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Subcommittee on Emerging Threats and Spending Oversight

Hearing: *Existing Resources and Innovations Needed to Replace Legacy IT and Save Taxpayer Dollars*

Introduction

Chairwoman Hassan, Ranking Member Paul, and Members of the Subcommittee, thank you for the invitation to testify on legacy information technology in government. It's my pleasure to be here with my colleagues Mina Hsiang and Dave Zvenyach. We are collaborators and frankly, that's what it's going to take to modernize IT across government.

I've found that when you bring people, process, and technology together, you can create momentum in addressing even the most challenging IT issues in government. It is my hope that our discussion today will highlight a new way of working with you and our colleagues across government to address this longstanding challenge.

What is Legacy IT?

It's important to note that not all old systems are legacy, and old doesn't always mean bad, antiquated, risky, or in need of retirement. The legacy technology I am most concerned with are systems that are no longer supported and whose security cannot keep pace with our adversaries. First and foremost, a government system must have a secure foundation. From there, it must be able to deliver for your constituents, the American people. For instance, when I was with the U.S. Digital Service at the VA, we connected to legacy systems by using application programming interfaces, or APIs, to deliver a modern customer experience for our Veterans. The underlying technology to support this effort was what some might call old, but it was secure, stable, and able to accept a new front-end interface for customers.

Teddy Roosevelt said, "Do what you can, with what you have, where you are." I'm happy to report that we can do a great deal across government with what we have. What we need is to work differently, and recruit and reskill people with the right experience, mindset, and executive level support to make it happen.

Why Modernizing Government IT is Challenging

In private sector technology, I made decisions in a relatively linear way and directed funding to the areas in greatest need and with the greatest return on investment. As an agency CIO, however, I had to operate within a legacy funding model, with seven different and discrete streams of funding within an uncertain budgetary cycle that did not provide a great deal of flexibility. In addition to an uncertain budget, I had to

meet and balance a myriad of executive, legislative, and oversight requirements. This way of operating presented a level of complexity that is truly staggering and does not make sense – or deliver value to the American people -- in a modern operating environment.

Coming into my role as Federal CIO, this first-hand experience has helped me understand these unique challenges and given me an opportunity to deliver solutions. First, it's important to note that government technologists did not create the problems they are facing – in many cases, they have inherited them. The path to modernizing government IT requires CIOs, Chief Information Security Officers, Chief Financial Officers, Chief Acquisition Officers, Chief Human Capital Officers, Chief Privacy Officers, and other agency senior leaders to be aligned and working together to build an operational model for investment, deployment, and sustainment of technology. Technology and data power each agency to execute on its mission for the American people. This C-Suite operational model is essential for agencies to deliver modern, secure services for the public.

21st Century Government IT: What's Possible

Government technology can deliver greater value to the American people and empower the federal workforce when government technologists work across the enterprise to operate more efficiently and effectively in service to our nation. As we retire and modernize technology across government, we will stand up a technology infrastructure that is integrated across federal agencies and is secure by design, so the public can have a seamless experience. When your constituents interact with our government, they expect – and deserve -- government services that are as easy to use as the consumer products and services they use in their daily lives.

As Federal CIO, I envision an enterprise technology framework that enables our government to: make quick and efficient decisions informed by data; seamlessly communicate within the federal government and between federal, state, local, and tribal governments; proactively and securely meet the needs of the public; and maintain flexibility to adjust to emerging circumstances, like COVID-19, Hurricane Ida, or persistent cyber campaigns by our adversaries.

This committee's decisive action earlier this year to support the allocation of \$1 billion in emergency funding to the Technology Modernization Fund has provided a great start to develop this framework. To date, we have received more than one hundred project proposals from agencies, requesting more than \$2 billion. Seventy-five percent of those proposals are focused on cybersecurity improvements. As the Board prepares to release the first round of project approvals, there is a strong focus on learning what works well for one agency, and translating those experiences and lessons learned into successful outcomes for many agencies.

What it Will Take to Get There

Enterprise Collaboration

When I became CIO of the Office of Personnel Management, I arrived as the seventh CIO in 7 years. The agency was facing an uncertain future as an organization and a number of critical IT challenges, including aging legacy mainframe technology that held crucial data for our nation. In short, I knew I would not be able to solve the multitude of problems I was facing alone. So, I phoned a friend – the CIO of GSA -- who immediately provided top technologists from his team to join mine, fill critical gaps, and help assess the situation.

This partnership enabled us to realize that we needed the specialized skills of another tech talent group, the U.S. Digital Service (USDS), who have within their capability set the ability to rapidly assess critical infrastructure, identify and secure vulnerabilities, and deliver a recommended path forward. From there, my colleagues at OMB provided historical context on previous investment strategies and helped develop a financial strategy for the path forward. Working with my team, we were then able to engage GSA's Centers of Excellence in conducting an options analysis and criteria for the long tail of the work ahead. This ultimately led to the successful procurement of new, supportable mainframe technology and its relocation to modern, state-of-the-art data centers using the limited IT modernization funding that was still available.

These successes would not have been possible by remaining in my silo. It took a combination of internal and external forces -- technical talent, budget and management officials, legal, privacy, finance, acquisition and legislative affairs colleagues, and many others to create the momentum we needed to stabilize, secure, and modernize operations.

Showing, Not Telling

No two federal agencies are the same. Every IT organization across government is at a different point in their modernization journey. Through the appropriations process, we are entrusted with taxpayer dollars to deliver impactful and accessible technology and services for our citizens. As Federal CIO, I have the responsibility and the ability to set an enterprise vision and serve as a convening force, identifying where agencies are on their modernization journey and ensuring they have the people, specialized teams, and executive air cover they need to be successful.

Our work starts by understanding what our citizens need and keeping them at the center of everything we do. Working with colleagues from USDS and GSA's Technology Transformation Services (TTS), the federal CIO and CISO communities, and technologists across government, we can make best use of the appropriated dollars we receive to deliver secure, modern technology for the American people. When we are aligned as technologists and committed to a shared vision across government, we can deliver digital experiences for our citizens in just weeks.

We will get there by establishing a culture across government that is mindful of customer experience (CX), and providing structure and consistency around how agencies should approach CX in delivering on their mission. We will use an incremental, fast-paced style of software development to learn quickly what works and what doesn't, and reduce the risk of failure – and show our colleagues across government what's possible even within a legacy IT environment. By delivering minimum viable products, or MVPs, we are able to get working software into users' hands early and give design and development teams the opportunity to adjust based on user feedback about the service. With each new digital product launched, our workforce will be able to do less manual work and focus on the reason they came to government: to deliver higher quality service to the American public.

Conclusion

I joined the Biden Administration and stayed in government because I've witnessed firsthand how modern technology delivery can fundamentally transform the way we can deliver for the American people. Every single group I have met across government wants to be part of the solution and I'm going to take them up on their offer. By working across the enterprise, we can identify and retire the technology that needs to be retired, and deliver secure, best-in-class products for our federal workforce so they can deliver an exceptional customer experience for the American people.

I look forward to working with you and our key stakeholders, keeping you apprised of our progress, and identifying where we need your help so we can all be successful on this government-wide IT modernization journey.

Thank you for the opportunity to be here today. I look forward to your questions.