called out specifically in the methodology because it is important to track these items in the Work Plan as they are critical path items for moving into the subsequent phases.
Test Approach	The first step in preparing for any test stage is to develop a test approach. This deliverable outlines the specific test types to be performed, the scope and objectives of each test type, a high-level schedule, the pass strategy, test environments and any testing tools to be utilized as a part of the testing effort.
Production Support Plan	The production support plan is the authoritative document that defines how ITS supports a service in its run state. It reinforces our commitment to adhere to processes and procedures defined at an organizational level. It is followed by all ITS staff. ITS provides a pre-determined, base level of production support for all operational services in a run state. This support is set forth in the *Standard Production Support Plan* and establishes the roles and expectations critical to

	providing all ITS users the same minimum amount of consistent, timely, and effective service support across the organization.
Service Capacity Plan	The Service Capacity Plan is to document assumptions and expected capacity usage for each Service.
Service Availability Plan	The Service Availability Plan is to document assumptions and plans for service availability.

Test Deliverables

The following tables outlines the required program deliverables for the Test portion of the Build/Test phase.

Deliverable Name & Link to Template	Description
Test Scenarios, Conditions & Expected Results	Test Scenarios are high level descriptions of functional and technical areas to be tested. Scenarios are broken down into detailed, testable conditions and expected results based on the requirements defined in the Requirements Traceability Matrix. This document should be used to define all test scenarios and conditions, and to document testing activity during the testing process. The Scenarios, Conditions & Expected Results assists with understanding test phase status as well as tracking the work to ensure all conditions and scripts are completed.
Service Pilot & Deployment Plan	The Service Pilot & Deployment Plan outlines the project's approach to the Service Pilot and Deployment. It includes key success factors, relationships/dependencies with other projects, the scope of the Service Pilot and Deployment, Key Stakeholders, Implementation Risks, Key Activities and Timelines.This deliverable should be used to help prepare for the Service Pilot and Deployment and should be highly integrated with the Program Service Pilot & Deployment Plan.
Build/Test Executive Summary	The Executive Summary is a PowerPoint presentation summarizing key information from the Built/Test Phase. The Project Manager will use the Executive Summary presentation to obtain Sponsor buy-in. The Sponsor signs off on the Executive Summary and the required phase deliverables. Upon achieving this milestone, the project may move forward to the Service Pilot Phase.
Service Restoration Plan	The Service Restoration Plan is a document to help establish Service Level Expectation (SLE) compliance, Data Recovery, and Custom Significant Incident guidelines for each service.
Early Life Support Plan	Early Life Support (ELS) is a time-limited, enhanced level of assistance to ensure appropriate levels of support are provided during stabilization, issues are addressed quickly, and knowledge transfer is occurring to the run

	organization. All support staff participating in Early Life Support follow the plan. The objective of the Early Life Support plan is to establish specific activities to occur that are above and beyond the standard production support plan. The plan further establishes stabilization criteria that, once met, trigger the move to standard production support. The plan is often considered the support plan that is active during the pilot phase of a project.
Organizational Readiness Assessment	The Organizational Readiness Assessment is comprehensive analysis of the organizations readiness to deliver and support the Service as defined in the Service Level Expectation (SLE). It considers many factors such as security, knowledge transfer, technology, application, monitoring as well as roles and responsibilities. The information gathered during the assessment is instrumental in guiding a go/delay decision. A determination of organizational readiness is based on comprehensive factors, including: ▪ Organizational readiness to support the service ▪ The customer's ability to consume the service ▪ Technical completeness, accuracy, and availability to deliver the service

Service Pilot

The objectives of the Service Pilot phase are:

- Prepare and execute the performance test to ensure the application or service meets all the performance-related metrics, such as response time, availability, load/throughput, and reliability.
- Test all the components of the service including the enabling shared services such as Integrated Service Desk, Service Management Processes and Metrics, Operations and Availability, etc.
- Prepare and execute the user acceptance test to ensure the application or service meets user expectations.
- Assess whether service will scale.

In order for a project to exit the Service Pilot phase, it must have:

- Verification and agreement by pilot owner that the service, component, or support capability met the defined requirements.
- Identified and dispositioned enhancement and requirements gaps, as well as have Project Stakeholder agreement.
- Updated the work plan.
- Updated the cost and benefit estimates and received sign-off by the project sponsor.

Service Pilot Deliverables

The following tables outlines the required program deliverables for the Service Pilot Phase.

Deliverable Name & Link to Template	Description
Service Run Book	The Service Run Book is created to support the transition of a service into a "run" state by providing a detailed explanation of how the service should operate and includes step-by-step procedures, general tips, and a list of SMEs.
Service Pilot Lessons Learned	The Service Pilot Lessons Learned Document is meant to document key takeways and areas of improvement in relation to the Service Pilot phase.
Final Service Level Expectations (SLE)	The final version of the Service Level Expectations deliverable is intended to provide the definitive description and expectations for a given service in its run state. SLEs provide clarity to ITS staff, as well as customers and users by clearly articulating the nature of the service and also the commitments which ITS makes in delivering the service. This includes commitments for key service attributes such as service availability, performance, and response times for provisioning and support. During the Service Pilot Phase (prior to Deployment), the final version of the SLE should be completed. All sections of the document should be completed unless there are sections that do not apply to that service. If there is not a

	Service Pilot, the SLE should be finalized at the end of Build before moving to deployment.
Service Pilot Executive Summary	The Executive Summary is a PowerPoint presentation summarizing key information from the Service Pilot Phase. The Project Manager will use the Executive Summary presentation to obtain Sponsor buy-in. The Sponsor signs off on the Executive Summary and the required phase deliverables. Upon achieving this milestone, the project may move forward to the Deploy/Run Phase.

Deploy/Run

The objectives of the Deploy/Run phase are:

- Prepare the production and operating environments for application/service roll-out to the users and other application stakeholders.
- Enable users and other stakeholders to use or support the new application/service.
- Roll-out the new application/service to the deployment groups.
- If applicable, identify the requirements for transferring responsibility for operating and maintaining the application to the operating group and developing the transfer plan.

In order for a project to exit the Deploy/Run phase, it must have:

- Key stakeholders, service portfolio manager, and project sponsor sign-off on the User Acceptance Test Plan and how it is executed.
- The Deployment Plan sign-off, as well as verification of service management requirements from Service Operations leadership.

Deploy/Run Deliverables

The following tables outlines the required program deliverables for the Deploy/Run Phase.

Deliverable Name & Link to Template	Description
Project Closeout Checklist	The Project Closeout Checklist is meant to verify that all documentation has been archived appropriately and all of the appropriate tasks complete prior to closing the project. The Key Service Document Repositoryis the where all service information documents should be stored at the completion of a project. Each ITS service has a section for documents providing information about that service. The Service Owner will be the ongoing person responsible for maintaining this repository of information about their service for reference by all ITS staff. This is an inward facing Sharepoint site and should provide one-stop stop to obtain all information about an ITS service.
Project Lessons Learned Summary	TheProject Lessons Learned Document is meant to document key takeways and areas of improvement in relation to project execution throughout the entire project lifecycle.
Customer Lessons Learned Summary	The Customer Lessons Learned Summary is intended to capture customer feedback regarding the rollout of NextGen services. Feedback may be solicited via survey and/or focus groups related to the rollout processes, interactions with ITS employees, and overall satisfaction with the outcome of the rollout.
Deploy/Run Executive Summary	The Executive Summary is a PowerPoint presentation summarizing key information from the Deploy/Run Phase. The Project Manager will use the Executive Summary presentation to obtain Sponsor buy-in. The Sponsor signs off on the Executive Summary and the required phase deliverables. Upon achieving this milestone, the project may close the project.