



EXECUTIVE BRIEFING SERIES:

Accelerating Transformation with a Multi-generational Workforce



Low risk. Low code. No limits.

Software for the **future of government.**

Explore Pega's leading digital transformation solutions for **defense and intelligence**, **federal government**, and **state government**.

▶ pega.com/government

People as much as technology drive agency modernization

BY TOM TEMIN

Information technology practitioners have an array of new and emerging technologies with which to build the next generation of digital government. If all it took were these tools, the task would be simpler than it is in reality.

Modernization is eminently doable, but it takes more than technology alone. It also takes two other elements.

First is a revision of processes and approaches to applications development and deployment. The agile, sprint-by-sprint approach, against the backdrop of a longer-term vision, has proven more effective than “grand design” approaches, marked by big “waterfall” coding projects, to which too many federal executives still default in their thinking. The above-mentioned new technologies – cloud computing and software for abstracting legacy systems so their data becomes reusable – enable the agile approach.

The second accompaniment to new technology is people. The President’s Management Agenda specifically calls for reskilling the federal workforce to better support modernization and digital transformation. But savvy IT leaders already knew that was the case.

If this all sounds like the old adage, “people, process, technology,” well, it is. But the old wine has a new bottle in the age of elastic cloud, application programming interfaces (API), artificial intelligence and agile development.

For a pulse-taking on the modern approach to modernization, Federal News Network asked a panel of federal and industry executives for insight into their approaches. The consensus was that yes, you have to have a strategic vision, but you also have to execute incrementally while bringing the federal workforce along.

PANEL OF EXPERTS



Catherine Aucella, Deputy Director, Directorate of Capabilities, National Security Agency



Douglas Averill, Global Business Line Leader, Public Sector, Pega



Shawn Hughes, Director, Enterprise Network Modernization Program, Department of Homeland Security



Josh Reiter, Director, Cyber Workforce Policy & Planning, Navy



Param Soni, Cloud Program Manager, Department of Labor



Cindi Stuebner, Director, Defense Business Line, Pega

A note on terms. Modernization in general means new, more efficient data, communications and computing infrastructures. Modernization is crucial. When it includes a heavy dose of cloud strategy and the reduction or elimination of federally-owned and operated data centers, it can cut costs and shift agencies from a capital expenditure model to an operating expenditure, or OpEx, model.

Why modernize?

Equally important, a modernized infrastructure enables the key objective of the rest of the exercise, namely digital transformation. That is, the government offering its constituencies state-of-the-art service online. In fact, digital transformation can, and should, also improve in-person interactions that will always be part of the government-citizen interface. Counselors, adjudicators, schedulers, health care providers – you name it, can all be more efficient and effective when artificial intelligence silently and quickly informs their work. It also helps reduce the surprisingly persistent paper forms that still characterize so many processes.

So what are agencies up to?

For Shawn Hughes, director of the enterprise network modernization program at the Department of Homeland Security, modernization is less about specific applications than about providing component agencies the underpinnings for digital services.

“We want to optimize our IT, become more efficient. We also have a need for increased automation for our environments. We have a lot of human-intervention processes that take a lot of time,” and are therefore candidates for intelligent automation, he said.

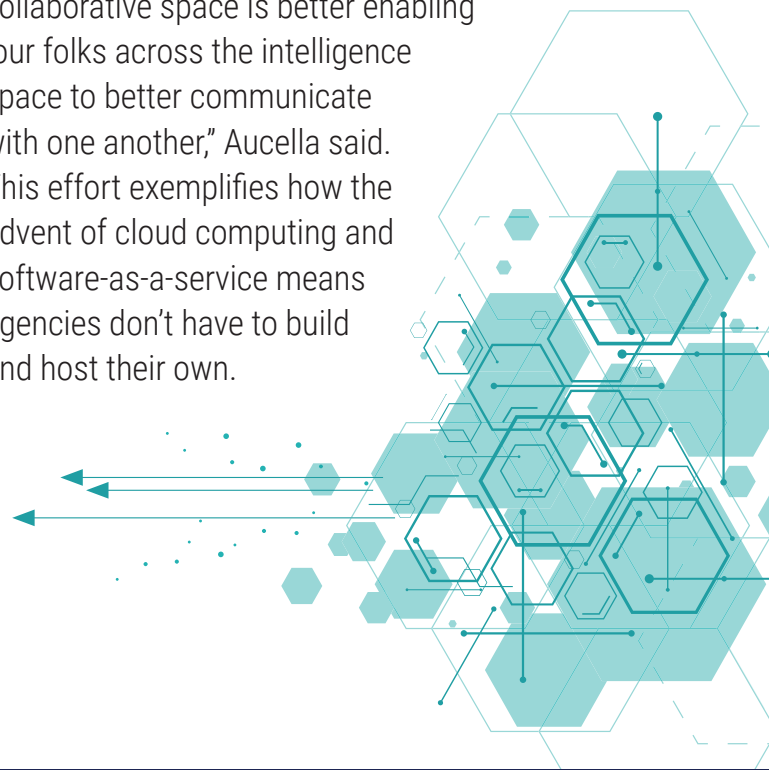
“We want to focus on reducing our technical debt,” he said.

Hughes and others say they divide their modernization efforts between internally-focused services such as finance, employee onboarding and network provisioning and externally-focused digital services. He noted the inside-outside views merge in places like FEMA. There, modernized networks enable FEMA operators at disaster locations to reach back for crucial data while also quickly qualifying and enrolling victims for benefits.

At the National Security Agency, the modernization focus looks inward, to improving the data gathering and analysis that the agency does, and outward, to helping it and the greater intelligence community continuously improve its ability to “connect the dots.”

Catherine Aucella, the deputy director of the Directorate of Capabilities at NSA, noted, the IC has been on that journey since the Sept. 11 attacks.

For example, cloud-provided collaborative space is better enabling “our folks across the intelligence space to better communicate with one another,” Aucella said. This effort exemplifies how the advent of cloud computing and software-as-a-service means agencies don’t have to build and host their own.



Value from legacy apps

Similarly, at the Department of Labor, cloud program manager Param Soni said the secretary has issued a mandate to improve customer service. To that end, the IT staff is working on four fronts simultaneously.

At the center is what Soni termed the DOL IT platform encompassing analytic and cloud services available across the department. At the same time his staff is reworking legacy applications, some dating back decades, so that the data they contain is available outside of the applications for analytical and business intelligence purposes and so that it's available to newly developed, digital services deployed outwardly.

To date, Soni said, Labor hosts some 15 customer experience and business applications in its cloud suppliers.

Soni cited the need for better tools to employees so they in turn can provide better service to Labor's constituencies. As an example, Soni pointed to claims processing. "If employees don't have the right tools, it takes longer to do that."

So the tools help the employees and the customer.

Labor replaced its employee transit subsidy system, which had been multiple forms and needed serial signatures, with a cloud-hosted system that simplified and speeds the benefit to employees.

An initiative called task automation seeks to speed up services delivery with automation and business process redesign. For example, at the Employee Benefits Administration, task automation will shorten the time for taking in and adjudicating claims. Soni said.

Douglas Averill, the global business line leader for the public sector at Pega, pointed out that agencies pursuing modernization really need an approach that encompasses procurement and the workforce, aimed at getting to the customer experience enabled by modernized IT.

And, he said, while they need technology that bridges disparate systems, governments more fundamentally need to bridge their multi-generational workforces.

Workforce challenges

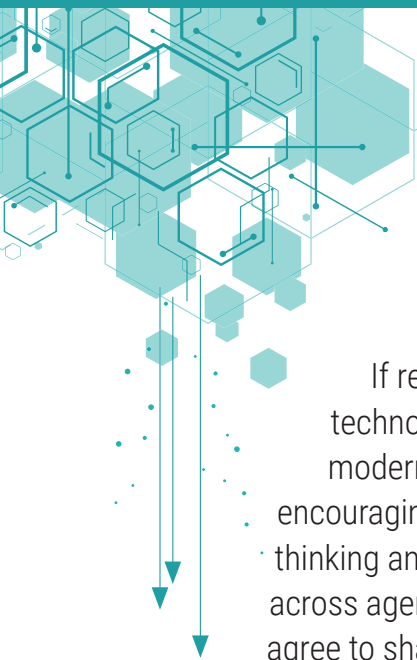
Modernization presents common challenges across the federal government, and across governments throughout the world, added Cindi Stuebner, the director of the defense business line at Pega.

"Some of it is the age of the workforce, some of it is constituents that increasingly want to engage with the government in multiple ways." How to integrate multiple channels – Internet, in-person, telephone – in secure ways and with common data: that's the essential challenge, Stuebner said.

Josh Reiter, director of cyber workforce policy and planning for the Navy, said an important goal of modernization is simply reducing the attack surface of the world's biggest unclassified network. The Navy shares with its military counterparts the challenge of bringing powerful modern computing to austere environments lacking high bandwidth "reach back" to cloud resources, and also a workforce with the skills to operate in such environments.

It's really a two-part challenge, Reiter said – the technology itself and the workforce.

"In terms of modernization goals, modernizing our workforce is a very high priority; being able to keep



up with new skills, getting the acquisition cycle to at least come close to the evolving pace of technology,” he said.

If reskilling for particular technologies is part of modernizing the workforce so is encouraging people to adopt design thinking and finding ways to work across agency silos. When agencies agree to sharing data across missions

according to a desired outcome for the customer, the silos become less of a barrier to modernizing.

“Today, those boundaries are breaking down,” Stuebner said. “You have the options and, frankly, the privilege to design things without thinking about those silos any more. It’s about time.”

It’s also important to develop multi-generational working teams under an IT governance structure, Hughes said. Often, he said, the experienced hands know the why of a program, such as a statutory requirement. But the younger, more tech savvy employees can suggest faster, more efficient ways to execute.

To bring diverse mindsets together, Hughes said, “I look and say, ‘what are the policy and statutory-regulatory stuff that we have to follow.’ And then, what’s the governance, the decision makers, and what’s the problem statement. And then how do we quantify that problem.”

The result, Hughes said, is a common understanding on which a diverse group can make sound technology decisions.

Technology considerations

Ultimately, modernization does require new technologies. The cloud, artificial intelligence and machine learning tools are at the heart of many efforts.

“We’ve been rapidly moving toward taking advantage of data science approaches – artificial intelligence, machine learning – to do things you really take for granted on the outside,” said NSA’s Aucella.

She cited online retailers that are able to suggest associated products to what people order.

“That doesn’t work in today’s environment of the intelligence community in terms of somebody being interested in a particular topic and having the system know that something else would be of interest as well,” Aucella said.

Aucella added her group is beginning to use these data science tools and applications to connect information from disparate data sets and create new advisories, alerts and reports.

For Soni of Labor, modernization establishes what he called a digital analysis capability.

“It’s not one tool, it’s not one database,” he said, but rather a way to link disparate systems within Labor domains. “What we’re doing on an incremental basis, wherever there is a multi-connect possibility we are enhancing our digital platform.”

By abstracting systems in this manner, and connecting databases as needed, Soni said Labor is achieving modernization while avoiding the grand design or massive data warehouse projects “that we know never work.”

Soni added, “The government basically has data, and we are serving the citizens. The iterative development model, that’s the way industry is going. We’re taking a similar approach.” 