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Transforming IT Procurement: A Four-Part Series

Part 4: Achieving Your Contract Goals

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THE STORY SO FAR…

The first three parts of this publication series discuss how to optimize the steps leading up to the award of a major technology contract:

Part 1 is about framing the problem. In this piece, we detail the common challenges governments face when procuring information technology and include several concrete strategies to apply a results-driven approach to IT procurements.

Part 2 focuses on understanding the marketplace. We include a series of techniques to productively engage the IT vendor community, tools for market research, and tips for expanding competition.

Part 3 provides an approach for writing technology RFPs and dives into how to craft the scope of work section, how to include performance metrics in a technology-focused RFP, examples of IT-specific evaluation criteria, and best practices for pricing.

In this final installment of the transforming IT procurement series, we focus on applying a results-driven approach after the contract has been awarded. Key questions that we'll consider include: Now that we have executed a contract, how do we optimize our chances for success? Furthermore, what role can a central procurement office play in mitigating the risk that the completed project does not match the intended goals of the solicitation?

Challenges in Public Sector IT Project Implementation

Historically, IT projects in government have a dismal track record. An analysis by McKinsey and Oxford Global Projects[1] of over 6,000 public and private sector IT projects completed between 2001 and 2017 found that only one in 200 was delivered on time, on budget, and with intended results. Public sector IT projects fared even worse than private sector ones, with 81% of public sector projects experiencing schedule overruns, compared with 52% for the private sector. Public sector projects on average exceeded their budgets by more than 100%, compared with 38% in the private sector.

Often, public sector IT projects face unique challenges including:

- Pressure to rush deployments with a lack of foresight in planning, testing, and validating technical issues before scaling an implementation,

- Inadequate vendor accountability, including failure by governments to identify specific requirements for vendor support beyond initial deployment to mitigate user issues,

- Insufficient internal stakeholder training and messaging, and

- Limited use of data collection to identify ongoing issues with deployment and adoption.

But it doesn't have to be this way! State and local governments can improve the likelihood of a successful technology project by incorporating active contract management (ACM) principles into the project's implementation phase. In practice, this means converting key performance metrics detailed in the RFP into ongoing collaborative discussions with vendors on real-time performance.

Deploying Active Contract Management Principles

Active contract management is an approach that prioritizes collaboration with vendors to achieve contract outcomes. For contract managers, this means that rather than taking a passive, hands-off approach, contract managers and vendors engage in high-frequency, data-informed meetings designed to produce action that improves contract performance. There are three main elements to an active contract management practice:

- **Data:** Project managers and executives frequently review real-time operational data to identify and address delivery problems before they become unfixable (or prohibitively expensive to fix). Data for review might include performance metrics such as data migration error rates, number of testing defects by severity level, transaction response time, system availability, and issue resolution response time.

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1. "Unlocking the potential of public-sector IT projects," McKinsey, July 2022 (https://www.mckinsey.com/industries/public-sector/our-insights/unlocking-the-potential-of-public-sector-it-projects#/) McKinsey and Oxford Global Projects reviewed 6,003 IT projects from 66 countries, evenly split between public and private sectors, completed between 2001 and 2017.

- **Meetings:** Regular, transparent meetings between government and vendor leads enable both parties to troubleshoot problems and solve challenges quickly and collaboratively. That could look like convening a monthly executive steering committee for major projects and holding project team-level meetings at the beginning and end of each week.

- **Roadmaps:** Running roadmaps or calendars of priorities for more detailed investigation can keep the project on track. Are users sufficiently engaged? Are identified risks being mitigated? Are there emerging threats to project scope? Roadmaps include topics that are critical to project success but may not be regularly reported or reviewed.

> For a full discussion of ACM, including a performance metrics toolbox, see the Procurement Excellence Network publication "Orienting Towards Outcomes: Results-Driven Approaches to Contract Management."

While it's typical for procurement offices to fully hand off a project to the user department or IT team when a technology contract is awarded, this may be counterproductive. Procurement offices, IT departments, and user departments collectively "own" the vendor relationship and are all accountable for project success. There can still be a light-touch role defined for a central procurement office during implementation of large IT projects, such as joining as a member of the project's executive steering committee and/or weighing in at specified touchpoints to monitor project progress. In addition, a procurement office can help provide training or facilitation structures for effective contract management of these high-priority projects.

This publication offers three strategies governments can adopt to increase their ability to deliver successful technology projects based on recent IT project management research, case studies, and lessons from the Procurement Excellence Network (PEN) community: 1) **Be Transparent**, 2) **Adopt Agile Development**, and 3) **Manage Risk**.

Key Strategy #1: Be Transparent

Transparency in technology projects means communicating current project status, issues, and risks to the executive level (such as your Chief Information Officer, Chief Procurement Officer, or even the Mayor, County Executive, or Governor) on a regular basis. Good project reporting is characterized by clarity, openness, and consistency (including regular executive engagement), and this communication should include key metrics of project progress, such as snapshots of percent of project completion vs. percent of budget expended to date.

Why is transparency important? Many of the issues that lead to project failure stem from a lack of clarity and consensus around objectives, requirements, and project status. Steve Andriole, writing in Forbes[2], urges IT project leaders to focus on the problem areas they can control, which he calls definition problems, scope problems, and management problems. Nearly all these types of problems can be

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2. "3 Main Reasons Why Big Technology Projects Fail – & Why Many Companies Should Just Never Do Them," Steve Andriole, Forbes, March 2021 (https://www.forbes.com/sites/steveandriole/2021/03/25/3-main-reasons-why-big-technology-projects-fail---why-many-companies-should-just-never-do-them/?sh=95aecd2257cc)

resolved through greater transparency. It's incumbent on managers to keep executives informed, in advance, when it looks like budgets might not be adequate, or scope might not be achievable, or deadlines might not be met. Hiding the bad news — and avoiding difficult conversations — will almost always lead to bigger problems later.

As an example, in large IT projects it's not uncommon for either the vendor or user department to want to alter project scope or budget during a project because of unforeseen issues or omitted requirements. Project teams should avoid the impulse to hide these problems from senior management. Involving executives from IT, program, and procurement departments early on when an issue of this nature arises can help the team frame the issue properly and receive the help that's needed to resolve it before it leads to drastic changes in scope or even breach of contract.

Try These Strategies

▶ **Build and sustain executive buy-in.** An executive steering committee that meets regularly during a project (usually monthly, depending on project size and length) is critical to project success. But executive sponsorship and buy-in begins even earlier in the project lifecycle when the project business case is first being made. To obtain leadership's attention and commitment to a project (with the access to resources and budgets that usually entails), it's important that the project scope clearly respond to a business need.

To sustain buy-in, project teams must continually apprise leaders of project status and open issues and remind them of project benefits. Agile methodology (described below) can also help build buy-in by delivering functioning prototypes of partial solutions or modules sooner in the development process. When the State of California recently connected 44 Homeless Management Information Systems from local Continuums of Care (CoC) into a single statewide Homeless Data Integration System (HDIS), they encouraged state and local buy-in through dozens of input and preview sessions throughout the planning and build stages of the project (see Case Study: HDIS).

▶ **Develop a collaborative vision of success.** In large IT projects, departments or functional units often need to give up something (processes, data, control) for the entity to benefit across the board. This is true of enterprise IT projects such as Enterprise Resource Planning (ERP) implementations and cross-boundary projects like the California HDIS.

A collaborative vision was the basis for the HDIS project, which "addresses a universal need that public sector entities share for quality data that promotes collaboration across boundaries and informs and improves policy making and planning at the state and local level."[3] By collaborating and coordinating across CoCs, each CoC benefitted. Procurement can play a helpful role in setting this collaborative vision by helping IT project managers translate content from the original RFP that sets the objectives for a successful project. This may include packaging the RFP objectives and performance metrics into defined project kickoff materials and ongoing vendor performance evaluation tracking systems.

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3. 2021 NASCIO State IT Awards Project Narrative: California's Homeless Data Integration System (https://www.nascio.org/wp-content/uploads/2021/08/CA-Homeless-Data-Integration-System.pdf)

Case Study: Collaboratively Developing a Data Management Platform to Support Homelessness Response

In the U.S., the response to homelessness - such as providing shelter and rehousing services - is managed by quasi-governmental entities called Continuums of Care (CoCs), which are required to regularly track and report data about the people experiencing homelessness in their communities. The CoCs utilize various Homeless Management Information Management Information System (HMIS) to collect and report data on homelessness and housing services. This data is then used to inform the state's policymaking and strategic decisions.

The Challenge: The California Interagency Council on Homelessness (Cal ICH), under the Business, Consumer Services and Housing Agency (BCSH) needed to procure a data warehouse capable of integrating data from across the state, including data from the Continuums of Care (CoCs) and state departments that provide services and supports to homeless or at-risk individuals and families. This system also must meet the mandates of Senate Bill 1380 (Chapter 847, Statutes of 2016), which has the ultimate goal of matching data on homelessness to data from other state programs. The proposed solution needed to be delivered on time and on budget.

The Solution: Cal ICH conducted a thorough RFP development process to determine the scope of work and the budget, including crafting detailed system parameters, security requirements, and necessary features. They turned the requirements list into a vendor scorecard and selected a vendor to develop a custom tool to meet their collective needs.

Once the contract was signed, **Cal ICH and the vendor worked collaboratively** to build a system that met the agency's requirements. They were able to do so on time and under budget, and in 2021 they debuted the California Homeless Data Integration System (HDIS).

How they did it:

- The project team (comprised of Cal ICH staff and vendor developers) used an **agile/scrum project methodology** rather than a waterfall approach. This enabled them to develop small chunks of code and test them quickly, which allowed them to address problems before they became unfixable.

- The project team held **regular project meetings** three times a week to proactively address project risks and keep the process on track.

- The project team used an MVP **roadmap to guide development**, which helped them make sure they were building a solution that met end users' needs.

HDIS is an essential component of California's comprehensive strategy to increase the number of residents in affordable, stable living environments and to connect them with the necessary supportive services to thrive.

Key Strategy #2: Adopt Agile

Agile development is a method of building IT solutions that emphasizes rapid development cycles (called "sprints") to deliver partial or modular functionality in a matter of weeks rather than months or years. It draws on several management innovations from the past two decades, including Lean, Scrum, Kanban, and DevOps.[4]

Agile can be thought of as an iterative process in which a **minimum viable product** (MVP) is continually expanded and extended until final project scope is achieved. Sprints may be successful or not, but by breaking large projects up into smaller parts it's possible to "fail fast" rather than "fail big." Agile is the opposite of traditional "waterfall" development, which follows a sequential process of first designing a solution from end-to-end, then developing code, and then finally implementing.

While there is a lot of interest in Agile development in the public sector, large, multi-year projects still tend to be awarded to large or incumbent IT firms that use proprietary technologies and a waterfall development methodology. Recent research suggests that this procurement practice is responsible for the high fixed costs of procurement, the difficulty of securing funding for public-sector IT projects, and a low threshold for risk.[5] Procurement departments can support more innovative projects by using the RFP process to signal to vendors an openness to an Agile approach through more open-ended scopes of work, evaluation criteria that prioritize more flexible project management structures, and proposal questions that ask about past experiences deploying Agile development.

It is possible to draw on Agile practices to inform and improve technology projects of all sizes. Agile can speed time to results through sprints and increase adoption by involving and engaging end users throughout. Some of the Agile-like strategies that governments use include unbundling (breaking large projects into smaller projects), prototyping (creating demonstration versions of software applications), piloting (testing a proposed application on a subset of data or a single business area), and design thinking (forming a cross-functional project team that represents different disciplines and/or business areas).

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4. "Adopting Agile in State and Local Governments," IBM Center for the Business of Government, 2021 (https://www.businessofgovernment.org/sites/default/files/Adopting%20Agile%20in%20State%20and%20Local%20Governments.pdf)

5. "Striking Balance Between Public Procurement and Innovation," New America, April 2023 (https://www.newamerica.org/digital-impact-governance-initiative/briefs/state-public-procurement-barriers-and-recommendations/)

Try These Strategies

▶ **Engage a diverse team and motivate them.** The City of Austin, TX Office of Design & Delivery (ODD) applied aspects of Agile successfully to both traditional software application development as well as issues such as recycling, homelessness, and public safety. Their model incorporated cost recovery, flexible methodologies and reporting structures, human-centered design, and community engagement.[6]

The ODD's founders came from federal digital service agencies such as 18F and the U.S. Digital Service. They hired many fellows from Austin's tech community and adopted "Agile recruitment" practices from NYCTechJobs and the U.S. Digital Service. The ODD chose fellows for projects based on competencies and deployed and structured teams flexibly depending on project needs.

Jurisdictions that have less local tech talent can still try to implement these project approaches and can draw on national nonprofit organizations like Code for America or U.S. Digital Response that are aligned with these principles to design and develop projects and recruit new IT leaders and staff.

▶ **Turn large, risky projects into a series of small, achievable projects.** Austin's ODD tackled big issues but defined project scope down into small chunks. For residential building permits, rather than purchasing an off-the-shelf permits solution, Austin set up teams to work on making online workflows more intuitive, improving customer and employee experiences, and streamlining permitting processes. In just over a year, Austin launched a new residential permitting website that allowed customers to understand permitting in a few clicks.

Procurement teams can help facilitate the shift of large risky projects into smaller components by drafting statements of work that allow vendors to work on an array of projects and allow managers to shift around sequencing based on project need.

▶ **Celebrate your wins, even if implementation is choppy.** In a Procurement Excellence Network event on [Navigating the Challenges of Using Technology to Transform Procurement](), Windy Aphayrath, Chief Procurement Officer at the State of Utah, artfully summarized, "Your system will be absolutely perfect — there will be nothing wrong with it — until you add your users!" In essence, change is hard, and if users are only interacting with a new system once it is fully built, they will likely have many concerns that are shared too late to address.

Aphayrath noted the importance of celebrating and communicating incremental progress even in the face of implementation challenges. For example, Aphayrath displayed a whiteboard near her office to publicly track project achievements such as onboarding new departments onto the platform to help generate buy-in.

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6. "Adopting Agile in State and Local Governments," IBM Center for the Business of Government, 2021 (https://www.businessofgovernment.org/sites/default/files/Adopting%20Agile%20in%20State%20and%20Local%20Governments.pdf)

Key Strategy #3: Manage Risk

IT project teams track many risks that can potentially jeopardize a project. Risks include **scope creep**, where changing requirements or miscommunication can lead to midstream revisions to project scope (and possibly change orders); **inadequate budgets** or **schedules**, which may result from poor planning; and resource shortages or turnover, when critical employees or contractors leave mid-project and can't be adequately replaced.

It's important to identify potential risks upfront as well as throughout a project and agree on who has responsibility for their mitigation — the government or the contractor(s). In a **time-and-materials** contract, nearly all financial risk is allocated to the government, which is fully responsible for managing project resources. A **fixed price** contract attempts to shift all financial risk to the contractor, but if the government has failed to identify key requirements or can't provide access to needed resources or information, the contractor may be able to justify change orders.

Try These Strategies

▶ **Adopt clear contract management structures.** As a first step, the government needs to fully define vendor responsibilities versus what the government will bring to the table. These expectations should be fully communicated in project kickoff meetings that involve all relevant stakeholders and mark the formal transition from procurement to user department/IT oversight. For additional insights on coordinating kickoff meetings and organizing project responsibilities via the contract, see the Procurement Excellence Network resources, "Orienting Towards Outcomes: Results-Driven Approaches to Contract Management" and "Template: Contract Management Plan."

Overall Status: Yellow

Leads	Josh C., Mary G.
Team	Ken M., Viola M.
Highlights	Operations and Maintenance

Key Milestone Status			
Milestone	Due Date	Actual	Flag
Field Testing	01/31/2x		
First Deployment	04/33/2x		

30 Day Outlook			
Task	Owner	Due Date	Flag
Request claims file	Mary	01/06/2x	
Complete employee verification	HR/IT	01/13/2x	
Receive work records	Ken	01/15/2x	
Complete testing	Viola/Mary	01/15/2x	
Records planning	Mary	01/15/2x	
Hire temps	Ken	01/31/2x	
Test run	Team	02/15/2x	

Key Issues (I), Risks (R), Dependencies (D)				
Description	Mitigation	Owner	Due Date	Flag
Customize performance metric progression	Manual	Ken	11/06/2x	R
Consultants rolling off team	Replace	Ken	11/31/2x	R

Escalations			
Description	Owner	Due Date	Flag

Successful risk mitigation requires engaging all relevant stakeholders, escalating as necessary, and resolving conflicts early. A useful tool for communicating and managing risk is a "4-blocker," which provides status updates at a glance on the overall project and/or its major components.[7] The categories of the 4-blocker may include project status, issues and risks (highlights from the project issues log and risk register), escalations, and next steps. It can be used both at the project team level and during executive steering committee meetings.

For a high-priority Enterprise Resource Planning (ERP) project, Montgomery County, MD used a slightly different approach to regularly brief the executive steering committee with a standard dashboard which tracks five categories: stakeholders, objectives, schedule, budget, and team. The status column indicates whether a category is on track, may require attention, or is an urgent problem.

ERP Steering Committee Meeting
Project Dashboard

Category	Status	Comments	Proposed Actions
Stakeholders	G	Stakeholders knowledge of system continues to progress. Emphasis has transitioned to reports, year-end and new-year processing.	Continue to work with stakeholders to identify and address needs.
Business Objectives	Y	Team meeting testing schedules and target implementation dates. The Team continues to manage multiple demands (issue resolution, user assistance, BI reporting, and new initiatives). Knowledge transfer continuing – need to focus on business process reengineering	Continue as planned...
Work and Schedule	Y	CIBER resources adequate for all ERP phases County - same resources providing production support and implementing new modules	Continue to monitor resources Monitor adjust schedule to reflect resource constraints
Budget	Y	Contractors with Oracle expertise are needed to provide support, knowledge and learning curve for staff	Monitor
Team	Y	Demands on Team are extremely high. Team is focused, works well together; great team effort	Continue knowledge transfer to core departments and ERP team

Red – Urgent. Corrective ESC action required immediately.
Yellow – Warning. Corrective ESC action may be required.
Green – Stay the Course. No corrective action required.

Source: Montgomery County, MD ERP Executive Steering Committee Meeting Presentation January 29, 2014 (https://www.montgomerycountymd.gov/tebs/erp.html)

▶ **Be flexible and adaptable.** Even the best-scoped and resourced projects run into issues and risks during implementation. It's important to be able to react and reset plans and expectations in response to new information, but proposed changes in scope or scale should be measured against the project goals (i.e., do they move us closer to or farther away from the original purpose?). Scope creep is a very real challenge, and governments need to stay focused on core functionality and demonstrate a willingness to delay "extras" for future implementations.

7. See a detailed description of the 4-blocker approach here: https://www.indeed.com/career-advice/career-development/four-blocker

Consider two examples: Austin's ODD conducted an extensive multi-team design thinking review of the building permits process and customer experience before narrowing its focus to developing a new residential permitting website. After Montgomery County implemented a new core ERP system, it found that the same system could be extended to the Alcohol Beverage Services agency to replace its aging warehouse, inventory, and distribution system instead of purchasing a new point solution.

▶ **Terminate failing projects.** In-flight projects should be reviewed regularly by leadership in a "project health check" to evaluate whether they are meeting expectations for scope, schedule, and budget — and whether deviations are acceptable or require resetting expectations or approving changes. If projects do not pass successive health checks, governments should consider pausing or even terminating them. Termination is a serious matter, and procurement and legal teams should immediately be engaged if the project is moving in that direction. If the executive steering committee structure described in "Strategy #1: Be Transparent" includes the Chief Procurement Officer or designee, procurement will have already been apprised of the reasons for possible termination and should have informed the steering committee and project team of their rights and responsibilities under the contract and taken steps to either avoid termination or mitigate the risks associated with it.

Conclusion

Public sector IT projects are a special case within procurement and contracting, but they can still benefit significantly from results-driven contracting strategies. In particular, IT procurements need clear outcomes and goals, continuous centering of user experience, understanding of and engagement with the marketplace, and active contract management to increase the likelihood of delivering results on time, on budget, and as scoped. Government leaders can improve their chances for project success by prioritizing transparency and adopting Agile methodologies, and complex projects can benefit from an ongoing engagement with the procurement team.

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