

Embracing a Culture of Change



Introduction

People in government often speak about the rapid pace of technological change as if it were a problem. In fact, it can be the solution, if only agencies learn to embrace change.

What better time to learn than now?

In March 2021, President Joe Biden signed [the American Rescue Plan](#) into law to help agencies address the COVID-19 pandemic. The law includes more than \$2 billion in funding for federal IT programs. The message was clear: Modernizing technology is a key priority.

But modernization has a bad reputation. Government has a long history of undertaking modernization initiatives that stretch on so long that the “new” systems become outdated before delivery.

What’s needed is a more agile approach to innovation, one in which agencies seize on new technological developments to transform how they deliver on their missions. What’s needed is a culture of change.

During GovLoop’s recent Briefing Center, government and industry experts shared best practices for developing a culture of change. The event was sponsored by Red Hat, an open source software provider.

Read on to find out how some of your peers embraced an agile culture that constantly keeps their people, processes and technology current.

[Watch the recorded session](#)

Experts

Brian Merrick, Director, Cloud Programs, State Department

Dovarius L. Peoples, Chief Information Officer/G6, Army Corps of Engineers

Dr. Susan Gregurick, Associate Director for Data Science and Director, Office of Data Science Strategy, National Institutes of Health

Robert Leahy, CIO and Director, IT and Communications Division, Goddard Space Flight Center, NASA

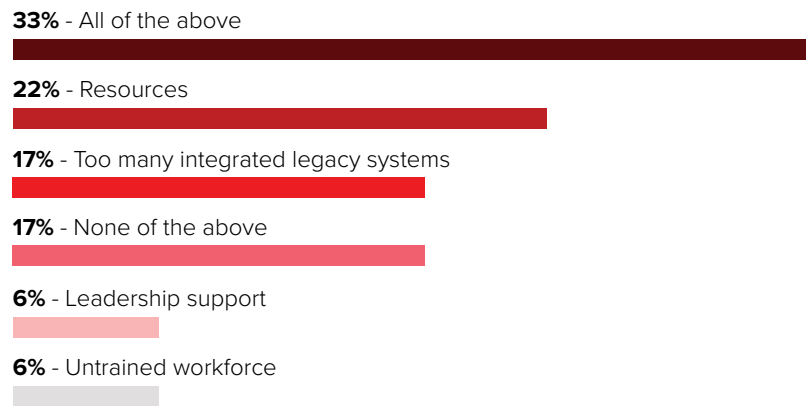
David Cohn, Azure Red Hat OpenShift GTM Lead, Red Hat

Susie Adams, Federal Chief Technology Officer, Microsoft

The Evolving State of Modernization

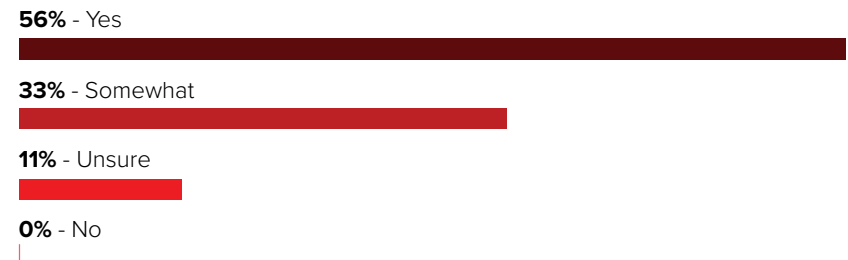
During GovLoop's virtual Briefing Center, we surveyed our audience about their agency's modernization journey.

What is stopping your agency from making IT modernization a priority at your agency?



First, we discovered that about 22% of participants believe resources are stopping IT modernization from becoming a priority at their agency. About 17% cited too many integrated legacy systems, approximately 6% said leadership support and roughly 6% chose untrained workforces. Around 33% cited all the above reasons, while about 17% said none of these drivers was to blame.

Has the pandemic increased your agency's modernization efforts?



Next, we found about 56% think the COVID-19 pandemic has increased their agency's modernization efforts. Another 33% said the crisis had somewhat boosted their agency's modernization initiatives.



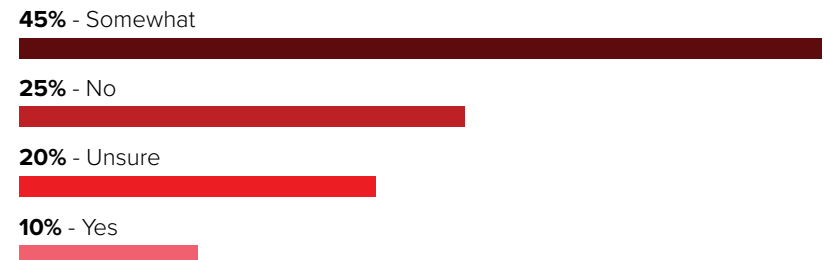
GovLoop also explored how our audience rates their agencies' modernization in terms of agile practices and workplace culture.

Does your organization embrace a culture of change?



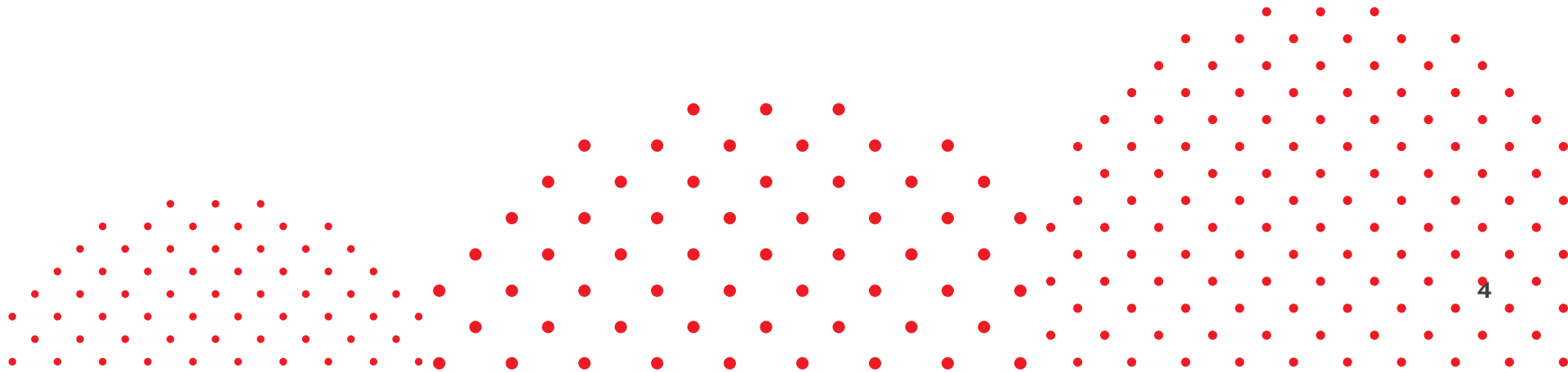
About 41% say their agency embraces a culture of change, with roughly another 56% believing their agency somewhat practices the same mindset.

Is your agency using agile methodologies?



Approximately 10% said their agency uses agile methodologies, while about 45% said their organization somewhat employs these tactics. About 25% noted their agency does not use agile practices, hinting at room for improvement on the subject.

Broadly, GovLoop's findings propose federal, state and local agencies are moving toward a culture of change but have not arrived there yet.



Case Studies in Embracing Change

Depending on the agency's size, maturity and mission statement, "modernization" can mean different things and produce diverse initiatives. The high-level goal may look similar – to increase agility or be more receptive to better ways of working – but the strategic focus and operational procedures will likely differ.

Here are some examples of what they may look like.

NASA's Goddard Space Flight Center

Letting people do what they do best.

At the Goddard Space Flight Center, the goal of IT modernization is simple: to allow employees to do what they do best, and not worry about the rest.

Modernization is being able to provide the infrastructure, platforms and services that can free up customers and employees to do the tasks they are skilled at doing, said Robert Leahy, Chief Information Officer and Director of the NASA Goddard Space Flight Center's IT & Communications Division.

"The engineers and scientists who are doing the really cool stuff at Goddard and NASA don't need to be concerned with operations and maintenance," Leahy said.

What it looks like: Last summer, when an emergency directive required teams to patch a Microsoft Windows server, one division at Goddard struggled. It was the division that controlled spacecraft, so patching servers wasn't its usual expertise. So, while the team could have been doing more valuable tasks according to their skills, it spent more time than desired trying to patch a server.

That's why Leahy's team is in the process of building out a modernized infrastructure, so teams that aren't charged with IT maintenance don't have to worry about it.

U.S. Army Corps of Engineers

Training people to keep them up to date with the right tools.

Often, when we think about the term "modernization," we think of technologies and gleaming new objects. But at the U.S. Army Corps of Engineers, the focus takes a different form.

"When we think modernization, we think people," said Dovarius L. Peoples, Chief Information Officer of the U.S. Army Corps of Engineers.

At the end of the day, if the people aren't supported with the right tools and training, agencies will see limited success in their modernization efforts, Peoples added.

What it looks like: The Corps has established several initiatives to support remote learning and communications now that many employees are teleworking. The pandemic has not put training and developing the workforce in the backseat.

The Corps is also working with industry partners, so engineers can learn industry-grade skills and technical capabilities. "Once we've learned how to use the capabilities, then we can fish on our own," Peoples said.

State Department

Identifying the right stakeholders to reimagine the business.

With over 300 different cloud implementations supporting 275 posts overseas, the State Department has a lot of modernization initiatives on its plate. What makes it work, however, is its bold focus on modernizing – or reimagining – the business.

“I can’t emphasize enough how important it is to think about the change holistically,” said Brian Merrick, Director of the Cloud Program Management Office at the State Department.

- **“Thinking about it from the business side back in,** and not from the tech side out,” he said.

What it looks like: Modernizing backend IT systems, for example, can be successfully funded and implemented if you can latch onto a specific business problem.

That’s what the department did to modernize refugee processing overseas. “It started with assisting a business need,” Merrick said. They had identified and engaged the business owner and stakeholders early on and figured out how to make sure expectations could be met for successful implementation. You absolutely have to identify the stakeholders upfront.”



National Institutes of Health

Empowering end users to use data for their jobs.

Data collection, dissemination and dashboards have been instrumental tools in addressing the pandemic. It’s no surprise then, that at the major medical research facility, data is a central component to the National Institutes of Health’s (NIH) modernization efforts.

“When I think about IT modernization for data science capability at NIH, it’s really to improve our data infrastructure and enable a more fair, findable, accessible, interoperable and usable data ecosystem,” said Susan Gregurick, Associate Director for Data Science and Director of the Office of Data Science Strategy at NIH.

- **In other words,** IT modernization means empowering the end user with capabilities to leverage data.

What it looks like: To reach this goal, one initiative was to make its various, robust platforms interoperable, or able to talk to one another. It connected platforms dedicated to heart, lung and blood studies with those on genomic research, pediatric data and cancer imaging.

The agency set up interoperability by essentially allowing researchers to log in to a system once through an authentication service to access all the different data.

To build this capability, the team used agile methodology, which is a way of working in increments and iterations with the end user. “It’s been a lot of fun,” Gregurick said.

Building Your Agency's Modernization Foundation

Like houses built on sand, agencies cannot construct agility without the right foundation, or the structure will fall. Consequently, agencies need technology with two traits for true agility.

- First, agencies cannot sacrifice security for innovation. Agencies handle sensitive information about citizens, so public-sector technology cannot skip security. Security incidents can cause many problems for agencies, including financial penalties, mission disruptions and citizen distrust.
- Second, agencies need agile technology for agile cultures. Rigid technology cannot shift gears easily, so agencies using it may remain stuck in neutral. Furthermore, agencies' employees will not embrace technology that is not easily accessible and understandable.

“We’ve all been thrown into a faster level of innovation due to COVID-19,” said David Cohn, Azure Red Hat OpenShift GTM Lead at Red Hat. “How do you innovate faster? Agile is really the basis of the mindset.”

Cohn shared three best practices for obtaining more agility using technologies available to the public sector.

Avoid Cloud Vendor Lock-In

Hybrid clouds mix public cloud services from external, third-party vendors and private, on-premises services agencies govern. This model gives agencies control over sensitive, internal data and reliable IT infrastructure maintained externally by a trusted partner.

Hybrid clouds will not, however, benefit agencies with restrictive services. Cohn recommended agencies pick hybrid cloud vendors that provide the flexibility necessary for mission progress.

“You start locking yourself into a very specific way that developer does things,” he said of cloud vendor lock-in. “They only make money if you stay there. You want to be able to use these clouds however you want, especially in government.”

Communicate Clearly on Open Source Software

Open source software lets anyone examine, alter, use and share its source code for any purpose. Meant to boost collaboration, open source software also promotes more creativity and nimbleness.

Despite these benefits, open source software will not aid agencies that do not communicate effectively. To reap the best results from open source software, Cohn recommends agencies practice more internal and external collaboration.

“I see communication breakdowns as the biggest blocker to new technology in the government,” he said. “With agile, communication is key. You need to have a more open culture.”

DevSecOps can multiply open source software's power for agencies. This philosophy partners software development, IT operations and security to continuously deliver higher-quality products and services.

Keep Kubernetes in the Background

Kubernetes is a system for orchestrating containers, which are packages of software code applications used to run rapidly and reliably in any computing environment. Using Kubernetes, agencies can deploy, manage and scale large amounts of applications automatically.

“There's something for everybody built on a foundation of Kubernetes,” Cohn said. “You're giving your developers an easy-to-use platform.”

Automation is the secret to wielding Kubernetes well, Cohn said. Automation involves processes like container orchestration occurring with little to no human input. Cohn suggested agencies implement Kubernetes, so the platform independently executes their container strategies enterprisewide.

“Kubernetes should melt below the surface,” he said. “You don't have to become a Kubernetes expert, but everyone should be using Kubernetes.”

Verbatims

There are scores of roadblocks agencies might encounter during IT modernization. Below, several government and private sector thought leaders reveal the impediments they saw while modernizing during the COVID-19 pandemic:

“The first thing you need to do is know what problem you’re trying to solve. And if the problem is modernizing your backend IT, you’re probably not going to be as successful as if you latched onto a specific business problem you’re trying to solve, even at the enterprise level. You absolutely have to identify the stakeholders upfront.”

– Brian Merrick, State Department



“When we think modernization, we think people. So, we’re working with industry and having industry teach us how to use the capabilities. And then, once we’ve learned how to use the capabilities, then we can fish on our own. Without the people and the resources, then ultimately, the technology is really nonexistent.”

– Dovarius L. Peoples, Army Corps of Engineers



“We no longer have the luxury of saying this can be done in maybe the next two or three years. Really, the focus is, ‘How fast can we do this?’ How do we turn on and include security across the board from the bottom up?”

– Susie Adams, Microsoft



“There needs to be a really nice balance between governance and delivering the mission. We can get ourselves wound around the axle in governance for compliance reasons and things like that.”

– Robert Leahy, NASA



Several government and industry experts also recounted how they have seen agencies build a culture of change using agile methodologies:

“It’s been a culture change in terms of moving a more research-focused and traditional agency to something that’s more adaptable to industry’s agile approaches. It’s hard. We have to hold hands and go together, which means that it’s slow. That does take time.”

– Dr. Susan Gregurick, National Institutes of Health



“Modernization is really starting at the infrastructure level, and then beginning to build up through the platform level, and then, eventually into the services level to provide the customers the tools they need to do the things that they are really skilled at doing.”

– Robert Leahy, NASA



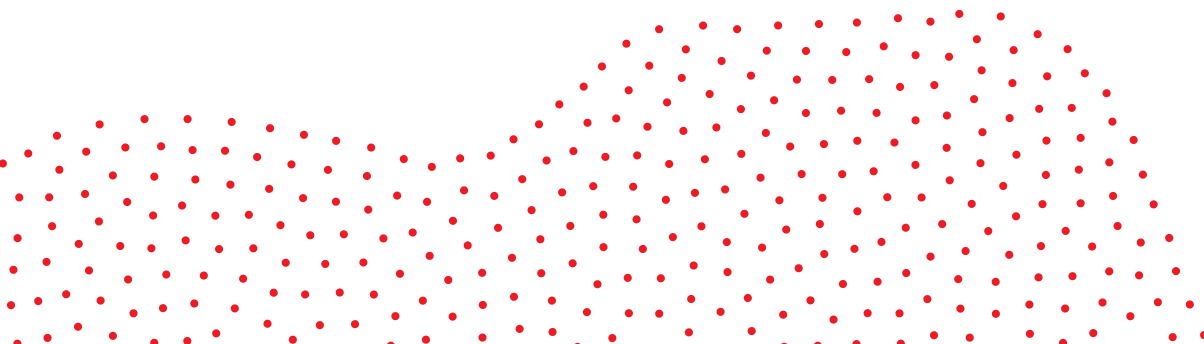
“It’s not just a culture shift in using technology, it’s how we do business. There’s a lot of shared controls, shared responsibilities. So, in that way, we’re able to scale without huge cost increases. And it’s been really successful so far.”

– Brian Merrick, State Department



“The speed that technology is advancing is really hard for a lot of people to grasp. And not only is the technology changing, but also the process behind it. And so, there’s a lot of pieces that really need to be managed from a change management perspective. It’s really all about continuous change.”

– Susie Adams, Microsoft



How Red Hat Can Help

The public sector cannot predict what disruptions are coming next, but partners like Red Hat can help them navigate the unexpected surprises. Red Hat's broad solution portfolio aims to accelerate innovation by uniting people, processes and technology. Using secure open source software, agencies can reduce their risks while benefiting from the innovation these tools provide. Red Hat works across all levels of government to help agencies securely achieve their missions with more agility, efficiency and speed.

Conclusion

9 Ways to Create a Culture of Change

GovLoop's recent Briefing Center explored the pivotal role people, processes and technology play in agencies' modernization efforts. Here are nine tips for creating a culture of change at your agency based on what we learned:

People

- Agencies should recruit and retain the best talent possible for handling agile tools like cloud.
- Government employees should pick major products and services to modernize. Such projects attract leadership attention and make a bigger splash for agencies' missions.
- To become more agile, workers must recognize their agencies' goals are not static, so they can pivot to accomplish them.

Processes

- Agencies should evaluate the intent of compliance requirements, gauge potential risks and build stakeholder support before integrating new technologies.
- Agencies should use real-time data from trusted sources to make the most informed decisions.
- DevSecOps should be standard for agencies, meaning their development, operations and security teams communicate freely and effortlessly.

Technology

- Agile agencies ensure their tools provide the same user experience (UX) for citizens, remote workers and on-site employees.
- To avoid costly mission disruptions, agencies should automatically update their technology and patch their security vulnerabilities.
- Agencies should learn about trailblazing technologies such as Kubernetes from other agencies – or private sector partners – familiar with them.



About Red Hat

The adoption of open principles helps the U.S. government start, accelerate, and improve the art of digital transformation—people, process, and technology. As the world’s leading provider of enterprise open source solutions, Red Hat uses a community-powered approach to deliver reliable and high-performing Linux, hybrid cloud, container, and Kubernetes technologies. Red Hat helps customers integrate new and existing IT applications, develop cloudnative applications, standardize on our industry-leading operating system, and automate, secure, and manage complex environments. Award-winning support, training, and consulting services make Red Hat a trusted adviser to the Fortune 500 and 100% of U.S. executive departments. As a strategic partner to cloud providers, systems integrators, application vendors, customers, and open source communities, Red Hat can help organizations prepare for the digital future.

Learn more: www.redhat.com/en/solutions/public-sector



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.

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