WRITTEN TESTIMONY OF MARIA ROAT, FORMER U.S. DEPUTY FEDERAL CHIEF INFORMATION OFFICER, BEFORE THE U.S. HOUSE OF REPRESENTATIVES COMMITTEE ON OVERSIGHT AND GOVERNMENT REFORM SUBCOMMITTEE ON CYBERSECURITY, INFORMATION TECHNOLOGY AND GOVERNMENT INNOVATION

Chairwoman Mace, Ranking Member Brown, members of the Sub-Committee, and of the full Committee, thank you for this opportunity to testify before you today.

My name is Maria Roat, and I am the former U.S. Deputy Federal Chief Information Officer and a retired U.S. Navy Information Technology Master Chief.

In my testimony, I will share insights from my extensive career spanning 42 years in federal and military service, including my roles at federal agencies including the U.S. Deputy Federal Chief Information Officer, Chief Information Officer (CIO) and Chief Technology Officer (CTO). I will discuss the persistent challenges in IT modernization despite numerous recommendations from the General Accountability Office (GAO) and the transformative efforts made to strengthen federal IT resilience during unprecedented events like the pandemic and federal shutdowns.

My testimony will highlight the importance of a shared vision, strategic alignment, and collaboration across agencies to drive technology transformation, improve service delivery to citizens, and promote transparency. I will also emphasize the need for sustained funding, skilled workforce, and effective change management to achieve successful outcomes in federal IT modernization initiatives.

With my fellow witnesses – Ms. Kent and Ms. Graves - we have a unique perspective of the federal enterprise, its missions and its complexities. We shaped executive orders and policies that strengthened federal IT resilience, ensuring agencies could continue operating efficiently despite unprecedented challenges like the pandemic and a federal shutdown. Our learnings informed enterprise solutions like shared services and laid the groundwork for ongoing modernization initiatives and helped federal agencies adapt to new challenges, reinforcing the importance of modernization, security, and collaboration in government IT.

Holistically, agencies and their Chief Information Officers embark on big transformational technology projects to improve agency services and create significant efficiencies. The transformation requires a shared vision and strategy that enables innovation and risk taking; robust portfolio management and governance; partnerships with the business offices; strong change management; procurement, contracting and human resource partnerships; a skilled workforce; and, strategic alignment from the agency, Office of Management and Budget (OMB) and legislative officials to authorize year-over-year sustained funding. As often is the case, one or more of these elements are missing.

Enhancing Federal Interoperability

My career path in the public and private sectors has given me a profound understanding of the interconnectedness and complexity of the federal enterprise and the reliance of agencies on each other for information to provide services to the American public.

Intra-agency Operability

During my 10 years at the Department of Homeland Security (DHS), I served in multiple components and headquarters, leading and supporting complex programs that required extensive cross-component collaboration. These collaborative efforts were essential in understanding the DHS portfolio to develop and execute programs that serve and protect our nation. For example, initiatives like Secure Flight, disaster response and recovery, cybersecurity, and critical infrastructure protection all benefited from the combined expertise and resources of various DHS components. This collaborative approach ensured that these programs, which affect every American, were effectively implemented and managed. Further, coordinating inter-agency platforms and data was identified as critical to achieving efficiencies so that data sharing and review was seamless and consistent. However, the complexity of programs and lack of enforceable standards created challenges in executing major programs.

Pioneering Government-wide Initiatives

As the first Federal Risk and Authorization Management Program (FedRAMP) Director, I was excited to lead the very first government-wide cybersecurity program because it established a standardized approach to security assessment, authorization, and continuous monitoring for cloud services used by federal agencies. With my engineering and operations background, I inherently understood the transformational nature of the cloud on the federal enterprise and the ability to reduce security assessment duplication through centralized authorization and create a consistent level of security. Challenges the program faced included a culture that resisted change to a new security model, skepticism of relying on cloud providers, giving up hands-on ability to manage on-premise servers and racks, and a general intra and inter agency mistrust in each other's ability to secure the cloud. At the time the program was a seismic shift in cybersecurity approaches and practices.

During my tenure at the Department of Transportation as the Chief Technology Officer, I approached the President Innovation Fellows to evaluate a project on how to leverage the cloud to enable "chat" across the federal government. The evaluation concluded that there were too many obstacles. The obstacles were fundamentally driven by culture, cybersecurity constraints and risk aversion, and how interoperability across the federal

government at that time was a nice to have, rather than a priority. The inability to chat across the federal government when agencies were already using cloud-based collaboration tools stuck with me.

Collaborative Multi-Agency Technology Pilots

There were two projects I initiated when I was the CIO at the Small Business Administration that further solidified for me the transformative nature thinking of the federal government through an enterprise lens. First, I led a pilot for the CIO Council that stood up a secure cloud environment in which agencies could work together on shared data. The agencies that shared their data to experiment with advanced analytics were generally pleased with the outcomes and the potential to deliver better, more informed results. Collaboration challenges included data, security and privacy barriers to sharing non-public data. Second, my team worked with NASA and the EPA to understand the technical and business barriers to leveraging Microsoft Teams across our agencies. We successfully federated Teams across our 3 agencies because of innovative employees that saw the potential to cross-agency collaboration.

Data Accessibility Barriers

Additionally, during the pandemic and with the processing of Paycheck Protection Program (PPP) applications, the Department of Labor CIO and I talked about what was in the realm of the possible to prevent fraud if we could check state-provided unemployment application data against PPP loan data where companies were supposed to use PPP funding for employee salaries. We inherently knew we were challenged by data sharing laws and regulations, time, and leadership recognition that cross agency collaboration to prevent fraud was necessary. SBA also faced data challenges when requesting the IRS to validate company EINs – a simple yes or no - for PPP loan applications due to legal interpretations of data sharing.

Cross-agency Data Sharing to support Farmers and Farm Workers

I served on the Technology Modernization Fund (TMF) Board for more than 4 years. Included in the criteria for TMF approval were those priority projects that required government-wide coordinating and benefited citizen services. As an example, one of the transformational cross-government projects required the Department of Labor to coordinate with US Citizenship and Immigration, and Departments of State and Labor to streamline the processing of 600,000 annual temporary work visa certifications. This project was successful because it had business and technical leadership engagement from all participating agencies, OMB and the TMF, long-term funding, effective change management and ability to share data in a data hub across all participating agencies. This

project reduced processing time from more than 30 days to 2 days, thus supporting farmers and employers given the time-sensitive nature of harvest season.

Federal-wide Interagency Collaboration

When I became US Deputy Federal CIO, one of my key initiatives focused on breaking down silos between federal agencies to create a more interconnected government. I championed broader interoperability efforts, including government-wide calendar-sharing and live chat features to initiate federal-wide interagency collaboration. With the lessons learned from the success of the Teams pilot at SBA with NASA and EPA, I was deeply involved in efforts to modernize federal IT infrastructure and improve interagency collaboration. This was not a technological problem, rather, it was a culture and trust challenge. Persistence was necessary to break through perceived and real data, records management, security and privacy barriers.

We were successful in federating 9 of 22 participating agencies to demonstrate the potential of real-time interagency digital collaboration. The elements for successful deployment were in place and included a vision, funding, CIO Council executive leadership oversight and involvement, GSA program management, and the right participation from agency cloud operations, engineering and cybersecurity teams. Unfortunately, the interagency collaboration program did not continue beyond the initial scope due to leadership transition that did not institutionalize or prioritize the activity. There was an overall lack of commitment at the senior leadership level to ensure overall success and set centralized policies for agencies to follow regarding how to safely share data while maintaining security and compliance.

Achieving a True Federal Enterprise

Any IT modernization project, including the examples above, challenges status quo. Technology transformation and IT modernization can be achieved either strategically or driven by a critical event like the pandemic or a government-wide shutdown. Further, the best outcomes are achieved through a partnership with the best technical and the best business people.

The concept of a federal enterprise portfolio is foundational to achieving IT modernization and technology transformation and avoiding discovery on-the-fly. By adopting a portfolio mentality, agencies can collaboratively work towards common goals and share best practices and technological advancements. Further, technology-enabled transformations improve federal and agency services, and drive process and cost efficiencies, rather than technology changes for technology's sake.

A federal-wide portfolio approach enables federal agencies to work together to streamline processes and improve the delivery of services to citizens. Leveraging shared data and resources, removing barriers, and accepting prudent risk can simplify access to government services, improve response times, enhance service quality and promote transparency.

It is not enough to have a strategic plan that is aspirational. The implementation requires multiple mechanisms to be in place to execute and includes an ability to systematically remove and address barriers such as data sharing or access, cybersecurity, culture and change management. Implementation requires a clear understanding of the mission portfolio, year-over-year funding mechanisms, nimble and flexible procurement mechanisms, agency leadership, OMB and legislative support for executing cross-agency and federal-wide programs, strong program management, and a skilled workforce to deliver and sustain operations.

One component of a federal-wide enterprise portfolio approach that is achieving success today is the implementation of shared services for finance and grants. Leveraging shared services and resources improves efficiency, reduces redundancy, and enhances the delivery of services to the American public. Shared services allow agencies to pool resources, such as IT infrastructure, applications, and expertise, to provide high-quality services at a lower cost. This model promotes collaboration, reduces duplication of efforts, and streamlines operations across the federal enterprise.

There also needs to be agreement amongst all stakeholders that the IT infrastructure and business processes require modernization before debating the specific technologies or approaches to be implemented.

Recommendations for OMB and Federal CIO

To effectively lead federal-wide portfolio management, OMB and the Federal CIO should adopt a strategic approach that emphasizes collaboration, shared services, and continuous improvement. They can start by establishing a clear vision and strategic alignment across all federal agencies, ensuring that each agency's IT initiatives are aligned with the broader federal enterprise technology and mission goals. Many of the enabling policies are already in place and should be reviewed to strengthen or provide clarity as necessary. OMB and the Federal CIO should also promote the adoption of shared services to reduce redundancy and improve efficiency, leveraging pooled resources to provide high-quality services at a lower cost.

Additionally, the Federal CIO should implement strong portfolio management and governance practices, including regular reviews and assessments to ensure that projects

are on track and delivering the expected outcomes. By fostering a culture of innovation and risk-taking, and providing sustained funding and support, OMB and the Federal CIO can drive transformative change and enhance the delivery of services to the American public.

The Office of Management and Budget (OMB) can play a crucial role in facilitating cross-agency funding by adopting several strategic approaches. First, OMB can establish a centralized funding mechanism that allows for the pooling of resources from multiple agencies to support collaborative projects. This can be achieved through initiatives like the existing Technology Modernization Fund (TMF), which provides funding for projects that require interagency cooperation and have the potential to deliver significant benefits across the federal enterprise. Second, OMB should evaluate the federal budget and data reported on the IT Dashboard across lines of business using advanced analytics and artificial intelligence to identify trends and opportunities where technology funding is duplicative, could be better aligned or where there are gaps. OMB can work with legislative officials to authorize year-over-year sustained funding for cross-agency initiatives, ensuring that these projects have the necessary financial support to succeed. Third, OMB can promote the adoption of shared services, where agencies can share IT infrastructure, applications, and expertise, thereby reducing redundancy and improving efficiency.

By fostering a culture of collaboration, leveraging artificial intelligence, and providing the necessary funding and support, OMB and agencies can drive transformative change and enhance the delivery of services to the American public.

To enhance the stability and continuity of leadership in federal IT modernization efforts, consideration should be given to a Federal CIO appointment for a term of five to seven years, similar to the appointment duration of the US Postal Service leadership or other senior executive positions requiring continuity and stability. This extended term will provide the Federal CIO with the necessary time to implement long-term strategic initiatives, drive transformative change, and ensure sustained progress in federal resilience and modernization.

Conclusion

In conclusion, the journey towards enhancing federal interoperability and modernizing IT infrastructure is a continuous and collaborative effort. By embracing a federal-wide enterprise portfolio approach, multi-year funding, leveraging shared services, fostering interagency collaboration and removing barriers, processes can be streamlined and service delivery to citizens improved. It is essential to have a broad strategic plan that is not only aspirational but also actionable, with mechanisms in place to systematically remove barriers and address challenges. With the right vision, funding, leadership, and

skilled workforce, transformative outcomes can be achieved that benefit the American public and ensure the resilience and efficiency of federal agencies.

Thank you for the opportunity to share my insights and experiences.