THE STATE OF FEDERAL IT 2018

Transforming Federal IT Organizations to Become More Mission-Focused, Innovative and Agile
The State of Federal IT 2018

Information technology (IT) is no longer just an enabler. Today, technology is fundamental to how federal agencies operate—and their ability to innovate. As the pace of technology change continues to escalate, IT’s role is rapidly shifting. In the most successful agencies, IT is leading the charge toward new business models and new ways of working.

Recognizing that government IT teams have an opportunity to step up as true transformational leaders, Accenture Federal Services (AFS) surveyed 200 federal government IT executives across both defense and civilian agencies. Our goal was to explore two fundamental questions:

1. Is federal IT serving the needs of the mission? In other words, are they collaborating effectively with other stakeholders to deliver the specific services and capabilities needed to execute the mission?

2. Is IT pivoting quickly enough to the new—including cloud, digital services, agile and DevOps, and shared services—to meet heightened expectations and more dynamic requirements?

We found that IT organizations are indeed making real progress in modernizing technology systems and infrastructures. They are adopting new approaches and are working to implement them within their organizations. Yet there is still significant opportunity to strengthen the alignment between technology and mission outcomes—and apply IT in new ways to meet escalating mission needs.

The stakes for federal IT executives have never been greater. Their growing ability to digitally transform government can empower their agencies to deliver upon the immense expectations of the American public. And while the enabling tools and capabilities that they need are now more accessible, they also face familiar constraints around budget and talent that will force prioritization.

Our research and experience show that success will require these executives to increasingly lead the cross-agency collaboration and goal sharing needed to operate natively in a digital world. At the same time, they must reorient IT to focus on both performance and impact. Finally, they need to reengineer their environment to become truly agile if they hope to take full advantage of accelerating technology advancements.”

Tom Greiner, Accenture Federal Services Technology Lead, on the challenges and opportunities facing federal IT
Change is happening—perhaps not quickly enough

Nearly 60 percent of survey respondents described the change in technology’s role in their personal lives over the past five years as either significant or transformative:

Over the past five years, how would you rate the amount, pace and scope of change in the following areas?

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<tr>
<th>Area</th>
<th>Significant Change</th>
<th>Transformative Change</th>
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<tbody>
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<td>Role of technology in your personal life</td>
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<td>Your agency’s IT infrastructure</td>
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<td>Your agency’s overall IT strategy</td>
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<td>Your agency’s IT organizational structure</td>
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<td>Your agency’s IT operating model</td>
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<td>Your agency’s mission and business operations</td>
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While change is underway, the impact within federal IT has not been quite so dramatic. For example, a smaller number of executives describe changes in their overall IT strategy (50 percent), IT organizational structure (48 percent), and IT infrastructure (51 percent) as equally significant or transformative. The reported changes in their agency’s mission and business operations or IT operating model (42 and 44 percent, respectively) trailed even further. These findings suggest that even as IT makes strides in modernization from a technological perspective, agencies still face delays in reimagining mission programs and the business processes that support them.

There’s a recognition that agile is the way to build new systems—what the software world calls Day 0 for design and Day 1 for implementation—but there hasn’t been enough IT strategy work around Day 2 operations. The day you drive a car off the lot, it’s a maintenance issue. It’s the same when you field a new system. It’s important to build a strategy and approach for continually assessing the cost effectiveness and improving performance in supporting the agency’s mission on an ongoing basis.”

Dominic Delmolino, former Accenture Federal Services CTO, on sustaining value
IT organizations still view themselves more as enablers than change agents

The survey findings indicate that even as technology is increasingly infused into every aspect of agency operations, most IT decision makers and influencers still see their organizations as enabling players. Fully 70 percent described their IT function as “Trusted Utility” or “Mission Enabler” when asked:

Which of the following statements best describes your agency’s role?

- **Mission Enabler** (One whose capabilities, forces, and resources contribute directly to the success of the mission)
- **Trusted Utility** (provides underlying or enabling services to business customers/citizens with consistent quality, stability and reliability required for continuous, fault-free operations)
- **Business Process Optimizer** (A group that uses a disciplined approach to identify, design, execute, document, measure, monitor, and control both automated and non-automated business processes to achieve consistent, targeted results aligned with an organization)
- **Change Agent** (A team that helps an organization transform itself by focusing on such matters as operational innovation and organizational effectiveness, improvement, and development)
- **Other**

Far fewer respondents—just 7 percent—characterized their IT team’s role as that of “Change Agent” despite the leading role that technology is increasingly playing in today’s digital world. What’s more, only 20 percent identified their team’s role as “Business Process Optimizer” or fully aligned with service delivery.

With technology becoming more deeply embedded and fundamental to agency operations, there is an opportunity for IT to exercise a more strategic leadership role. This is especially critical as agencies seek to adapt emerging technologies to advance specific mission and business requirements.

The issue we find with FITARA is that it places tremendous focus on CIOs ‘owning and controlling’ IT. While there is some merit to that, today’s CIO also needs to work in partnership with the business side of the agency to forge new ways of advancing the mission. It must be about co-creating, co-designing, and co-executing to drive success.”

**Dave McClure, Accenture Federal Services CIO Advisory Lead, on FITARA and the changing role of IT leadership**
Performance is strongest in traditional IT areas

In terms of working with diverse stakeholders to deliver needed services, respondents gave themselves “good” or “superior” rankings for the traditional “utility” functions of IT:

- **Protecting agency from insider threats/security breaches** (67 percent) and outsider threats/cyberattacks (66 percent)
- **Ensuring mission readiness through continuity of operations** (66 percent)
- **Ensuring mission readiness with 24x7 availability** through high fault tolerance (55 percent)

However, they ranked themselves lower on IT’s ability to contribute toward mission agility, including: integrating, automating, and digitizing key processes and services (47 percent) and ensuring business systems and processes are built to easily address changes in mission requirements and policies (41 percent). As “mission readiness” and “mission agility” become increasingly synonymous, these findings underscore the need to replace custom processes and legacy systems with more liquid applications and operating models (e.g., cloud-based, modular architecture, low-code, open APIs).
Citizen focus and customer experience (CX) seem to be lagging, with just 45 percent citing strong performance in giving employees an integrated, complex view of the customer to improve service delivery. And even though providing citizens with a multichannel user experience is often critical to delivering the intuitive, on-demand services they expect, only 40 percent of IT executives reported strong performance in this area.

IT executives also assessed their organization’s ability to lead innovation in their agency as middle of the road. Specifically, 46 percent described their ability to use emerging technologies to create or enable innovative mission-oriented products and services as “good” or “superior.” The same percentage was reported for their ability to enable more innovative operating models using emerging technologies.

**Funding, cybersecurity, and legacy tech remain top constraints**

What’s holding agencies back? Not surprisingly, respondents pointed to these issues as their top-three constraints:

- **Insufficient funding**, with 47 percent overall citing it as “very challenging” or “extremely challenging” and lack of funding representing a greater constraint for civilian (59 percent) than defense (36 percent) agencies.
- **Cybersecurity concerns** were cited as a top constraint by 43 percent.
- **Reliance on legacy technology** emerged as a major obstacle for 40 percent.

To what extent do the following factors pose a challenge to your department’s ability to support your agency’s mission goals?
Those challenges have been recurring roadblocks for many years. What’s more interesting is the next tier of constraints—namely, organizational siloes (38 percent), skill shortage (34 percent), restrictive policies and reporting mandates (32 percent), and ineffective collaboration/communication with mission/business/operations (30 percent). These factors point to an overly cumbersome and non-agile operating environment, especially in terms of collaborating with other stakeholders.

By comparison, a number of core or internal IT issues were viewed as bothersome but not debilitating. Among them: poor IT planning and governance processes (20 percent), poorly designed application and data integration (28 percent), and data sprawl, that is, fragmented data management that contributes directly to data inaccessibility, storage inefficiencies (29 percent).

Focusing on uptime over outcomes

We asked federal IT teams to rate their performance in terms of how they communicate or interact with mission, business, and operations stakeholders. In general, they gave themselves higher marks for reporting as opposed to more collaborative goal-setting. In fact, 46 percent rated themselves “good” or “superior” at reporting on performance to mission, business, and operations stakeholders. Forty-four percent gave themselves top marks for communicating the organization’s IT strategy to the same stakeholders.

While just 29 percent of respondents cited it as a significant constraint, I would argue that data sprawl is a real problem. Agencies frequently create copies of data that drive up costs not only for labor but also for storage, network bandwidth, and all of the code necessary to ensure that data is copied correctly. And at the end of the day, they still can’t access with confidence the information that they need to make strategic decisions or operate more effectively. I think that this low score points to unfortunate acceptance that limits agencies’ ability to fully leverage their data to become insight driven.” – Dominic Delmolino (former Chief Technology Officer)
In contrast, just 39 percent rated their performance highly for both transforming mission and business requirements into compelling business cases for new IT investment and separately for collaboration with mission, business, and operations stakeholders to set IT priorities.

While these differences may seem modest, we saw this operational focus echoed in reporting strategies. When asked about what types of performance metrics IT effectively tracks and reports on, it was clear that teams feel stronger at reporting functional metrics, such as budget and uptime, that are consistent with operating a utility versus more strategic measures for impact, performance, and outcomes that are often more valuable to mission or business stakeholders.

What type of performance metrics does your IT organization effectively track and report upon?

- Cybersecurity metrics (attempted intrusions deflected): 59%
- Overall budget: 57%
- Quality metrics (downtime, defect rates): 55%
- Project budgets: 51%
- End-user satisfaction: 46%
- Solution performance or impact (cost-savings generated, improved customer satisfaction): 38%
- On-time delivery rates: 36%
- Other: 2%
While traditional IT measures remain important, the survey findings suggest that federal IT teams have opportunities to evolve the metrics they use. Co-creation of metrics with mission, business, and operations stakeholders helps prevent “finger-pointing” issues while ensuring that all teams are focused on driving toward the right results.

Other forms of collaboration are likely to gain momentum as technology change continues to accelerate. Today, the technology available is often less a constraint. By engaging with business and program leaders—and identifying experts in the disciplines of service design and user experience—IT can enable greater value for the mission.

**Pivot to the New**

The survey asked IT executives about their urgency and prioritization in adopting a number of emerging IT technologies and management approaches for new IT. These focus areas were selected for the survey because of their often-cited ability to advance mission or business objectives and improve collaboration.

How important are the following to accelerating your agency’s IT function’s ability to quickly deliver effective solutions that meet your agency’s organizational needs?

IT executives’ responses indicated a stronger focus on modernizing IT operations—commercial cloud and agile & DevOps adoption—at the possible expense of deploying capabilities and approaches that more directly empower mission and business stakeholders. These other capabilities include self-service analytics, Software-as-a-Service, and design thinking.
Consistent with the importance placed on IT transformation is the pace of current adoption. Commercial cloud infrastructure and agile & DevOps adoption are both approaching majority status. However, other approaches—such as SaaS applications, digital platforms, and self-service analytics, which are potentially easier to deploy—are still closer to early stage maturity in government.

Notably, IT executives consistently reported real progress and success across the board in these endeavors, demonstrating IT’s ability to successfully adopt new technologies and approaches. This is particularly important as the pace of technological change is forecasted to accelerate dramatically.
The benefits of Shared Services and Centers of Excellence were widely recognized, with executives reporting the highest degree of success in their adoption. In terms of using technology business management (TBM) to provide improved cost transparency, a smaller number have embraced the approach but with the highest percentage reporting that their adoption met or exceed expectations.

Emerging technologies are no longer just a ‘wave.’ To borrow a quote from a colleague, ‘Digitization is a tsunami of change.’ It’s hard for the federal government to keep pace—especially in light of the need to reskill the workforce, shift from risk averse to risk tolerant, and increase efficiencies and interoperability within the IT landscape.

Five years ago, when I was serving as the CIO/G6 for the Army, we thought all things IT had to be government owned and operated. As we face the digital tsunami, there’s a growing recognition of the value of Software-as-a-Service (SaaS), Platform-as-a-Service (PaaS), and Infrastructure-as-a-Service (IaaS). These approaches just make sense. I personally am realizing that Everything-as-a-Service (EaaS) is the way to deliver IT.

The federal government can’t afford to invest in every rapid-fire technology advancements—but it can’t afford to miss out on them, either.”

Lt. Gen. Susan Lawrence (U.S. Army, Ret.), Managing Director for the U.S. Army and Air Force portfolio within Accenture Federal Services’ national security business, on the move from IT ownership to IT-as-a-service
Agile & DevOps: Strategic benefits, lagging maturity

While agile is a hot topic among federal agencies and IT teams, there were also signs for concern despite widespread adoption. For example, it received the largest percentage of “less than expected” and “much less than expected” responses for meeting expectations as well as higher scores for uncertainty.

When asked about the top benefits and drawbacks of agile, 56 percent said the ability to manage changing priorities is the top advantage of agile. Forty-seven percent cited organizational resistance to change and 46 percent pointed to insufficient training or skills as the biggest impediments. Conversely, management support or agency culture were not viewed as overwhelming obstacles to success. This suggests that while there’s willingness to embrace change at the top levels of agencies, workforce resistance is greater on the ground.

What are the biggest benefits of Agile & DevOps?

- Ability to manage changing priorities
- Accelerates the delivery of business value
- Improved product quality
- Integrate mission/business/operations stakeholders in solution development
- Increased team productivity
- Improved project visibility
- Benefits are insignificant

![Bar chart showing the benefits of Agile & DevOps](chart.png)
With most reporting focusing on the mechanics of agile, it can be easy to lose sight of why you’re doing it in the first place. It isn’t easy to get people to rally around, ‘Let’s be Agile.’ It’s more effective to build momentum around tangible goals: improving citizen service and delivering better mission outcomes.

The most successful organizations place adoption in a larger context. Rather than focusing on agile development, they’re shifting to an agile mindset. They know that developing better systems more quickly is a worthwhile goal. But it only delivers real results when those systems are deployed in organizations that are ready to use them to make a difference.

This nuance points to the opportunity for today’s federal CIOs to step up as transformational leaders who can guide not just their IT teams but their entire organizations toward new ways of thinking and working.”

**Greg Pfister, Accenture Federal Services Agile Institute Lead,**
**on shifting from agile adoption to agile transformation**
Commercial Cloud Infrastructure: Modest adoption, security concerns persist

Among federal agencies, commercial cloud is still in very limited adoption. More than half of respondents (54 percent) run 25 percent or less of their infrastructure in the cloud. Only one in five respondents can be considered pacesetters, with half or more of their systems running in commercial cloud infrastructure.

What percent of your agency’s computing environment relies on Commercial Cloud Infrastructure?

IT decision makers and influencers prize commercial cloud infrastructure for the scalability and performance it offers (cited as a benefit by half of respondents). Nearly as many (46 percent) cited cost savings/lower total cost of ownership as a key benefit. And despite messaging to the contrary, potential security issues—cited by 63 percent—remain by far the biggest perceived drawback. Forty-one percent also pointed to the related concern of vulnerability to hacks and threats. The reality of cloud security—which benefits from cloud service providers’ focused expertise and economics of scale—suggest these perceptions may be rooted in fear of change or loss of control.
What are the biggest benefits of Commercial Cloud Infrastructure?

- Better scalability & performance
- Cost savings/lower total of ownership
- Faster provisioning & deployment
- Supports more innovative & adaptive solutions
- Better reliability & fault tolerance
- Improved security
- Shift focus to more strategic requirements
- No long-term commitment
- Benefits are insignificant

What are the biggest drawbacks of Commercial Cloud Infrastructure?

- Potential security issues
- Vulnerable to hacks and threats
- Vendor or ecosystem lock-in
- System latency
- Data transfer costs
- Possible downtime/service outages
- Technical skills shortage
- Inflexibility of some cloud apps

For 38 percent, the risk of vendor or ecosystem lock-in represents a drawback to cloud, while 30 and 31 percent, respectively, are concerned about data transfer costs and system latency. Focus on those two issues may highlight constraints inherent in the Trusted Internet Connection (TIC) security model.
I’m not surprised by the survey’s findings that cloud uptake is still relatively low among federal organizations. I’m also confident that’s now changing—and the acceleration is rapid.

Yes, there are clear budgetary drivers for moving to cloud. With very few exceptions, security in the cloud is also far superior to what a single agency could achieve on its own. Beyond that are much larger opportunities to fundamentally rethink how operational processes are run and citizen services are delivered.

Many agencies are still approaching cloud migration with a lift-and-shift mindset, simply porting existing processes to a new environment. Instead, rethink and rebuild with a cloud-first approach.”

Christopher Copeland, Accenture Federal Services
Cloud Services Lead, on a future in the cloud

Shared Services and Centers of Excellence: Standardization prized, innovation more elusive?

More respondents’ agencies have fully adopted shared services than any of the other best practices. Process standardization, such as the ITIL standards*, emerged as the top benefit of shared services and centers of excellence, reported by half of respondents. Nearly as many (48 percent) indicated that cost reduction is a key benefit. The biggest drawback: the potential need for departments to compromise on specialized requirements (52 percent).

What are the biggest benefits of Shared Services and Centers of Excellence?

* ITIL is a set of detailed practices for IT service management (ITSM) focused on aligning IT services with the needs of business.
What are the biggest drawbacks of Shared Services and Centers of Excellence?

- Departments may need to compromise on specialized needs
- Support services may be less accessible to or appropriate for departmental staff (e.g., HR)
- Reduced control of admin services for participating departments
- Move to centralized location disrupts service flow
- Failure to coordinate demand and supply of service
- High implementation and transition costs

The survey findings seem to suggest that IT teams still view shared services as a way to drive back-office standardization and trim back-office costs. Maturity is lower when it comes to deploying true IT Centers of Excellence aimed at attracting talent and driving innovation—a reality that may change as the General Services Administration places growing focus on this area.

“Taking advantage of enterprise SaaS solutions for mission support functions, such as human resources, supply chain, financial management, and procurement, is often an effective way to get started with shared services. Sometimes agency adoption starts slow, but as long as you implement shared processes, software, and staff, you will achieve the economies of scale essential to higher efficiency and better results.

Public-private partnerships can be one of the best ways to jumpstart shared services. To get there, agencies will need to revisit termination-for-convenience clauses commonly found in today’s procurement policies. Doing so will give private industry assurance that it can recoup investment in years five and beyond—making partnerships attractive for the private sector and freeing up government resources to focus on true innovations.”

Angela Graziano, Accenture Federal Services Strategy Executive for Shared Services, on the power of sharing
Conclusion

In 2011, Internet pioneer Marc Andreessen wrote that “software is eating the world” to highlight the growing dominance of programmable software code within nearly every facet of our lives. The only thing that has changed in the interim is the velocity of this transformation. As a result, enterprises recognize as fundamental the need to digitize their operations to become more scalable, efficient, adaptive, innovative, and precise. This is equally true for federal agencies.

To thrive in this new era, federal IT leaders must prepare for dramatic changes in how they operate and deliver value. Fortunately, as our survey results demonstrate, they have shown a propensity to adapt, with many already successfully adopting new approaches.

Several overriding points are critical to making this successful transition:

- **IT LEADERS BECOME BUSINESS LEADERS.** The relationship between technology and mission outcomes has never been stronger. Therefore, IT leaders must use their unique understanding of technology’s potential and limitations to help their agencies envision the art of the possible and seize these opportunities.

- **EMBRACE NEW OBJECTIVES.** With technology so deeply embedded in the enterprise fabric, new partnerships and collaboration are needed. For IT, this means shifting to shared vision and objectives with a greater focus on impact and outcomes. One way to accelerate this transition is by forward deployment of IT talent directly into the mission, business, and operations where they can work together to achieve common goals.

- **PREPARE FOR CONSTANT CHANGE.** Continuous reinvention is a hallmark of the digital era. To succeed, IT leaders need to champion a platform vision that virtually eliminates the threshold to change. This requires liquid environments—liquid workforces, liquid data, and liquid applications—that move in concert to quickly meet new and emerging requirements.

*IT’s days as a mere enabler are over; in today’s complex and dynamic environment, IT must lead the way.*
LET'S GET TO WORK TOGETHER

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NOTES
1 The Accenture Federal Services State of Federal IT 2018 survey was fielded to 200 federal IT decision-makers in November-December 2017. All were employed by the U.S. Federal government with respondents split evenly between Defense-related and non-Defense-related agencies. All were involved in their agency’s decisions and/or recommendations regarding IT management and operations.
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