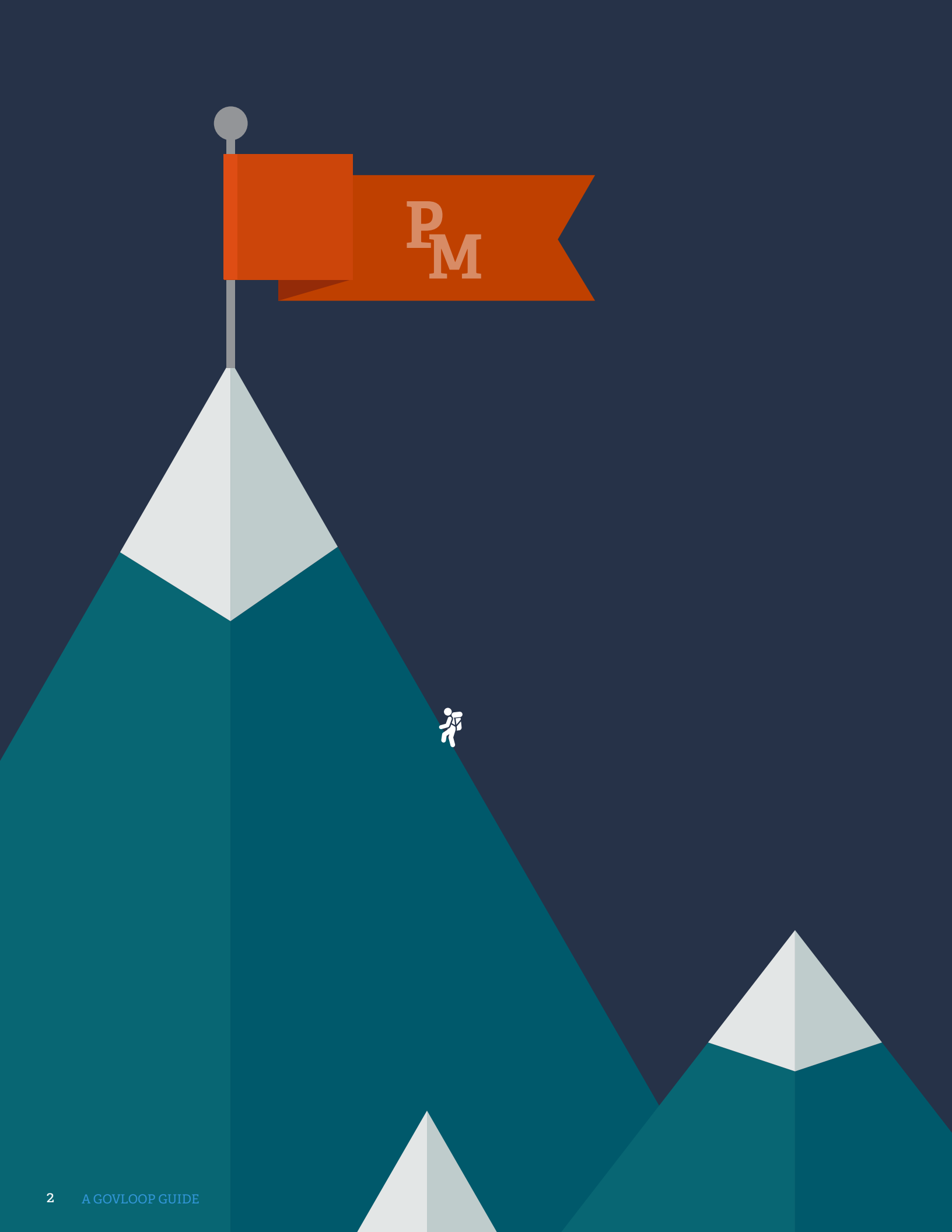


# Agile, DevOps, & More



How to Succeed at  
Government Project  
Management





PM



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# Executive Summary

**N**ow, more than ever before, the projects run by governments at every level are under intense scrutiny. We've all heard the horror stories: bloated projects coming in over budget by millions of dollars; inefficient programs delayed by months, if not years; and projects that are never even completed but still cost taxpayers money.

At the same time, transparency and openness efforts are requiring ever more documentation, while demands for efficiency grow ever louder. All this is happening while budgets are tighter, resources are scarcer and more government workers are retiring.

It's enough to make you break out in a sweat. What's somebody tasked with executing a large and complex project to do?

If you're a project manager, worry not: We're here to help. When faced with challenges such as doing more with less, smart agencies and smart public-sector employees — like you — find ways to innovate.

Our new guide is chock-full of practical wisdom, case studies of effective management and more. It's geared toward giving you practical advice about project management from real voices on the ground in gov. We interviewed nearly a dozen project managers to get their insights on everything from how to manage people on a project who don't actually report to you to how to get — and keep — buy-in from stakeholders.

We'll also talk about what additional techniques your organization should be using to maintain professional project management with fewer resources. What do you need to know about Agile project management, for example? How can you improve your mission-critical communication skills?

This GovLoop guide will help. We'll give you high-level strategies from some of government's best project managers about how to conduct effective project management with new technology that's now available to you.

## PM TIPS *from GovLoop's community*

We asked our GovLoop project management survey respondents for their best advice about project management so we could pass it on to you.

"A project manager should never be at their own desk; true project management is constantly making sure your resources are working as effectively as possible."

"Spend twice as much time ahead of time planning and explaining goals to team members. Make sure everyone is completely clear on what needs to be accomplished and why they're involved."

"Build in at least 15% inefficiency in time and cost to all planning."

"Communicate more than you may think is necessary, using multiple media."

"Nimble feet. Be prepared to change direction at any given time. To fail is to succeed. Failures are the greatest learning opportunity a PM can have, so take from it the lessons you need and apply it to future projects. Team work. No project is completed ahead of schedule and under budget solely because of a 'rock star' PM. It's the PM utilizing his or her team to the best of their abilities."

# The Current State of Government Project Management

To get a sense of project management in government today, GovLoop surveyed 374 public-sector professionals. We asked them about their challenges, best practices and No. 1 tips for good project management, among other things.

We got some fantastic — and interesting — results. Twenty-two percent of respondents identified themselves as project managers. But even more remarkably, a whopping 35 percent said they “have to act as a project manager, even though it’s not in my title.” This reveals a trend we’re seeing more and more across government: Project management is becoming everyone’s job. That’s why it’s ever more important to learn how to do it right.

And doing it right means first addressing what’s wrong. According to our survey, the top challenge to good project management was something that most of us have struggled with at some point in our lives: effective communication. Forty-two percent of respondents said poor communication was the biggest challenge they faced in getting a project done.

“Communicate, communicate, communicate,” one survey respondent wrote. “In fact, over-communicate.”

Other challenges? About 37 percent of respondents cited insufficient resources, insufficient budget and lack of management support as major challenges; bad estimates and imprecise goals were also significant obstacles.

“There are too many stakeholders without a clear decision structure,” noted one respondent. “Too much rigidity and waterfall project management structure are a big issue,” wrote another.

Inflexibility in terms of project management was a common complaint of survey respondents, so it’s no surprise that more flexible, inclusive and communicative approaches to project management are becoming more popular in government. In our next section, we discuss what Agile and DevOps approaches are — and why you might find them useful

## What are the biggest challenges you face in getting a project done?

(check all that apply)

### Bad estimates / missed deadlines

29%

### Change in environment

24%

### Change in strategy

34%

### Imprecise goals

32%

### Insufficient budget

36%

### Insufficient motivation/resources

38%

### Lack of management support

38%

“Host a weekly update meeting with every team member, vendor, contractor, etc.”

“Project management is people management — especially in government when it can be hard to get things done and see results, your team needs to feel appreciated and empowered to keep doing the best day in and day out.”

“Stakeholders cannot be fence sitters, so get them to move along with the project or get out of the way.”

“Have customer collaboration throughout the project — not just during requirements gathering.”

“Hold two pre-project meetings with all who might be involved. At the first one I go around the table and ask each specialty what could, will or may go wrong along the way. Then I give the assignment to consider these concerns and options and report back one week later for the next meeting. The goal of the second meeting is to develop project processes that will anticipate the concerns and develop options and pathways to work through them and towards project efficiency, economy and success.”

“Know when to be flexible and over-communicate.”

“Let the left hand know what the right hand is doing. Share information. Lower your egos.”



# MOVE FAST WITHOUT BREAKING THINGS

Learn how to increase velocity of  
innovation while mitigating SDLC risks

*Download the white paper at <http://ser.so/mfwbt>*

To know more, visit us at [www.serena.com](http://www.serena.com)

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# Move Fast Without Breaking Things

## An interview with Greg Hughes, CEO, Serena Software

Today's IT public sector development atmosphere is incredibly different than even a decade ago. Organizations must balance high velocity software development in a world of increasing compliance, security threats and application complexity.

To learn about how these pressures affect organizations trying to develop faster and deploy sooner, GovLoop spoke with Greg Hughes, CEO at Serena Software, which helps IT organizations develop and release better software with more efficient project management methods.

Hughes pointed out that today there's a set of technology changes making software more important, more strategic, and more central to everything than ever before. And the most important technology change is the rise of mobile computing.

"Visualize this world, that's going to happen very quickly, where 80% of the adult population on the planet has a mobile device that's a supercomputer connected with near infinite capacity to a huge pool of computing power in the cloud," said Hughes. "Every physical device will have an IP address and will be connected, and there'll be massive analytical power and capability to crunch all of this together."

This means, Hughes explained, that the applications happening on top of this infrastructure are unimaginably powerful – which means that organizations must then focus on the importance of software.

"Software unlocks the capabilities of this massive change in infrastructure and this technology disruption," Hughes said. "The burden now on all enterprises across every sector to improve their software development and lifecycle and make it go faster is enormous."

Organizations must deliver fast on projects without compromising security, compliance or capabilities while under pressure from all sides to adopt new technologies, methodologies and topologies without increasing risk, expense or complexity.

To do this, organizations need to move towards more modern development practices. Automation and integration of your Dev, DevOps and Ops infrastructure can address these conflicting demands, Hughes said.

For a long time, Hughes explained, the Waterfall approach has been the software development methodology of choice – which can still be a very powerful and important methodology.

"But a lot of the customers I talk to are moving towards also adding new methodologies like Agile or Continuous Delivery, Continuous Integration, parallel development, Lean, and DevOps," Hughes said. "Application developers and software developers are experimenting with these new, faster, higher velocity software development methodologies."

This approach is especially important for what Hughes referred to as "highly regulated large enterprises" or "HRLEs" – large-scale organizations like government and defense agencies.

"Developers need to be free to innovate," Hughes said. "But we also have to protect the enterprise, or the HRLE, at the same time. HRLEs need to manage the risk of software development as well. The first risk is security, the second is compliance, and the third is performance. So the challenge is, how do you move fast without breaking things? How do you move towards high velocity computing and not break the organization?"

That's where Serena Software comes in. Their expertise is in helping HRLEs achieve their DevOps initiatives. Hughes said there are five best practices organizations must follow:

Adopt developer-friendly tools: "If the developers don't like the tools they're given, or, how they're implemented, they'll circumvent them. But we need to protect developers from inadvertently increasing risks to the enterprise."

Upgrade the level of process control over the end-to-end SDLC: "In many enterprises, the software development lifecycle is comprised of many separate products, without a strong foundation of cross-product workflow management. Robust process management platforms can make it easy to coordinate activities and information across these tools

Automate the SDLC whenever possible: "If you can substitute manual steps with automation, you get lower cost and fewer errors."

Reign in repository proliferation, and create a centralized hardened source code management system. "Too many enterprises let the number of source code repositories get out of hand. There can be literally dozens of places where source code is stored in an enterprise. If you have something valuable, you don't put it in dozens of places, you put it in one place, and you protect that place."

Continue using the mainframe for core transactional systems: Mainframes have unparalleled security and availability. Keep using it, and modernize it."

"We can help you develop and execute on these best practices for development," Hughes said. "These allow you to balance the desire to move to a high velocity software development approach, while also managing these risks in the software development lifecycle. This really requires focusing more on the software development lifecycle as a whole, and getting a partnership between the application development team, the change management team, the operations team, security team, the audit team and more. We help you get more functions across the organization to do that balance."

# Agile & DevOps in Government — What Do They Mean for You?

**Y**ou're probably hearing these buzzwords — Agile and DevOps — thrown around more frequently in government, but are you sure of what they mean and how they will affect project management in government?

DevOps and Agile are two approaches to project management that relate very closely to each other. In this section, we'll go over the definitions, provide you some resources and talk about how you can start using them.

## DEVOPS

DevOps is the practice of operations and development engineers participating together in the entire service lifecycle, from design through the development process to production support.

## DEFINITIONS

## AGILE

Agile management or Agile project management is an iterative and incremental method of managing the design and build activities for engineering, information technology, and new product or service development projects in a highly flexible and interactive manner.

### **DevOps: Development + Operations**

- It's a software development method that stresses communication, collaboration and integration among software developers and IT professionals. (Software development and IT operations are traditionally interdependent.)
- It aims to help an organization rapidly produce software products and services, saving time and taxpayer money.
- It removes the barriers between development and delivery of a software product.
- It is more of a cultural shift than a technological one.

### **Why DevOps?**

- The biggest motivation for DevOps in government is speed.
- Speed allows an organization to seize market opportunities and reduce time to user/customer feedback.
- Speed also allows for a continuous cycle of ideas – software development – product use by agencies/customers – feedback – revision.
- DevOps can help government agencies become more agile and efficient.
- It especially helps agencies that want to migrate to cloud services.

### **Challenges**

- Risk-averse agencies that are afraid to fail on the public record are hesitant to try DevOps.
- Some agencies are more willing to use the DevOps model. They include the Defense Information Systems Agency, U.S. Citizenship and Immigration Services, Veterans Affairs Department, and NASA.
- You can't partially use the DevOps model — the whole organization must buy in and be willing to use it.

### **Agile: A new approach to project management**

- It's an iterative and incremental method of managing the design and build activities of new product or service development projects in a highly flexible and interactive manner.
- It satisfies the customer through early and continuous delivery of valuable software.
- It delivers a product/project that best meets customer needs with minimal cost, time and waste.
- It keeps all elements of the process simple.
- It keeps customer feedback and Agile leadership indispensable parts of the process.

### **Why Agile?**

- Learn to fail fast – and learn from mistakes.
- Values adaptability to change, even late in the software development process.
- Constantly self-evaluates and adjusts iterative process.
- Seeks to be less hierarchical than traditional project management.
- Uses short term cycles called iterations.
- Scrum is the most popular Agile practice
- Product development is broken into different stages, called sprints.
- Team members set goals to achieve in specific time box (ball park, one week, but may be longer or shorter, but no longer than four weeks).
- Daily stand-up meetings to keep things moving at a very fast pace. Consider stand-ups as your daily planning meeting.
- Sprint iterations are followed by sprint retrospectives, when the sprint is reviewed and discussed for improvement in next iteration.

### **Challenges:**

- Success of Agile relies on excellent communication, so if communication skills are deficient on your team, that can affect outcomes.
- Requires direct access to customers and stakeholders for collaboration.
- It's less a template and more a cultural change and shift in mind-set — and that can be hard to overcome.
- Difficult to succeed in a Waterfall or command-and-control environment.





To learn more about Agile, we spoke with Elizabeth Raley, a board member of [Agile Government Leadership](#), which is an organization that helps bring applied Agile practices to government to redefine the culture of local, state and federal public-sector service delivery across all aspects.

**GovLoop: Define Agile for our community.**

**Raley:** Agile is an iterative process where we work on the highest-valued items first, where we have transparency in progress of the work and where we're open to feedback early and often, and adaptable to change.

**GovLoop: Can you talk a little bit about the current state of project management in most of government and how Agile can change it?**

**Raley:** Agile is the intuitive way of doing things but Waterfall is used more because government contracting usually wants know everything that's going to get done in order to put a price on a contract. Waterfall starts with planning this vision of the project, and then writing out every single requirement. Waterfall started way back before we had websites, for the purpose of, for example, building big projects like bridges. It made sense to plan everything to build a bridge before you start working. Websites are not bridges and we need to be flexible; there is no gain by planning too far ahead of starting work.

Things change, we get new tools, and when you're spending all this time upfront planning, by the time you get into development, you're missing out on the fact that you might have new ideas, or better tools, or, access to new information. If you've already done all this planning and if you change things it costs more money. Usually at the end of a Waterfall project you deliver something that doesn't even look like the original plan because there were things that weren't possible, misunderstandings in interpreting the requirements, and little communication with the stakeholders. Unfortunately the majority of government agencies are using Waterfall but they would get much more value moving to Agile.

**GovLoop: Why would government benefit from taking more of an Agile approach?**

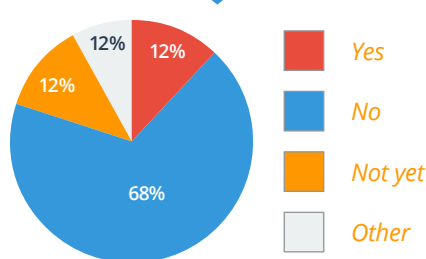
**Raley:** Agile has a higher success rate because we have work complete early in the process. By focusing on prioritization it delivers a more valuable outcome, so ultimately the process itself is a better investment for the government. It gives the government better access to the newest technology and better ideas by allowing teams to pivot instead of being stuck with whatever was planned on the onset.. It also allows for stakeholders to get involved which helps get buy-in, understand priorities, and confirm assumptions,.

**GovLoop: One thing we hear a lot from our community about Agile is wondering how can you take into consideration a fixed budget.**

**Raley:** For fixed budget start with an MVP, which is the minimum viable product. We work with the Product Owner on what can be delivered that would have the most value for the end user with the least amount of effort. And then we deliver it, get feedback and iterate from there. If you're going do continuous delivery, then a fixed budget doesn't need to be that big of an issue, because even when the end product isn't exactly what was envisioned at the onset, you still have something launchable. Whereas if you're doing a fixed price Waterfall project, you may get to the end of the project, be out of budget, and never have launched anything. I've heard lots of stories like that in the government of projects that just die, and they spent millions of dollars, but nothing got released. So taking this agile, minimum viable approach is a great one for a fixed budget.

In our survey, we asked, respondents if they are using Agile. Only 12 percent of respondents said they practice Agile project management.

**Do you use agile project management at your organization?**



# Challenges with Agile & DevOps

Agile and DevOps are more flexible and intuitive methods of managing a project, but they're not without their challenges. Here, our community (via a recent GovLoop survey) tells us the top challenges they face using Agile and DevOps.

"Getting others to understand that it is different than traditional approaches."

"It's hard to get leadership to understand how Agile and DevOps work."

"Agile PM is used for IT projects, but not yet for program-related projects. This may be an unacknowledged challenge in itself — different PM approaches used within the division."

"Because the federal government has little experience with project management most project managers employ a 'Cookbook' approach to Agile and basic project management techniques. This bureaucratic approach to project management kills morale and wastes meeting time. I am hoping with more experience the culture will realize Agile works best with honest, open communications, employing techniques that fit the situation versus throwing every PM/Agile tool at the project team. The politics of budgets and empires remains the main stumbling block for the federal government to effectively employ PM/ Agile and Lean/DevOps/or other buzzwords for good management."

"The biggest challenge is the fact it's actually more of a culture change. Our developers are totally engaged. Other teams and departments do not see value of Agile and DevOps —yet."

# Secrets from the Government Project Manager A-Team

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We interviewed seven government project managers to discover their tips, best practices and advice on how you, too, can become a project manager all-star.

## PROJECT MANAGEMENT ISSUE #1

# Getting Started with Agile PM



### OUR EXPERT

**Tim Nolan** - IT Senior Applications Manager, Collin County, Texas

### HIS JOB

Nolan is the Applications Manager responsible for Application Development, Applications Services, GIS and the Records Department for Collin County, near the Dallas/Fort-Worth area. In his role, he works to implement robust IT services for the county.

**N**olan stumbled into Agile project management when his job was in jeopardy. A project had fallen off of his radar, and one day, the elected official who had asked for it called, expecting it to be complete.

"She blew a gasket," Nolan said. "It turned out I needed to get the project done in two weeks for a conference she was going to. I was freaking out. That's somehow it works in government, though. It's sort of panic project management where you do it because someone's screaming at you."

So Nolan, who usually relied on Waterfall project management, turned to Agile. "I'd heard of sprints and I figured, let's try doing this in a two-week sprint. And let's do it Agile," he said.

So Nolan convened a group of developers and they laid out the project on a whiteboard, with a series of tasks and stories. Every day they met and collaborated on roadblocks and other items.

"I saw right away that there was a lot more to this job than I thought just by having it laid out on the board," Nolan said. "Before, the process was always kind of covert or secret, or was always in someone's head on what it took to do. But we were sharing this information and dealing with others and there was already immediate collaboration. And that was really good to see, because now I knew I had at least three minds working on this project instead of just one."

## TIM NOLAN'S *top project management tips*

**Prioritize.** "The first thing anyone should do is take all the work that you know you have to do, and whatever those things are, put them on a list, and then prioritize those. And if that means getting with your boss, or getting a committee together, doing some kind of risk assessment, whatever your style of prioritizing is, then do that. Then identify what your No. 1 project is. You might hear, 'Oh, we've got five No. 1's.' No, there has to be a one. Not everything is a Priority One. You have to make those choices in order to start moving."

**Find an Agile group in area that meets regularly.** You can learn from other people's experiences. Nolan started out attending a private sector agile group he found on MeetUp.com.

**Simply try it.** Put a Sprint together with stories and tasks. Remember, Agile is about

continuous improvement. It's okay if it's awkward the first time. You will improve in the next Sprint. "Just search YouTube for Scrum 101," Nolan laughed. "That's what we did."

**Try using a whiteboard with Post-it notes for projects.** "Even though most of what we do is logged in an automated system, we still take the time to print off tasks and place them on our board," Nolan said. "Then we have our stand-ups, which is a daily meeting, and we talk about what we're doing that day. And we actually move the tasks — physically touch it, move it, and so we have an exposed board that's kind of in everyone's way so you can't miss it. So, even though there are lots of automated tools out there, it's still important, I think, to have a physical board and go through the exercise of standing up and talking and pointing at

what you're working on, owning what you're working, because there's an accountability there among the team."

**Don't try to transfer your entire department to Agile all at once.** Start small, with one project, like Nolan did with his two-week sprint. Find out what worked and didn't work, and then start to scale out.

**Do frequent check-ins on projects.** "That's what Agile's built for," Nolan said. "Every two weeks or every nine business days, we take a check and see where we are. We don't wait six months from now when the project's due. We start talking about changing stuff, you know, from Day One."

Want more? Check out Nolan's presentation on using scrums and Agile in local government [here](#).

# The Best Way to Prioritize a Project



### OUR EXPERT

**Heather Brown** - Deputy Director, Office of Executive Programs, Food and Drug Administration

### HER JOB

Brown works at the Center for Drug Evaluation and Research, where she manages special project teams. She's also a certified Project Management Professional (PMP).

As Brown adroitly noted in our interview, there are few jobs left in government in which all of your tasks can be accomplished in one day in an orderly fashion. Government jobs are complex, the issues that government works with are complex, and project management is one tool you can use to get your arms around your job. "Our priorities are changing minute to minute," she said. "So it's my job to figure out how to prioritize everything, effectively, amongst many demands."

With prioritization, if you are working within only one project, generally the project will prioritize itself, Brown said. What she recommends doing to prioritize is sitting down with your project team and starting not at the beginning but at the end.

"We start with the outcome," Brown said. "What is the outcome, what are the objectives, what are the things we're trying to get done? Working backward from there, what are the steps to getting them done? What are the resources it would take for each of these steps? Do they have to be the same people? Can they be different people? And through that planning process, you're going to find out what and

where your constraints are.... That's how you start to build your case for priorities and resources."

Brown cites as an example a project for which she was working on implementing a new regulation that had several rules and guidance attached. The writer she needed to work on her project got pulled away by another team, but Brown had already written her project plan.

"I was able to go to leadership and say, 'I realize you want these guidelines by X date. But we will not be able to deliver unless our writer is given back to us or you assign us a new one.' I noted what was the impact and pointed out that if we don't have this key resource, we can't do this work until one is made available," Brown said.

Everything is a tradeoff in project management, Brown explained. "But you can prioritize successfully if you are able to give your leadership the information they need to make those decisions and present them with the choices and the context."

## HEATHER BROWN'S *top project management tips*

**Visit ProjectManagement.com.** "Project-Management.com is a great resource. It's now integrated with the Project Management Institute. They have these great stakeholder matrices where you list out all of your different stakeholders, what their level of information need is [and then] figure out what's the best communication approach for that person."

**When priorities have to shift, communicate:** "As someone who's trained in project management, pretty much the biggest thing you do is communicate. Your No. 1 job is to communicate with the people who are doing the work, with your leadership, with your sponsors.... The reality of life is things change. So when stuff gets re-prioritized, it can be disappointing, but just make sure you communicate it to everybody."

**Document everything.** "One of my pieces of advice and best practices is always go back to the scope. You need an authorizing document. If you're working on a project, you should, whether it's an e-mail, a charter, a project plan — it doesn't matter what you call it — it is a written document that defines the work that needs to be done, and it is approved by your management or your leadership or your sponsors, the person that you're working for. You have an agreed upon written document and your job as the project manager is to make sure that's the work you're doing. When things start to creep, go back to that document."

# Managing a Project with a Large Budget



### OUR EXPERT

**Kirsten Neff** - Branch Chief of Under-Prospectus Project Management, General Services Administration

### HER JOB

Neff oversees a team of 12 project managers and one program analyst who manage a program for designing construction projects in federal buildings and courthouses. These projects have a budget of about \$60 million a year.

**N**eff oversees a team of 12 project managers and one program analyst who manage a program for designing construction projects in federal buildings and courthouses. These projects have a budget of about \$60 million a year.

The vast scope of Neff's projects is probably her biggest challenge. Specific skills are necessary for a good project manager to cope with the challenge of a large, complex budget. So, what are some pointers on how to make managing big budgets more manageable?

Neff said her priority is to be super organized with every element of the process to make sure that her high-stakes decisions make sense to all the key players.

"As an agency, we're given a national amount that's subdivided across all of our 11 regions, and [it's] about planning what building repairs are needed for the upcoming year, and then prioritizing that and seeing what fits in our budget," she said.

In Neff's projects, a slew of perspectives are at work because they involve myriad workers such as safety experts, environmental experts and budget specialists. When all of these fields come together to work on one project, priorities can clash. "What's optimal for each of those groups is different," she said. "So it's important to bring all those stakeholders together early in the planning process to align all constraints

of time or money, and then once you have an agreement upfront, it becomes much easier to execute the project and keep it on budget."

Timeliness is important when big money is at stake. Although the large initial sync doesn't need to set things in stone, it's true that it's difficult and costly to change your course farther along the way, especially in construction.

In addition to organization and planning, Neff said that project managers should display interpersonal skills such as good listening.

"When you've been identified to be in charge of a project...your team needs leadership and direction. That's the role of a project manager," she explained. "It's sometimes counterintuitive that once you organize the meeting and get all the right players there, you need to sit back and listen to the input from all of your stakeholders."

Also, Neff suggested some resources to help you develop leadership skills as a project manager. GSA itself has some online training courses on project management that provide a great deal of information and pointers for government employees. Neff also recommends talking to other project management to share experiences and figure out what works well for others.

With Neff's tips in mind, managing a large and complex budget is completely doable. Stay calm and project manage on!



## KIRSTEN NEFF'S *top project management tips*

**Be organized and plan.** When working with various players, bring them together early in the process and develop a solid plan that you feel confident sticking to.

**Be a good listener.** Project managers often work with specialists who know more than they do about certain industries, so give them time to do most of the talking in meetings.

**Seek out other project managers' wisdom** to gain their perspective on managing their projects and budgets.



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# How to Thrive in the Application Economy

## *An interview with Pete Johnson, DevOps Director, Public Sector and Steve Mazzuca, DevOps Strategist, Public Sector, CA Technologies*

Is your organization ready for the application economy?

**T**hat's the question CA Technologies wants the public sector to be asking itself. To learn more about what the application economy is, how to streamline the software delivery cycle, and how to manage high quality applications, GovLoop sat down with Pete Johnson, DevOps Director, Public Sector and Steve Mazzuca, DevOps Strategist, Public Sector, of CA Technologies. CA Technologies helps organizations develop high quality applications faster by leveraging tools that create virtual integrations, enable parallel development and continuous testing.

The first step is to define what the application economy means for the public sector. In short, it is the recent explosion of applications that drive professional and personal behavior. That's everything from enterprise applications to Outlook to email to social media to online transactions.

"From a mobility vantage point citizens want access to online banking, they want access to retirement accounts, their stock portfolio, Facebook, Instagram and more, and they want it on the fly," said Johnson. "There is this constant demand for process improvement, and increased velocity within the application economy. That defines our role. We bring value to the application economy by accelerating time to market for these applications, mitigating risk, and raising the quality of the user experience."

Added Mazzuca, "The conversation in the public sector is all about this today. It's all about improving delivery of services and technology to serve citizens better."

In the application economy, the agencies that can deliver software innovation the fastest will succeed with constituents.

This, however, can be challenging for government for a variety of reasons.

"In government, the testing software that they've all used for 20 years was built in an older era where you had client server technology, and everything was isolated and stovepiped," said Mazzuca. "In today's architecture, with service oriented architecture, and with shared services, for those components to all work, you need to test at the different levels. You need automation, and you need API level testing."

"Another challenge is the inadequacy of current test environments throughout the federal government as well as state and local government," Johnson added. "There is limited test capability. And there are also challenges with test data management, and actually using production data in tests, which creates vulnerabilities and exposures

that nobody in government wants to be held accountable for. So government needs to focus on a change in overall process there."

Another challenge in government is culture and attitudes. "A struggle in the government space is finding that change agent, finding that champion, finding that individual that wants to alter the way software is delivered in an effort to really accommodate the application economy," Johnson said. "The old methodology of throwing manpower at these exponentially growing demands for functionality and transactions is no longer acceptable. Something has to give, something has to change, and change can often times be very, very hard in the federal space."

In order for change to happen and for the public sector to thrive in the application economy, Johnson and Mazzuca stressed that agencies must focus on enabling early application testing and earlier identification and remediation of bugs. This ensures there is an overall improvement of application quality and performance which increases end user experience. This can be done via more efficient project management and continuous delivery.

"What we really mean by increasing end user experience is just that we're delivering a better application and a better process to that application," Mazzuca explained. "This is achieved through the earlier effective testing."

An example Mazzuca cited is that if you find out your new website doesn't work when it's in production, you just impacted all of the site's users as well as cost your organization money. However, if you find out the site doesn't work in the development stage, all it costs you is a few more days of rewrite.

"Our modeling simulation and service virtualization allows the developers to do what they need to do earlier," Mazzuca said.

Johnson added that agencies should start leading with the concept of continuous delivery.

"The delivery process and the release process now are traditionally end to end, and relatively manual," Johnson explained. "So you have a lot of manual intervention which creates an opportunity for failure. We have human intervention here, it's not an automated process, it's not a repeatable methodology, it's not automated, therefore there is an opportunity for mistakes to happen. So automating with technology just creates a repeatable, more predictable, more diminished risk in the actual release process itself."

Continued Johnson, "But what we do is put a process over release from end to end, in an effort to automate it, remove manual intervention, increase reliability, predictability, then take the manpower involved and repurpose them for more meaningful work that is mission critical."

# Getting Buy-In from Stakeholders



### OUR EXPERT

**Jason Marker** - Foreign Affairs Officer and Program Manager, Bureau of International Narcotics and Law Enforcement's Office of African and Middle East Programs

### HIS JOB

Designing and developing budgets and projects to help foreign governments strengthen rule of law in their own countries.

**D**esigning and developing budgets and projects to help foreign governments strengthen rule of law in their own countries.

The main challenge for Marker is working with a wide array of stakeholders. In his projects, professionals represent a vast spectrum of organizations, meaning that there are a large number of differing attitudes and priorities.

"We do work with many different stakeholders — internal to the U.S. government within all branches of executive, legislative and judicial. We also do [work with those] external to the U.S. government, mostly dealing with foreign government officials or civil society organizations," he said.

So how does Marker juggle the wants and needs of all of these players to ensure their support?

First, he says, you need to deeply understand your audience. "You have to understand how they can help you, and how you can help them," Marker said. You must put yourself in their shoes and see what the goals of the project are from where they're standing. "Everyone represents their own position or institution, but they have their own family and their own cares besides work. Sometimes it helps to get to know the person as well," he added.

Putting yourself in their shoes also helps you understand their priorities. The areas where Marker works are often dealing with a big political, crime or drug problem, increasing the likelihood that long- and short-term priorities collide. Balancing the long-term goal of reform with the everyday difficulties of coping with crime and turbulence is the challenge. To meet it, Marker stressed the need for support with the host countries to make sure they will, at the end of the day, be committed to those long-term goals.

Marker also recommends being open and receptive to different perspectives. "Everyone brings something to the table, and there's a good chance that they're going to say something or bring an idea or propose a solution that you forgot or give you some insight that you had not thought of," he said. If you aren't willing to hear these perspectives, you'll lose out on a lot.

Getting support from key stakeholders is really the project manager's job, Marker said, and this must be done early in the project's timeline.

"Program managers really need to take the burden of buy-in on their shoulders," he said. "It's a lot of extra work to get and solicit that initial push to get everyone bought into the process. You have to maintain that throughout the life [of the project].... It's a burden that the program manager needs to be aware of from the beginning and work on throughout the life of the project."

Marker added that program managers need to be patient — or practice strategic patience, as he refers to it. It's important to know when it's the right time to put an idea forward and when it's better to wait so that people aren't overloaded with information and change.

In planning timelines and establishing when to say what, Marker recommends a technique called reverse planning, in addition to communicating far in advance about the timeline. "We look at the end state we're trying to achieve, and then the different steps that we need to get there, and break it down that way," he said. This also helps the process of garnering support from key stakeholders, because if someone doesn't approve of a particular incremental step, you can help that person see how it works toward that end goal.

Ultimately, securing buy-in from stakeholders is all about timing and coordination, Marker said. As a project manager, you'll have to develop your ability to watch the clock.

## JASON MARKER'S *top project management tips*

**Deeply understand the perspectives of the key stakeholders** in the project. You'll then be able to best manage how each member of the team fits in and anticipate where tensions might arise.

**Be context-specific.** When working in communities that are facing significant everyday challenges, know that they will have to juggle competing priorities and crisis situations.

**Timing is everything.** Communicate and establish stakeholder buy-in from the very beginning.



## PROJECT MANAGEMENT ISSUE #5

# Managing People Who Don't Report to You



### OUR EXPERT

**Sean Griffin** - Emergency Management Specialist, State Department Office of Emergency Management

### HIS JOB

Griffin is the training and exercise lead in his department, which managing the overall training and exercise program to help people prepare for disasters and emergencies.

One of the largest projects that Griffin managed was international participation for the national-level Capstone Exercise 2014, chairing of the International Working Group. As chair, he was required to manage projects between July of 2013 until May of 2014 on exercise design, logistics, VIP programs, scenario development, and all international exercise elements with a working group of over 70 cross-sector representatives. The project involved a whole community of partners – everyone from private to public, from state, local, nongovernmental, federal interagency, and international. International participants included North American, European, and Asian nation states and international organizations. None of the people on this project reported at all to Griffin, but he had to manage them to create a successful project.

Griffin employed several methods for successfully managing this enormous project with a variety of people whom he did not directly manage.

“One of the first things we did was to create, what we call in the exercise world, an extent of play agreement,” Griffin explained. “So we had both parties agree that they would participate at a certain level. If they wanted to be part of the playing process, both parties agreed to sign on the dotted line, that you will agree to exercise project milestones and deliverables. So although they don't work for me, they have mutually agreed that they will deliver. It's a contract, essentially. It's not legal, you know, it's not notarized, but it's a good faith contract.”

Another tool of Griffin's was taking on the burden of meeting the people he managed – instead of making them come to him. “Another reason or another way to better manage folks is to go to them,” he noted. “The more you can go to them versus them coming to you the better. It's also a way to create buy in. The less that they have

to travel out of their day to meet me, the better, and it creates trust and goodwill.” To do this, Griffin uses Microsoft Lync, Adobe Connect, and conference calls to virtually meet with people on the project. For working with international partners, this allowed constant connection and collaboration, minimizing travel and cutting costs, regardless of time zone difference or geographical distance.

Added Griffin, “Now, the other aspect I think is really important, and this is just basic interpersonal relationship skills, or professional management, is, before you start the project, if possible, to meet with the person one on one. And go where they might like to go. Know the person before you engage in the project with them. If they like to go to the bar, go to the bar with them. If they like to go to the coffee place, go to the coffee place. If they like to go to the museum, go to the museum.”

Finally, Griffin recommended involving others in presentations and for them to lead aspects of the project. He'll often ask a volunteer from his group to do a presentation on a particular aspect of the project, so it's not just him talking and leading the entire time.

“This accessible tool I use is to ask for a volunteer to present, even if it's 5 minutes on a specific topic that's just sort of related,” Griffin said. “So it's not just the project lead. An example is I worked with Sweden, to brief my group on this Swedish aircraft that they would be exercising. And why did I do that? Because I wanted the other participants to show-off their capabilities, to bring it to the table, and feel pride in ownership as part of the project.”



## SEAN GRIFFIN'S *top project management tips*

**Have all parties sign a document** agreeing to the parameters of a project — and the roles they will play in it.

**If you have to manage folks** who don't directly report to you, make sure you're going to them, not making them come to you.

**And try to meet with them in person** to get to know them and to set a baseline for a friendly working relationship. If you can't meet in person, set up a friendly video chat.

# Encouraging Communication & Innovation



### OUR EXPERT

**Daniel Hanttula** - Information Security Director, State of Oklahoma

### HIS JOB

Hanttula manages a varied team of security professionals who handle cyberattacks, develop new security tools and applications, and provide security systems to Oklahoma government agencies.

**H**anttula said that probably the biggest stumbling block for his project team is overall communication. This comes to a head in various forms.

First of all, communication with people outside the government is challenging. “My bosses here are the state’s Chief Information Officer and the Chief Security Officer. They are constantly being barraged with questions on how things are going, how much we’re saving the state, how effective we’re being and how much we’re either improving efficiencies or reducing costs for the State of Oklahoma,” Hanttula said.

So, how does he respond? “The most important thing you can do is to keep all parties advised of every possible situation in the project,” he said. “We do that a number of ways, both through official channels of reporting, but also through constant communication with all of our partners and everyone who’s involved.”

How much is too much, though? In Hanttula’s view, “a project manager should never be at their own desk,” he said. “You’ve got to be with your team and your customer. [Project managers] should either be so immersed with the team that’s working on the project or with the customer trying to further understand how to make sure the project’s going to be a success.”

He recommends the HP Project and Portfolio Management System, which his team uses to evaluate whether its budget is being met and to communicate with partners and the residents of Oklahoma.

Communicating across a diverse project team is a real issue, Hanttula has found. This stems from the language barrier — in technical fields such as IT, there’s a tendency toward industry jargon, which can make conversations with those outside the field difficult. As a project manager, Hanttula has found it best to present his talk to other professionals before a meeting — ask questions about key terms, and “communicate

in their own parlance,” as he puts it. It takes some preparation and some research, but it will help communication enormously.

Another big challenge is how to encourage proactive and innovative thinking. In an IT department, there’s some resistance to that. So, how does he use to encourage creativity?

One hugely successful solution, Hanttula said, has been implementing a recognition system. He and his team developed a list of criteria for extraordinary activities for their organization, which they’ve termed “security rock star qualities.” When employees do something that exhibits one of these attributes, they receive a custom-made poker chip with the organization’s logo to keep on their desk. This does a fantastic job of keeping people motivated to push the boundaries of their own performance, Hanttula said. It’s been working so well, in fact, that the approach has been implemented agencywide.

To provide further encouragement for creativity on projects, Hanttula suggests helping people see the effects of their skills. Especially in IT, which is directed to black-and-white thinking such as producing a deliverable on time or within budget, demonstrating to people that their innovation has helped can provide a great deal of motivation and increase the likelihood they’ll continue to think in new ways. In his experience, this has been a great tactic.

“What you really need to do is take a minute to show them how their solutions affect people,” he said. “Even the most introverted IT guys, when they see how their work helps an individual or an organization — it really makes a difference.”

With Hanttula’s tips on improving communication and creativity, your projects can flourish and you’ll be able to lead your team toward government excellence.

## DANIEL HANTTULA'S *top project management tips*

**Over-communicate.** Immerse yourself in the team and never sit at your desk.

**Do your research on industry jargon.**

Consult with experts to familiarize yourself with the language of particular systems and industries so that you can talk like a native and communicate on their level.

**Develop a recognition and rewards system**

that acknowledges employees who have pushed the boundaries.

## PROJECT MANAGEMENT ISSUE #7

# Preventing Scope Creep



### OUR EXPERT

**Winnie Liem, PMP** - Senior Portfolio and Project Manager, Ontario Government

### HER JOB

Liem provides consultation to businesses and organizations in change management and business transformations involving IT systems and has led multimillion-dollar projects in and outside government.

In her role at the Ontario Public Service at the Ministry of Health and the Ministry of the Attorney General, Liem consistently deals with projects that encounter the dreaded “scope creep” — growth beyond their original intentions. She uses a variety of tactics to deal with this inevitable project management issue.

“At a lessons learned session I facilitated recently, I wanted to get to the bottom of why a project went from an original schedule of one year for completion to over three years,” Liem said.

She started at the top. When defining high-level requirements for a project, Liem said, the challenge is to produce requirements that are “just right” — not too detailed and not too high-level or vague.

“In my opinion, therein lies the most important ingredient to building a scope definition that sets your project up for success. I used a simple example of a requirement: buy a sweater,” she said.

Liem pointed out that this requirement leaves a lot of room for variance and misinterpretations, whereas if your goal was more specific and spoke to a desired outcome (e.g., own a purple sweater), at least you know that if you achieve this goal, the consumer would be happy, regardless of the means that got you there.

It’s all about setting these specific requirements up front, Liem said. “The common pattern I find on projects is the lack of emphasis on ‘good requirements.’ Multiple statistics support that ‘poor requirements’ management practices are the second leading cause of project failure, second only to changing organization priorities.”

## WINNIE LIEM'S *top project management tips*

**Use the “own a purple sweater” example** when starting on project priorities to prevent scope creep. If you say simply that you want to buy a sweater, scope creep will happen around that vague goal. Spending more time defining requirements with your client helps limit scope creep.

**Use plain language.** “One of my pet peeves is PMs or tech folks that use too much lingo,” Liem said. “Terms that are over-used are ‘We are Agile/Lean’ and ‘That’s not in scope, you need a change request.’ I much prefer speaking to my clients in plain speak and I’m continuously redirecting my clients to think of their project goals and having honest conversations with them on prioritizing their needs.”

**Hold lessons learned debriefs after projects.** Find out where scope creep was an issue and come up with a plan for dealing with it next time.

# Advice from Agile Project Managers at 18F

## Robert Read, Managing Director, and Sarah Allen, Product Lead, at 18F Consulting

**W**ant to start with Agile and better project management in your agency but aren't sure how? That's why 18F Consulting was launched. Here's how the group describes itself:

18F Consulting is focused on providing hands-on consulting services to Federal program managers and other leaders who need assistance in designing and managing software acquisitions that use modern development techniques (e.g., agile, lean, open source). We offer a variety of services under the authority of the Economy Act from knowledgeable and experienced software engineers and acquisition specialists. Think of us as your in-house technical brains for your next software acquisition.

We chatted with Robert Read, Managing Director, and Sarah Allen, Product Lead, at 18F Consulting to get tips about Agile and better project management.

Many government workers have probably heard of 18F, the relatively new digital services arm of GSA designed to build tech services for the government. But few may know that 18F also offers 18F Consulting, a planning group that acts as an Agile coach and solutions architect for agencies.

"In 18F Consulting, what we try to do is act as a rent-a-brain, a technical expert that can work on something for a short time before the contractors come on board, to assist with writing good solicitations, and bring Agile practices to both the contracting process and the technical architecture of the system that people are going to deal with," Read said.

The consulting group was a natural outgrowth of the new type of project management approach that government needs to start taking, Read said.

"There's an emphasis in the government on planning, which may be very valuable in many situations, but doesn't fit modern IT practices very effectively where things are changing very rapidly," he said. "Mobile phones and smart phones have come into existence; new technologies are created every day. If you try to plan a three-year project, the technology on which it will be delivered may have changed by the time you get to the end of the three-year project."

Allen added that the current approach to project management in government is a serious challenge that agencies need to try to move past in order to deliver effective services.

"We know people in government take very seriously public trust," Allen said. "But I think the traditional Waterfall model used by many is actually sort of deceptive. It's as if saying that if we write down that this goal will happen, if we spend this much money, then we are effective stewards of the taxpayers' money. But often the project that was launched was not what was the intended outcome."

Adopting Agile project management, especially for IT services, is what Allen and Read recommend as the solution.

### Below are the top five tips for using Agile project management:

1. Write everything down at the start. "You have to write down your actual goal with the project," Allen said. "Not necessarily that you want to build this product, but instead, write down what you want the outcome to be. For example, after somebody uses the software, what will happen? Then define what are the metrics by which you will measure those goals. Don't leave the metrics till the end. If you don't measure the before, then you can't see the impact."
2. Break it up. "Break down your big project into small chunks where you can do something, evaluate how effective that one thing was, adapt and iterate," Allen said.
3. Create an MVP. "You have to create an MVP — a minimum viable product," Read

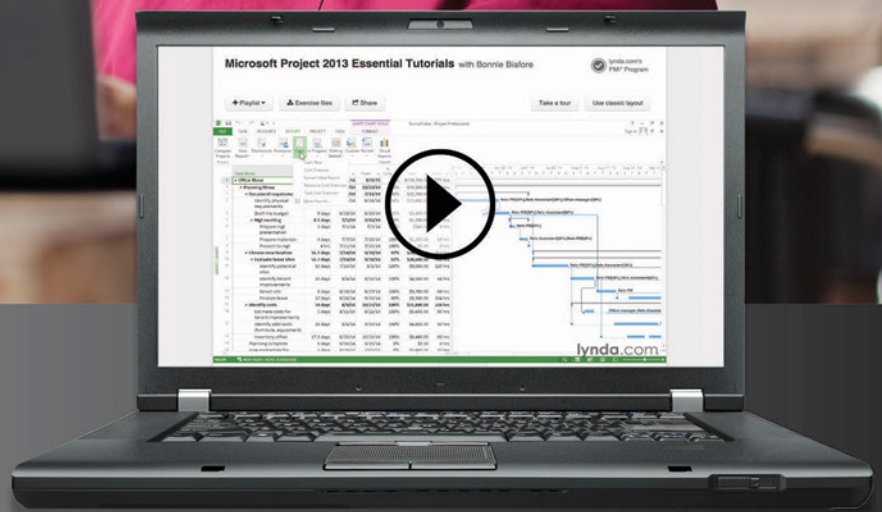
said. "Instead of being a perfectionist and saying, 'In order for this to be successful, we have to have all 30 of these requirements accomplished,'...try to build the simplest thing that can provide value to your end users."

4. Tools can be great, but the principles matter more. "I think it's important to understand that if following different tools of the Agile manifesto are worth \$100, then following them and picking the right tool is worth about \$103," Read said. "The tools are not as important as the principles. I would hate for someone to waste a lot of time worrying about tools when they haven't even started the process yet."

5. Bring in end users early and often. "You need to create an interactive loop where you give your project to the users and see how they respond to it — and that should occur, at a minimum, every two weeks. One of the Agile mottos is to have the end user in the room."

...And properly define "end user." "The end users are real people who will be the core of the people who will use your software," Allen said. "Say you're building a product that involves applying for food stamps, but you're going to get the person in the next cube who's never applied for food stamps to use the product and give you feedback on it. That actually happens a lot — that people think they're doing validation, when really they're not at all. It's almost zero value to get somebody to use your product when they're not your target audience."

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# How You Can Improve Your Communication Skills

**A**t GovLoop, we truly believe that good project management translates to good communication. Need to brush up on your communication skills? Use these tips and watch your project management abilities grow.

**Celebrate, realize and learn** to love the fact that different people like to communicate in different ways, and as a project manager it is up to YOU to adapt — not for them to adapt to you. Find out early on what they prefer: E-mail? Phone calls? In-person stand-ups? Then tailor those to the individual when you are working. The best project managers are communication chameleons.

**Wherever possible, communicate** in person. Meanings and messages get lost in e-mail or text. At the end of your conversation, say, “Tell me what was not clear about that and anything I can do to help you better understand what I need.”

**People don't like** being asked to do things in a vacuum or without logic. If you ask somebody to do something, communicate to them your reasoning, the context, the consequences and the perspective about why it's important.

**Don't avoid communication** out of fear of being seen as bossy. And don't equate being clear, setting goals and making concrete asks with being not being nice. People are afraid of stepping on others' toes, but no one is a mind reader and clear expectations need to be communicated.

**Read [this post](#)** from Chaeny Emanavin, a Project Manager at the Consumer Financial Protection Bureau, on how to use visuals to improve your communication.

# Project Management Resources

This guide is full of stories and concrete tips from project managers working on the frontline of government. We hope you found their experiences useful, but we realize you might just want some cold, hard information such as templates, webinars and other materials to add to your project management repertoire. This section is for you. Below, find several links to what we consider some of the best project management materials out there.

## Resources List & Reading

[The Agile Government Handbook](#)

[9 Awesome Project Management Schedules](#)

[Project Management Survival Guide](#)

[20 Project Management Tips to Live By](#)

[How to Run an Agile Project in Government](#)

[The TechFAR Handbook for Procuring Digital Services Using Agile Processes](#)

[The Core Project Management Guide \[For Small Projects\]](#)

[How Project Management Can Create a More Efficient Government](#)

[ProjectManagement.com's Government Section](#)

[The Project Management Institute](#)

## Agile Resources

- Informative United Kingdom government [manual on Agile project management](#)
- Very basic/simple beliefs and practices behind Agile project management — a “manifesto”
- A Government Accountability Office [study that identifies 10 best practices and 14 challenges](#) to using Agile in federal agencies
- [Presentation from 18E](#) on how to run an Agile project
- [State of Agile](#) – The 9th Annual State of Agile Survey (VersionOne)
- [The Scrum Guide](#)

## DevOps Resources

- [DevOps.com](#) covers all things DevOps-related
- Some of the [cultural barriers to DevOps](#)
- Informative/useful [presentation on DevOps](#) with case studies
- In-depth [guide to DevOps in federal government](#) with a private-sector spin
- Easy-to-read [guide on DevOps in federal government](#)

# About GovLoop & Acknowledgments

GovLoop's mission is to “connect government to improve government.” We aim to inspire public-sector professionals by serving as the knowledge network for government. GovLoop connects more than 150,000 members, fostering cross-government collaboration, solving common problems and advancing government careers. GovLoop is headquartered in Washington, D.C., with a team of dedicated professionals who share a commitment to connect and improve government.

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