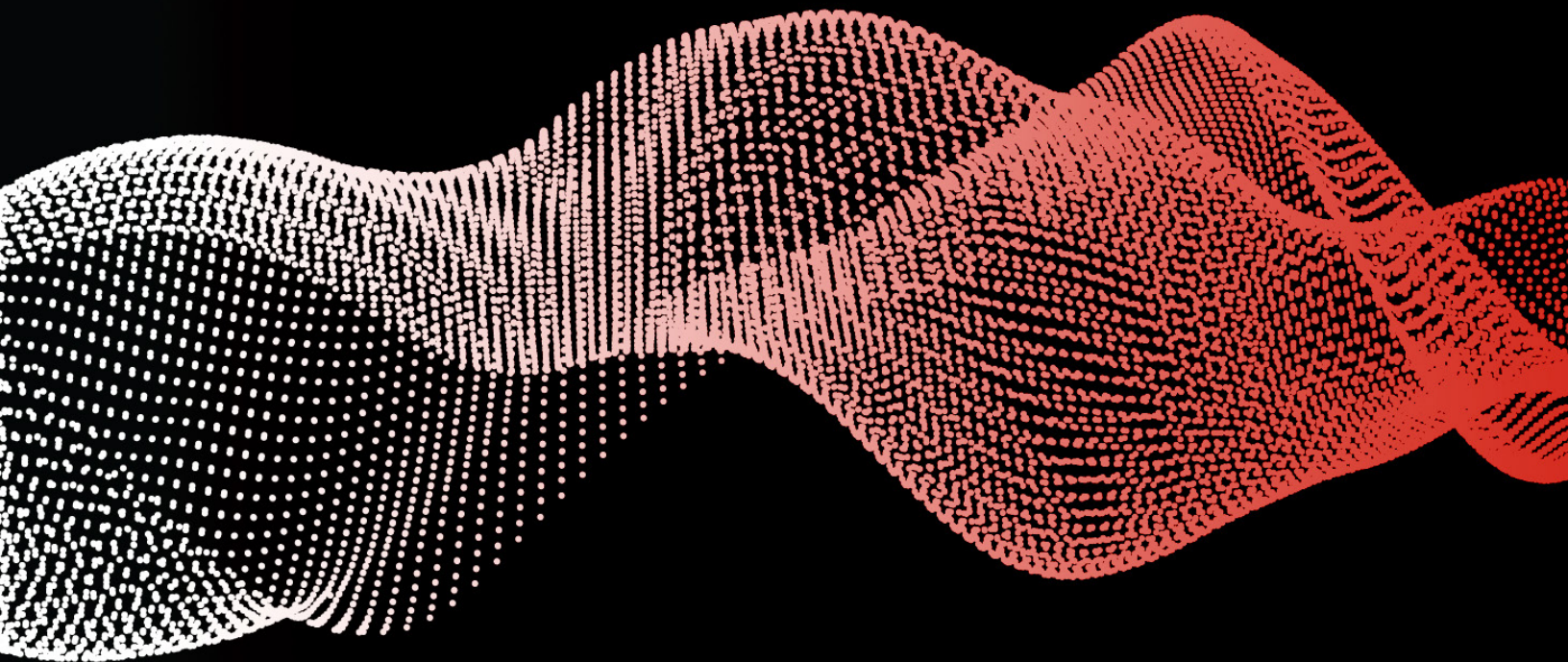


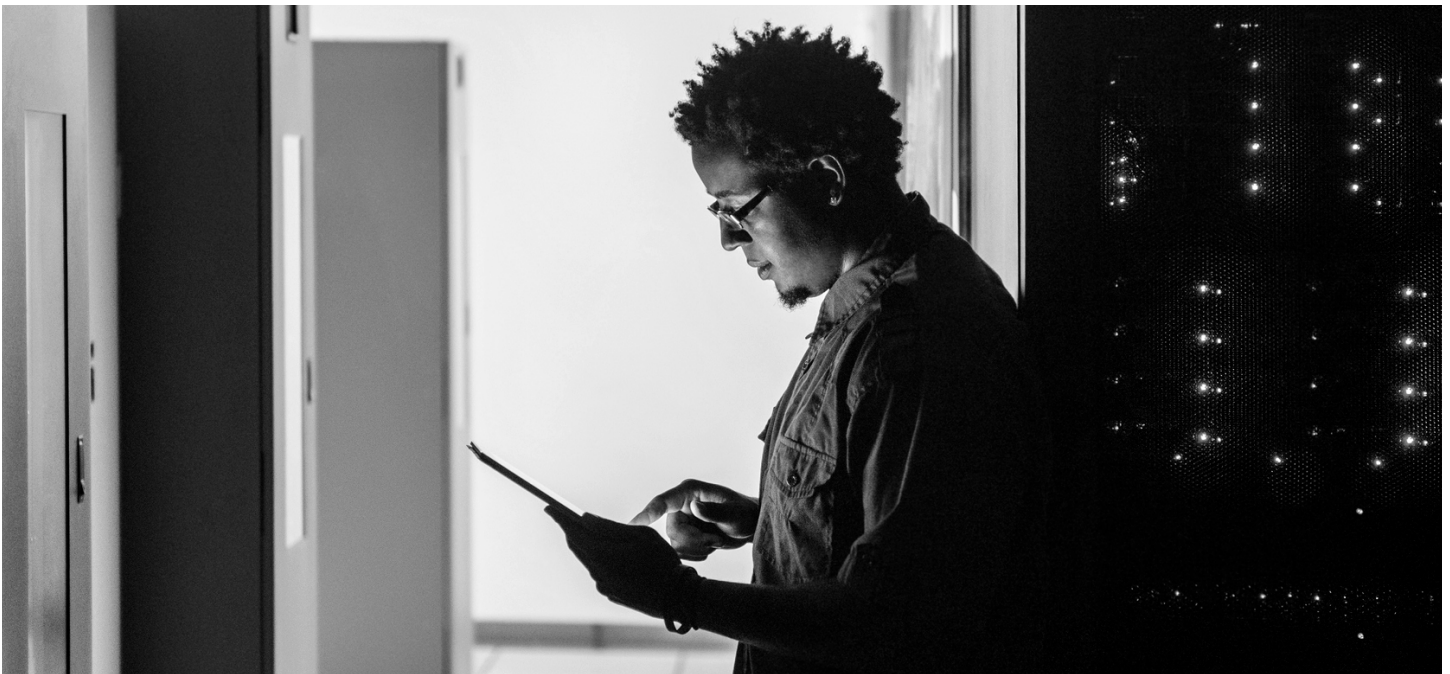
Getting your department ready: A roadmap to digital empowerment



What makes an organization ready for the future?

Is it efficiency? Connectivity? Innovative thinkers in the public sector understand that readiness is not static. Teams need tools that help them work better. They need cyber defenses that neutralize threats proactively. Sensors and software should optimize decision-making. Solutions must live up to their name.

Readiness is constant, and being public sector ready never ends. It's also never too late to start.



A personalized digital experience for constituents is a top-three priority for 66% of public service leaders, and 53% of public service organizations are already seeing a positive return on their personalization investments.¹ Digital transformation is a continuous journey that helps elected leaders and department heads not only drive change within their organizations, but across their entire communities.

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Gartner forecasts that 14.2 billion connected things will be in use in 2019, and that the total will reach 25 billion by 2021.² With so many points of connection, and with 5G expected to provide unprecedented network speed and throughput, constituents' expectations of their community leadership will evolve and new threats will proliferate alongside them. The task is to envision what experiences you want constituents to have in five or 10 years, and lay the foundation to get there. Readiness is for today, not tomorrow.

Technology providers often focus only on their niche and rarely look at the big picture. While some may offer full-stack solutions, few know how to offer the level of interoperability needed to serve the missions of public sector organizations. Integrated solutions tailored to the public sector are not just important, they are essential.

Readiness touches every part of your organization, at every minute of the day, even after everyone goes home. Preparing for an always-on public sector is complicated, but with the right roadmap, deep, meaningful digital transformation is possible. Properly equipped, organizations can feel they not only can keep up with, but anticipate, the changes and challenges to come.

In this paper you will learn...

- Why continuous digital transformation is critical for success
- How digital-savvy organizations approach getting ready
- Why digital transformation is a play in five acts
- Why your organization must prepare for 5G
- The next steps in your digital journey

¹ Accenture, A Digital Government Perspective, July 2015.

² Gartner Press Release, Gartner Identifies Top 10 Strategic IoT Technologies and Trends, November 7, 2018.

The rationale for Ready

The case for digital transformation emerges from profound shifts in how technology is deployed and used across the public sector and society at large.

Cloud migration

Governmental organizations are migrating from inefficient data centers to the cloud, sparked by the Data Center Optimization Initiative (DCOI), a federal project requiring agencies to shift to cloud-based infrastructure in order to better serve the public good, while increasing ROI to taxpayers. Thirty-nine percent of governments expect cloud services to be a technology area where they will spend the greatest amount of new or additional funding in 2019.³ Such shifts indicate a growing level of comfort with offsite storage solutions, but with adoption comes risk.

Security

To bad actors, an explosion in the points of digital connection represents an explosion in opportunities for cyber intrusions, also known as “threat vectors.” With distributed applications spreading across digital ecosystems, the surface area for cyber attacks is growing. In 2018 Verizon analyzed 41,686 security incidents, of which 2,013 were confirmed data breaches spanning 86 countries.⁴

Of governmental organizations surveyed by Verizon, 82% said the risks associated with mobile devices are serious and increasing.⁵ Meanwhile, 33% of public sector organizations reported being compromised, and of those, one in five described the consequences as “major.”⁶ Poorly configured servers practically invite bad actors inside.

CX

Accustomed to the growing ease and convenience of online tools and services, the public, too, is demanding better digital solutions from their elected officials. In one study, 39% of respondents said governments “are not doing enough” to follow the private sector’s lead with respect to quality digital experiences.⁷ Constituents expect the convenience, speed and personalization they already receive from the private sector.

Public sector employees expect services and solutions that can help them do their jobs correctly and efficiently. A recent survey of 388 government employees from federal, state and local levels found that increased productivity, improved safety and security, and better customer/citizen service were among the top drivers of digital transformation efforts.⁸

³ Gartner Press Release, Gartner Predicts By 2023 Over Half of Government IT Workers Will Occupy Roles That Don’t Exist Today, March 6, 2019.

⁴ Verizon, 2019 Data Breach Investigations Report.

⁵ Verizon, Mobile Security Index 2019.

⁶ Ibid.

⁷ KPMG, Twitter-based polls targeted at users in the U.S., U.K., Canada, Germany, Australia and India, Oct. 2016 - Feb. 2017.

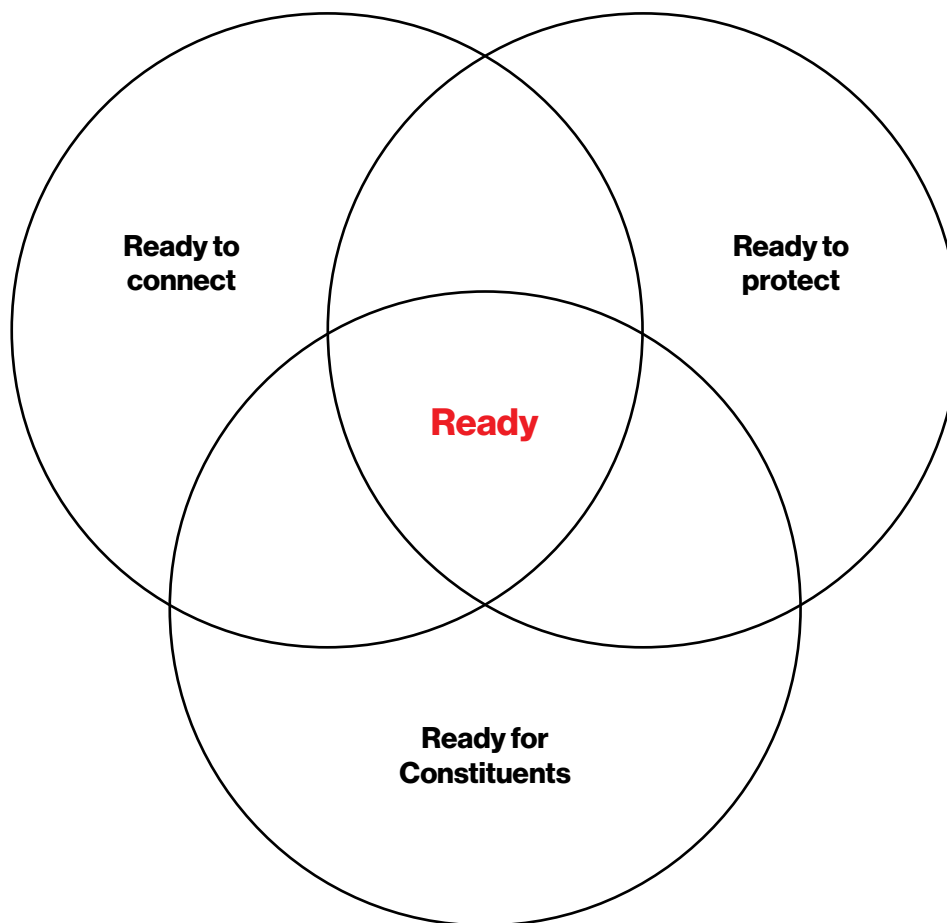
⁸ Government Business Council, Digital Transformation in the Public Sector, 2019.

Despite these worthy goals, the same study found that nearly 50% of respondents believe their organization trails other departments when it comes to adopting new technologies for transforming business processes.⁹ A majority of respondents lack confidence that their organizations have all the right ingredients to achieve successful IT transformation, with 53% identifying as only “slightly confident” or “not at all confident” that existing processes will enable them to complete the journey.¹⁰

Fortunately, opportunities for impactful digital experiences are increasing for government employees and the general public alike, thanks to the proliferation of innovative new technologies. Public sector thinkers should be looking at digital solutions that allow them to grow and stretch to achieve things they never could before. Again, it’s not whether these changes are coming, but whether you’re ready for them.

Approaching Ready

Government organizations that successfully tackle the essential work of digital transformation view their mission through three lenses: Connection, Protection and Constituent Experience.



⁹ Ibid.
¹⁰ Ibid.



Connect

Being ready to connect goes beyond Wi-Fi and WAN. It's a reset around what it means to meet the world beyond your walls – both physical and virtual. Whether you're migrating databases to the cloud or exploring how mobile edge computing can help power new, immersive disaster preparation experiences, being connected is being ready to react.

Protect

Readiness to protect is top of mind at the federal, state and local levels. Government organizations have realized – at times painfully – that the reputational hazard of a data breach is far too great for security to be treated as just a line item on a budget. Left with clunky and ineffective apps and tools, government employees will find ways around those handicaps to get their jobs done – sometimes unfortunately outside of their agency's networks. This only makes the problem worse.

And while mobile devices might not always hold much proprietary data, they are increasingly used to access core business systems holding constituents' and employees' personal data and other sensitive information. The break-neck pace of digital innovation requires organizations to think about securing their operations in bold new ways that extend far beyond the firewall.

Constituents

Being ready for constituents is perhaps the most challenging and exciting work of all. Offering a reliable and valued public service is table stakes. Offering that service with a strategy backed by sound, actionable intelligence – and with the ability to adjust both the strategy and even the service level in near-real time – is the new yardstick. And when agencies harness the power of 5G, transformative new ways of serving the public will emerge.

5G is more than the next generation of wireless connectivity. It's the seed of a revolution with the potential to transform both society and numerous industries in remarkable ways. From augmented and virtual reality to self-driving cars, remote telemedicine to a fully realized Internet of Things, the viability of these life-changing technologies will depend on the ultra-low latency and lightning-fast speeds of 5G. Its wide-scale adoption will upend old models and drive previously unimaginable innovations. The doors that 5G will open for society are predicted to be so profound that this network technology has been called the key ingredient for the Fourth Industrial Revolution.

The power to act

In anticipation of these massive digital shifts, leadership must start questioning their missions through the lenses of Connection, Protection and Constituent Experience. Only then will they be prepared to start asking some challenging but exciting questions of their organizations.

If you could bring VR experiences to classrooms, how might you rethink K-12 lesson plans? How might your first responders' skill sets evolve if drones could arm them with critical intel from a flooded neighborhood en route to the zone? What if an Air Force mechanic could use VR tools to help repair landing gear hundreds of miles away? How might a well-deployed army of IoT sensors help inform safer, more intelligently designed intersections?

Any agency can consider these questions, but not all are prepared to act on them. That's why digital transformation must be a strategic journey, with clearly defined steps, states and milestones. Being ready means having the right insights – and the right partner – to help you strengthen operations, deepen relationships and safeguard your community.



The five states of Ready



Ready to start

Ready to adapt

Ready to elevate

Ready to innovate

Ready to disrupt



Ready to start

The first step of digital transformation is to start – but where?

For some, this might mean overhauling and managing voice communications via a voice over IP (VoIP) solution. An integrated, reliable phone system lowers costs and streamlines mobility, video conferencing and online meetings. It also enables fast action and improves responsiveness to constituents and the workforce.

For other agencies, getting started might involve improving infrastructure security by way of surveillance solutions. Traditional video surveillance requires significant investment for proper camera installation, data storage and live monitoring. An Intelligent Video solution makes monitoring more affordable and efficient, recording high-quality footage that can be cloud-stored and analyzed in near-real time with edge analytics. From public spaces to critical facilities, Intelligent Video enables shorter response times and more effective interventions.

At this state of ready, government offices may also find it necessary to migrate from copper wireline to fiber to accommodate evolving global network infrastructure.

Product spotlight:

Responder Private Core

In times of crisis, emergency response teams rely on the strength of their communications. When lives are at stake, seconds count, and critical information can't be delayed. Responder Private Core segregates public safety data from commercial and consumer traffic, helping the lines of communication remain open for public safety personnel. Emergency teams also can take advantage of Preemption and Private Network Traffic Management (PNTM) services for priority access. Private Core technology is working for first responders even before they arrive on the scene.



Ready to adapt

The second state of digital transformation involves being ready to adapt. This is the kind of behind-the-scenes work that may never be noticed by the public – and that's precisely the point. The changes at this stage help agencies make their IT more agile, secure and efficient, driving better performance from every level of the organization.

Organizations must prepare to migrate data to the cloud, where software-defined networking in a wide area network, or SD WAN, can bring together distant and disparate assets more efficiently and securely. Since management is centralized, orchestration of an entire network is easier – from provisioning to maintenance to upgrades.

The rise of cloud and mobile technologies is driving the demand for a better-performing WAN. As your organization races to securely deliver real-time intel to more people in more places on more devices, the need for bandwidth on demand is skyrocketing. Traditional WANs – typically built on aging protocols, rigid routes and racks of hardware-intensive appliances – are simply not flexible enough to keep up.

With an SD WAN in place, your teams shouldn't be burdened with ongoing network maintenance. A suite of Managed Network Services can help your network adapt on the fly to changing service levels and bandwidth demands using software-defined policies. Layering on top a smart suite of WAN optimization services can help improve the performance of the most demanding apps, whether in-house, externally hosted or in the cloud.



Ready to elevate

The third state of digital transformation is being ready to elevate. For government bodies that must consider supply chains and the delivery of services to their constituents, a next-generation fleet management solution can drive better efficiency, increased productivity and improved safety for vehicles and drivers. Sophisticated mobile resource management software can help produce significant efficiencies at the pump and on the road.

For procurement officers, establishing a secure chain of custody is crucial to combatting wastage, minimizing costly write-downs and delivering on time with peace of mind. A truly intelligent supply chain is one that reduces blind spots at every plot point and accounts for every set of hands a shipment or software passes through along the way. Insight from IoT sensors can capture crucial data, powering decisions that result in more on-time deliveries and more efficient shipping schedules, and with 5G-powered computer vision, these processes will become even more precise and scalable.



Ready to innovate

The fourth state of digital transformation is about being ready to innovate. This goes beyond improving operations, helping you push your department to embrace new, innovative ways of getting the job done.

As organizations evolve, leadership will be equipped to determine what their constituents and workforce value most, and orient their digital transformation around that north star. Increasingly, preparedness in the public sector will be demonstrated not by how well your organization reacts to the needs of constituents and your workforce, but how well it anticipates and addresses them before they're even expressed.

To that end, many municipal governments are investing in Digital Kiosk solutions to inform, engage and alert the public. By providing essential information – transit schedules, walking directions, guides to nearby shops and restaurants – these kiosks have quickly become invaluable resources to residents and visitors alike. Beyond improving communication and supporting local businesses, they also help ensure public safety by offering rapid, reliable connection to emergency services.

In time-critical emergency response situations, essential data is often siloed or scattered across unlinked dispatch records and databases. A Real Time Response System connects disparate data sets to enhance situational awareness. Integrating multiple sources into a single operating view increases communication and collaboration among sectors and shifts your stance from reactive to proactive, heightening planning, readiness and response potential.



Ready to disrupt

The fifth and final state of digital transformation is being ready to disrupt. Government agencies at this stage will begin to adopt the latest technologies to design truly revolutionary operational models. For these communities and their leaders, the goal is not simply to increase public safety or municipal efficiencies, but to make comprehensive improvements that revitalize cities, attract new businesses and investors, and elevate the quality of life for all constituents.

As 5G paves the way for an all-new era of connectivity, the demand for smart-city services – from healthcare to transportation to energy security – will skyrocket. 5G will fundamentally change the way many governmental agencies approach public services, infrastructure improvements, utility management, military deployment readiness and more. From grid upgrades to streamlined parking and toll payments to better Wi-Fi throughout public areas, cities will become more responsive to the needs of its populace, and more active agents in their own maintenance, upkeep and growth.

The MEC advantage

5G will greatly impact smart city solutions, smart military bases, public safety and countless other critical application areas. At scale, passenger cars can potentially sense the presence of pedestrians and brake automatically to prevent catastrophe. Traffic signals will delay red lights to avoid dilemma-zone accidents. First responders will send data from a crash scene to the ER in near-real time, helping staff put resources in place more quickly and effectively. A key enabler of these potential breakthroughs will be mobile edge computing, or MEC. Edge computing involves performing complex functions closer to the user, and away from decentralized servers. Think of edge computing as a means of pulling the cloud closer. By shortening the distance that heavyweight data must travel, network latency can be greatly reduced. When data is processed at the edge of the network, real-time situational awareness can drastically improve – a crucial advantage when split seconds count.

5G First Responder Lab

To spur innovation in the first-response space, Verizon partnered with ResponderXLabs to launch the 5G First Responder Lab, an incubator based in Washington, D.C., that seeks to identify and develop solutions that may meet the most pressing needs in emergency response. From critical communications to situational awareness to AR- and drone-assisted rescue and recovery, the technology emerging from the 5G First Responder Lab has the potential to enhance emergency workers' ability to prepare for calamities, help communities restore vital services in the wake of disasters and improve existing defense systems to prevent future loss.



5G-enabled technologies will also transform the classroom experience. Augmented and virtual reality may soon become key components of every student's curriculum. These immersive experiences will heighten engagement, increase hands-on learning opportunities and virtually eliminate the geographical and socioeconomic barriers to quality education.

Starting your journey

Clearly, digital transformation doesn't happen in a vacuum, and communities that undertake it should not have to go it alone. The work demands the expertise and objectivity of a nimble partner – one who can make a quick, pragmatic assessment of the landscape, apply solutions and stay on board to see them through.

This work requires data-derived intelligence and deep knowledge of public sector verticals. Powerful applications must simplify processes, not complicate them. Next-gen networking has to connect an organization's IoT solutions. The traditional security model must be updated to meet tomorrow's challenges. Government agencies need threat intelligence and industry research to be gathered and presented in a way that puts their organizations on proactive footing.

Ultimately, this work requires a partner that not only knows the network, but that is the network.

Why Verizon to empower your department?

Verizon works relentlessly to understand our customers' needs. We reach across divisions and silos, helping organizations at every step to apply tomorrow's technology solutions to today's most pressing challenges.

We live for this – teaming with organizations of all types and sizes to deliver transformative change, and make innovation an integral part of their operations. Working collaboratively with our clients and their teams across functions, we help to efficiently and securely integrate digital into clients' operations.

At Verizon, our goal is to deliver the promise of the digital world by enabling people, businesses and society to innovate and drive positive change. When our mission aligns with our client's mission, amazing things happen.

Federal, state and local agencies choose to partner with Verizon because we possess the right technology and expertise to transform their departments, helping them move from legacy analog organizations to nimble, digital disruptors.

People think of us as a phone company. Our customers think of us as a technology partner. Let us show you why.

Let's talk.

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