Architecting IT for the Mission and Business Needs of the Future: Lessons Learned from the First Five Years of FITARA Implementation
Within the last decade, the role of technology in government has steadily shifted, and what was once thought of as a peripheral department that simply provided hardware and help desk support is now considered a critically important component of any government mission. Today, millions of Americans – both public servants and citizens alike – rely on federal technology to engage with government services and access critical information. Employees at the Department of Energy, for example, completed 63,000 online education courses in 2018 alone. On the citizen-facing end of the spectrum, the Department of Veterans Affairs receives over 10 million visits to their website per month.1

Despite the newfound centrality of government technology, barriers to IT modernization on a foundational, systemic level still remain. As application portfolios grow to meet evolving agency needs, existing redundancies are often overlooked, as are the costs of infrastructure, and the required support and licensing associated with legacy solutions. Compounding these growing pains is the complex environment in which government agencies operate: they face intense regulatory oversight, tight budgets, personnel reductions, difficult procurement processes, and demands for public transparency, all of which leave them challenged to develop, deploy, and manage IT that meets their goals on time and under budget.

In response to these growing concerns, Congress enacted the Federal Information Technology Acquisition Reform Act (FITARA) in 2014. This legislation aims to drive visibility into bureau-level IT spend and reduce the amount of rogue IT. To find out how the implementation of FITARA is progressing and to better understand the key facilitators and obstacles to successful IT oversight and implementation, Government Business Council (GBC) interviewed federal IT leaders on their thoughts on FITARA’s effectiveness thus far, as well as ongoing IT initiatives, priorities, and challenges.

The Billion Dollar Problem
Agencies are projected to spend more than $92 billion dollars on IT in fiscal year 2019, 80 percent of which is slated exclusively for the operations and maintenance of legacy systems.2 This means that, despite the substantial efforts by the Trump administration to encourage modernization – including its IT-heavy President’s Management Agenda, executive orders on artificial intelligence, Cloud Smart policies, and new funding vehicles, such as the Technology Modernization Fund – federal and defense agencies are still only able to devote one-fifth of their IT budgets to forward-looking initiatives. How can organizations begin to shift that balance away from operations and maintenance and put more of those dollars toward modernization initiatives? Moreover, how can they invest in a manner that will yield opportunities to re-invest those funds?

The Impact of Siloed Staff and Processes
While many factors can lead technology investments to experience excessive costs and unexpected delays, one of the main drivers is the federated, stove-piped, nature of many federal organizations. Large departments often have between 20 and 30 component agencies, making it challenging for department-wide CIOs to maintain visibility over all IT systems at all times. As Carlene Ileto, Executive Director of Enterprise Business Management at the Department of Homeland
Security (DHS) put it, “we all have the same mission when it comes to securing the homeland, but we have different ways of doing that.” In other words, these branches often operate their own unique computing environments and prefer to develop homegrown, proprietary solutions designed specifically for their unique mission concerns, rather than weigh existing options or consider the possibility of shared, agency-wide offerings.

**FITARA-Fueled Achievements**

FITARA addresses this challenge with its seven interconnected focus areas, each of which builds on the progress of the others to help CIOs make better enterprise-wide, strategic, and long-term decisions. Roughly five years into its implementation, agencies have seen quantifiable wins in the areas of portfolio review and federal data center consolidation, with agencies accumulating approximately $13 billion in savings between 2012 and 2018.³

**Portfolio Review (PortfolioStat)**

PortfolioStat is a data-driven tool that agencies use to evaluate and understand the true value of each IT investment in its portfolio, identify and eliminate duplication, and consider migrating to shared solutions to maximize return on IT investments.⁴ By taking advantage of the greater levels of transparency, communication, and information provided by PortfolioStat compliance, agencies have been able to successfully apply an analytical process called “application rationalization,” which allows them to gain a deeper understanding of the inter-relationships between investments and improve the interoperability and compatibility between systems.

The first step of the application rationalization process is developing a clear “as-is” understanding of the IT portfolio, where agencies establish a software application inventory and collect information on each application. From there, they take a deep-dive into understanding each application from both an IT and business perspective. The final step is making decisions on what to do with each application – should the agency tolerate, invest, migrate, or eliminate (TEAM) the app?⁵

When PortfolioStat was first introduced, DHS took on an ambitious goal of reducing their IT spend by 10 percent. “As we started to examine many of the programs from an oversight perspective, we ended up saving the department $1.7 billion over a five-year period, instead of $547 million,” Ileto said. “And I think that’s phenomenal when we look at it, because now we’re more cognizant of the fact that we don’t just have to just pile on software to get one capability.”

Francisco Salguero, Deputy Chief Information Officer at the Department of Agriculture (USDA), touched on the benefits he’s noticed as a result of app consolidation and shared services: “Honestly the buying power of USDA is much stronger when
we come together than as individual components trying to have their own contracts and awards and things like that.”

Cloud Migration
Application rationalization can yield cost savings even after duplicative applications are rooted out and consolidated. Agencies have found it to be a helpful tool for optimizing applications as they begin migrating more functions to the cloud. By clearly defining when and how much each application will be used, agencies can more comprehensively capitalize on the capabilities offered by the cloud.

Maria Roat, Chief Information Officer of the Small Business Administration (SBA), highlighted the benefits that cloud’s scalability provides, especially in comparison to a traditional data center. “When you’re in a data center, things run all the time; 24/7. And that’s the beauty of cloud, you’re paying for what you use. You can manage that environment. You’re already on modern platforms in the cloud and you just use that capability to spin up, spin down, as you need to.”

Carol Harris, Director for IT Management Issues at the Government Accountability Office, suggested that agency efforts to move to the cloud are especially promising in the near-term because “every successful migration has the potential to move resources away from maintenance, which could have a domino-like effect.” Gerald Caron, Director for Enterprise Network Management at the Department of State, also trumpeted the advantages and opportunities that cloud presents, especially for a global agency like the State Department. “I only have to deploy it to the cloud. I don’t have to deploy it all over the world like we do our desktop images and patches. And one of the great things is you’re always up-to-date, and that helps you get new features and new functionality to your end-users.”

Lessons Learned

No Modernization without Effective Change Management
These process improvements are all strengthened by FITARA’s crowning achievement: enhancing CIO authority. By elevating IT governance and centralizing IT management under the CIO, FITARA has demonstrated the value of CIOs as true enablers of both business and mission. Harris explained that “In many cases, CIOs have been able to use FITARA to improve their power, and they have welcomed that change.”

“You can’t have responsibility and accountability without the ability to implement. And FITARA really drove home the role and the authority of the CIO.”

— Maria Roat
Chief Information Officer
Small Business Administration (SBA)
In practice, Roat said this means that she “get[s] to weigh in early.” This proved critical for responding to the flooding of SBA’s primary data center. Roat explained that the HVAC was failing, and without a budget for new purchases, she felt strongly that the path forward meant no new investments in more of the same; “no new hardware” became her mantra. Instead, Roat opted for different types of software, and the cleanup and consolidation efforts in their data center have resulted in more than $2,500 in electrical cost savings each month.

Harris explained that the hope is that these efforts to improve people, processes, and technology, will continue to nourish one another. “Many of the seven areas of FITARA seem to be designed to encourage CIOs to take a long-term view. For example, the PortfolioStat and IT contract review requirements promote CIO awareness of IT within their agencies to reduce duplication and increase consolidation. Similarly, the transparency and risk management section of FITARA requires CIOs to assess the risk of each major investment over time. Even FITARA’s incremental development requirement, which encourages agencies to deliver functionality in shorter periods of time, is encouraging CIOs to take a long-term approach by identifying failing projects earlier.”

Ensuring IT Supports the Mission
Two key themes underscored by all experts were the need for IT to support the mission, and the integral role leadership support plays in effective change management. Salguero explained, “It’s not just about IT, it’s about the mission. It’s about the business also being part of this whole process of decision-making and governance… If you’re looking to change how you

Running IT Like a Business with ServiceNow
When it comes to FITARA implementation, Bob Osborn, Chief Technology Officer at ServiceNow, knows that agencies are working hard to comply with not only the letter of the law, but the spirit of it.

“It can be challenging to break through the exoskeleton of staff and processes that agencies have created around hundreds, or even thousands, of individual applications; but the savings in time, money, and the enhanced capabilities it provides make it well worth it. Now, it is easier than ever before to apply the same technology people have become accustomed to in their personal lives to the government space. ServiceNow helps agencies take control of business processes and define what success is, ensuring alignment between mission and IT. By shifting from an application-focus to a platform-focus and adopting a Platform as a Service (PaaS) model, agencies can seamlessly adopt an enterprise perspective of service delivery, consolidate and aggregate siloed applications and data, and take advantage of the capabilities that artificial intelligence, machine learning, and other emerging technologies offer.”

Bob Osborn
Federal CTO
ServiceNow
do business and the culture of an organization - especially in IT, because IT is either a thing people embrace or are scared of - you have to have that support from the top to say, ‘okay, we are going to take advantage of the buying power that a 100,000 employee organization can do as opposed to a 5,000 or 10,000 person organization that may not necessarily have that.”

Roat expressed a similar perspective, saying, “[We need to] make sure the CIO is fully engaged with IT and the roadmap of where we’re going and to make sure that IT supports the mission. I can’t tell you how often I’ve gone back to the sum requester who’s asking for some shiny technology and said ‘I need your business requirement. Don’t tell me you need a new piece of technology, tell me what the business need is.”

Looking Ahead

As IT leaders look towards the future, the area they seemed most unsure of was their ability to address the changing needs and requirements of the IT workforce. Roat explained that modernization isn’t just about technology, it requires a workforce that knows the business of the organization. “While it’s not directly FITARA-related, to do all the things I needed to do to modernize and use those authorities, I also had another track where I had to upgrade and re-skill some of our staff to be able to work in the new environment.”

While the FITARA scorecard has been helpful, IT leaders still see ways it can be improved. Caron argued that what it’s missing is a way to evaluate and operationalize a true enterprise architecture.

“I’m an evangelist for understanding your agency’s enterprise architecture and how all the pieces fit in. That enterprise architecture is the puzzle piece that puts all the things together that contribute to the service that you’re trying to provide, so you can get a complete view. It’s an opportunity for you to modernize and change the way you do business, not just lift and shift.”

— Gerald Caron
Director, Enterprise Network Management
Department of State

Research Methodology

GBC and ServiceNow launched a qualitative research campaign in March and April 2019 that included a series of 30-minute interviews with federal government leaders regarding FITARA and related IT modernization efforts. The list of featured interviewees is as follows:

Carlene Ileto — Executive Director of Enterprise Business Management, Department of Homeland Security
Carol Harris — Director for IT Management Issues, Government Accountability Office
Maria Roat — Chief Information Officer, Small Business Administration
Gerald Caron — Director for Enterprise Network Management, Department of State
Francisco Salguero — Deputy Chief Information Officer, Department of Agriculture
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Endnotes


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