



Program and Project Management

Joint Legislative Oversight Committee on Information Technology

James Weaver
State Chief Information Officer and Secretary
N.C. Department of Information Technology

October 2021

Contents

- Contents1
- Legislative Request1
 - Introduction.....2
 - Policies, guidelines, and regulations.....3
 - Statewide program and project management strategy4
 - Strategy for DIT project managers.....6
 - Project management progress, personnel trainings and certifications6
 - Legislative recommendations.....7

Legislative Request

This report is submitted pursuant to Session Law 2020-81 Section 6.(d), which reads:

SECTION 6.(d) On or before July 1, 2021, the Department of Information Technology shall submit a report to the Joint Legislative Oversight Committee on Information Technology and the Fiscal Research Division on the pilot program outlined in this section. At a minimum, the report shall contain the following:

- (1) A list of the policies, guidelines, and regulations issued under the pilot program.*
- (2) The contents of the five-year strategic plan for program and project management.*
- (3) A summary of the written strategy for project managers in the Department.*
- (4) Evidence of any improvement in project management in the Department, including a summary of personnel training and certifications, resulting from the pilot program.*
- (5) Any programmatic or legislative recommendations.*

Introduction

DIT was asked to establish a program and project management improvement program addressing policies, guidelines and regulations, long-range strategy, and project risk assessment.

The following report outlines the activities under way to address these topics. To ensure that the legislation is appropriately addressed, the report is divided into five sections corresponding to the five items requested in S.L. 2020-81 Section 6.(d).

Policies, guidelines, and regulations

North Carolina has had laws surrounding IT project management standards, including project approval thresholds, since 2004. Based on the requirements and authority granted under S.L. 2004-129 the State Chief Information Officer (SCIO) established the Enterprise Project Management Office (EPMO), which oversees agency projects and determines project thresholds and requirements for review. The authority granted to the SCIO was expanded with the establishment of the Department of Information Technology (DIT) in 2015.

There are two primary components to the SCIO's authority regarding IT projects: 1) thresholds and requirements for project reporting and oversight and 2) requirements for project managers. The EPMO assists agencies in determining project types for oversight and reporting purposes.

Thresholds and requirements for project reporting and oversight

There are four project categories:

1. **Administrative:** Administrative projects do not require SCIO review. This classification is for state agencies/entities to manage their program/project portfolio, especially regarding resource (funds, staff) allocation.

Example: Onboarding agencies to DIT's Digital Commons platform. This project migrates agency websites to the Digital Commons Drupal platform, which is a standardized, repeatable process.
2. **Lite:** A project is classified as Lite if the project cost (excluding agency internal personnel) is \$250,000 or less, the 5-year operations and maintenance costs are \$500,000 or less, and it is considered a low-risk project. If during the life cycle of a Lite project, the criteria for project cost, operations, and maintenance cost, and/or risk has changed such that it exceeds the Lite project threshold, the lite project will be changed to an enterprise project.

Example: Migrating N.C. Department of Public Safety divisions from their Office 365 tenant to DIT's Office 365 tenant is a low-risk project that falls below the lite project cost thresholds.
3. **Enterprise:** Any project that is not Administrative or Lite is considered an enterprise project.

Example: The North Carolina Identity (NCID) replacement project is updating the identity management service that allows North Carolinians to access more than 100 government applications. This project will impact applications across state government and is over the enterprise project cost threshold.
4. **Program:** Programs are multiple related projects that all need to happen to meet an end goal.

Example: North Carolina Families Accessing Services through Technology (NC FAST) is a program designed to improve the way the NC Department of Health and Human Services and county departments of social services do business. This program has had more than 15 projects connected to it.

Since the establishment of the EPMO in 2004, the office has overseen and reviewed 859 completed enterprise projects and 82 completed lite projects. Over the last 17 years 337 projects with EPMO oversight have been canceled. Projects are canceled either by the SCIO or the sponsor agency. Reasons for cancelation include failure

to meet oversight requirements, lack of funds, or a change in strategic direction in the agency. There are currently 9 active programs, 107 active enterprise projects, 31 lite projects, and 16 projects on hold.

In 2015, we adopted an [International Organization for Standardization \(ISO\) 9001](#)-based program and project management [Quality Management System \(QMS\)](#) to facilitate a standardized process for project management and the reporting of information technology projects. The EPMO has also developed and implemented Project Management Institute (PMI)-based common [templates, forms](#), and tools. This includes the EPMO's Microsoft-based project management system, Touchdown. All project managers are provided access to Microsoft Project Professional and Microsoft Project Online which agencies can use to develop, track, and analyze key artifacts such as program/project charters, financial/cost assessments, benefits estimations, weekly status, decision points, change requests, issue/risk management, and schedules.

The EPMO gathers structured data (root cause, actual costs via integration with NCAS/SAP, budget estimates, business capabilities, benefits, etc.) and calculates key metrics such as Cost Performance Index (CPI) and Schedule Performance Index (SPI) to assess the status of active programs and projects. To facilitate consumption of this data and enhance program, and project oversight and analysis the EPMO has developed, integrated, and implemented robust reporting and dashboard (PowerBI and Tableau) functionality within Touchdown. All dashboards are accessible to agency CIOs and project managers.

Requirements for project managers

To ensure that project managers meet applicable quality assurance standards as referenced in G.S. 143B-1441, all IT program/project managers in state government are required to attend the IT Program/Project Management Foundations course, which includes [training](#) on the state's standards, policies, and guidelines as well as how to use the Touchdown tool. This is a two-day training session that touches many aspects of program/project management processes, including enterprise architecture and security reviews throughout the project life cycle. It is offered by the EPMO quarterly.

In addition to the Project Management Foundations course, the EPMO offers a [Project Management Professional](#) certification prep class to aid state project managers in their preparation for the PMI global standard Project Management Professional certification. The SCIO encourages all IT project managers in state government to pursue this certification.

[Statewide program and project management strategy](#)

DIT has developed a strategy for program and project management with three primary components: updating funding models, updating the governance structure and processes, and updating methodologies to keep up with digital transformation.

Updating IT funding models

As part of a broader IT funding overhaul, we recommend the creation of specific IT fund codes within agencies' existing budget codes, which will enable the state to sequester funds for IT. Appropriating money to IT-specific fund codes will also provide the SCIO visibility into IT budgets, enabling more effective management of IT operations spending. This visibility will allow the SCIO to assist agencies in planning for IT expenditures. In addition, based on criteria developed by the SCIO and the Information Technology Strategy Board (ITSB), the

SCIO will recommend to the Governor the prioritization of expansion initiatives including projects to be funded in the Governor's budget. The General Assembly will determine which projects to fund in the final budget. The Office of State Budget and Management (OSBM) will release money to the agencies for project initiation upon approval by the SCIO.

The establishment of these funds will enable the SCIO to better manage IT expenditures and carry out project management and delivery responsibilities in the most efficient and cost-effective manner. It will also reduce the likelihood that duplicative projects are initiated.

Updating the project governance structure and processes

Secretary Weaver is focused on proactive engagement and project/program governance. Going forward, we are revising our project governance structure to include a new approach to the initial review and prioritization of proposed projects. This will require the SCIO, ITSB, OSBM, and agency leadership to be involved in project prioritization and decision-making before a project is initiated. After expansion items have been prioritized by the SCIO, recommended in the governor's budget, and funded by the General Assembly, the SCIO will review funded projects to make sure that they have the appropriate program and/or project management structure prior to initiation. OSBM will release the funds to the agency upon approval by the SCIO at each phase of the project life cycle, to ensure that projects are continuing to achieve the stated business outcomes.

At the highest level this will look like the following:

1. SCIO works with ITSB to develop prioritization criteria
2. Agencies present business needs, including rough order of magnitude cost (both one-time and recurring), to the SCIO
3. SCIO prioritizes needs from a statewide perspective and recommends which to fund
4. Governor determines which prioritized/recommended projects to include in Governor's budget
5. GA determines which projects to fund
6. SCIO reviews funded projects to make sure that they have the appropriate program and/or project management structure
7. Funded projects may be initiated, and funds drawn down based on SCIO approval
8. Funding for subsequent project steps may be drawn down based on EPMO and/or SCIO review

In addition to changing how projects are prioritized, we will be working to establish portfolio manager roles both at DIT and in the agencies. Individuals in these roles will understand and articulate what is in each agency's existing application portfolio and how new applications would fit in.

Updating methodologies to keep up with digital transformation

One of the two committees of the ITSB is focused on digital transformation. We are working closely with the committee to align efforts across the state. As part of these efforts we are shifting our project management methodologies to keep up with current application development and design methods. We are embracing Agile and DevOps frameworks wherever possible and are providing training for our project managers accordingly. Trainings are also available for other key roles, including business owners/sponsors, business analysts, solutions architects, process improvement specialists, and quality assurance specialists. The iterative nature of Agile and

DevOps frameworks allows us to take advantage of incremental improvements rather than waiting until an entire project is complete. This also enables us to catch and address issues earlier, reducing risk to the state.

In addition to project management-specific trainings, we are encouraging all project managers and project stakeholders to take the Lean Six Sigma Yellow Belt training that DIT offers. This training helps stakeholders understand why process improvement is important to project development and execution, and how to do it. IT projects are designed to automate processes and present the best opportunity to map and update existing processes for maximum improvement in efficiency and efficacy.

Strategy for DIT project managers

We are working to update current classification specifications (IT Project Manager I, IT Project Manager II, IT Project Portfolio Manager, IT Project Portfolio Director) to better represent the class concept, knowledge, skills, abilities, and minimum education and experience. We have also identified a preferred list of professional certifications for project and program management roles (junior project manager, senior project manager, program manager, project management advisor, portfolio manager) and more clearly defined career paths. We have reviewed the recommended changes with the program/project management offices in the Department of Health and Human Services and the Department of Transportation. The classification changes, career paths, and any new incentive changes must be reviewed and approved by the Office of State Human Resources (OSHR). Classification changes are due to be reviewed and approved by the Human Relations Commission in October 2021.

In efforts to attract and retain talent in project management, some DIT sections currently pay for professional certifications (Scrum Master, PMI-PMP, PMI-ACP, and PMI-PgMP) as well as annual dues to maintain those certifications. Going forward all DIT sections will pay for those certifications and dues related to the individual’s role if funds are available.

Project management progress, personnel trainings and certifications

DIT has established several Communities of Practice (COPs) relating to project management. These COPs are open to all individuals across state government. Participants serve agencies across the executive and judicial branches and represent both the IT and business sides of their organizations. Many of our participants are involved in more than one COP. The COPs range in size from 69 to 466 members. These communities provide a way for individuals to share knowledge, skills, and abilities, as well as a venue where they can be heard.

Community of Practice Membership	
Community	Description
Agile	This is a new COP that provides IT professionals with a place to discuss, learn about, and promote Agile frameworks (e.g Scrum, Kanban). Members include Agile practitioners, project managers, business analysts, and more from across the agencies. (222 members)
Business Analysis	This COP provides IT and business professionals business analysis best practices, knowledge/information access, learning and development, and collaborative opportunities. Members include business analysts supporting agencies across the enterprise as well as IT

	professionals in affiliated roles and domains such as architecture, project management, and procurement. (279 members)
Process Improvement	This COP brings together process improvement practitioners from all around state government to collaborate and share ideas / best practices. Members include individuals in process improvement roles supporting agencies across the enterprise as well as IT professionals in affiliated roles and domains such as architecture, business analysis, project management, and procurement. (69 members)
Project Management	This COP represents a group of individuals across NC agencies who share an interest in project management, collaborates with others, share best practices, and seeks continuous improvement strategies. Members include individuals in project/program management roles supporting agencies across the enterprise as well as IT professionals in affiliated roles and domains such as architecture, business analysis, project management, and procurement. (466 members)

As noted above, all program/project managers are required to take the PM Foundations course. The course is also open to project sponsors, business owners, and other program/project stakeholders. To date, the EPMO has trained more than 480 participants through the PM Foundations/Touchdown training since 2015.

In addition to the training that covers our specific project management processes and tool, the EPMO offers a certification prep class to aid state project managers in their preparation for the Project Management Institute's (PMI) global standard Project Management Professional certification. Approximately 500 state and local government employees have attended the course since its inception in 2005, and 48 students are currently taking the class.

Legislative recommendations

We do not have any legislative or programmatic recommendations specific to program or project managers at this time. However, as stated in the strategic plan section, we recommend updating the funding structure for IT in the state by establishing IT-specific fund codes within agency budgets. With visibility into agency IT budgets, the SCIO can more effectively oversee and manage IT resources across the state.