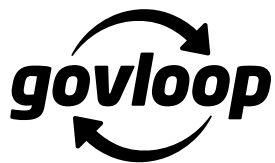


A Crash Course on Pitching Innovative (Tech) Ideas at Work



Introduction

“You’re only as old as you feel” is a saying that applies to many aspects of life, but aging government IT systems aren’t among them. Ask any employee who’s stuck using a patchwork of outdated tools to provide emergency management, health care or a range of other critical services, and you’ll hear their collective frustrations. Even simple, everyday tasks can cause headaches and require multiple workarounds.

The impacts extend far beyond agency walls or employees’ makeshift home offices, though. At risk are the millions of people who depend on secure government services to be available when and how they need them. One glitch with a fickle system can amount to days or weeks of delays for those most in need.

What was already a bad situation became worse for many as the pandemic put massive strains on government websites, applications and processes that weren’t designed to handle the load.

In many ways, the pandemic has put new pressure on government’s ongoing efforts to modernize. This time feels different, though, like modernization is having a defining moment that could usher in much-needed change.

For some federal agencies, seed money to fund improvements will come through the Technology Modernization Fund (TMF), which [we’ll explore further](#) with the help of a TMF official. For state and local governments, maximizing funding from the American Rescue Plan (ARP) must also be a priority.

In this resource, you’ll hear from government and industry experts who share best practices on how to intentionally advocate for modernization resources and effectively put them to use. We’ll explore the following questions:

- ▶ **How do you create a culture that’s conducive to change?**
- ▶ **What areas of modernization should you focus on?**
- ▶ **How do you make an effective business case?**
- ▶ **What role should technology play?**
- ▶ **How do you plan for long-term modernization after receiving seed money?**

Our subject-matter experts first shared their insights during GovLoop’s virtual summit, [“Transformation at Your Agency: How to Get It Done.”](#)

[Watch the recorded session](#)

Experts:



Carlos Rivero

Chief Data Officer, Commonwealth of Virginia



Sheena Burrell

Deputy Chief Information Officer, U.S. National Archives and Records Administration



Karen Howard

Head of Office of Online Services, Internal Revenue Service



Nathan Burke

Chief Marketing Officer, Axonius



Michael Epley

Chief Architect and Security Strategist, Red Hat



Jason Barke

Acting Principal Deputy Associate Director for Employee Services, Office of Personnel Management



Drew Jaehnig

Industry Practice Leader, Bizagi



Jonathan Alboum

Principal Digital Strategist for the Federal Government, ServiceNow



Tom Yeatts

Global Head of State, Local, & Regional Government Solutions, ServiceNow



Nick Psaki

Federal Principal Technology Strategist, Pure Storage



Alexis Bonnell

Strategic Business Executive, Public Sector, Google

Modernization Facts and Figures

Your agency may or may not have access to the [Technology Modernization Fund \(TMF\)](#). It's available only to federal agencies, but the mission and guiding principles of how the fund operates can be applied to any agency and any business case you're trying to pitch and get funding for.

What is the Technology Modernization Fund?

Nearly four years ago, the federal government stood up TMF as a fresh and bold attempt to modernize agencies' legacy technologies. The fund was established by the Modernizing Government Technology Act of 2017 and received an initial \$100 million to fund agencies' modernization projects.

TMF was designed to be a self-sustaining centralized pool from which agencies can apply for loans for technology upgrades. Before ARP provided an additional \$1 billion for the fund, Congress had approved a maximum of \$175 million for it.



What problem is TMF trying to solve?

The federal government's budget process forces agencies to plan for technologies years in advance but often leaves them stuck implementing dated solutions. Through TMF, agencies can access seed money to not only get their modernization projects going, but also to fund and implement modern technology in an iterative way.

What types of projects has/will TMF fund?

Offering loans and flexible repayment options, the TMF Board reviews agencies' proposals and dispenses money to selected projects. As of September 2021, TMF greenlighted 11 projects for funding ranging from \$500,000 to upward of \$16 million. Projects include modernizing backend and software-based systems that will improve payroll operations and work visa application process, and facilitate global trade and enforcement.

Below are the project areas that the board is prioritizing and expediting funding for. Even if you don't qualify for TMF funds, consider which of these buckets your current projects might align with and what urgency that might add to your business case or budget request.

- ▶ **Modernize high-priority systems**, or those that support critical data and services. These could include priority systems with longstanding security issues.
- ▶ **Cybersecurity enhancements and privacy protections.** These may include identity, credential and access management, and moving toward a zero-trust architecture.
- ▶ **Public-facing digital services** that increase access and equity, reduce fraud, and improve service delivery, including core issues the COVID-19 pandemic exposed.
- ▶ **Cross-government collaboration/scalable services** that can offer agencies a scalable, secure foundation for the rapid creation and modernization of digital services.

Advice from a TMF insider.

"I think that there are some things like cybersecurity, where everyone knows this is a priority for our government and something that we need to do right now," said Sheena Burrell, Deputy Chief Information Officer at the National Archives and Records Administration (NARA) and an alternate TMF Board member. "And I would tell agencies to please, please take advantage of this, to look at their zero-trust architectures, to look at their agency's priorities and portfolios, and determine where these investments could be applied."

Burrell added, "I definitely think this is something that agencies should take advantage of, especially now with the guidelines for ARP, where they're not asking for a full repayment, where they were with the original TMF."

- ▶ NARA is seeking TMF funding for two initiatives: 1) to move a high-value customer relationship management tool to a more modern, agile platform and 2) to respond to the [Executive Order on Improving the Nation's Cybersecurity](#) by implementing zero trust and modernizing its security architecture.

How do I plan to sustain investments long term?

Because TMF was not built to sustain projects long-term, agencies must plan to incorporate the cost of operations and maintenance into their baseline budgets, Burrell said. Savings from the modernization projects might cover those costs. Either way, these are conversations agencies should have as they look across their portfolios and consider priorities.

5 Ways that You Can Put TMF Guiding Principles into Practice

In many ways, TMF is a good case study on how to go about planning for, pitching and executing a project. Use the [TMF guiding principles](#) below to help you stay on track, regardless of what funding source you decide to use for modernization.

1

Serve the best interest of the American public



Prioritize projects that meet mission needs and can serve as common solutions governmentwide or inspire reuse. In short, talk in terms that resonate with people who don't understand technology, and who don't want to. What people care about is meeting constituents' needs and being responsible stewards of taxpayers' money.

2

Abide by an open, transparent and fair process for evaluating project proposals



Your agency should have a clear, repeatable and equitable process for pitching ideas, projects and business cases. This should not be based on favoritism but which projects demonstrate value and a clear plan. The TMF Board requires applicants to explain why they are requesting funds and provide assurance of sound project costs and savings estimates.

3

Develop an agile project implementation process that supports TMF's mission



The emphasis here is on developing a strong business case that aligns with a vision. The board uses a multistep application process to ensure that they consider a variety of projects and that board members have all the information they need to make informed funding recommendations.

4

Promote TMF's health, sustainability and utility



The goal for TMF was to create a self-sustaining fund. That means creating space for projects of all sizes that yield different returns, such as cost savings or benefits to the public and employees, and ensuring that there is adequate sponsorship within an agency for the project.

5

Operate according to TMF Board rules and procedures



This is about fairness and transparency. You need to have a basic framework to ensure that all projects get due consideration. Without a consistent process, people will not trust the system, which will make it difficult to have candid conversations.

4 Obstacles to Change and How to Overcome Them



Karen Howard, Head of the Office of Online Services, Internal Revenue Service

Whether meeting a cybersecurity mandate or modernizing legacy systems, agencies may relish the advertised outcomes of modernization. But in practice, it's difficult to see new initiatives stick.

It's like organizations have built-in defenses against change. To overcome them and establish a culture built for change, agencies must recognize what these defenses are and institute a strategy to redirect them.

Karen Howard, Head of the Office of Online Services at the Internal Revenue Service, identified four key hurdles to change and how agencies can manage them.

Resources

Receiving support for innovative changes is difficult when there aren't immediate or tangible returns on investment.

"It's incumbent on those who want to bring in innovative programs to have a solid, data-driven business case that highlights the returns at certain points of the project," Howard said.

- ▶ Agile methodologies or iterative approaches can be useful. If stakeholders or investors can see continuous movement and success, they will more likely continue their support with dollars and people.



Individuals

The tricky part about identifying change resisters, however, is that some don't resist noticeably.

Silent saboteurs are individuals who don't explicitly protest change. "Sometimes they don't know they're sabotaging progress," Howard said. It often has to do with an unwillingness or discomfort with technology and how fast it's moving. For people who have done their jobs well without using certain technologies, adopting them can be intimidating and unexpected.

- ▶ Agencies should consider these silent resisters in their cultural journey plans, proactively understanding where there may be resistance to technology and providing training opportunities for employees to level up their skills.

Culture

Culture has the potential to fuel innovation, but it ends up being a common obstacle.

“Culture becomes a barrier when we don’t build in a culture of change,” Howard said.

Manifesting a certain culture is a slow process, but agencies can expedite it using certain strategies:

- ▶ **First**, recognize that there is no silver bullet for creating a change-friendly culture. Identify the nuances and aspects unique to your organization to guide your strategy for managing change.
- ▶ **Second**, conduct a business readiness study to see how mature and prepared your organization is for change. It will help you assess where you are and where you need to go in your culture journey.
- ▶ **Third**, be comfortable being uncomfortable. Tough conversations and hard decisions are inevitable. Not everyone will embrace change, and that’s OK. Leaders must identify who’s resistant to change and meet them where they are.

Communication

Finally, change can’t be for the sake of change. To get buy-in, articulate what’s in it for others. Clearly and succinctly communicate the business case or need for change.

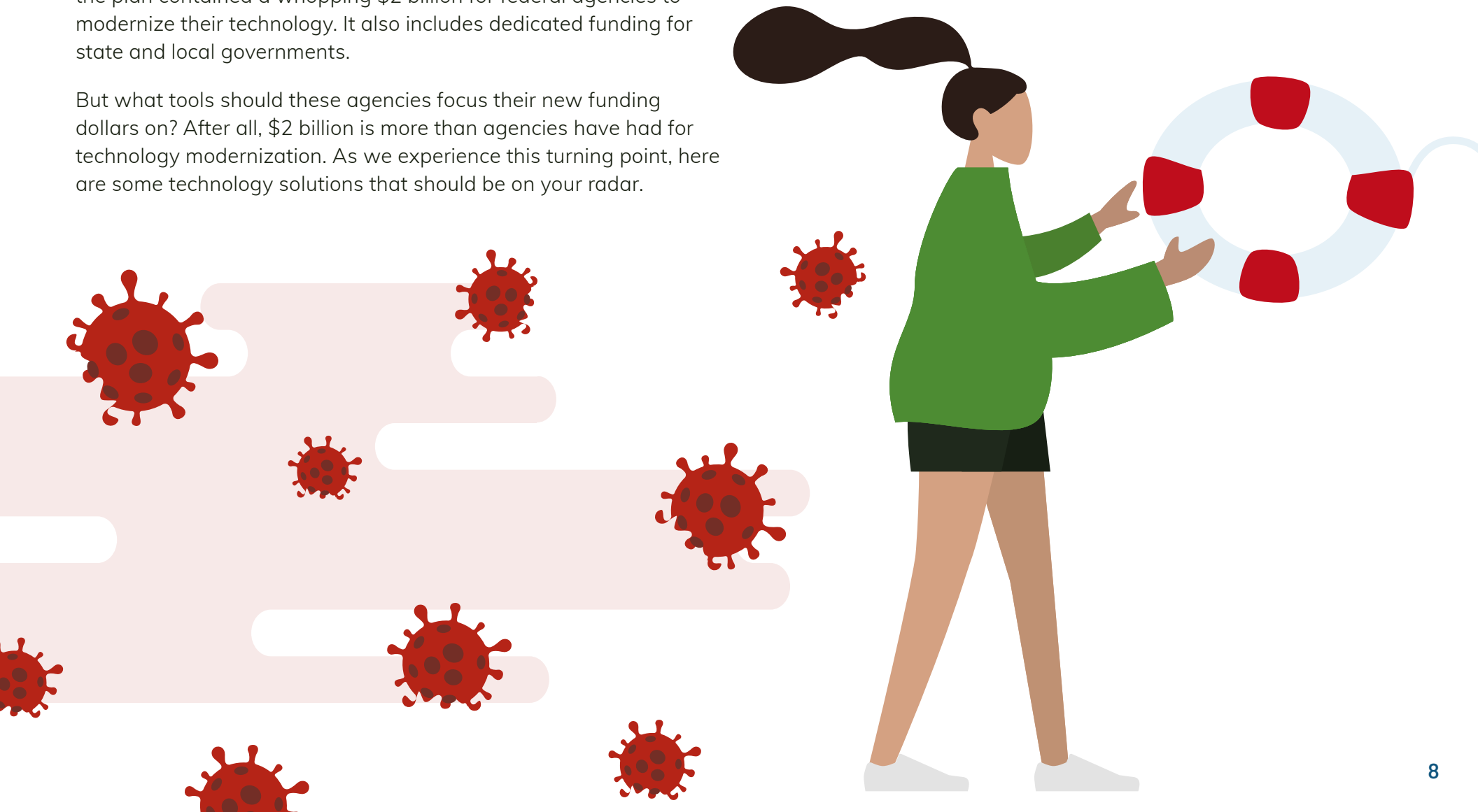
And importantly, engage the whole organization to be part of the change. Use feedback loops, suggestion vehicles, active listening, and frequent and consistent messaging. You need to engage top-down, bottom-up and middle-out, Howard said, not one over the others. This kind of communication and engagement can foster a sense of inclusiveness, transparency, trust and community to build a culture built for change.



Technology Solutions for a Modern Government

Necessity is the mother of invention, and few times have proven this proverb truer than the COVID-19 pandemic. In March 2021, President Joe Biden responded to this unprecedented health crisis with an equally groundbreaking economic stimulus package: the \$1.9 trillion [American Rescue Plan](#). To help combat COVID-19, the plan contained a whopping \$2 billion for federal agencies to modernize their technology. It also includes dedicated funding for state and local governments.

But what tools should these agencies focus their new funding dollars on? After all, \$2 billion is more than agencies have had for technology modernization. As we experience this turning point, here are some technology solutions that should be on your radar.



Intelligent Automation Best Practices



Drew Jaehnig, Industry Practice Leader, Bizagi

The challenges that agencies often face on the road to increased automation include disparate workflows, a lack of personnel to keep pace with work demands and siloed attempts to use automation in pockets of the agency rather than taking a holistic approach, said Drew Jaehnig, Industry Practice Leader at Bizagi, which specializes in intelligent process automation solutions. The government also operates a variety of legacy, homegrown and nonstandard technology. Coordinating and orchestrating information flows across these systems can make digital transformation difficult.

The pandemic made it apparent that organizations must make automation central to their modernization needs.

The solution extends beyond traditional automation, though. Thanks to the rise of low-code development platforms, agencies have more options that require less of a technical lift. User-friendly alternatives such as low-code platforms empower frontline workers with little or no coding experience to adapt to their agencies' changing needs faster with new solutions.

For example, Bizagi offerings help agencies and enterprises worldwide design and implement end-to-end workflows that can transform everything from back-office processes to constituent-facing services.

Automation isn't a new or foreign concept in government, but its definition and adoption varies widely. The ongoing COVID-19 response has made that apparent, creating glaring disparities among agencies that automate in practice vs. in theory.

Automation in action: One way Jaehnig sees this playing out is by using low-code platforms to power intelligent automation. So rather than relying on disparate pieces of a workflow to drive a public-facing application process, for example, agencies could seamlessly stitch together databases and legacy systems to fully automate an end-to-end process. Replacing employees isn't the goal, Jaehnig said. But he did acknowledge that displacement is likely, meaning employees would likely need to be upskilled or even reskilled to fill in-demand roles.

The benefits of intelligent automation include:



- ▶ Freeing up employees for higher-level tasks
- ▶ Reducing time spent on menial tasks
- ▶ Improving employee satisfaction
- ▶ Increasing employees' ability to make tech-assisted decisions

Best practices for automation success:

1 Start small and choose something manageable.

Select a process or portion of a process that can be done quickly.

2 Be agile. Sprints are your friend and can be epic.

Remember to divide your bigger project into sprints so you continue to deliver success.

3 Drive results by measuring your success.

Make sure you can explain where you started and define the automation yield.

4 Repeat and focus on continual service improvement.

Continuously assess your automated processes for improvements as you continue your journey.



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- ✓ Create a central orchestration hub between all your technology platforms to ensure work is processed effectively
- ✓ Cultivate a deeper and more trusting relationship with constituents by creating a user-friendly environment
- ✓ Modernize your IT landscape to create a more effective environment for your constituents



3 Innovations Inspired by Platform Modernization



Jonathan Alboum, Principal Digital Strategist for the Federal Government, ServiceNow



Tom Yeatts, Global Head of State, Local & Regional Government Solutions, ServiceNow

Alboum and Yeatts shared three ways agencies are using modern, cloud-based platforms to serve the public more effectively.

1. Simplifying Workflows

One reason the pandemic response has been so challenging is because many of the workflows for tackling it did not exist beforehand. But cloud-based platforms can streamline creating and managing such routines.

For instance, Washington's Department of Health (DOH) used its platform to help the public quickly determine whether they need to be tested for COVID-19 based on their symptoms. "You're making it simple for people to get the services they need," Alboum said.

Digital Workflows in Action

ServiceNow co-developed a vaccine solutions platform with DOH back when Washington was the epicenter of the COVID-19 outbreak. The platform enables two-way communication between people and the vaccination team. "We have built trackers where you can enter your symptoms and the workflow will tell you if you need to get tested," Yeatts said. "And then we'll also let you know where you can go to schedule an appointment. Things like that have been really valuable in the field."

Agencies can't have a serious conversation about modernization without taking a hard look at their legacy IT platforms. Many of these systems weren't designed with hybrid workers in mind, forcing agencies to now innovate on the fly.

To usher in these upgrades, agencies are increasingly turning to cloud computing platforms, according to ServiceNow experts Jonathan Alboum, Principal Digital Strategist for the Federal Government, and Tom Yeatts, Global Head of State, Local and Regional Government Solutions. ServiceNow is a cloud computing platform provider.

2. Scaling Services

The coronavirus has also placed record-breaking strain on government services such as unemployment benefits. The cloud's versatility and scalability have helped agencies reposition themselves to address rising demands.

"It shouldn't matter what state you're living in when you become unemployed," Yeatts said. "You can scale these services up in moments of crisis."

Take government applications, for instance. During high-pressure moments like viral pandemics, agencies can use cloud-based platforms to ensure these applications run smoothly and consistently until circumstances calm down.

3. Boosting Trust

Bad times can bring out the worst in people, and the COVID-19 pandemic is no exception. Since the crisis began, fraud has been a frequent concern for agencies struggling with historic levels of demand for their services.

Using cloud-based platforms, agencies can automate fraud detection, enabling them to find potential wrongdoing faster and recover lost funds sooner. "The faster you recover a payment, the faster you can recover faith in the system," Alboum said.

Ultimately, modernizing their technology platforms can become the springboard agencies need to both respond and recover to rapid changes.

How to Scale Your Agency for Success



Nick Psaki, Federal Principal Technology Strategist,
Pure Storage

Data is an ocean and agencies drift farther from shore every day. The reason is simple: More devices are producing more data than ever before. To avoid being swept away in this wave of information, agencies need IT architectures capable of handling every drop of data.

Enter cloud computing. Cloud computing's decentralized IT lets agencies use computing resources such as data storage on-demand. After adopting the cloud, agencies can craft IT architectures that can handle all their data and other needs.

“Data growth is frankly happening at exponential levels,” said Nick Psaki, Federal Principal Technology Strategist at Pure Storage, an all-flash data storage hardware and software provider. “Scalability is one of the most talked about facets in the environment we live in today.”

Psaki explained three benefits that scalable IT infrastructures can provide to agencies that migrate to the cloud.

Drive Data Effectively

Face it – the amount of data is growing exponentially. The pandemic has only exacerbated this trend by prompting more agencies to work remotely using mobile devices such as tablets. Subsequently, agencies' IT architectures must be able to store, exchange and manage vast amounts of data.

“The architecture needs to be able to expand and adapt to ever-increasing quantities of data,” Psaki said.

The cloud's elasticity means it can help agencies better manage and keep pace with increasing amounts of data.

Strengthen Security

Knowledge is power, and data can contain such valuable information as sensitive citizen details or mission-critical records. As such, security must remain a key concern for every agency.

“In the military, we used to say, ‘Security first, last and always,’” Psaki said. “That’s a good mantra.”

The cloud's flexibility makes it easier for agencies to quickly and easily launch security features such as data encryption or multifactor authentication

(MFA). Data encryption converts information into a format that, ideally, only authorized parties can interpret; MFA, meanwhile, forces users to present two or more pieces of evidence – say a security token and the name of the user's favorite movie – before accessing data. Together, tools like these can improve agencies' data security.

Streamline Infrastructure Management

As infrastructures age, managing them often becomes more difficult and more expensive for agencies. The cloud's fluidity means that agencies can update their underlying IT at a fraction of the cost in time and budget dollars.

“It shouldn't require a whole bunch of effort to keep an environment operating,” Psaki said. “The days of needing a tremendous amount of specialization and effort to make a solution work should be behind us.”





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IT Modernization Creates Opening for Zero Trust



Michael Epley, Chief Architect and Security Strategist, Red Hat

The concept of zero trust security is having a moment, not least because the Biden administration made zero trust a central pillar of its recent [executive order](#) on cybersecurity.

But if agencies don't build zero trust into their IT modernization plans, that moment could go to waste. Agencies need to create an environment that supports the basic tenets of zero trust security. (See box for a review of zero trust.)

Required: Organizational Buy-In

The castle-and-moat approach to cybersecurity has been around so long that it's ingrained in the culture of most organizations. The idea of giving employees "trusted" access is the norm, as is the idea of having "uber" system administrators who have sweeping responsibilities and access privileges.

"We can take a lesson from the Department of Defense and intelligence community, where they have this concept of 'need to know,'" Epley said. "We have to get used to enforcing that concept everywhere now. That's going to take awareness and training."

Red Hat, which provides open source tools that support the development of modern enterprises, works with agencies to identify the tools, technologies and processes that can help them move to zero trust, Epley said.

Common Obstacles

Michael Epley, Chief Architect and Security Strategist at Red Hat, highlighted three common obstacles to zero trust in government agencies:

Legacy systems.

Existing systems — and existing IT architectures as a whole — were designed with perimeter security in mind. Agencies can work around that by adding proxies to the network to enforce controls, but those proxies can tax performance or create a poor user experience.

Shadow IT.

Users or departments often modernize on the fly, adding new capabilities (e.g., a new cloud solution) that the IT or security teams have not approved. Those systems might include security controls, but those controls will not be integrated into the overall IT architecture, which is required to support zero trust.

Legacy business processes.

Access controls are not just a technology issue. Agencies also need business processes for determining what resources employees need to access as part of their jobs.

Zero Trust: A Quick Refresher

Most agencies rely on perimeter-based security, which is commonly compared to a castle and moat. It works like this:

A security guard is posted on one side of the moat, where a drawbridge can be lowered to allow entry.

The guard questions everyone who seeks entry (that is, the guard checks the identity of individuals and their reason for entering the castle).

Once granted entry, however, that person generally has free range on the castle grounds. In short, everyone who makes it past the guard at the moat is considered trustworthy.

In zero trust, that guard is just the first line of defense. Guards are also posted outside key rooms throughout the castle, checking the identity of visitors and whether they have permission to access the room in question.

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How Well Do You Know Your Attack Surface Area?



Nathan Burke, Chief Marketing Officer, Axonius

Before you can begin to implement zero trust security, you need to know what you are protecting. That sounds obvious, but it's far from easy. That's why cybersecurity asset management is essential.

Nathan Burke, Chief Marketing Officer at Axonius, said the problem is that the IT environment has become increasingly complex as agencies tap into a wide range of services and devices.

"The more devices that we have, the more software that we use and the more [Software-as-a-Service applications] that we sign into too — you put all this together, and it gives attackers this exponentially bigger attack surface area to target," he said.

Cybersecurity asset management is about mapping the attack surface area.

Critical Questions

Not only do you need to know how many Windows, Macs, Linux devices and cloud instances you have, but you also want to know:

- ▶ What data do they hold?
- ▶ What operating system are they running?
- ▶ What software is installed?
- ▶ What's the patch level?
- ▶ What vulnerabilities are present?
- ▶ Who has access to the devices?
- ▶ Are they being scanned regularly?

Beyond ensuring that everything is protected, such information also is invaluable when a security event occurs and the cyber team is racing to contain and mitigate the threat.

More Than Asset Management

In traditional **IT asset management**, the IT team tracks what hardware and software products have been bought and deployed and that need to be managed, maintained, upgraded or retired.

In **cybersecurity asset management**, the IT team digs deeper. They want to identify every product or service that needs to be protected and understand their security status and what solutions have been or should be applied.

How it works

Although cybersecurity asset management sounds daunting, agencies have all that information in their systems.

An agency's directory service solution, network access control solution, vulnerability scanners and cloud management solutions are capturing that data regularly. A cybersecurity asset management platform provides a way to capture and integrate that data automatically.

This capability enables agencies to do three things:

- ☑ Create an inventory of all assets that need to be protected, whether on premises or in the cloud
- ☑ Query that data to identify specific vulnerabilities, such as active cloud instances with a public IP address that have not been scanned by a vulnerability assessment tool
- ☑ Create automated responses, such as triggering alerts or scheduling a scan

The Axonius Cybersecurity Asset Management Platform works with hundreds of sources of data across on-premises and cloud platforms.

With the platform, "I can connect to all of those sources and get real-time data," Burke said. "And I can correlate it all together to make sense of it, to ask questions and decide what to do next."

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How to Make the Shift from Legacy to Living Systems



Alexis Bonnell, Strategic Business Executive, Public Sector, Google

Legacy systems and mindsets can stifle innovation and make it harder to course-correct in response to change. By the time a system is deployed, it's often outdated or pushing the boundaries of becoming irrelevant, said Alexis Bonnell, Strategic Business Executive for Public Sector at Google.

“What we are seeing now is this appetite for living systems, something that can adapt and grow with the organization,” Bonnell said.



But what is a living system and how can it transform the way agencies navigate efforts to modernize and go digital?

- ▶ **A living system isn't just about IT.** It is the ecosystem of technology, people and culture that are all highly interconnected within an organization.
- ▶ **This living system enables curiosity and change** by creating an environment where questions are welcomed.
- ▶ **Living systems empower employees** at all levels by making information accessible. There is a time tax on employees when data is inaccessible, making it harder to work efficiently.

Bonnell, who most recently served as Chief Innovation Officer at the U.S. Agency for International Development offered this advice for agencies: **Shift your mindset about the systems you buy and build so that they function as change engines instead of time capsules.**

In other words, think about the lifespan of these investments and designing them to be adaptable, accessible and interconnected. Bonnell also cautioned agencies against propagating a monoculture, or an environment in which there's complete reliance on a single vendor with little interoperability. This can make it difficult to be agile and adopt new technologies, she said.

Another point to keep in mind:

Your legacy systems hold a tremendous amount of valuable data. The question becomes, how do you take advantage of that information and use it rather than assuming everything is not useful?

Living systems in action: The National Oceanic and Atmospheric Administration (NOAA) is full of curious people, programs and scientists, and NOAA has been intentional about optimizing its data for internal and external

use, Bonnell said. “Leveraging things like [artificial intelligence] and [machine learning], it really championed that state of curiosity.”

As you make the shift from a legacy to living systems mindset, keep these points in mind:

- ▶ How do we make it easier for people inside and outside the organization to navigate and get the information they need?
- ▶ How do we empower ourselves as information brokers? All the problems of government are information problems. The information system has to mirror that.
- ▶ How do we create a system that allows us to deal with information flows 30 years from now?
- ▶ What are the foundational technologies that we need in place? Don't think about writing the book, think about building the printing press.
- ▶ Start with yourself. Are you curious or are you a curiosity blocker?

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A Brief Formula for Innovation at Your Agency



Carlos Rivero, Chief Data Officer, Commonwealth of Virginia



Jason Barke, Acting Principal Deputy Associate Director for Employee Services, OPM

Carlos Rivero, Chief Data Officer for the Commonwealth of Virginia, and Jason Barke, Acting Principal Deputy Associate Director for Employee Services at the Office of Personnel Management (OPM), offered a few takeaways about what innovation is and how to stimulate it at your agency.

1. Innovation happens when you do a lot with a little.

What does innovation actually look like in government? It's not necessarily creating the shiniest new technology, but figuring out an answer to a problem with what you have. Virginia's data office follows this mantra: "Innovation is what you do when you don't have the resources to do what everybody else is doing," Rivero said.

2. Employees hold the key to innovation.

Where does innovation come from? Your peers. For example, at OPM, leaders wanted to dive deeper into workforce data but didn't have the resources to build a new analytic capability – or so they thought.

"I had an employee come to me and say, 'Hey, I know how to do that in some free software, and it would cost us nothing but my time,'" Barke said. The employee built the dashboard, and today, leaders use it frequently. They are planning to expand it across different offices, too.

Think about the tools you can't imagine doing your job without. From devices and databases to processes and procedures, these tools all started as a creative and even peculiar idea in someone's head. That idea had to be communicated, supported and executed by a team to be transformed into the solution it is today.

At the end of this journey is a step toward modernization – at the beginning, however, is innovation. Innovation is the starting point to any modernization effort. That's why as agencies press forward with modernizing, it's critical to support innovation in their organizations.

3. Psychological safety is critical for innovation.

Employees can't come forward with innovative ideas if leaders don't set the tone. Creating psychological safety – where employees aren't afraid to speak up and share ideas – is one of the most important things leaders must do, Rivero said. Innovation doesn't occur within a vacuum. Leaders must encourage and empower it.

4. So is risk.

New ideas aren't guaranteed to be great, but they are worth the risk, Rivero and Barke agreed. Here's the reality: "To be innovative in the leaps and bounds we want, we have to take risks," Rivero said.

5. And it must be a part of the daily process of work.

When does innovation happen? Any time. Good ideas can come from anywhere, so it's important to make them a part of the culture and day-to-day work. That's the goal at OPM. "We're doing stuff every day that we don't think is innovative or cutting-edge, but it is," Barke said.

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About GovLoop

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 300,000 members, fostering crossgovernment 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.

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

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