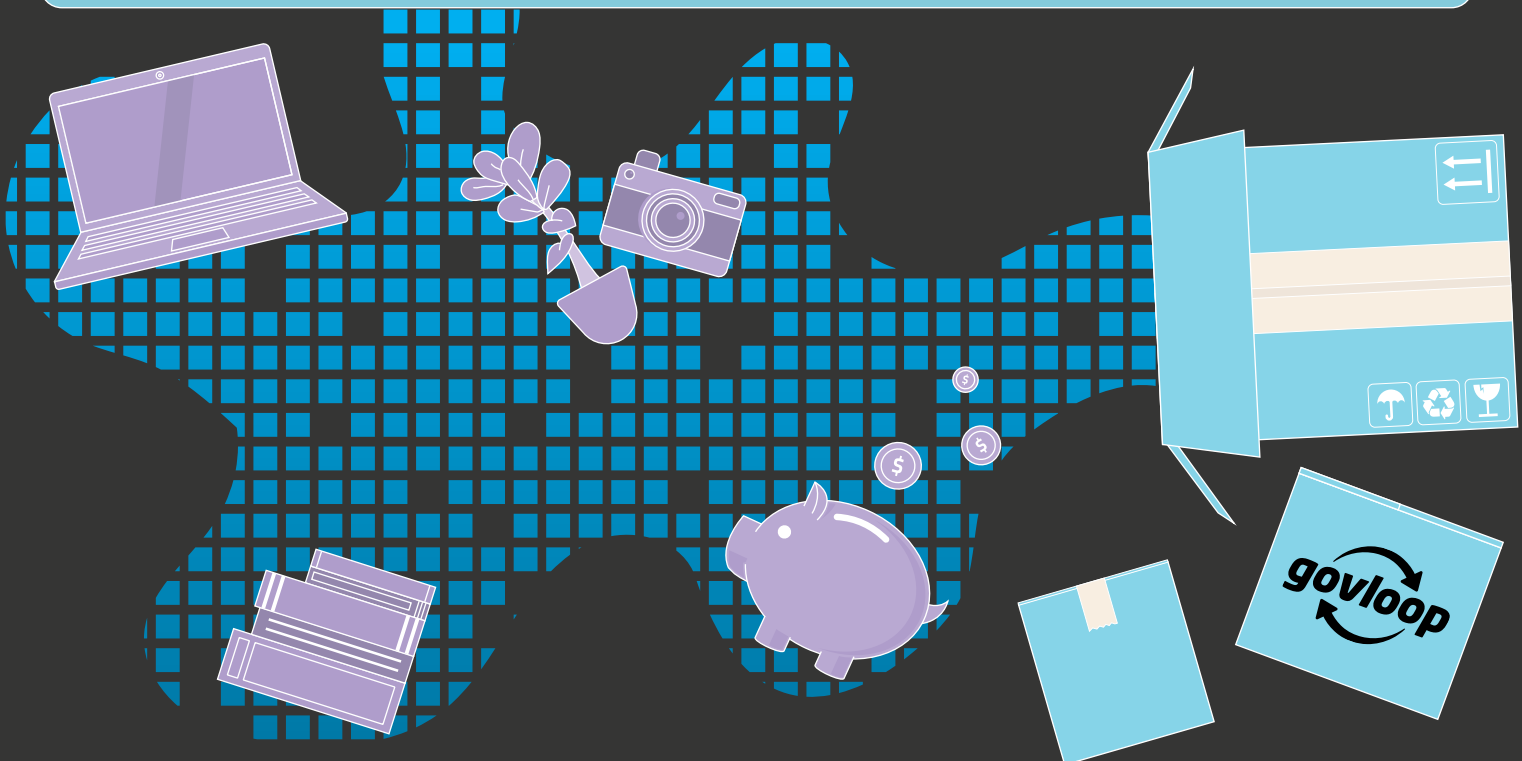# Unpacking Digital Transformation

govloop

Introduction

At long last, government agencies are getting some real support for their modernization and transformation initiatives. Through the Technology Modernization Fund (TMF) and the American Rescue Plan (ARP), Congress is providing significant funding for updating or replacing legacy systems, with a focus on both improving the security of government systems and delivering better services.

The challenge, now, is to make those investments pay off. Modernization initiatives have a long history of taking too long to deliver and falling short of expected outcomes.

This guide, aimed at transformation practitioners, will provide readers with worksheets, step-by-step guidelines, government and industry insights, and other resources that can help agencies launch transformation initiatives — and deliver on them.

We will explore, among other topics, how to:

- Evaluate proposed projects and secure funding

- Focus on product management, rather than project management

- Take a more personal, design-led development approach

- Create a simple version of your project to gauge long-term success

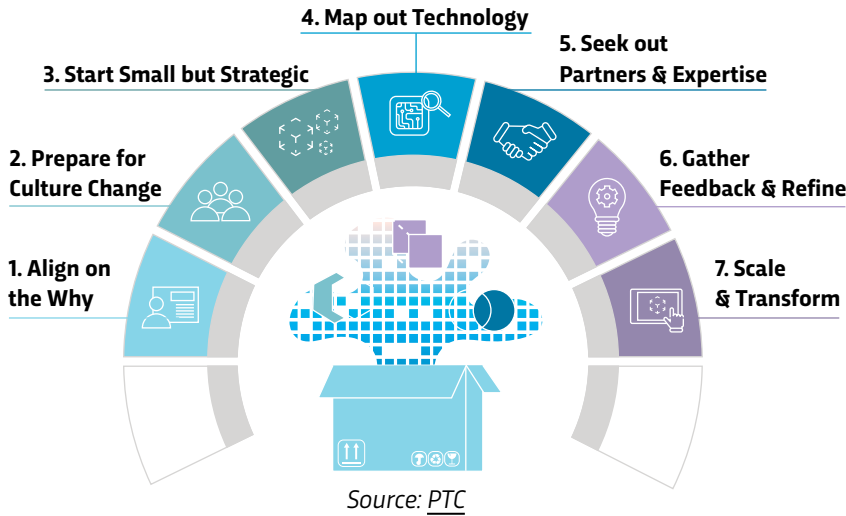- Foster a workplace culture where employees desire to, and can, make transformation happen

Let's get started.

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Digital Transformation Strategy

4. Map out Technology

3. Start Small but Strategic

5. Seek out Partners & Expertise

2. Prepare for Culture Change

6. Gather Feedback & Refine

1. Align on the Why

7. Scale & Transform

Source: PTC
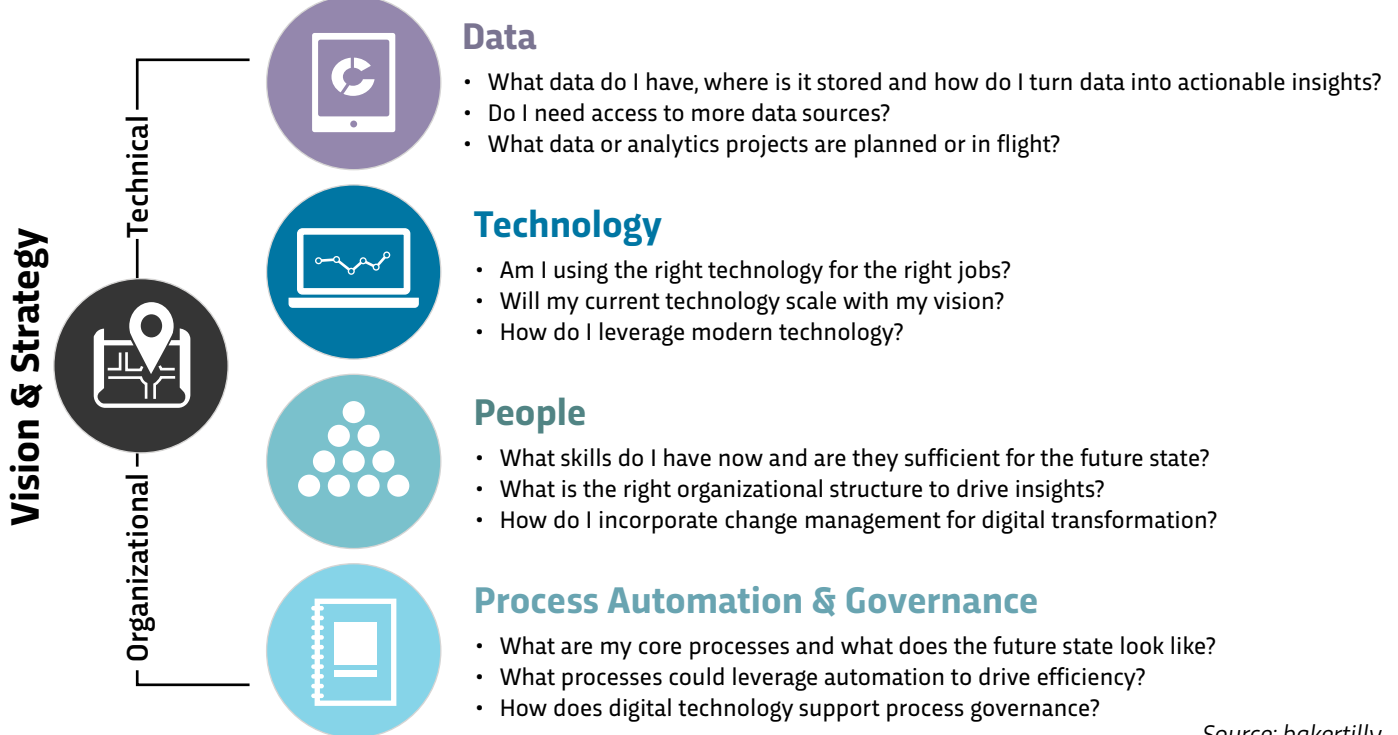
Technology Modernization Fund

TMF recently announced its first investments using some of the $100 million allocated to it for customer experience (CX) reforms.

1. U.S. Agency for International Development: Enterprise Customer Relationship Management Campfire

$5.9 million: will provide needed startup capital to develop and launch a new IT platform to coordinate USAID work with businesses, foundations, philanthropies, research and public interest groups, and others.

2. Railroad Retirement Board: Citizen-Centric Online Self-Services

$8.7 million: will move key RRB services away from phone and paper and to new online self-service systems so that frontline customer representatives can tackle more complex beneficiary issues.

Vision & Strategy

Technical

Organizational

Data
- What data do I have, where is it stored and how do I turn data into actionable insights?
- Do I need access to more data sources?
- What data or analytics projects are planned or in flight?

Technology
- Am I using the right technology for the right jobs?
- Will my current technology scale with my vision?
- How do I leverage modern technology?

People
- What skills do I have now and are they sufficient for the future state?
- What is the right organizational structure to drive insights?
- How do I incorporate change management for digital transformation?

Process Automation & Governance
- What are my core processes and what does the future state look like?
- What processes could leverage automation to drive efficiency?
- How does digital technology support process governance?

Source: bakertilly

TMF Success Story

TMF invested $3.5 million to create a Department of Labor data hub that expedites the processing of agriculture and trade-craft visa certifications. As a result, there are now:

176%
more agricultural certifications daily

109%
more trade craft certifications daily

Pre-populate
Application forms that pre-populate with previous year's info

$1.9 million
in annual cost savings

Real-time
Real-time online status for applications

2 Days
saved per application for every visa

How to Give Proposed Projects a Hard Look

With ARP providing a surge of funding for transformation initiatives, agencies are faced with a dilemma: How do you decide which projects are the best investment?

The U.S. General Services Administration (GSA), which helps run the federal TMF, developed criteria for distributing funding to federal agencies (see worksheet on p. 7). But GSA and other organizations have offered other guidance that can help put projects into perspective.

Here are some ways of looking at them.
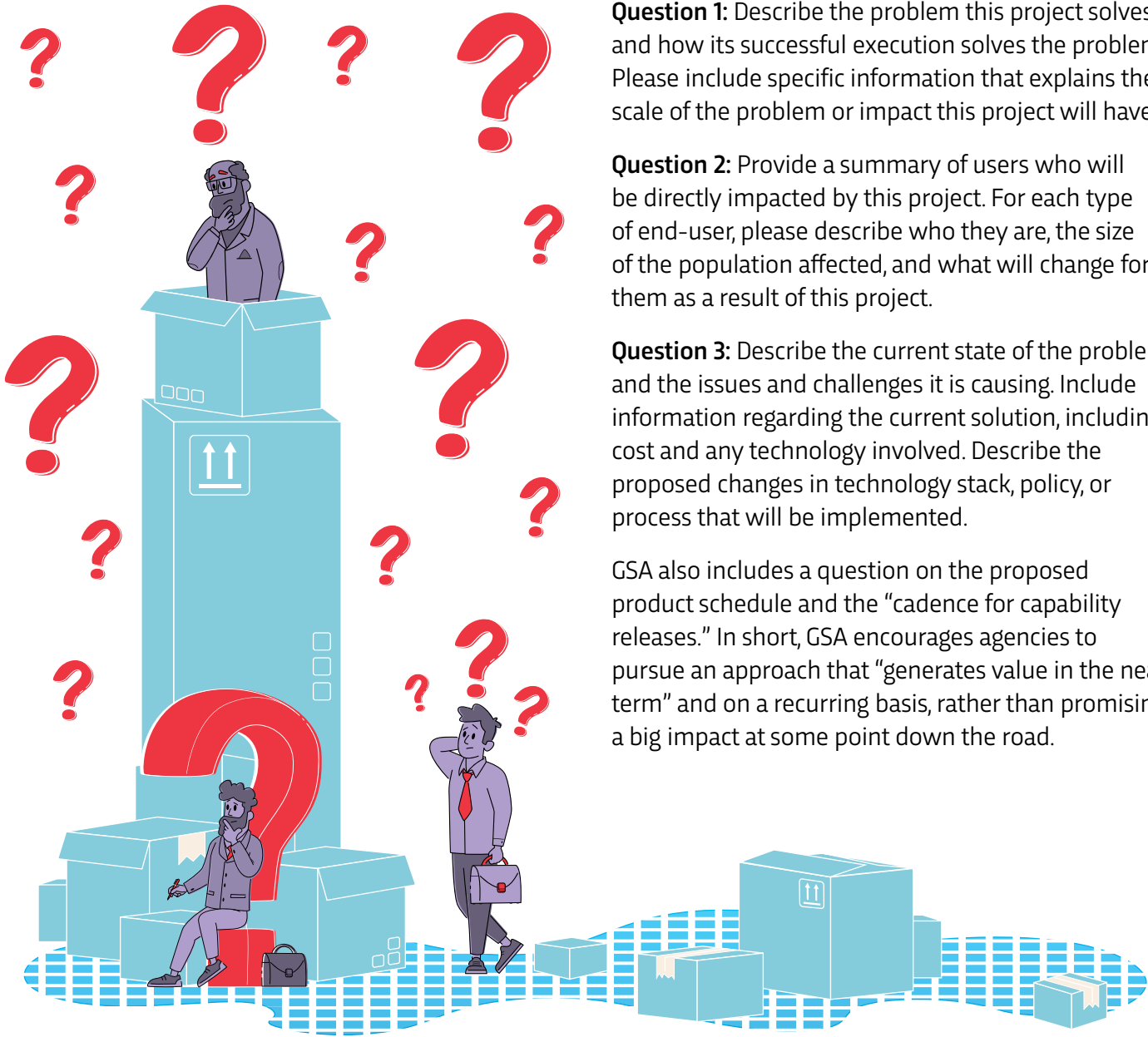
A Problem/Solution Lens

As part of the TMF application, GSA asks several overarching questions that urge agencies to articulate potential impacts. This is a good starting point for considering a project, because if the impact is unclear, there's no point in looking at more specific criteria.

The three questions get at a program's impact both in terms of the problem being solved and the solution being proposed, with the user perspective kept front and center.

Question 1: Describe the problem this project solves and how its successful execution solves the problem. Please include specific information that explains the scale of the problem or impact this project will have.

Question 2: Provide a summary of users who will be directly impacted by this project. For each type of end-user, please describe who they are, the size of the population affected, and what will change for them as a result of this project.

Question 3: Describe the current state of the problem and the issues and challenges it is causing. Include information regarding the current solution, including cost and any technology involved. Describe the proposed changes in technology stack, policy, or process that will be implemented.

GSA also includes a question on the proposed product schedule and the "cadence for capability releases." In short, GSA encourages agencies to pursue an approach that "generates value in the near term" and on a recurring basis, rather than promising a big impact at some point down the road.

A Feasibility Lens

However promising a project might sound, you need to look at it with a jaundiced eye and ask: Is it feasible?

In a report titled "Developing a Framework for Successful Modernization Projects," the American Council for Technology-Industry Advisory Council (ACT-IAC) recommends weighing six factors as you make a go/no-go decision:

Economic feasibility: What is the net benefit of a proposed project? Weigh the potential outcome with the expected costs to the agency, other agencies and the general public, as well as any risks involved.

Technical feasibility: What technical resources are required to convert the idea into a working system? ACT-IAC recommends developing a high-fidelity prototype to test technical feasibility and get stakeholder buy-in.

Legal feasibility: Does the proposed project conform to the necessary legal, ethical, and contractual requirements and obligations, such as federal and state laws, security requirements and agency-specific policies?

Operational feasibility: Can the proposed product or service work within the organization? What impact will it have on different stakeholders and processes? What kind of resistance might it meet?

Schedule feasibility: Is the proposed timeline reasonable when measured against existing projects and available resources? Look at due dates, dependencies, milestones, assigned resources.

Administrative feasibility: Can the organization effectively manage the execution of the proposed project? Consider both external and internal factors that could affect its success.
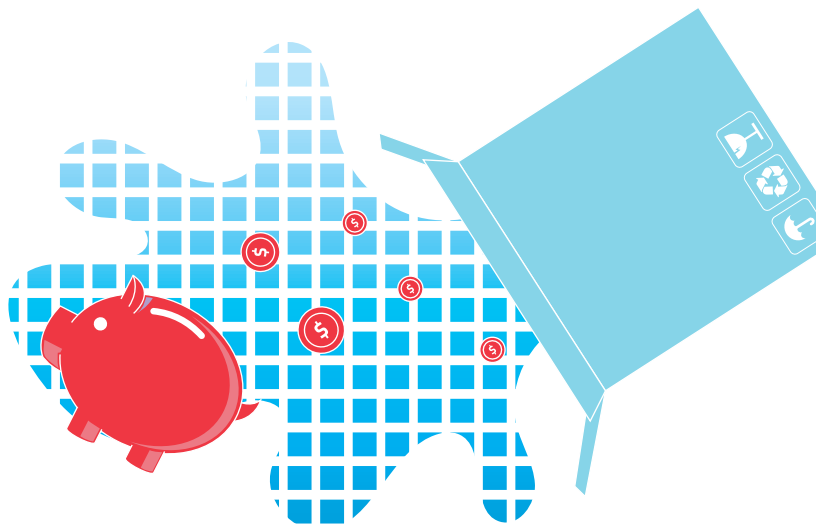
A Cost Lens

While many things go into deciding whether to move forward, every decision eventually comes back to money: How much will it cost, and how much will it save? Unfortunately, that can be tricky.

In testifying before Congress in May 2022, the U.S. Government Accountability Office (GAO) noted that many of the early projects TMF funded had not, at that time, delivered on their intended savings — in part, because the original cost estimates were off the mark.

In May 2020, the watchdog agency created a guide to estimate and assess costs. According to the guide, a sound cost estimate should be:

- **Comprehensive.** The estimate should include all lifecycle costs, a work breakdown structure, and ground rules and assumptions.

- **Well-documented.** Estimate documentation should describe how the source data was used, the calculations performed and their results, and the estimating methodology used.

- **Accurate.** It should be based on historical data or actual experiences with other comparable programs and be updated regularly to reflect changes in the program.

- **Credible.** The estimate should incorporate the results of sensitivity, and risk and uncertainty analyses.

If the overall assessment rating for each of the four characteristics is not fully or substantially met, then the cost estimate is not reliable, GAO said.

6
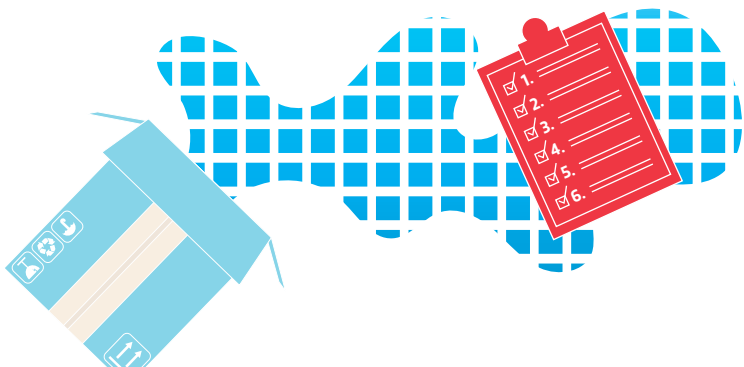
Worksheet: Project Funding Selection Criteria

In developing a project proposal, consider the following questions, which are drawn from the selection criteria federal officials use in considering applications for TMF funding.

Impact on Agency Mission

- How will successfully executing this project have a demonstrable and visible impact on the public, in alignment with the agency's mission?

- Does this project address an urgent problem (e.g., cybersecurity, financial, operational) that otherwise would not be solved?
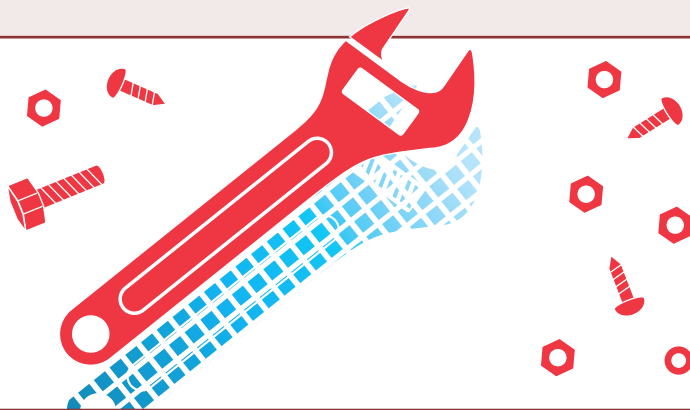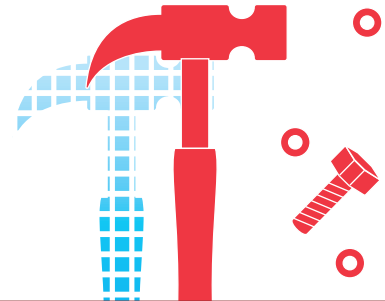
Feasibility

- Does the project have strong executive visibility and support, so that agencies can quickly and effectively address any issues that arise during execution?

- Have you identified key milestones for success? And have you created a governance structure and operational model that will last beyond initial execution?

Value Proposition

- Have you identified specific ways in which the project will (a) improve service delivery and/or (b) provide cost savings/avoidance?

- Have you identified how the project will strengthen business processes?

- Will the project enable you to free up personnel to work in other areas of need?
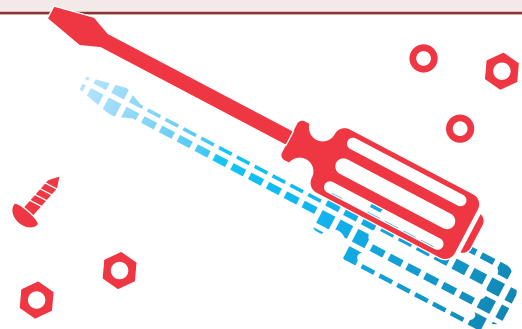
Common Solutions

- To what extent will the solution use commercial products and services?

- In what ways does the solution boost security, reduce or retire outdated technology, or improve the agency's ability to adapt to changing security or operational requirements?
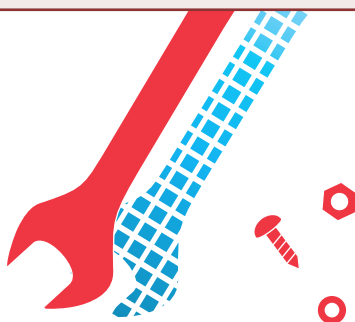
Supercharge Your Agency Service Management

An interview with Phill Fox, Principal Customer Success Advocate, Adaptivist,
and Sandra Trumbull, Enterprise Solutions Advocate, Atlassian

Have you ever submitted an online request and waited and waited for a response? Have you ever had trouble adjusting to constituent demand?

"Organizations need to respond with speed to changing circumstances," said Phill Fox with Adaptivist, an Atlassian solutions provider that specializes in transformation. "If you have a traditional service management approach, how flexible, how responsive is [it]? Can you scale it up quickly because you suddenly have a demand?"

In recent years, agencies have been using service management tools across all departments, Fox said, removing the artificial barriers between internal and external systems and helping agencies better serve the public and other users. There are a few key rules for success.

Be Nimble and Quick

Using cloud solutions, organizations can automatically scale up their systems when constituent demand is high and down when demand is lighter. This enables agencies to be more responsive, efficient and constituent-friendly.

Most federal agencies are going through a major digital modernization effort, replacing outdated/legacy systems with cloud-based solutions, said Sandra Trumbull with Atlassian, a software-based company.

And self-service — whether through guided prompts, artificial intelligence or other methods — is increasingly important because users are more empowered and typically obtain faster responses, service teams have fewer headaches, agencies can lower their service costs, and everyone receives a better overall experience.

Don't Wait for 'Perfect'

Organizations shouldn't spend all their time designing an exciting new service management system that they never get around to building.

"There's a suitable amount of upfront work to do to get things right, but you'll never be perfect," Fox explained. "So, start with what you do know and what you can define, build that, listen to the feedback, react to that feedback, and improve and expand and grow out."

Why do many IT transformation projects fail? "It's often because they spend all their time designing up front...and by the time they get around to building, the world has already moved on," he said.

How Atlassian Helps

Atlassian's Enterprise Solution suite consists of several powerful, easy-to-deploy tools. Confluence is a remote-friendly team workspace to share information and collaborate on projects. Jira Service Management, built on the Jira software platform, helps agencies with end-to-end delivery of IT and enterprise services to employees and constituents.

Essentially, it helps users easily initiate, receive, track, manage and resolve service requests from any location on virtually any device, via web browser or email, or from within an embeddable widget in other apps (e.g., Teams, Slack and more) any time.

The example of an Atlassian-built nature park website shows how smooth this process can be. Using service management solutions, the customizable site takes constituents on a streamlined journey and establishes open communication between individuals and agency staff responding to their needs.

And because user requests generally fall into common categories, the Atlassian site can anticipate many responses to people's queries — and leave constituents feeling good about their timely, effective agency interactions.

ATLASSIAN

Adaptavist

How Agencies Are Driving Innovation to the Edge
Insights from the Red Hat Government Symposium

Across government, innovation is happening at the edge. By leveraging cloud, artificial intelligence (AI), machine learning (ML) and related technologies, agencies can deliver services more quickly and effectively at the far reaches of operations, whether that's in the battlefield or on the International Space Station (ISS).

At the Red Hat Government Symposium held in late 2022, government and industry leaders discussed how agencies were leveraging these technologies to accelerate mission delivery. Here are two examples of how agencies are adapting to make the most of modern technological opportunities.

Air Force Delivers Dynamic Insights

Not so long ago, Air Force communications meant radios that transmitted information about where to go and what was happening. Now, digital input is being delivered directly into the cockpit.

"We're talking about a situation where edge capability expands the envelope of the missions that we can get accomplished and changes the ways in which we can accomplish them," said Winston Beauchamp, Deputy Chief Information Officer for the Department of the Air Force.

Currently, the service uses edge computing in its Agile Combat Employment, a scheme of maneuvers aimed at increasing survivability while generating combat power. If warfighters are under threat at fixed bases, they must move to alternate locations quickly — and those might not have all the infrastructure of a traditional base. "Edge technologies enable you to deploy to that location that you need to accomplish that mission without a huge footprint," Beauchamp said.

NASA Reduces Latency in ISS Comms

NASA has applied edge computing to ISS, increasing how fast data can be exchanged between it and Earth to "the speed of relevance," said Jeff Winterich, Chief Technologist at Hewlett Packard Enterprise for the Defense Department Team and AI Ambassador for HPE Public Sector. That's done by enabling the data to be analyzed at the edge — on ISS — so that only actionable information moves back and forth.

That's because in edge computing, "latency is a killer," he said. One solution to the challenge of reducing it is the use of KubeFrame, or the Kubernetes Framework. It can put teraflops of computing power at the edge, such as in tools that developers or data scientists need.

At times, though, the agency might not have a Kubernetes expert on hand to manage edge environments, making automation key, said Evong Chung, Director of Solutions Architecture for Red Hat U.S. Public Sector. "Having that automation to maybe even just hit the reset button and for it all to come back up is going to be really critical," Chung said.

Security is another challenge, she added. Although the NIST SP 800-53 standard for accrediting systems security has been adapted to cloud, edge presents a fresh set of issues. "I think edge is ... very much an ecosystem play," Chung said. "We need to bring hardware vendors together, software vendors together, integrators together with government to really tackle some of these use cases."

Data, Data Everywhere, but Not a Byte to Eat
Thinking Intelligently About Data Management

An interview with Richard Breakiron, Senior Director for Strategic Initiatives for the Federal Sector, Commvault

Data drives decisions — both good and bad. The days of "static data" housed in filing cabinets or resources like encyclopedias are long over. As Richard Breakiron with Commvault points out, agency and mission readiness and success are driven by "data readiness," and today data is a "flow variable" and the challenge is managing the volume, velocity and variety of data for actionable insight.

Agencies need automated and intelligent data management to manage "data in motion": to see, to provide access, to interpret and safeguard the masses of data they possess, and to deliver context and analysis. Intelligent data management helps organizations enhance their public-facing services, while improving their backend operations, Breakiron said.

Find, Understand, Protect

The first element of intelligent data management is **visibility:** Where is agency data located? And directly associated, Breakiron said, is **accessibility**, knowing how the agency organizes and uses its information, and what the data's condition is.

"We often find, especially in the government, in excess of 50% of the data hasn't been touched for as much as five years," he explained. "And we also find that about 20% of the data, you couldn't talk to if you had to." Commvault calls that "orphan data," and it's akin to having a VHS tape but no VHS player with which to view it.

An intelligent data management system creates a tiered storage approach that identifies long-ignored information, allowing an archival model for "pennies to the dollar vs. thousands of dollars in storage costs," he said.

The third aspect, and one that has to be integrated from the outset, of an intelligent data system is **security:** That is, ensuring that the organization has access control, identity management and other protective elements in place to prevent accidental or targeted loss of data, along the lines of the Zero-Trust Architecture.

How Commvault Helps

Intelligent data management really can save the day. Colorado's chief information officer (CIO) team relied on Commvault for its intelligent data management tools, in which Commvault's automated features identified and quarantined several new, unknown user accounts. They originated outside the state and were created by an adversary staging a ransomware attack. The CIO team was alerted to the event by Commvault's findings and was able to stop the attack.

"Commvault views itself as a data protection and critical mission readiness company, supporting cloud and emerging technologies," Breakiron said. "Commvault looks beyond what's currently possible, focusing on ways to enhance data management to improve 'operational readiness.'"

Breakiron mused, "Wouldn't it be nice if when I save a file, the system doesn't automatically just know that it's a PowerPoint, Excel or a Word doc … but it actually starts tagging it and automatically knows" the context that I want associated with the data? Think of what's possible and a world where we say, 'Data, Data Everywhere and Always a Byte to Eat.'"

COMMVAULT®
Public Sector

Project Management to Product Management: Making the Move

It's more than a change in terminology; it's a change in perspective.

Project management focuses on completing a specific assignment with preset resources. It's often centered on IT and may reference user experience (UX) and organizational priorities only when the project is assigned and handed off. That can lead to a result that doesn't align with goals and is often difficult to scale or improve without starting over.

Product management focuses on what you want to achieve. From the design stage, teams responsible for IT, UX and program goals work together toward a specific outcome. The process allows for continuous improvement in response to feedback and changing needs. Product management also makes it easier to use a design-centered development approach and dovetails with Agile methods, making it a valuable tool in digital transformation.
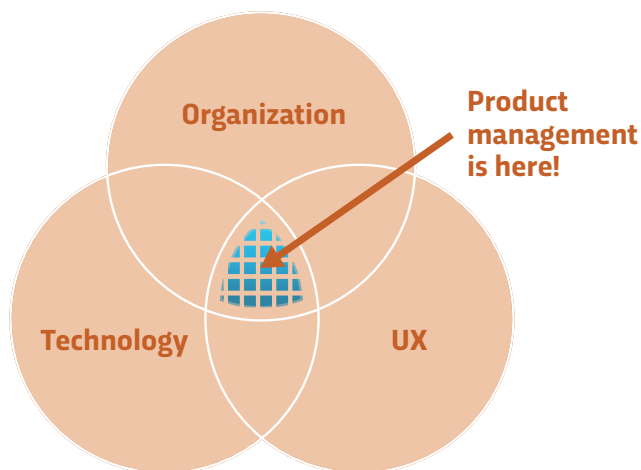
Source: _pmo365_

Further Reading

Resources for pursuing a product management approach:

Scaling IT Modernization Playbook

The Department of Energy playbook examines all phases of digital transformation and includes a guide to the basics of product management (pages 8 and 9).

18F Website

The site is a treasure trove of strategies for digital modernization, improving CX and streamlining internal systems. Although only federal entities can use 18F's consulting services, the site has plenty of information for all levels of government.

The Experience of Change

When the Department of Justice's Civil Rights Division updated its process for reporting discrimination or a violation of rights, it worked with 18F — a technology and design consultancy within the federal government — to manage the change as a _product_ rather than a _project_.

The transition challenged existing assumptions and habits. When Bill Laughman, who has worked at the division for 21 years, became Complaint Portal Administrator and Product Owner for the new process in 2019, he was skeptical. "Not having a project plan or an anticipated output or timeline was confusing and daunting," he told 18F in a recap of the experience. Using an iterative process, the team worked in small increments and received feedback from users on each step before launching it. Laughman and his team became more comfortable with the iterative development method as new working parts reliably showed up every two weeks, he said.

What sold him on product management was its responsiveness to the overall vision of the reporting experience. When things went wrong, the group referred to the outcome they wanted to achieve, and revisions brought the process back to those goals.

"Shorter feedback cycles with the general public, intake teams, development and design teams helped us validate our progress," Laughman said. As an added advantage, the process built trust among internal teams and improved overall morale.

Worksheet: Implementing Product Management

Establish a Team Structure

- Form teams that include members from all relevant stakeholder groups: program leaders, IT, and internal and external users.

- Choose a product owner from the program side of the house to set priorities to best meet mission goals and drive technical requirements.

- Make the team a self-contained entity, with its own physical or virtual space. Don't replicate the organization's structural silos; the point of the team is to give all stakeholders an active role.

- Give the team autonomy — both authority and accountability — to act on its decisions. That includes having control over product funds and the necessary support from procurement and finance.

Source: Scaling IT Modernization Playbook

Establish a Product Roadmap

Product management doesn't rely on the same kinds of plans and timelines that characterize project management, but it still requires a regularly updated roadmap that's shared with the whole team. Expect this step to take time. You'll gain efficiency later from having all stakeholders on the same page.

- Define and assess the problem you are solving, and make sure the whole team concurs.

- Define the outcome you want the product to achieve, based on mission and quality goals and user needs.

- Break the problem into smaller problems, but don't commit to specific solutions or features too early in the process.

- Prioritize the smaller pieces and map the order in which they need to be completed. Include the underlying priorities — cybersecurity, accessibility, regulatory compliance — in each piece.

- Begin exploring solutions.

Source: 18F

As You Progress

- Each iteration of problem-solving should result in a workable piece of software.

- Test those results with users.

- Change plans based on the testing.

- Don't get too far ahead of your feedback.

- Celebrate your milestones.

Source: 18F

Don't Let a Cyber Staff Shortage Weaken Your Defenses

Insights from Vinod Brahmapuram, Senior Director of Security for State, Local and Education, Lumen

The security operations center (SOC) stands at the heart of security programs, with detection and response capabilities that aim to protect an organization from cyber intrusion. Faced with escalating threats, budgetary constraints and a limited talent pool, however, state, local, tribal and territorial (SLTT) governments face challenges supporting an effective in-house SOC.

In SLTT governments, the SOC typically must maintain security across dozens of disparate agencies, each with its own business needs, technology dependence, workforce and IT footprint. The level of complexity presents a challenge to state and local leaders trying to manage cyber risk.

This environment grows even more complicated as agencies undertake transformation efforts.

"Organizations are implementing so many new systems and applications every day, and each technology can have different behaviors that bad actors are trying to exploit," said Vinod Brahmapuram with Lumen, which specializes in helping SLTT agencies address their security challenges.

Augmenting the SOC

In general, a managed security service (MSS) may help manage things like intrusion detection systems, firewalls, network detection and response systems, and endpoint detection and response. SOC-as-a-Service (SOCaaS) solutions take this idea even further.

SOCaaS typically does all that an MSS does, along with providing a team of analysts to resolve alerts, identify and analyze indicators of compromise, and analyze and respond to attacks in order to minimize the impact of security incidents, according to Kuppingercole Analysts.

The team will also optimize an organization's protection, detection and response capabilities through continuous monitoring and reporting. As such, SOCaaS can be considered an evolution of both MSS and managed detection and response (MDR).

In support of improved detection and response, SOCaaS capabilities may include:

- **Threat detection:** SOCaaS leverages log data to rapidly identify potential anomalies. With access to the latest threat intelligence, an SOCaaS provider has broader reach, and the ability to spot potential problems to which an in-house SOC might not be privy.

- **Incident response:** With SOCaaS, skilled experts may work to rapidly identify potential anomalies and take immediate action in order to head off a threat, or the system may take automated action as defined in collaboration with the service provider and the government entity.

Building on Threat Intel

With one of the largest, deeply peered IP backbones in the world, Lumen has unique visibility into the threats that emerge around the globe. The company leverages this network as a threat sensor to better detect and respond to malicious activities to protect their customers and the community at large.

Lumen has a long history of leveraging the threat intel on its network for cyber protection, Brahmapuram said. As a founding member of the Cybersecurity and Infrastructure Security Agency's Joint Cyber Defense Collaborative (JCDC), among other working groups across the government, Lumen shares its cyber data and threat intelligence to warn agencies of the emerging risks that could impact our nation's critical infrastructure.

Find the Right Path to Digital Transformation

An interview with Arno Bergstrom, Vice President, CounterTrade Products Inc.

If you're looking for a standard digital transformation playbook, stop now. There isn't one.

Many agencies undertaking transformation initiatives are dealing with common problems: a lack of agility, increasing "surprise" costs, problems with security and compliance, overly complex management issues and an overall lack of collaboration across the IT environment.

But while the problems might be similar, the solution depends on the specific priorities of a given agency, factoring in both their requirements and their budgets, said Arno Bergstrom of CounterTrade Products, a technology solutions provider and certified woman-owned small business.

"For many of our customers, we are having conversations surrounding their overall cloud strategy and how a full-stack enterprise infrastructure — including compute, storage, networking and security — can support their digital transformation," Bergstrom said.

Start With the End Goal in Mind

Sometimes when putting together a transformation roadmap, it helps to consider a worst-case scenario: In the event of a cyberattack or system failure, can you minimize data loss, ensure regulatory compliance and guarantee business continuity?

In other words, cybersecurity and data backup need to be built into any transformation initiative.

This mission-critical lens also can help agencies make the case for funding transformation initiatives. Leadership or legislators might not be moved by the need for simplifying IT management or improving collaboration, but they understand the need to keep constituents safe and services running.

"With cybersecurity threats on the rise, agencies are at continued risk, which puts the American people at risk," Bergstrom said. "Supporting funding so that our most valuable asset — our data — can be protected from unauthorized use is critical to our success and the success of our country."

Aim for Security and Agility

Often, another key technology piece is cloud computing, which gives agencies more flexibility in how they manage and secure their data and services.

In some cases, however, agencies also will want to rethink their underlying infrastructure. One option is a hyperconverged infrastructure, in which compute, storage and networking resources are fully integrated. That simplifies the management of the infrastructure, making it easier to both secure and deploy IT services.

The U.S. Department of Agriculture took this approach in 2018, when it adopted a combination of public and private cloud services.

"Their legacy IT systems were aging and had become difficult to secure, which left them vulnerable to cyberattacks," Bergstrom said. "By moving to a hyperconverged infrastructure, they were able to become secure, agile and scalable, which allowed the agency to respond more quickly to changing demands and requirements."

CounterTrade, which has been working with the federal government for more than 35 years, specializes in helping agencies map out their journey.

"We have a depth of in-house engineering resources as well as a tenured sales team to help guide you through whiteboarding your needs, consolidating them, helping with market research and then support the contracting and compliance of fair competition through best-in-class federal procurement vehicles," Bergstrom said.

CounterTrade Products, Inc.™

The Value of Design-led Thinking

Level 1
Principles
↓
Level 2
Guidance
↓
Level 3
Code

Source: USDWS
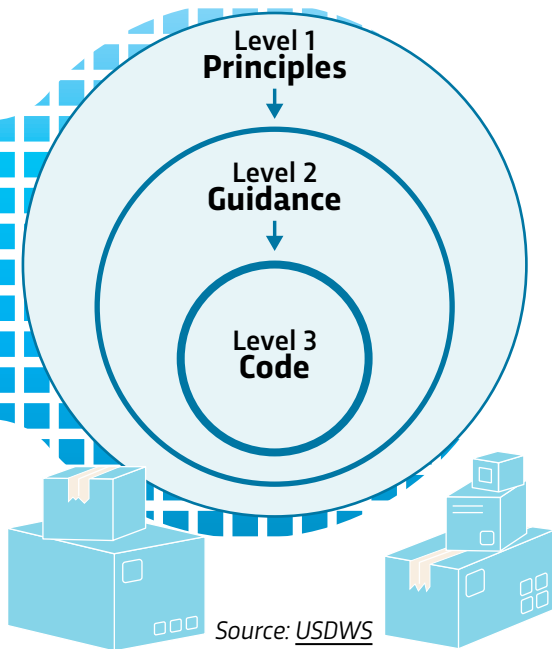
There are two ways to approach innovation. A marketing approach relies on basic consumer research — brief surveys with closed-ended questions, for instance — and focuses on what people say they want. Demographic and other considerations often get ignored.

But design-led innovation looks for information that's more personal and profound. It cares about what a user said and how they said it, and about demographics and accessibility. Diverse teams work toward a common goal and view research as an ongoing process, not a simple exercise with a clear end date.

And design-led thinking constantly experiments, testing new ideas in light of new information and avoiding preconceived assumptions about user experiences. **Initiatives that are designed rather than constructed have a greater chance of success.**

There's a good example in the context of agency website development. The U.S. Web Design System's (USWDS) maturity model encourages federal agencies to, first, follow principles in the 21st Century Integrated Digital Experience Act (IDEA). In other words, start with real user needs, earn trust with every interaction, embrace accessibility, promote continuity, and listen and evaluate. The principles "align teams across government and serve as an evaluative lens for design and implementation decisions," USWDS explains.

Next, the maturity model calls on agencies to adopt USWDS user experience guidance. These are best practices for creating items such as "click here" buttons, search boxes, page headers, and other visual and functional tools. Not sure what colors and sizes your users most appreciate? The guidance will tell you.

Finally, agencies start the actual coding, using what USWDS calls its "design tokens" — that is, individual elements of style, such as color palettes, that make the technical development process more efficient for agency staff.

At its core, design-led innovation is human-centered, and it helps public- and private-sector entities solve complex problems in new ways, compassionately and effectively.

As Albert Einstein said, "We can't solve problems by using the same kind of thinking we used when we created them."

> ### Further Reading
> Resources for pursuing a design-led approach:
>
> **18F Article on Barriers to User-centered Design**
> The article identifies key barriers — time and money shortfalls, a "we just need something to show" mindset, and others — and gives real-world guidance on how to overcome them.
>
> **Summary of the 21st Century Integrated Digital Experience Act**
> Digital.gov explains what the IDEA is, what it requires and what it means for website design.
>
> **Tips for Conducting User Interviews**
> 18F offers advice for capturing the best data from user interviews to support effective design-led modernization.

Worksheet:
How to Become a Design-led Thinker

A design-led approach to problem-solving focuses more empathetically on users than other strategies do. Here are tips on how to embrace design-led website reform.

1 — User Needs

Questions to ask your team when assessing <u>user needs</u>:

- Who is your primary audience?
- What user needs will this product or service address?
- How often are you testing with real people?
- Who will have the most difficulty with the product or service?
- Which research methods have you used, and which do you plan to use?
- What are the key findings?

2 — Trust

Questions to ask your team when strategizing how to <u>build trust</u>:

- What private or sensitive data do you ask your users to provide?
- What are you doing to keep that data private?
- Can users undo actions or edit data they've put into the system?
- How often do you check that your service works as intended?
- How quickly do you respond to bug reports?
- Is your content written in clear, easy-to-follow plain language?

3 — Accessibility

Questions to ask your team when considering <u>accessibility features</u>:

- Can all users quickly understand the main points of your content?
- Can users easily interpret content associated with graphic elements?
- Can users easily understand and complete key tasks?
- Are you using accessibility-testing tools, and do they give accurate results?
- Are you providing content in <u>languages other than English</u>, as appropriate?
- Are you following <u>inclusive design principles</u>?

4 — Continuity

Questions to ask your team when working toward <u>consistent UX</u>:

- Does your audience realize that your product is a government site/service?
- Are the next steps users need to take always clear?
- Does your agency have established style guidance?
- Have you tried and tested shared solutions before developing your own?
- Can you reach across agencies/silos to collaborate and share solutions?
- What other government products/services relate to the success of yours?

5 — Listen

Questions to ask your team to ensure that you're <u>listening to your audience</u>:

- What are key metrics your service uses to measure success?
- How are your success metrics tied to positive user outcomes?
- Do you have system-monitoring tools to identify/respond to issues?
- Do you measure customer satisfaction and work to improve it?
- How are you collecting user feedback for bugs and other product issues?
- How often are you reviewing and addressing feedback and analytics?

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Build a Functional Ecosystem Through Cloud Architecture

An interview with Winston Chang, Chief Technology Officer for the Global Public Sector, Snowflake Inc.

In data transformation, it helps to view things through a different lens.

"It's looking at your data like an ecosystem," said Winston Chang of Snowflake, a leading data cloud company. "Think of the quality data that lives and breathes as an ecosystem." As data management health grows, so does the entire ecosystem across an organization.

Within the data ecosystem, Chang identified three core pillars for transformation: people, processes and technology.

"If you're going to do transformation correctly, you've got to really pay attention to all three of those," he said.

Evolve Through Upskilling

While technology is at the core of a total agency transformation, Chang advised against having it "dragging process and then dragging people along." The process and the people need to move along with the technology instead of clinging to its shirttails.

"One thing I would offer as a piece of advice, having done multiple transformations in the federal government, is invest in upskilling your people," said Chang. "If your people can't use the technology — no matter how great the technology is — the organization as a whole does not move forward."

For federal environments, he urged technology upskilling to improve employees' data literacy, analytics awareness and coding abilities — or at least to provide a basic familiarity with those activities.

Architecture Eases Processes

Chang said agencies face challenges using their data technology: data silos, security vulnerabilities and an inability to support collaboration.

Simple, singular data platforms should work with an architecture that breaks down information silos rather than creates them. That facility comes through in qualities such as data mesh or a decentralized data architecture that's organized by business domain and operates through self-service. The architectural design also must help strengthen system security. That's enormously important for federal data, Chang said.

"The security piece is so big, and with Snowflake, it's baked in at a fundamental level," he said. "In the design of the architecture, security was one of the first things...and it's really designed all the way through the entire system."

Technology Boosts Collaboration

There's a whole variety of new tools that help an agency better access and share data correctly, Chang said.

One example is data clean rooms, which enable secure sharing with third parties without revealing all the underlying data.

Agencies can reconstruct how their businesses work when they use Snowflake solutions that remove technical constraints.

"We take care of that technology and process piece, and organizations have the ability to truly collaborate at new, fundamental levels," said Chang. "Every legislator should know that their constituents will be directly affected by how well the government operates. And how well the government operates relies on how well agencies use their data."

How Open Source Database Technology Can Support Transformation

An interview with Jeremy Wilson, CTO of North America Public Sector, EDB

Modernizing your applications and services without modernizing the underlying database is like buying a new car but installing your old engine. You're just holding yourself back.

That's the experience of Enterprise DB (EDB), which provides tools and services to large organizations adopting PostgreSQL (Postgres), a relational database management system based on open source technology.

Like other enterprise-grade, open source systems, Postgres helps organizations avoid the rising licensing costs and vendor lock-in that come with proprietary software, said Jeremy Wilson of EDB.

But just as importantly, Postgres is rapidly replacing legacy, proprietary software as a platform for innovation. Legacy vendors simply cannot match the agility of the open source community.

"As organizations get on board with transformation initiatives, they find that the pace of change with modern applications almost demands technology like Postgres," Wilson said.

Not Rip-and-Replace

In many organizations, the prospect of replacing legacy database systems can seem daunting because those systems often are deeply embedded in agency operations. But Postgres is not an all-or-nothing proposition.

The software is designed to be compatible with legacy database systems and tools, enabling it to serve as a universal platform of sorts that bridges the old technology with modern applications and services. That compatibility also means database staff can continue to work their existing tools as they train on new ones.

"We're not telling you to rip out your proprietary database and replace it with Postgres," Wilson said. "The beauty of Postgres is that it can augment and work alongside what you have today."

That said, Wilson noted that many organizations have chosen to make a wholesale switch, and that those that do see the most significant cost savings, because they eliminate the software licensing fees altogether.

Supporting Cloud Smart

Postgres also gives agencies more flexibility as they pursue a "cloud smart" strategy, moving some applications to the cloud but keeping others on premises.

On the one hand, Postgres supports the development and management of cloud-native applications: that is, software designed to take full advantage of cloud capabilities. On the other hand, Postgres makes it more affordable to manage applications that need to stay on premises, especially when used in conjunction with other open source technology.

In either case, it's the same Postgres, making it possible to create a seamless hybrid environment.

Enterprise-Ready Postgres

Because it is open source, Postgres is available for anyone to download license-free, making it a database of choice for many independent developers or small development shops. EDB supports organizations looking to deploy Postgres at enterprise-scale, providing a range of services and tools.

For many organizations, Wilson said, the biggest concern is database migration. "We take into consideration all aspects of migration, from data types and schemas to logical replication and high availability," he said.

It can seem like a challenging process, but "if it is properly planned, and you have the right partner by your side, success most definitely is achievable," Wilson said.

Using the Minimum to the Max

Having a vision is great, but seeing something in action can make all the difference. That's the idea behind launching an initiative with a minimum viable product (MVP) approach. Much like a sports MVP is the player most valued for bringing about a win, in development an MVP can be the key factor that gets a product from idea to hot commodity.

Eric Ries, author of "The Lean Startup," defines MVPs as "that version of a new product which allows a team to collect the maximum amount of validated learning about customers with the least effort." It can be as simple as a landing page or service that appears automated but is actually manual behind the scenes, as long as it's something you can offer customers to see how they interact with it, according to the Agile Alliance. Initiative leaders can build on it from there.

But we said that seeing something in action makes it easier to understand than reading about it, so consider this: Army Materiel Command used an MVP — an app — that soldiers and their families could use to report housing problems. It took one day to develop and three months to deploy, but within the first six months it was available, customer satisfaction increased by 35%. Today, the app is available Army-wide.

Note that MVPs are not prototypes. Bloomberg Cities Network defines the latter as "an early sketch, model or mock-up of an idea that people can interact with and offer feedback on," while the former is "the simplest possible version of a program or service you're developing." That can be confusing.

The Agile Alliance explains how to know whether you're using MVPs correctly:

- A team hypothesizes that customers have a need and that the product they're working on satisfies it.

- The team then delivers something to those customers to find out if they'll use the product.

- Using information from the experiment, the team continues, changes or cancels work on the product.

Further Reading
Resources for using MVPs:

18F Product Guide
The "Build the product" section breaks down how to create MVPs.

- Sample: "Evaluate key risks, assumptions, constraints, and dependencies, and have a mitigation plan in place for significant risks."
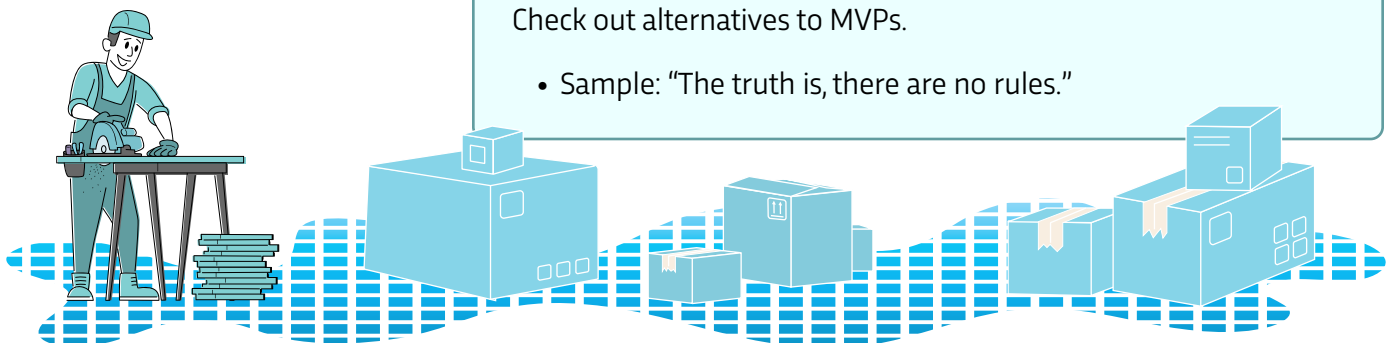
Agile Alliance Glossary
The nonprofit organization explains MVPs' benefits and pitfalls.

- Sample: "Seeing what people actually do with respect to a product is much more reliable than asking people what they would do."

A Review of The Minimum Viable Product Approach
Check out alternatives to MVPs.

- Sample: "The truth is, there are no rules."

Worksheet:
3 Steps to Creating an MVP

1 First, consider what type of product will ease customers' pain points.

Have you created a research plan?

How-to: "Determine what you want to learn, what methods you'll use, and who will participate." — 18F Product Guide

Do you understand all steps of the current process customers use to obtain a service or product?

How-to: "Identify explicit and implicit pain points and opportunities, including emotional pain points, functional blockers, and/or common dropoff rates or moments of failure." — 18F Product Guide

Who, besides customers, are your stakeholders?

How-to: "Identify who are your allies, skeptics, and bystanders, and what they care most about." — 18F Product Guide

2 Second, build the MVP.

Have you defined the MVP properly?

Watch out: "Teams will focus on developing and launching one function of a feature versus an end-to-end feature that allows their users to accomplish one of their goals." — "Part 1: Common Tech Pitfalls on Government Teams"

Is it something you should tackle all at once or piecemeal?

What works: "Break the initial MVP into small, prioritized features that deliver value to the end user." — 18F Product Guide

Have you scheduled time to regularly evaluate the MVP?

How-to: "Have a planning meeting with your team and Product Owner every sprint where you clarify, prioritize, and estimate the work (e.g. stories, spikes, defects, tasks) the team will commit to completing in the upcoming sprint." — 18F Product Guide

3 Third, measure, monitor and adapt.

How will you know if it works?

How-to: "Develop qualitative metrics of success such as individual sentiment, improved user journey, data quality, and adoption." — 18F Product Guide

How comfortable are you with failure?

Culture shift: "The public actually does want to see us try and sometimes fail, versus not even try at all." — Bloomberg Cities Network

What will you do if the MVP doesn't work out?

Be agile: "What we've tried to do with our MVPs is just make sure the public knows we're doing this, that we're very transparent about it, and that there's a good chance it won't work—but that even if it doesn't, we're going to learn from it." — Bloomberg Cities Network

How to Rebuild Construction Estimates From the Ground Up

An interview with Martin Izzi, Director of Product Management, Gordian

Anyone who has done home renovation knows how difficult it can be to get a reliable cost estimate, given the numerous variables involved with even basic projects.

For government agencies that are building, repairing or enhancing thousands of facilities annually, the challenge is magnified exponentially. Engineers must account for differences in regional costs for labor and materials, plus factors such as weather and crew sizes.

"At the end of the day, they're doing a project, and they want to know that this project is going to cost X," said Martin Izzi of Gordian, which provides secure software products and support services to the federal government and construction industry. "Over the years, government agencies have had a tremendous problem homing in on X."

To transform the process of getting to X, Gordian recommends a three-pronged approach to managing risk: reliable data, secure technology and expert services.

Dig Deep Into Data

The gold standard for construction cost data is Gordian's RSMeans data. Originally developed in the 1940s by a civil engineer named Robert Snow Means, the database now contains cost information for more than 92,000 line items, which cost engineers are constantly validating and refining.

"The foundational dataset serves as a strong standard, so that agencies can ensure their budgets are reputable and defendable," Izzi said, noting that Congress will probe this when reviewing funding and budget requests for large agency projects.

Put Technology on the Job

Given the large volume of variables to be considered, manually producing reliable estimates is daunting. Gordian has developed algorithms that take the grunt work out of calculating costs — and can project expenses as long as three years out.

Advances in machine learning are making it possible to develop even more reliable project estimates and future cost predictions, Izzi said. The ability to apply predictive analysis for forecasting future project costs is critical in government, given the long procurement cycles and budget processes, he said. These forward-thinking capabilities are combined with Gordian's trusted dataset in their cloud-based estimating solution, RSMeans Data Online.

Call in the Experts

In some cases, however, agencies need more than rich data and good software. They need experts who bring contextual understanding to a project, looking at the larger organizational factors that shape projects — such as an agency's governance model, work processes and funding strategy.

With that understanding, Gordian's experts can recommend the appropriate data, tools and, in some cases, professional services that could help the project succeed, Izzi said.

Don't Forget Security

With cyber threats increasing, software security is imperative for federal operations involving facilities and personnel data. Federal and Department of Defense facilities estimates are considered moderately sensitive data, as they involve information on military bases and agency facilities.

The RSMeans Data Online cloud platform has been authorized under the Federal Risk and Authorization Management Program (FedRAMP), providing federal users assurance that their sensitive project data is protected.

GORDIAN®
Building knowledge

How Flash Storage Supports Federal Sustainability

An interview with Seth Kindley, Principal Data Architect for U.S. Public Sector, Pure Storage

Government agencies face increasing pressure to make "sustainable" choices: to be more thoughtful about their energy use and impact on the environment. Federal goals include net-zero emissions from overall operations by 2050.

Although often overlooked, data storage represents a significant source of potential savings. In particular, it can help support agencies' sustainability ambitions.

Compared to conventional magnetic disks, Flash storage has no vibration and therefore generates no mechanical heat. "It's far more efficient in terms of both its power consumption and its cooling needs," said Seth Kindley with Pure Storage.

In fact, Pure Storage research has shown that an all-Flash system can reduce by as much as 80% the carbon usage associated with data storage systems.

The Growing Imperative

There's a rising imperative around energy savings and sustainability, in society at large and within the federal government. Agencies increasingly are factoring in these concerns as they make long-term IT decisions.

"People in government are certainly aware of it. They see the writing on the wall, where sustainability is something that is going to become table stakes going forward," Kindley said. Some agencies already are instituting specific maximum-use rules around energy consumption, "and we suspect others are going to follow suit."

To meet that rising expectation, agencies need to look at the energy that goes to support their massive and ever-expanding data storage needs.

PURESTORAGE®

"A typical government data center can use 100 to 200 times as much energy as a commercial building," the U.S. Government Accountability Office reports, and the IT professional organization IEEE adds that the use of more-efficient storage devices is critical to reduce power consumption.

How Flash Benefits Agencies

With a smaller physical footprint and no moving parts, Flash is inherently less resource-intensive than disk storage, drawing less energy and creating less e-waste.

"This helps the agency to be a better steward of mission dollars, because you can do more with less, while getting faster results," Kindley said. "Flash is also inherently faster than a spinning disk, so you're able to deliver more work product, which benefits both the agency and its constituents."

With the low latency of an all-Flash solution, a high-performance compute project that used to run for a month can be completed in half the time. "By shifting the underlying infrastructure, you've doubled the work product, while consuming significantly less energy," Kindley said.

At the same time, the inherent flexibility of a Flash solution supports overall goals around digital transformation, breaking down silos and empowering next-gen workflows.

Overall, Flash is the next logical step for agencies looking to drive mission outcomes and simultaneously scale back their environmental impacts.

"It allows you to draw less power, less cooling as you scale down your data center," Kindley said. "With Flash, you can get rid of thousands of spinning disks and hundreds of servers. By taking out those racks, by changing that form factor, everything becomes more efficient."

Cultivate a Learning Culture

In technology modernization, an agency can move only as quickly as its staff can adapt and learn.

Quality learning isn't accomplished by attending a certain number of trainings or watching a certain number of videos. It comes from something bigger: the culture of the agency.

Below, three transformation experts share their tips and insights for building a productive learning culture.
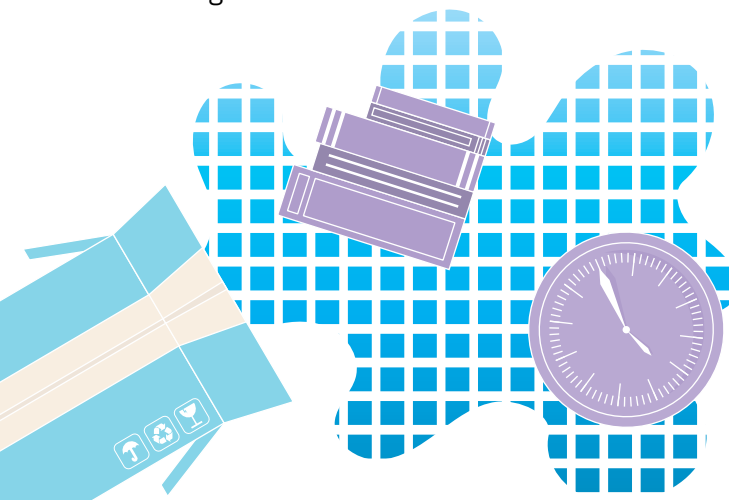
Strategy + Time

It takes planning and strategizing to get teams "in the zone" for positive, engaged learning experiences. You have to set the stage.

Sara Hall, Director of Digital Services at Philadelphia's Office of Innovation and Technology, leads UX advancements from a design perspective. Her team has focused on building more products in-house, including practical assets that demonstrate design with intent.

Hall emphasized that directors and staff need to make time available to address learning gaps and adapt to new products. When leaders put time into charting learning paths of three to six months, it helps employees develop and grow, she said.

"It's really making a concerted effort to give time, but also plan what that looks like," Hall said.

Jamie Crews, Senior Manager of Organizational Development for California's Orange County, introduced an ambitious new talent management system, with opportunities for formal training and self-timed, self-directed learning. She urges supervisors and staff to maximize the time they spend together in meetings and trainings, so that contact is used for crucial, in-depth conversations. In her view, information learnable through a video or podcast does not require a facilitator.

"We're going to be intentional and facilitating experiences where we're learning from each other, and that also frees up some of our capacity and helps us better accomplish our mission," she said.

"We can't meet everyone's needs with a rinse-and-repeat training program. We have to put the power in the employees' hands," said Crews. "It needs to be about teaching people the skills to find and fill in the gaps for themselves, so they can do the good work that we need in public sector."

Decentralize Learning Sources

Prioritizing "top-down" learning is of the past, and did it really outperform other methods to begin with?

Not according to Chief Information Officer Lester Godsey, who leads cybersecurity for Arizona's Maricopa County and the city of Mesa. He's spent the past three years building a robust learning culture around cybersecurity awareness.

"When you have something coming down from up on high, it usually doesn't stick," said Godsey. Instead, he said learning should come from everywhere.

In that vein, Godsey's team created a "security champions" program in which interested staff members met monthly to discuss cybersecurity threats, trends and updates. The champions then served as leaders in larger group exercises, such as ransomware scenarios or phishing simulations.

In Crews' experience, a healthy learning culture includes experimentation, sharing knowledge and "decentralizing the power of knowledge from the leader" because "as the leaders, they may be the experts and they may have a lot of information, but that shouldn't be the only power."

Crews says a leader's best teaching power is "to create a team structure where people are constantly talking about what they're learning, processing it, applying it, trying it out and sharing it with each other."

"When that happens at the team level, it becomes a catalyst for...a way of being," she said.

Connect, and Make It Bite-sized

Busy staff can be inundated with information and experience overload.

In Crews' agency, teams were delighted to have thousands of courses at their fingertips. But abundant resources can create a deer-in-the-headlights effect as well. As they sought to contextualize the options, supervisors determined what problems needed to be solved and what courses could help.

"Narrowing the choices actually drove user adoption," said Crews. "We were better able to help our employees recognize the skills that they needed. And we saw that drive up the self-directed learning."

Although Godsey's agency observes Cybersecurity Awareness Month, he finds the more crucial effort is to release smaller engagement opportunities throughout the year, so that staff can participate without being overwhelmed and tuning out. When the observance month comes around, they can reflect on the learning they've already done, in addition to continuing to build their awareness.

"Just sharing the insights on things that are going on, whether it's in a daily brief, weekly summary or through activities that they wouldn't normally participate in, those go a long way in making people feel like they're part of what you're doing," he said.

Hall finds that simply sharing knowledge through casual conversations is a good way to teach. She's hosted multi-department discussions among people with varying levels of knowledge about what UX means for a city. Through those conversations, she promoted a general understanding of UX maturity so that all staff could participate actively, building and learning simultaneously.
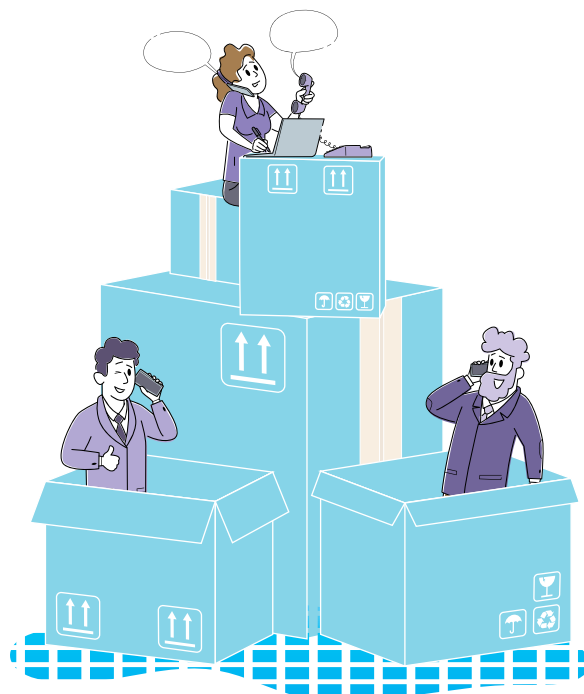
Further Reading

Resources for building a learning culture:

Four Powerful Steps to Create a Culture of Learning
The International City/County Management Association articulates a "set of organizational habits, strategic decisions, and core values that encourages employees to be constant learners."

Create a Learning Culture Within Your Organization
The Center for Creative Leadership discusses "planting seeds for a learning culture to thrive."

7 Ways Leaders Can Build a Culture for Learning... and Why They Should
GovLoop explores how to create and support a culture where people try and learn new things.

Worksheet: Develop a Learning Culture

Use this page to take notes on your agency's approach to employee training.

Your Learning Curriculum

What four topic areas are available?

1.
2.
3.
4.

How do they relate to your agency's mission?

Consistent Contact

Describe your periodic learning opportunities:

Describe your periodic points of connection:

Learning Leaders

Who are your learning ambassadors?

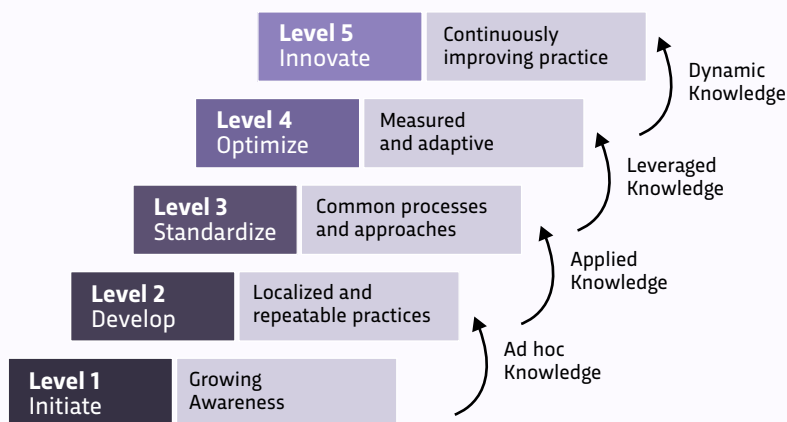How will their activities support a learning culture?

Gaps and Needs

Our gaps and needs are:

Conversations we'll have about them:

Research we'll do:

Learning Path

How can you fulfill each stage of the Office of Personnel Management's Knowledge Management Maturity Model? Enter your responses next to each level.

Level 5 Innovate	Continuously improving practice	
Level 4 Optimize	Measured and adaptive	
Level 3 Standardize	Common processes and approaches	
Level 2 Develop	Localized and repeatable practices	
Level 1 Initiate	Growing Awareness	

Dynamic Knowledge
Leveraged Knowledge
Applied Knowledge
Ad hoc Knowledge

Level 5 Innovate	
Level 4 Optimize	
Level 3 Standardize	
Level 2 Develop	
Level 1 Initiate	

Transforming With Visibility and Agility

An interview with Brandon Shopp, Group Vice President of Product, SolarWinds

Moving to the cloud doesn't mean having clouded vision.

In fact, it should mean the opposite — more visibility into what's happening in your system, more ability to monitor data and user activity. That's where the observability company SolarWinds comes in.

Brandon Shopp with SolarWinds has seen agencies struggle to migrate from on-premises systems to the cloud, and he has four suggestions to help them transform responsibly and with agility.

Plot the Course and the Pace

An agency that enjoys system visibility can measure its workloads, before and after the transition. Directors can understand the resources and storage they need, the costs involved and how quickly change can take place.

"Go at a pace that makes sense for your organization. In digital transformations, it's not a race — it's a journey," said Shopp. "And you can't go from zero to 100 in two seconds flat. It's going to take time to get up to higher speed. If you take shortcuts or you're going too fast, you're going to miss something."

Plan to Prioritize

Some workloads are primed for transformation and the cloud, whereas others might not be ready.

Shopp recommended having agencies look deeply at what they aim to accomplish to determine what to include in their initiatives. Start with easier applications, before doing something more challenging, said Shopp. He urged organizations to focus on tool consolidation, which can reduce workloads and costs, as well as unnecessary risk.

SolarWinds helps clarify agency options, so that organizations can understand the challenges, priorities and efforts involved in each move.

And, as Shopp said, "we're making sure you have your eyes on the ball, that you always know whether something is on premises, in the cloud or in the midst of going to the cloud."

Build New Skills for New Tools

Staff working their way through a digital transformation, such as a cloud migration, will need new skillsets. They're going to use new services and capabilities — and none of them will be the same, Shopp said.

SolarWinds helps users build knowledge, intelligence, configuration smarts and cloud awareness, he explained. "Intelligence in a box," as Shopp called it, is codified into SolarWinds products and helps agency employees monitor workloads.

"When it comes to understanding your infrastructure and your workloads, no matter where they reside — on premises, the cloud or hybrid — we've got you covered," Shopp said.

Make Data Accessible

For agencies with large amounts of sensitive data, such as the Department of Veterans Affairs, visibility and agility are crucial. The goal is to make constituent services and data as accessible, efficiently maintained and secure as possible, and available from anywhere in the world.

As Shopp said, moving to the cloud is not the Holy Grail that will solve all problems, but it is a large part of many agency transformations, and it's important to do it the right way so that agencies — and constituents — benefit.

solarwinds
public sector

Observability Made Simple

An interview with Brian Mikkelsen, Vice President and General Manager, Datadog Public Sector

As agencies transform their digital operations — expanding reliance on the cloud and adding new apps, integrations, and automations — their IT ecosystems become more complex. There are more places things can go wrong and more pressure to fix them quickly.

You Can't Fix What You Can't See

The task of monitoring these complex systems gets more complicated, too. "The question is, how do I know there's an issue?" said Brian Mikkelsen of Datadog. "Is it when the tickets start flowing, when complaints increase, when your leadership team asks why something isn't working?" None of those options is ideal.

Datadog's application performance management platform provides a real-time window into the digital environment, identifying performance and security issues — quickly. Its "full stack" hybrid infrastructure capability means everything from the back end to the front end is monitored and reported via infrastructure metrics, application performance traces, and correlated logs.

With its visual user interface, the platform enables IT teams and business-side users to see what's happening. "Business leaders face a difficult challenge because they're expected to know what's going on, but don't always have the time or technical expertise to interpret the data," Mikkelsen said. "Datadog solves this issue with customizable views for every level of an organization."

Simplify, Simplify

As a software-as-a-service platform, Datadog can be up and running quickly without the need for professional services. It empowers customers to consolidate tools, reduce complexity, and have visibility across the stack for all teams and stakeholders.

"Monitoring multiple systems with disparate tools can be impossibly complex," he added. "Datadog provides a unified solution that lets you monitor the health and performance of your infrastructure, applications, networks, users' experiences and more across your cloud environment, all from a single platform."

Handling Transformation

Mikkelsen's advice for digital transformation:

- Align teams around the most important priorities. Know what you want to accomplish.

- Create baselines. Assess the existing system's performance and determine a measurable baseline so you can track improvement.

- Avoid the monolithic beast. Break projects into measurable components. Don't do everything at once.

- Accept that things will break. Have a mitigation plan in advance. Learn from every outage and be humble.

How Datadog Helps Government Agencies

Datadog is FedRAMP® authorized at the moderate impact level and meets the enhanced security and compliance needs of its public-sector customers. Its platform integrates seamlessly with major cloud providers including AWS, GCP, and Microsoft Azure, so agencies collaborating across shared, distributed infrastructures have full visibility into any stack, any app, at any scale, anywhere.

DATADOG

Takeaways

All agencies have them: projects that sit on wish lists for years, ideas that have funding but no implementation plan, programs that struggle to launch. Here are takeaways from this guide to help organizations deliver digital reforms that meet or exceed expectations.

- Consider what's feasible. Be realistic when requesting funds and planning projects. Look at what's possible from economic, technical, legal, operational and administrative angles.

- Focus on the final goal. Collaborate across teams, and concentrate on what you want to achieve. Don't simply follow a project management schedule.

- Think of the user. Prioritize user needs and accessibility, and constantly improve on your accomplishments. Make user research an ongoing exercise.

- See something in action. Release part of your project to the public before the full launch, so you can learn from constituent responses and make needed improvements.

- Build a learning culture. Strategize employee training, decentralize educational resources and avoid information overload. Take advantage of casual learning opportunities.

About GovLoop

GovLoop's mission is to inspire public sector professionals by serving as the knowledge network for government. GovLoop connects more than 300,000 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 the public sector.

For more information about this report, please reach out to info@govloop.com.

Thank You

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