

# IT Modernization and the 'Digital Dilemma':

## From concept to prototype to execution

Taking a 'people, processes and technology' approach to modernizing federal IT systems.

**In**

the race to keep pace with advances in technology— and citizens' needs — many government agencies find themselves falling behind. Legacy systems built to fulfill business functions designed years ago have

served their purpose but have grown expensive to maintain and unable to evolve with the times.

At the same time, constituents' expectations of their governments are changing all around the world. Rather than spending hours on the telephone or in line waiting to be served, today's citizens want to interact with government online the same way they work, read and shop. Agencies that fail to provide a user-friendly online experience fall short of their public service mission — the very reason they exist.

Today's modern information technology platforms can help agencies better perform the work they do, while delivering services in new, innovative ways. Sticking with outmoded technologies makes it harder to keep up customer expectations; it also can prevent organizations from taking advantage of the added value that today's digital tools can offer to agencies and the services they provide.

How to meet today's customer demands and take advantage of new capabilities with yesterday's technologies has created a "digital dilemma" for agencies. Replacing complex, critical systems is untenable. Doing so would be costly and cumbersome, entailing undesirable and potentially dangerous shut-downs. And yet, updating and securing these systems is crucial to nimble, agile delivery of services.

The good news is this: Technology itself now provides the answer.

Thanks to the cloud, agencies can augment — rather than replace — their existing systems with state-of-the-art features and offerings that remain perpetually up to date, "future-proofing" themselves against obsolescence or irrelevance. The cloud offers a platform with which to modernize services economically and securely, and to implement new features without needlessly disrupting operations.

Getting started on the road to modernization may be easier and more cost-effective than agencies might think. The key lies in focusing on people, processes and technologies, in that order, and making the transformation gradually rather than trying to do everything at once.

### THE MODERNIZATION TRIAD

Changes in technology can help governments better engage with constituents, improve responsiveness, increase customer satisfaction and lower costs. Artificial intelligence, the Internet of Things, virtual and augmented realities and other computing innovations, for instance, can all greatly enhance the ways agencies do business internally and externally.

But shifting to more modern IT services can also be disruptive internally and raise concerns. Change is hard and the rising ubiquity of machines can feel intimidating.

To expand technology's role in any meaningful way will almost certainly involve a culture shift at work — a change that starts with strong leadership at the top. Employees may fear being displaced or losing their value, and will need management support to help them embrace the possibilities that technology offers. Therefore, CIOs would do well to recognize that any organization's most important resource is its people,

# Solving the Digital Dilemma Requires a Platform that Meets Success Criteria

“Multiple Gartner reports on enterprise cloud platforms highlight key criteria for success. These criteria include selecting cloud platforms that are innovative, open, fast, easy, and trusted.”



## Innovative

- Customization without breaking everything
- Seamless enterprise platform updates
- Constantly evolving with today's technology innovations
- Incorporates user feedback



## Open

- Broad ecosystem
- Ability to connect with systems outside the platform
- Available on any device



## Fast

- True multi-tenant cloud
- Rapidly configure, test, and deploy your apps
- Proven performance at scale



## Easy

- No custom coding required
- Zero administration
- Learning platform



## Trusted

- Secure
- Transparent
- Compliant

Single Enterprise Platform that Delivers Multiple Services and Allows You to Build Custom Services

Using this criteria will ensure you end up with better results. To get great results you need a partner, not another vendor.

and to engage IT staffers and reassure them that their ideas matter. Partner organizations, too, may need some coaching if they are to buy in to new ways of doing agency business.

One way to smooth the transition is to make changes incrementally, taking a “one step at a time” approach with careful attention to processes. Some agencies have created “[centers of excellence](#)” to design and review the way things are done, standardizing business processes organization-wide to boost efficiency and effectiveness. These agencies know that how something gets done is at least as important as what gets done. Two recent case studies in government help illustrate that.

### APHIS: A LEAN, CLEAN PERMITTING MACHINE

The U.S. Department of Agriculture, for example, used cloud technology to develop an app to bring its Animal and Plant Health Inspection Service (APHIS) into the 21<sup>st</sup> century, with impressive results.

APHIS, working with Salesforce, took a significant leap forward by digitizing the permitting and inspection process and providing status updates to shippers, importers and buyers in real time online. The modernization moves also allowed inspection agents to share information and helped the agency cut permitting time dramatically from months to days and even hours.

Everyone on the value chain now has a common view of the progress of a permit and what issues need resolving, as well as a timeline for moving goods to market. That’s especially important when those items are perishable.

Using technology to democratize a process that previously had been the exclusive purview of only a few has resulted in increased customer satisfaction and improved economic impact.

Behind the technology changes, the agency had to re-educate its people. Inspectors, in particular, needed to understand and even embrace the dissemination of information they had prided themselves on owning exclusively – they had to understand that their own value was not diminished by the new transparency, according to those who worked on the initiative.

Just as important was the attention the department paid to processes. When choosing initial modernization projects, it is important to select projects that people care about – but where errors during the transition wouldn’t constitute a disaster. APHIS’s permitting and inspections process fell into both these categories: It affected many people from shippers to traders to importers, making it a popular pilot project worth devoting resources to, and if something didn’t work as intended, any deleterious effects would be relatively minor.

### AMTRAK: ALL ABOARD THE TECH TRAIN

Amtrak’s IT modernization initiative provides another example of how to work around the digital dilemma. The national railroad embarked on an enterprise-wide transformation focused on the customer experience. That meant focusing on the traveling experience – including observation cars lined with windows – as well as a customer-facing digital technology infrastructure. To move its IT operations from mainframes to client



thinking approach provides a great example of how agencies can upgrade the quality of the customer and employee experiences without incurring costly rip-and-replace IT programs — and help fulfill organization goals more effectively.

### **SLOW AND STEADY WINS THE RACE**

Both these examples epitomize a “high-value, low-complexity,” first-steps approach to modernization, bringing people and processes along to get your agency’s foot in the door and on the platform. Rather than taking on riskier and more expensive programs to overhaul IT systems, agencies can use cloud IT services to test and deploy smaller service improvements, taking an incremental and iterative approach that takes into account an agency’s full environment and wraps a supplemental layer around it.

Starting simply allows victory from day one without needing to invest a huge amount of resources or embark on an overwhelming, years-long journey. Working with providers like Salesforce, that not only understand cloud technology but also have the workflow expertise and experience to help agencies create small wins at the start, can help agencies manage through many of the common cultural, cost and technical hurdles that can derail IT modernization initiatives. Then by replicating those wins, agency leaders can reach a “tipping point” where a full-blown modernization begins to make good sense.

Just as Rome wasn’t built in a day, becoming tech-savvy doesn’t need to be disruptive, no matter how old your current systems are. Agencies don’t have to change the world, or even their own worlds, in a matter of months or weeks. “Slow and steady wins the race,” and a knowledgeable guide can make the journey even smoother. It starts with using modern, future-proof cloud technologies to solve your organizations problems now, later and on into the future.

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servers to cloud service providers, the agency needed applications simple enough for a diverse, mobile, non-technical workforce to use without extensive training.

With help from Salesforce, Amtrak developed an app called TOPS that tracks train servicing, enabling supervisors to log when their teams had completed a given service, alert counterparts of any issues or delays and pull reports that capture performance metrics, common disruptions and more. The TOPS app also expanded communications and visibility across the entire train-turnover process, making it easier to recognize, quantify and replicate best practices.

Amtrak’s efforts also illustrate how organizations can move beyond reinventing old systems, and instead build engagement layers on top of them.

This mix of old and new technology platforms enabled Amtrak to use existing employee knowledge of legacy systems while engaging newer hires who may be more familiar with modern technologies. Amtrak’s forward-

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