Delivering More Value with Enterprise Program Management Offices

July 2018; Concept Study

Abstract

To increase efficiency in large organizations, especially government, some executives are turning to Enterprise Program Management Offices (EPMO). EPMOs allow an executive to have a singular line of sight into multiple technology projects. An EPMO will ensure that the executive's mission and vision are threaded throughout the projects for foundational cohesiveness and efficiency. Additionally, by using data-driven technology and project management processes, an EPMO will ensure that projects stay on-time and on-budget. Finally, an EPMO is inherently consistent with agile development and modular architecture processes. Authors discuss two methods for implementing an EPMO, including funding and case studies.

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Executive Summary

An organization's successful and efficient management of technology and infrastructure projects[1] must happen at the executive level. When mid-level managers control technology projects, they may serve the parochial needs of the managers, but there are often greater challenges with redundancy, inefficiency, the interoperability of systems, and overall value to the organization.

However, executives already have a full plate. Effectively managing technology projects across the enterprise is a substantial time and effort burden. Some organizational executives are beginning to use Enterprise Program Management Offices (EPMO) to more judiciously use their time in this effort. EPMOs serve the organization's executive level the way Program Management Offices (PMOs) serve mid-level management.

There are two main functions of an EPMO:

1. Bring data-driven technology and infrastructure project management expertise to the entire collection of projects being executed within the organization, or enterprise; and
2. Parlay the executive's mission and vision into all projects, creating foundational cohesiveness.

There are two main methods to institute EPMO concepts within an organization:

1. Augment organizational staff with a vendor that will manage the EPMO, enhancing the organization's ability to hire short- or medium-term project support with high quality talent; and
2. Develop an EPMO unit within the organization and hire an external vendor to provide professional services expertise such as organizational management,
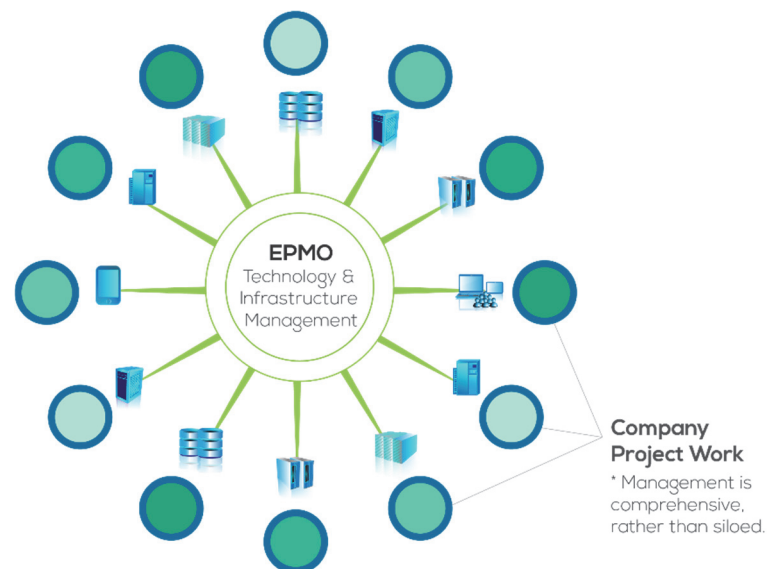
[1] In this paper, the focus is mainly on IT projects, but the same issues and solutions may apply to other large, expensive projects with multiple phases, vendors, and dependencies. In the case study section, there is one example of a state-based Enterprise Program/Project Management Office (EPMO) solution that focuses on technology projects and a second that focuses on transportation projects. Infrastructure and technology are closely related, and EPMO may be a good solution for both.

project management skills and approaches, team cohesiveness, software training, mentorship development, and modern software development practices.

These methods can work with any type of public or private organization. However, governments often face unique challenges that can be alleviated with EPMO. Limitations on employee hiring, locations, and attracting and managing talent with the proper level of expertise can fall outside the domain for government human services, technology, and infrastructure. Reorganizing a government department or agency to promote a project management unit may be a non-starter in some organizations due to laws, costs, labor, or other challenges.

Many government contracts -- particularly human services technology -- are moving toward a modular approach and away from enterprise solutions. This means there may be many smaller contracts to provide parts of a larger solution. Oftentimes, these projects may involve a Systems Integrator and a PMO, but still do not connect cohesively and transparently to other projects within the enterprise.

> An EPMO can offer an organization's executive level a clear line of sight into the status, costs, and functionality of technology and infrastructure projects.

IT's just part of our **STRATEGIC INSIGHT.**

An EPMO can offer an organization's executive level a clear line of sight into the status, costs, and functionality of technology and infrastructure projects. The EPMO will also ensure that the executive's mission and vision for the organization carries through into the projects, connecting sponsors, stakeholders, and end users.

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Background

Technology projects within an organization are often managed and funded by subunits within that organization, yet there can be many enterprise-wide dependencies. If IT projects lack executive-level leadership, support, and oversight, they often succumb to schedule delays, compromised functionality, and cost overruns. An applicable metaphor is a sports league where schedules, rules, and logistical support account for all the national and local issues teams may have. If each team played by its own rules or schedules, not considering the larger enterprise, the outcome would be poor. The league leadership brings expertise and administration to a complex set of dependencies in order to serve the successful outcome of the league. The project support for setting the schedules and rules brings expertise from each of the teams and their localities.

While executive-level management is important for all aspects of an organization's work, it is critical for technology and infrastructure projects. Executive oversight of IT projects can achieve enormous efficiency and reduce waste since implementing even a modest improvement through EPMO would generate significant budget savings. Organizations spend a great deal of funds on IT projects, so the margins for waste and inefficiency are much higher. IT projects run the greatest risk of overruns[2], costing organizations time, money, and credibility. For example, here are some statistics on federal government IT spending in Fiscal Year 2018 (FY18)[3]:

- ➢ FY18 spending by top five federal departments:
  - ▪ Department of Defense (DoD): $36 billion
  - ▪ Department of Homeland Security (DHS): $6.8 billion
  - ▪ Department of Health and Human Services (HHS): $5.7 billion
  - ▪ Department of the Treasury: $4.6 billion
  - ▪ Veterans Administration (VA): $4.4 billion
- ➢ Civilian departments listed above (without the massive DoD spending) represent 46.6% of FY19 non-defense spending on IT in the federal government[4]
- ➢ HHS IT spending has been declining from a peak in FY15 ($13.6 billion) and FY16 ($13.5 billion)
- ➢ Nearly 54% of federal IT projects in FY18 were in medium or high-risk status

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[2] Bloch, Michael, et al. "Delivering Large Scale IT Projects On Time, On Budget, and On Value." McKinsey & Co. Published October 2012. Retrieved from: https://www.mckinsey.com/business-functions/digital-mckinsey/our-insights/delivering-large-scale-it-projects-on-time-on-budget-and-on-value

[3] Federal IT Dashboard. Retrieved on June 7, 2018 from: https://itdashboard.gov/#explore-govwide

[4] White House Office of Management and Budget. IT Chapter of Fiscal Year 2019 Budget. Retrieved on June 7, 2019 from: https://www.whitehouse.gov/wp-content/uploads/2018/02/ap_16_it-fy2019.pdf

An organization executive can realize the vision of efficient, timely, and functional IT projects by utilizing an EPMO. An EPMO assists the executive by bringing a project management and software expertise framework to tracking and evaluating project progress. This is especially critical in organizations where there are dependencies on, or implications for, other organizations and subunits.

What is EPMO?

Ideally, an EPMO offers a team of experts to execute IT projects that fulfill an executive's mission, vision, and goals through data-driven methods. The team should represent the organization's policy disciplines (e.g., healthcare, transportation, child support), project management, and technologists. This multi-disciplinary approach allows the team to properly govern projects on the executive's behalf without falling into silos.

With an EPMO, it is critical that the vendor report to the decision-making executive or leader. An important difference between EPMO and a PMO is that PMOs still get siloed, often focused on the more parochial issues of their silo. On the other hand, an EPMO will consider the enterprise and full set of stakeholders in all decision-making. An EPMO should work closely with each PMO and product team in the enterprise.

Since IT projects usually involve numerous teams, products, and integrations, coordinating these teams can be serious and difficult work. In large private or government bureaucracies, competing priorities may develop, making it difficult to meet schedule and budget obligations.

When properly executed, an EPMO will reduce project inefficiencies, eliminate schedule delays, and increase end user satisfaction. Every organization has opportunities to benefit by ensuring that IT developers and stakeholders are cooperative, informed, and transparent.

Benefits of EPMO

The major benefit of an EPMO arrangement is that executives can see their strategy and vision integrated into the network of projects, ultimately fulfilling that mission.[5] [6] Furthermore, executives can more empirically evaluate project performance, status, costs, and trade-offs. In large IT projects, executives are often faced with decisions about how to promote items from the feature backlog, also referred to as "technical debt." The process of adjudicating each item causes the executive to think about cost, schedule trade-offs, and the impact to internal and external users. A traditionally managed EPMO will bring processes, tools, and templates to the projects which will highlight areas of concern and streamline the decision-making analysis for mitigation of issues.

Additionally, EPMO vendors allow the executive to contract for specific subject matter expertise: particularly project management, technical architecture, software development, program and policy, and operations management. In some cases, executives may not have the right in-house expertise and may be unable to attract the right expertise due to employee compensation and benefits, hiring procedures, or location. With a competent EPMO firm, an executive can tap into deep subject matter expertise as needed, without increasing their headcount.

Another critical aspect faced by executives is cost overruns. The Project Management Institute describes why project overruns happen and how to prevent them.[7] Critical to their approach is an empirical, transparent method with consistent, repeatable processes. An EPMO has the ability to organize a project -- including tasks, risks, schedules -- and ensure that all team members understand the issues, their roles, and how to resolve blockers.

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[5] Crawford, J.K. "The Enterprise PMO as a Strategy Execution Office." 2010. Retrieved from: https://www.pmi.org/learning/library/strategic-project-management-office-execution-6737

[6] Project Management Institute. "The Project Management Office: Aligning Strategy & Implementation." 2014. Retrieved from: https://www.pmi.org/business-solutions/white-papers/align-strategy-implementation

[7] Condon, E., and Hartman, F.E. "Playing the Game." Published in July 2004. Retrieved from: https://www.pmi.org/learning/library/overruns-poor-incomplete-information-prodcutivity-communications-8290

Many studies have been done about funds wasted for technology and infrastructure projects.[8] One article described how to tell if a project is failing[9] and offered warning signs that the project is off-track, such as: people working lots of overtime, critical people not attending meetings, mounting stress resulting from lack of trust, people not wanting to deliver bad news, milestones not being met, and scope continuing to change. Additional concerns are raised if executives are unable to identify the person who is clearly accountable for each part of the project, as well as the ultimate outcome. Agile development practices, discussed below, can help reduce some of these issues; however, Agile practices alone will not better coordinate across multiple projects in the enterprise. However, an effective EPMO can help an executive maintain accountability and avoid all these pitfalls.

EPMO Models

There are two primary approaches to EPMO implementation. The first is a staff augmentation model, where the EPMO team is comprised of a vendor's employees who work with the executive's staff in order to increase person-hours and expertise in the organization. This arrangement works well in cases where the executive client has a good foundation for expertise, but is unable to permanently hire the sufficient number of qualified employees to complete and manage a project. In this case, the team can be hired to assist and augment existing staff with training, cultivating expertise, and handling the administrative and technical work associated with proper IT governance on behalf of the executive. The EPMO offers the executive an empirical framework to facilitate decision-making.

A second approach for EPMO is a professional services model, where the vendor brings staff with unique expertise, generally lacked by the executive client team. This might include: strategic assessments, customized technology, or rigorous project management. In some cases, an experienced EPMO contractor might train and mentor the client's team how to properly manage projects, work cohesively, and reduce siloed workstreams.

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[8] Project Management Institute. "Using PMI Standards Framework to Improve U.S. Federal Government Capital Investment Outcomes." 2015. Retrieved from: https://www.pmi.org/business-solutions/white-papers/using-pmi-standards-framework-to-improve-us-federal-government-capital-investment-outcomes

[9] Cook, Rick. "How to Spot a Failing Project." CIO Magazine. 2007. Retrieved on June 21, 2018 from: https://www.cio.com/article/2438424/project-management/how-to-spot-a-failing-project.html

Both EPMO models will cover the basic elements of project management, including a work breakdown structure, schedule, status reporting, training plan, communications plan, and a documented approach to ensure quality, and change management. A successful EPMO unit will have clear practices for tracking and measuring progress on each project milestone, as well as methods to triage risks and issues. The EPMO will be skilled with stakeholder engagement, including at a minimum end users, staff, key players for interoperable projects, and project sponsors. The EPMO will be able to make informed, data-driven recommendations to the executive to resolve issues.

EPMO is an Agile Practice

Agile development practices, long popular in private sector software development, are becoming more mainstream since the United States Digital Service created their "Digital Services Playbook,"[10] promoting better technology practices in government. Agile development practices seek to promote transparency and communication in order to deliver the best product for end users. The basis for Agile practices is to build, demonstrate, and iterate in short cycles to reduce project failure and increase end user satisfaction.

To ensure success with the principles of Agile development practices, there are significant project management opportunities to administer, organize, and coordinate with teams delivering the software. For example, regular communication and meetings (e.g., often daily), and project status and artifacts are clearly communicated and readily available to all team members. Administering this effort can be daunting, particularly on large IT projects with multiple workstreams. Meetings must be scheduled, conducted, and reported; documents must be managed; and dashboards must be created and populated. An EPMO can effectively and efficiently handle this effort across a multitude of projects.

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[10] United States Digital Service. "Digital Services Playbook." Retrieved on June 6, 2018 from: https://playbook.cio.gov/

EPMO in Government

EPMO implementation is particularly suitable for state and federal government. While the approach works well in private enterprise, companies are usually more flexible organizationally and can recruit full-time staff to establish an internal EPMO division. On the other hand, state and federal governments are often understaffed, but may have appropriations to hire external vendors for shorter-term projects like IT software development.

Governments often have hiring budgets that diminish over time, preventing them from employing new people, especially for short- or medium-term projects. Additionally, governments may have challenges competing for talent with the private sector. Some state and local pay schedules are inconsistent with the market rates for critical domain expertise, particularly talented project managers and software developers. Finally, government hiring processes can be lengthy, causing agencies to lose opportunities to employ good candidates.

The following case studies offer two examples of how state governments have utilized EPMO to create efficiency in their IT or transportation projects. The key in both case studies is a centralized, executive-sponsored, empirical, and transparent project management approach.

Case study 1: Connecticut's staff augmentation approach

Connecticut's Department of Social Services (DSS) serves approximately one million Connecticut residents through nine divisions -- including child support, Medicaid, the Children's Health Insurance Program, and cash and nutritional assistance -- with 1,700 staff members. Connecticut's DSS has engaged in many technology projects impacting one or more of the DSS divisions, as well as other stakeholders in the state, such as researchers, social service providers, and other government departments.

Connecticut uses a vendor that is integrated within the DSS operational structure, reporting directly to the Commissioner's office, to provide Enterprise Program Management Office support. The vendor's employees have state email addresses and are present onsite. The vendor is an impartial arbiter over the various technology projects and helps the DSS executive staff objectively understand risks, trade-offs, and project delays. The vendor brings subject matter expertise in the human services

enterprise, systems architecture, software development practices and costs, and rigorous project management.

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CT DSS COMMISSIONER RODERICK L. BREMBY

Establishing EPMO at the Commissioner's office supplies project delivery insight to the DSS executives, creating uniformity across project reporting and dashboards, as well as departmental vision, goals, and objectives. Connecticut DSS Commissioner Roderick L. Bremby noted, "By establishing the EPMO, DSS has created a structured project/initiative evaluation methodology. This framework allows us to evaluate all projects based on their merit, business drivers, and alignment with the state and department visions." Furthermore, the EPMO has created uniform project management templates which builds a consistent framework for all departmental projects, whether those projects are managed by EPMO, or by a Systems Integrator PMO, where EPMO is an informed stakeholder.

Case study 2: Rhode Island's professional services approach

Rhode Island's Department of Transportation (RIDOT) also uses an EPMO model. There are many similarities between IT projects and physical infrastructure construction. In 2016, a new cabinet-level director joined RIDOT and the department underwent a massive assessment and reorganization to fulfill the goals of the department's new 10-year plan. The director controls an annual budget of approximately $510 million with just under 800 employees.

Until the changes began in 2016, many transportation projects had poor ratings and were significantly delayed. This caused dissatisfaction with Rhode Island residents as well as legal problems. In the reorganization, the new RIDOT director created a Division of Project Management to bring a consistent, centralized, and efficient approach to all transportation projects. Staff were trained in project management skills and techniques such as: the project management lifecycle, software, and tools; long term planning

approaches; and creating and tracking metrics for success. Staff were offered ongoing training, skill-building, and mentorship.

By establishing an in-house EPMO at the director level to manage all transportation projects with a uniform project management methodology and approach, there is a common platform, consistent with industry standards. All stakeholders from different facets of the department including civil engineers, environmental regulators, subject matter experts in rights-of-way, public relations, legal, and other contractors can communicate with each other to ensure the projects are on schedule and on budget.

Funding an EPMO

State and federal governments have an array of options for funding an EPMO. One example is Medicaid Management Information Systems (MMIS) and Eligibility and Enrollment (E&E) Systems federal funds. The Centers for Medicare and Medicaid Services (CMS) has bolstered the concept of modularization in recent Medicaid systems-related funding policy, seeking to move states away from large, enterprise-wide solutions, and toward smaller, interoperable, modular systems that easily integrate with new services and can be easily replaced when needs change.

To comply with CMS' priority of modularization, there is a clear need for "air traffic control" at the executive level. Even when states use Systems Integrators for large projects, there are undoubtedly other projects in the enterprise that can benefit from oversight, monitoring for adherence to mission, and promotion of transparency between projects and vendors. It is challenging to ensure ungoverned cooperation when multiple vendors are working together in one government market and competing against each other in other markets. An EPMO can be the air traffic controller which reduces blame and increases project accountability.

Furthermore, insofar as the EPMO role helps to fulfill federal government objectives for shared IT services, particularly in Medicaid, there may be several opportunities to apply for enhanced funding.[11] Since these shared systems, by definition, are leveraged by

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[11] HealthTech Solutions. "Enhanced Human Services Systems Improvement Under the Cost Allocation Waiver." April 9, 2018. Retrieved from: https://healthtechsolutions.com/enhanced-human-services-systems-improvement-under-the-cost-allocation-waiver/

multiple agencies (e.g., Medicaid, CHIP, child support, TANF, SNAP)[12], there is ample opportunity to manage the technology project from an EPMO approach.

CMS has identified this distinct benefit and has approved EPMO costs for some states. States can include an EPMO as part of the technology costs in their Advanced Planning Document process.

Conclusions

EPMO is a flexible way for private enterprise and government leaders to supplement their staff and bring a rigorous project management approach to enterprise-wide projects. The benefits of this approach include: increased transparency, more cooperative teams, expectation management, increased efficiency, decreased waste, and better end products. Most critically, the executive's mission and goals are incorporated into all projects, ensuring cohesiveness and efficiency.

Organizations should evaluate a vendor's technical and subject matter expertise, as well as its experience delivering cohesive and successful project management services. Ultimately, this relationship is built on trust between the executive and the EPMO. Therefore, the most successful candidate will be able to demonstrate their experience using data-driven approaches, domain expertise, and stakeholder engagement that aligns with the organization.

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[12] The Temporary Assistance to Needy Families (TANF) program is also commonly referred to as "cash assistance." The Supplemental Nutrition Assistance Program (SNAP), is commonly referred to as "food stamps."

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