FEDERAL VISION 2030

Four trends shaping the next generation of government now
YOUR FUTURE IS DYNAMIC

Today, a handful of commercial vanguards and upstarts are redefining how people evaluate everything in their lives. By disrupting traditional models of how they operate, these pace-setters are radically redefining what services they provide and how they deliver them. Extraordinary experiences are now everyday essentials, setting new standards for simplicity, speed, and value that citizens and employees have come to expect. Commercial competitors and government agencies alike are striving to keep up as expectations are continuously reset.

The commercial sector enjoys greater freedom to “move fast and break things,” using digital disruption to their strategic advantage.

Some agencies have embraced change and are seeing the benefit of disruptive models to deliver their missions and better outcomes in new ways—from predicting pandemic outbreaks before they happen\(^1\) to 3-D printing parts of military flight-critical components.\(^2\) And they are creating more value for citizens and empowering employees with exciting new ways to serve. Other less agile agencies fall behind in applying the latest technologies and approaches to reimagine the mission and business. When this gap widens, public trust declines and workforce engagement drops—and external adversaries may stoke these instabilities.

With wider forces at work to accelerate disruption, there is a widening gap between how the government and commercial sector embrace change.
So how do agencies go beyond discrete pockets of success to make change happen faster across their enterprise?

**FIRST, BE A FUTURIST.**
Look to the future to understand the forces at work and consider how it will impact your agency, customers, and workforce.

**SECOND, BE A CATALYST.**
Create the conditions that accelerate change and make (or create) opportunities to do things differently and more dynamically.

Agencies that embed a dynamic mindset and approach across their organization are better able to get ahead of change and make a greater impact. Accenture Research shows that public\(^3\) and private sector organizations\(^4\) that embed a dynamic mindset and approach share three qualities that enable them to be:

- **Adaptable:** Intelligent, self-learning tools, processes, and systems that continually evolve and adapt to a constant state of change.

- **Human:** Services and solutions designed for and around human needs, empowered by human + machine collaborations that unleash the potential in each partner’s inherent capabilities.

- **Boundaryless:** Breaking down barriers and rendering obstacles obsolete with relationships and ecosystems made more valuable and resilient with new and non-traditional partners.

Agencies that cultivate these qualities will exceed their customer and workforce expectations and be ready, relevant, and vital now and in the future.
There are key drivers compelling government to move faster to close gaps across critical dimensions, including expectations, innovation, workforce, and cybersecurity.

**KEY DRIVERS FOR ACTION**

**Citizen expectations are increasing.**
85% of citizens expect government to deliver the same, if not better, services as the private sector.⁵

**Our workforce isn’t ready for the work of tomorrow.**
Intelligent systems and machines are reshaping the nature of work; people will need new skillsets. Failure to close the skills gap could cost the U.S. $975 billion in the next 10 years.⁷

**Government innovation investments are being outpaced.**
Between 2012 and 2016, govtech startups globally raised a total of $1.15 billion, compared to fintech startups, which raised $41.9 billion.⁶

**The proliferation of threat vectors is putting all of us at risk.**
The number of Internet of Things-connected devices will likely reach 25 billion by 2021.⁸ As the Internet’s unevenly secured endpoints proliferate, confidence in Internet security is shaken—59% of public sector leaders globally say the Internet is getting increasingly unstable and they do not know how to react.⁹
EVERYTHING IMAGINABLE

So what will this future look like? We invited strategists, designers, technologists, researchers, and current and former federal executives to point to where the trends are heading in the next 10 years, how they will impact government, and what you can do to prepare your agency now.

Welcome to the future.

Data redefines relationships
Virtual is the new face of government
Trust is critical infrastructure
Authenticity is currency
Hallmarks of this trend:

- Increasing number of massive data sets
- Increasing investments in AI and machine learning
- Increasing pervasiveness of Internet of Things
- Increasing aging populations
- Increasing bio-connectivity
TREND 1: DATA REDEFINES RELATIONSHIPS

Where the trend is heading

A steady stream of data continues to digitize our lives at an ever-increasing pace.\textsuperscript{11} As data-informed interactions per person grow—expected to multiply more than 300 percent by 2025\textsuperscript{12}—agencies become more adept at capitalizing on their data in new ways to better serve their customers and workforce.

Agencies explore how to make the most of the structured data they have amassed over the years along with exponentially growing volumes of unstructured data—such as images and video—to create new dimensions of insight. The volume of more comprehensive data combined with the computing power of artificial intelligence (AI) and machine learning radically reduces the latency of information and allows agencies to produce more valuable insights, rapid action, and proactive solutions in real time.

With better insights into customers, the workforce, mission performance, and the trending environment, agencies become more agile, responsive, and effective. A constant flow of previously undetectable patterns and micro trends appear earlier to trigger alerts and generate recommended courses of action.

In this data-driven future, the quality of government decision-making enhances the citizen’s quality of life and the employee’s quality of work. Already, healthcare is emerging as an early win, with AI leveraging lifestyle factors to provide a more complete and evidence-based picture of health and preventative measures. Consider suicide prevention: AI can look at electronic health record data and public social activity to identify potential candidates for counseling. The U.S. Department of Veterans Affairs is looking at this data to predict and prevent suicides.\textsuperscript{13}
TREND 1: DATA REDEFINES RELATIONSHIPS

How will it impact government

Agency operating rhythms are challenged by the pace of persistent decision-making.

Agencies get decision-level information faster, which enables employees to act more quickly. Agencies look for ways to flatten the organization so employees can make decisions and deploy resources at pace with the speed of change across business lines and organizational boundaries.

The value of data spurs a culture shift.

With more insights at the fingertips of more employees, agency culture shifts to become more open, inquisitive, and risk-tolerant as employees share data and connect dots across the enterprise and across government. Citizens and partners will have access to similar information, which will improve the interoperability and impact of the entire ecosystem, as well as trust and confidence in government.

Person-centric data streamlines activities across all mission areas.

Each transaction offers agencies an opportunity to evaluate how user data might improve and what users should expect in return. Proactive agencies will engage citizens, partners, and employees to ensure shared user data is accurate, relevant, and required for future services. Data quality is a top priority as the need for clean, verifiable data increases.

AI insights create new value from collaborative collected data.

As more data becomes available to transactional systems, AI will be deployed around collected data assets to identify new efficiencies and insights. These AI agents take advantage of secure AI services made possible by the value of collaborative data.

Total worldwide data will swell to 163 zettabytes by 2025, 10 times the amount today. Nearly 20% of the data in the global data sphere in 2025 will be critical to people’s daily lives and nearly 10% of that will be hypercritical.¹⁴
VIRTUAL IS THE NEW FACE OF GOVERNMENT

Hallmarks of this trend:

- Increasing demand for experiences
- Increasing consumer and enterprise appetite for immersive technologies
- Rising importance of innovation and speed
- Increasing environmental impact concerns
Virtual and immersive technologies create new ways for people to live, work, and access services. The ability to be anywhere—via realistic, interactive, immersive digital experiences—makes distance less relevant. With emerging tools including virtual assistants and virtual training, citizens can access a world of services at their own convenience, from a range of devices. Agencies offer new service delivery opportunities for citizens. They will also tap into new talent pools and redefine roles, relationships, and ecosystems.

While virtual environments help agencies spread economic opportunity more evenly, new vulnerabilities—like hacking, spoofing, and outages—are introduced, especially coupled with increases in data collection.

The emerging “virtual agent” offers a glimpse of what this future trend will deliver. Agencies already are providing digital concierge services to enhance citizen interactions, delivering information and services on demand. Citizens can file a claim or get a question answered by talking with a chatbot and e-signing pre-filled forms. Agencies embrace self-service and enhanced service to create even more value and better outcomes—from tele-health, for example, to tele-everything.

The rise of such virtual interactions will have a profound impact on the human side of government, freeing workers from traditional constraints like geography and time. The Department of Defense is at the forefront of this future: Soldiers equipped with interconnected drones and extended reality (XR) goggles already are learning to operate in a hybrid virtual-physical environment. While technology will not eliminate the need for service members to deploy into high-risk environments, the effective integration of virtual capabilities in multi-domain operations could reduce real-world exposures and more effectively deliver all available capabilities at the decisive point of mission need.

Beyond emerging military uses, virtualization will have a profound impact across the civilian government workforce as well. Combining XR with AI dramatically accelerates how fast agencies can re-skill and cross-skill employees and improve their work by using this mix of approaches. Human services case workers were able to increase their learning retention by 45-60 percent compared to traditional learning methods.15
TREND 2: VIRTUAL IS THE NEW FACE OF GOVERNMENT

How it will impact government

Virtual service delivery adoption accelerates.

Agencies create new levels of customer service by shifting services from traditional offline delivery channels into the virtual world and using digital twin technologies. Agencies embrace agile approaches to design for users and to sustain adoption. Shorter service cycles enabled by VR/AR may raise citizen and workforce expectations even higher, creating more pressure for agencies to keep up. Teams build and strengthen demand by bringing together employees and customers together to design VR/AR-enabled services.

Virtual workforce teams will collaborate as easily and effectively as teams based in the same physical location.

For government workers who were frustrated by the pre-digital pace of work, virtualization will open new avenues of productivity. Virtual teams will embrace collaboration and cross-sharing of ideas and knowledge, empowering success and contributing to greater employee engagement and retention. Employee culture will thrive in turn, as more interactions become fast, convenient and intuitive. More recruits will find public service and federal agencies a compelling career option, bringing in critical new talent to deliver government missions.

Virtual training and on-the-job virtual assistants will help employees keep up with the pace of change.

New hires and newly transferred employees will be able to get up to speed faster, guided by augmented reality aids.

New skills will be required to design and create virtual worlds.

Virtualization will enable a new generation of workers to leverage skills like storytelling, user experience, design, and human and machine interactions. Employees will deepen their capabilities in creativity, socio-emotional intelligence, and complex reasoning—skills that are rising in importance across work roles through 2028.16

Wireless VR headsets (smartphone-based and standalone) data consumption will grow by over 650% over the next 4 years, from nearly 2,800 PB (petabytes) in 2017 to over 21,000 PB in 2021.17
Hallmarks of this trend:

- Increasing number of sensors
- Rising number and cost of cyber threats
- Increasing attack surface
- Increasing role of non-state actors
Where the trend is heading

While the data-powered, virtual world vastly improves how people work and live, it introduces new vulnerabilities and threats continuously. A new age of insecurity triggers backlash when services and platforms prove—or are perceived to be—compromised. Data, relationships, and trust are disrupted between citizens, employees, agencies, and partners. People and organizations take steps to disengage and isolate their data and systems to avert risk.

As the guardian of public data, government sits at the forefront of a social evolution. In this future, anyone is vulnerable to the impact of a cyber breach or attack, especially those without the means or knowledge to manage risks and take early advantage of capabilities that help provide protection. Lower-income and elderly citizens along with small- and medium-sized organizations are more frequent targets for cyberattackers and provide an unwitting vector for attacks on vulnerable groups. The emotional strain and financial hardship involved with repairing data, identities, reputations, and relationships for citizens and agencies alike make cyber an increasingly vital issue. And the cost of cyber protection introduces new barriers to entry, which could limit economic growth in certain sectors.
TREND 3: TRUST IS CRITICAL INFRASTRUCTURE

How it will impact government

A cyber poverty line becomes a widening gap between cyber “haves” and “have-nots,” those who can safeguard their digital selves and those who lack the resources to prevent, detect, and mitigate attacks. By 2020, 5 billion personal data records are projected to be stolen globally, up from 2.8 billion in 2017.18 This puts business, government, and people at risk and reshapes the digital divide. Agencies take full, early, and equal advantage of rapid advancements in commercial cyber capabilities to close the gap with the “haves,” creating confidence in how they operate.

Fallout from the damage caused by cyberattacks prompts agencies and partners to curtail sharing data and investing in new ideas.

This leads to a digital retrenchment, stunting innovation and economic growth. Agencies and their ecosystems will constantly struggle to keep pace with new threats and may find themselves unable to vouch for the security and resilience of their systems.

The gap between industry and government data-collection efforts and cybersecurity restrictions will continue to grow in the absence of consistent policies between government and industry. Left unchecked, bad actors would have little to inhibit their civil rights violations, criminal activities, and exploitation of the less fortunate.

Digital services demand a trusted digital identity.

The future of digital government depends on a certifiable digital identity and authentication that are reliable, accurate, and convenient. Estonia and other nations around the world are making headway. Government seeks to secure digital services—whether as a centralized, national model or through a decentralized approach via ledger technologies like blockchain—so agencies can operate with the full confidence of citizens and federal workers. Citizens are more willing to opt in to secure ecosystems in return for high-value services.

Everyone shares the responsibility of securing the ecosystem across all dimensions of the cyber challenge.

As more of the federal government becomes digital, virtual, and data-driven, each partner in the ecosystem will need to consider data privacy, security, consumer protections, infrastructure investments, and economic growth and innovation to lay the groundwork for a holistic framework and strategy. A collaborative approach is key: 86 percent of federal leaders agree that organizations in different sectors will work together more in the next three years to improve cyber-resilience overall.19

Dependence on the Internet is growing while confidence in Internet security is low and forecast to drop to 25% over the next five years.20
TREND 4

AUTHENTICITY IS CURRENCY

Hallmarks of this trend:
• Eroding public trust in institutions
• Increasing concerns of deep fakes and synthetic realities
• Continuing waves of populism and polarization
• Widening gap of wealth inequality
Citizens, employees, and governments seek to find their footing in a fragmented, volatile, and competitive global landscape. The proliferation of misinformation, faux campaigns, and disruptive actions of non-state actors are common. In the digital world, it is increasingly difficult to determine what or who is authentic and legitimate, versus a compelling copy. The line between what is real or true and what is fake continues to blur.

The widening gap between rich and poor, a wave of populism, and faltering trust in public institutions all combine to put the nature of objective reality into question. Already under pressure to protect against misinformation, government continuously seeks new ways to monitor and counter misinformation, manipulation, and the proliferation of “deep fakes” while taking steps to increase public understanding and trust.

Defense, intelligence, and law enforcement agencies already are seeking new techniques to analyze exponentially increasing amounts of data, while also finding ways to effectively and quickly assess the authenticity of information. The Defense Advanced Research Projects Agency, for example, is seeking ways to protect machine learning tools from attacks so that systems accurately analyze information and provide the best outcomes.
TREND 4: AUTHENTICITY IS CURRENCY

How it will impact government

Fake is the new real.
As more of our daily routines as citizens and workers are enhanced by AI, machine learning, and other emerging technologies, we will see increasing concerns about how to decipher true versus false. What is genuine versus what is manipulated? Where does “assistance” end and “influence” begin? Citizens and employees alike seek reassurance.

More agencies join the front line of countering influence.
Agencies will be the tip of the spear that protects citizens, the workforce, and government resources from malign influence and manipulation. In addition to safeguarding data and processes, agencies build the mechanisms to proactively engage with partners to help preserve the integrity of their reputations, data, and services.

Data nationalism is on the rise.
In response to such concerns, organizations and countries will take steps to isolate their systems and cut off the free flow of data across borders. Already 13 countries, accounting for 58 percent of the global GDP, have some version of these regulations. Heightened concerns about borderless cyberattacks, coupled with geopolitical tensions, threaten to spur more restrictions and put economic growth and global innovation at risk.

A skilled workforce is paramount.
To ensure authenticity in the citizen experience, agencies use a range of tools—education and training, reskilling, and upskilling—to build a digital-literate and highly skilled workforce, the future stewards of digital authenticity. They, in turn, will be well-positioned to help citizens find their way safely through the gray and uncertain spaces.

A report from the Reuters Institute for the Study of Journalism at Oxford revealed that in the U.S., 41% of those surveyed said the government should do more to make it easier to detect fake information online.
CHANGE IS OPPORTUNITY

Change creates opportunities to do things differently. Agency leaders can help their agencies take on—and take advantage of—change with a dynamic mindset and approach.

Capitalize on the benefits of a dynamic mindset and approach now by aligning key dimensions of your agency with the broader organizational and cultural shifts of becoming adaptable, human, and boundaryless. There are several practical steps that government leaders can take to assure that their mission and business meet expectations and requirements today and in the future.

With a dynamic mindset and approach, federal leaders can move confidently toward the future and shape the next generation of government for a more vibrant society, a thriving economy, and a secure nation.
So how do agencies go beyond discrete pockets of success to make change happen faster across their enterprise?

**INNOVATION**
Create a culture of continuous reinvention. Disruption is inevitable. Preempt it by producing a steady stream of future-forward pilots. Start small with efforts that demonstrate the art of the possible but do not require wholesale change. Use human-centered design to understand and fulfill user needs. Prove value quickly with working prototypes, and deepen buy-in by engaging ever-wider circles of stakeholders.

**DATA**
Make data the soul of services. Balance the drive to uncover potential in massive amounts of data with disciplined due diligence that keeps asking “for whom” and “why.” Leaders can drive innovation, foster agility, and increase meaningful productivity, while improving the lives of citizens and the workforce. Put “human” considerations into decision-making by focusing on value and outcomes.

**RESPONSIBILITY**
Advocate for the ethics of everything. Ethical considerations lie at the heart of navigating data ubiquity and the adoption of intelligent and immersive technologies like AI and XR. In a world of constant change, you need a true north star. Build ethics in from the start. And be vigilant in removing human bias from AI algorithms to ensure they are ethical, transparent, and accountable to protect privacy, decision-making, and trust.

**ECOSYSTEM**
Power your force multiplier. Don’t face the future alone. Engage a wider ecosystem of nonprofits, startups, digital-savvy companies, and crowdsourcing platforms to support innovation in your agency. Advance your innovation agenda by sharing your agency’s expertise with outside partners and adapting your contracting approaches to invite in a wider range of potential providers and solutions.

**PEOPLE**
Empower your workforce and shift to high-value work. Transition employees to higher-value work with greater impact by automating their underlying rote tasks. Dynamic reskilling and new approaches to learning are key as the velocity of change increases. Solicit their insights for your planning, and explain why there is a need to change. Incorporate XR and AI to dramatically accelerate how fast you can re-skill and cross-skill employees and improve their work.

**TRUST**
Make security an above-and below-ground priority. Trust is the cornerstone of government functions. Ensure that devices throughout your networks—and especially near the edge—are designed to accommodate continuous security updates. And apply AI and security automation and orchestration to detect threats and act at machine speed.
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