Digital transformation
Bridging the new digital divide
We have entered into the next era of technology—the digital age.

Comcast goes digital
Comcast built a new platform in 2014 to allow developers to focus on developing code, not assembling infrastructure. The number of applications on Comcast’s platform skyrocketed: from 40 applications in 2015 to 900 applications one year later. The Executive Director for Cloud Services at Comcast cited that the time required from ideation to delivery of a new feature in an application or product decreased to 2-3 days, down from multiple weeks. On their new platform, product scaling has been automated to meet business demands and now takes place in a matter of minutes, previously measured in multiple months.

If the purported results from early digital adopters are accurate, it is safe to conclude that public sector organizations that effectively transform to become digital will experience tremendous agility, and be able to deliver more efficient and effective citizen services.

Scores of private sector businesses across industries have transformed into digital organizations, leveraging digital capabilities to improve time-to-market and customer experience and engagement, while enabling real-time insight into data. While there has been scattered digital success among public sector organizations, public sector agencies overwhelmingly struggle to mature their digital offerings. Agencies that do not follow this digital journey are expected to experience tremendous headwinds that will become exacerbated over time as the expectations of citizens, employees and other stakeholders will grow as their digital experiences grow. As a result, Deloitte has set out to first understand and then to share the results from federal agencies that have already demonstrated success with digital transformation initiatives, in order to inform federal agencies that are considering digital transformations.

Overview
In times of transition and change, it’s more important than ever to have the agility to adapt and the courage to innovate. Now that the transition is behind us, the Trump administration’s approach takes center stage. Thus far, we’ve seen directives on immigration, federal hiring, cybersecurity, and foreign policy. This is a clear indication of this administration’s priorities.

Leading adopters from the private sector including Netflix, Facebook, and Twitter have effectively established digital DNA across their businesses—and achieved substantial business value. These early adopters have created the ability to rapidly deploy new business capability that allows them to act and react with great agility in the marketplace. As a result, more traditional organizations including Ford Motor Company, General Electric and Comcast have undertaken substantial transformation efforts to similarly become digital organizations.

Federal government agencies have noticed this industry trend and many have indicated an interest in transforming to a comparable digital operational model. Citizens have increasingly come to expect their service interactions with the government to be analogous to their consumer experiences. However, it stands to reason that effectively accomplishing such a transformation in the federal government may present more and different challenges than the commercial early adopters have encountered. As a result, there is considerable potential for a new digital divide to emerge—one where commercial companies effectively become digital, while federal government agencies get left behind. Kymm McCabe, a principal with Deloitte Digital, recently published an article that describes four revolutions that are simultaneously occurring to drive this global digital transformation imperative.
What is a digital organization?
A digital organization is one that has completely transformed its business services to fully leverage digital technologies and, as a result, has achieved a remarkable ability to develop and deploy new or modified business capabilities (i.e., services) very rapidly. This high degree of agility can provide government organizations with considerable benefits in terms of ability to adjust to changing regulatory and oversight conditions, and to provide enhanced services to citizens and employees. The diagram below provides additional clarity into the key characteristics of a digital organization. Leadership is critical to the establishment of a digital strategy and the gradual evolution to a digital culture. At the same time, an emphasis on diverse workforce strategies ensures the necessary skills are available to conceptualize, design, deploy and support digital services. Finally, users and other key stakeholders are placed at the center of digital initiatives. These characteristics work together to enable the organization to first establish and then maintain an agile approach to services from design through operations.

As one may expect, effective digital transformation is more of a journey than a single project. Deloitte Digital recently completed a global survey of government officials across the globe to identify the attributes of a digitally maturing government, to describe the characteristics associated with this journey, and to determine ways governments can accelerate their digital transformation. The chart below taken from the Deloitte global survey indicates that 76% of survey respondents believe digital technologies are disrupting the public sector and a whopping 96% also believe that this digital disruption is occurring within their respective domain areas.
Impact of digital

To what extent do you perceive digital technologies are disrupting the public sector

- Great extent: 76%
- Moderate extent: 18%
- Small extent: 23%
- Not at all: 16%
- Don't know: 8%

How much has your domain area been impacted by digital trends

- Great extent: 96%
- Moderate extent: 35%
- Small extent: 20%
- Not at all: 2%
- Don't know: 2%

In the context of government, the potential value of an effective digital transformation may even exceed that in commercial markets. Such benefits could be realized in several areas. The chart below depicts the broad value to citizens should their access to government services become digital. The experience of interacting with the government could become very much like we currently access banking services, entertainment, engage on social media or even request a ride across town. Another benefit could be in the ability to rapidly adjust government services and capabilities based on changing citizen demands or other conditions. Given the vast scope of government services—from social services and financial market monitoring to energy conservation, national security and intelligence—the ability to very rapidly adjust to changing conditions and deploy new capabilities to citizens or government employees could provide substantial benefits to these programs and their stakeholders.

To accomplish these objectives and realize the potential of a digital transformation, government agencies need to mature their organizations. Specifically, the Deloitte Digital maturity framework below depicts how government agencies should incorporate digital technologies into their core processes, talent engagement and citizen services models. It is across these areas that digital maturity likely needs to occur for government agencies to achieve the same or similar benefits as early adopter commercial organizations.

Potential of government digitization

- Increased citizen and employee engagement satisfaction
- Enhanced understanding of organizational needs and opportunities for collaboration
- Flexible modification of stakeholder services and capabilities
- Informed decision making via rapid access to digital data
- Increased productivity via cost and operational performance improvements
- Integration and innovation across every function
- Improved mission results through business intelligence and analytics

Great extent  Moderate extent  Small extent  Not at all  Don't know
What is a digital organization?
One thing is clear: digital transformation in government is not the same as with commercial organizations. After all, federal agencies have to contend with laws and regulations that govern their work. Federal agencies have broad constituencies or stakeholders that have considerable influence over the direction and services that these agencies provide. Not to mention the broad set of rules that federal agencies need to comply with such as the Federal Information Technology Acquisition Reform Act (FITARA), Federal Information Security Management Act (FISMA), Federal Acquisition Regulation (FAR), the Federal Risk and Authorization Management Program (FedRAMP), and seemingly countless others. As a result, Deloitte sought federal agencies that have effectively navigated a considerable digital transformation initiative to explore and identify the critical factors that led to results.

One such example is the Environmental Protection Agency (EPA). Deloitte had the opportunity to sit down with three of the key EPA leaders associated with this transformation—Stan Meiburg, Acting Deputy Administrator, Anne Dunkin, Chief Information Officer, and Robin Thottungal, Chief Data Officer—to discuss the digital transformation at the EPA. It was readily apparent that the passion and seasoned leadership perspectives that these three executives brought to the initiative made a big difference. But we’ll come back and explore the role and difference that leadership brings to a digital transformation effort.

Let’s begin with the drivers behind the need for change. Meiburg described the conditions behind the EPA’s transformation. The EPA was experiencing extremely tight budget constraints. In fact, the term “budget starvation” was used to describe the conditions associated with growing regulatory responsibilities, a flat budget, and increasing operational costs. Over a 10 year period, these constraints had forced the EPA to fulfill its mission with 20% fewer employees. At the same time, the EPA had experienced an explosion in the volume of data that it processed. As one can imagine, the processes enacted to keep our air and water clean—ensuring clean lands, providing oversight of contaminated site cleanup, and protection from pesticides and toxic substances—generate a massive amount of data. The EPA was drowning in an explosion of information. To make matters even more challenging, the data systems in use by the EPA were out of date and built years before such information explosion had been contemplated. As a result, EPA leadership believed the organization had no choice but to transform.

“The evolution from a technical objective to a collaborative approach to governing the interactions among key stakeholders made a big difference in navigating the potential pitfalls, and working together to overcome the challenges encountered along the journey.”

Stan Meiburg, EPA, Acting Deputy Administrator (former)
EPA’s Approach to Digital Transformation

The EPA approach to digital transformation recognized that change would be critical to overcoming these substantial challenges. For example, both Meiburg and Dunkin both indicated that leadership made a concerted effort to “create an environment to “reduce fear and risk of change” for the people involved. In support of this objective, leadership made an effort to talk to people, listen to their concerns, and engage in dialog to identify solutions. This leadership awareness and commitment to creating an environment conducive to change appears to have been a key component in the success equation.

Another key factor was the EPA’s approach to stakeholder involvement. Since the EPA delegates many responsibilities to the states, the relationship and involvement of the states in the agency’s activities have consistently been important. At the core of this interaction with key stakeholders is the exchange of data—loads of data at that. Through a collaborative approach involving the states and other stakeholders, the EPA developed new techniques to share the data. The EPA collaboratively developed and deployed a “one-stop-shop” for states, tribes and other entities to collaborate. This data exchange portal became the genesis of a new business model and process, and evolved from just another mechanism to enter and access data. In a rather insightful move, this data exchange modernization was deliberately leveraged to serve as a joint governance structure that involved many stakeholders and the EPA in a collaborative model. This proved to be a very important piece of the digital transformation success equation.

Technology and information technology (IT) leading practices also had a role in the digital transformation at the EPA. In my view, one of the most substantial impactful approaches was the recognition and approach to including digital transformation skills. In an astute leadership move, Dunkin took a strategic change management approach to the incorporation of digital skills into the organization. The approach had two important aspects. First, Dunkin sought the guidance from digital experts at General Services Administration’s (GSA) 18F organization. Second, Dunkin placed digital expertise directly on the project teams to ensure that each project had access to this critical experience throughout planning and execution. In addition to these two steps, the EPA also developed an Innovation Fellows Program to obtain access to innovators with digital transformation experience. Finally, as part of the transformation approach, the EPA embraced emerging technology leading practices including the use of APIs and Microservices-based architectures, user-centered design, Agile development and an iterative delivery approach. Ensuring diversity of viewpoints was important to overcome this cultural tendency, including participation from the states and key leaders including EPA’s then-chief technology officer, Greg Godbout. Leadership stayed focused on creating a change friendly environment and ensuring an inclusive, collaborative dynamic was maintained.

What made the difference?
The success of the digital transformation at the EPA is highly notable. Cultural tendencies and antiquated IT practices were overcome through the infusion of emerging leading practices, broad inclusion of stakeholders and just plain leadership. Let us isolate some of the more important aspects that may have had a substantial impact on the overall success at the EPA.

“We stayed focused on overcoming the cultural tendency to get it perfect before showing the users anything.”
Anne Dunkin, EPA, Chief Information Officer (former)

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Leadership, Leadership, Leadership

When it comes to change initiatives, we have so often heard the mantra that ‘support from the top’ is a necessary ingredient. While that is certainly the case, general support from the top may not be enough. We heard time and time again how it was a broad coalition of EPA leaders and key stakeholder leaders that worked together throughout the digital transformation. It was widely noted throughout our conversations, that the EPA Deputy Administrator, chief information officer (CIO), chief technology officer, chief administrative officer, and chief financial officer worked together and led their respective leadership teams to also work jointly to ensure the right environment for change was supported. Such broad leadership collaboration towards a common objective seems the exception rather than the rule.

User and Mission Focus

There is a tendency across industries, whether commercial or government, to get wrapped up in the latest technology (e.g., cloud, big-data, mobile, etc.) or technique (e.g., Agile, FedRAMP, rapid-prototyping, etc.). This generally leads to a technology driven approach that relies on the hope that driving such technologies throughout the organization will somehow magically lead to improved mission results. Rather than fall into this typical trap, the EPA focused on users and stakeholders as possessing critical experience and experiences that needed to be actively involved. Ultimately, the underlying commitment to collaboration with users and stakeholders through the modernization of the technology and IT practices seems to have made a major difference and kept the digital transformation at the EPA focused on achieving results that mattered to advance the mission.

Organization and Culture Change

We are very deliberate in the use of the word “change” rather than simply a focus on both organization and culture. The EPA’s leadership recognition that both organizational and cultural aspects needed to change for the digital transformation to be effective presents strong evidence of a very sophisticated approach to change management. Rather than focusing only on vague notions of organization and culture, EPA leadership adhered to core principles such as creating an environment conducive to collaboration and “fast failure.” Also, going beyond simple recognition that digital skills and experience needed to be involved to strategically address those gaps through a variety of approaches made a difference. The creative use of roles, project team structures and even the leveraging of human capital programs such as the Presidential Innovation Fellows (PIF) program came together to effectively overcome the organizational and cultural challenges that otherwise may have caused the effort to fail.

Strategic Approach to Talent

When it comes to transformation, too many leaders provide only lip-service to the importance and role of people. While their words are most likely sincere, what’s usually missing is a thoughtful approach to obtain buy-in and engagement from existing team members while also adding those skills required to ensure success. Dunkin articulated a well thought approach to addressing the need for some additional skills—in this case digital technology and process experience—with an innovative recruitment strategy through the use of the PIF program. This program is credited with enticing highly skilled people from the commercial sector to join the government, thereby providing access to experience and talent that would likely not otherwise be available. In addition, these highly skilled resources were dispersed throughout the organization to provide coaching and skills development. This approach reflects both innovation and creativity but was also geared towards the establishment of increased organizational capability and commitment—a strategic approach.

Built to Last

It became clear during our conversations that these EPA executives were thinking about long-term sustainability rather than short-term successes. From the thoughtful use of progressive human capital strategies such as the PIF program, to collaboration across the stakeholder community, there was an emphasis on ensuring gains would be built upon over time. Another example of this long-term mentality was expressed by Thottungal, who outlined a four step process to ensure continued progress. Through these four steps—create a vision, obtain buy-in, address skills, and ensure transparency—Thottungal described how the EPA gained organizational commitment through a broad coalition of employees. In so doing, the success was not dependent upon a single individual, whether team member or executive.

“It’s more like rowing a boat than heavy lifting. Everybody in the boat is pulling their weight and contributing to progress. You can take any one person out and put in another and the boat keeps forging ahead.”

Robin Thottungal, EPA, Chief Data Officer
Conclusion
What is the key takeaway here? In short, a combination of rather specific approaches were effectively embraced at the same time to overcome considerable detrimental forces such as lack of budget and organizational inertia. These techniques included: focus on the mission, broad stakeholder inclusion, user-centered design, agile development, digital experience, focus on change management, unconventional techniques to bridge skills gaps and addressing organizational barriers such as governance models and functional processes. Interesting to note is just how closely these techniques map to the chart to the left that lists the required skills identified in the Deloitte global survey. In one way or another, each one of these skills has been addressed with the EPA’s approach to digital transformation.

These are techniques that we’ve heard about before. So, why did they work for the EPA and not as effectively for many other organizations? In a word—collaboration. EPA leadership’s refusal to allow an “us versus them” culture and mentality to undermine the digital transformation and instead establishing a fundamental cultural shift towards an environment of collaborative and broadly inclusive change was the secret ingredient. In the end, this was the difference between the potential for yet another highly visible failure and what actually happened—the emergence of a repeatable model for effective digital transformation. In the end, technology was only an enabler—an accelerator for the journey. As such, technology played an important and appropriate role to assist the EPA in the accomplishment of mission and stakeholder-focused objectives—which is the point of digital transformation after all.

Contact a member of our team to learn how you can accelerate the digital transformation of your government agency.

Digital maturity framework

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Contact us:

Doug Bourgeois
Managing Director
Deloitte Consulting LLP
+1 571 814 7157
dbourgeois@deloitte.com

Kymm McCabe
Principal
Deloitte Consulting LLP
+1 571 858 1546
kmccabe@deloitte.com

Jerry Johnston
Specialist Leader
Deloitte Consulting LLP
+1 571 858 0059
jerjohnston@deloitte.com