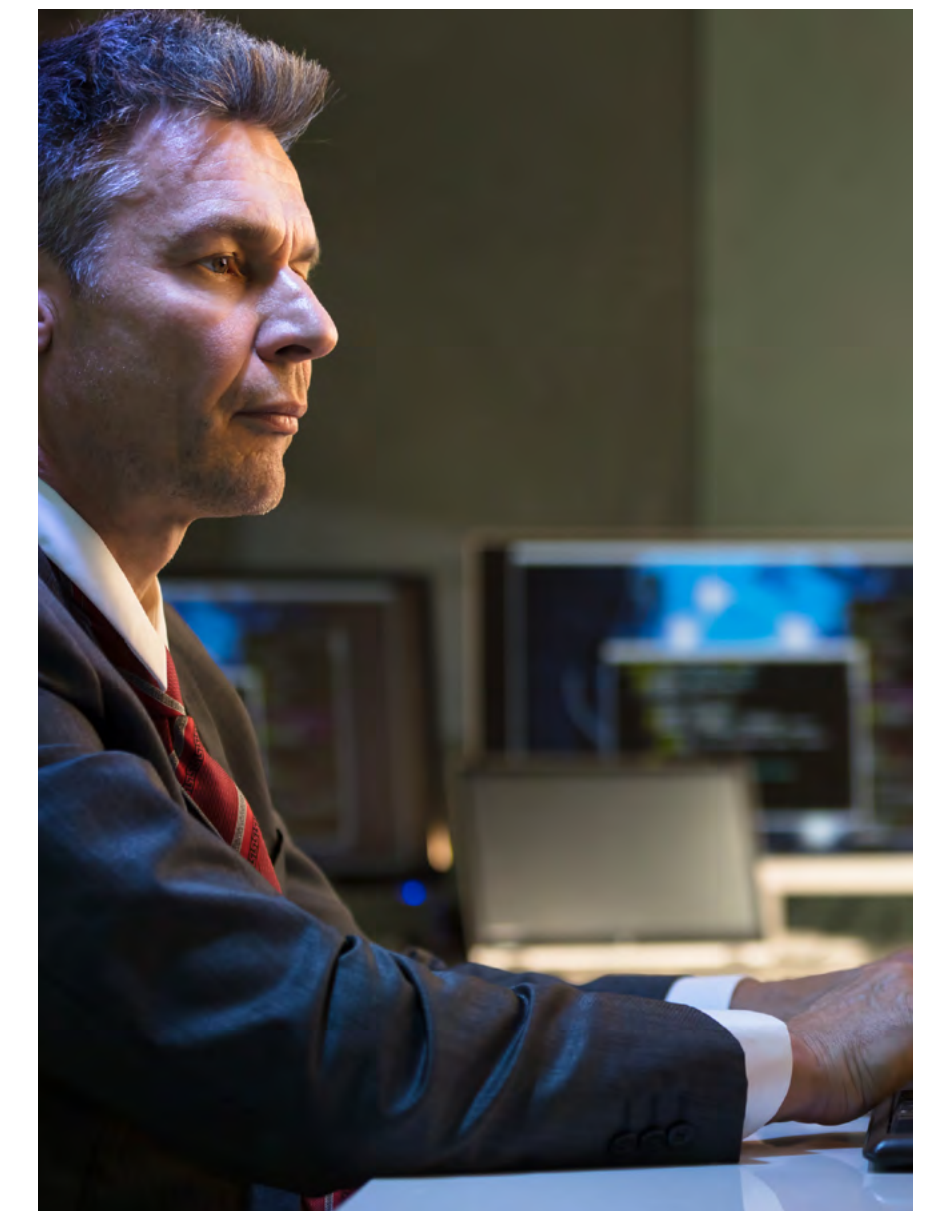
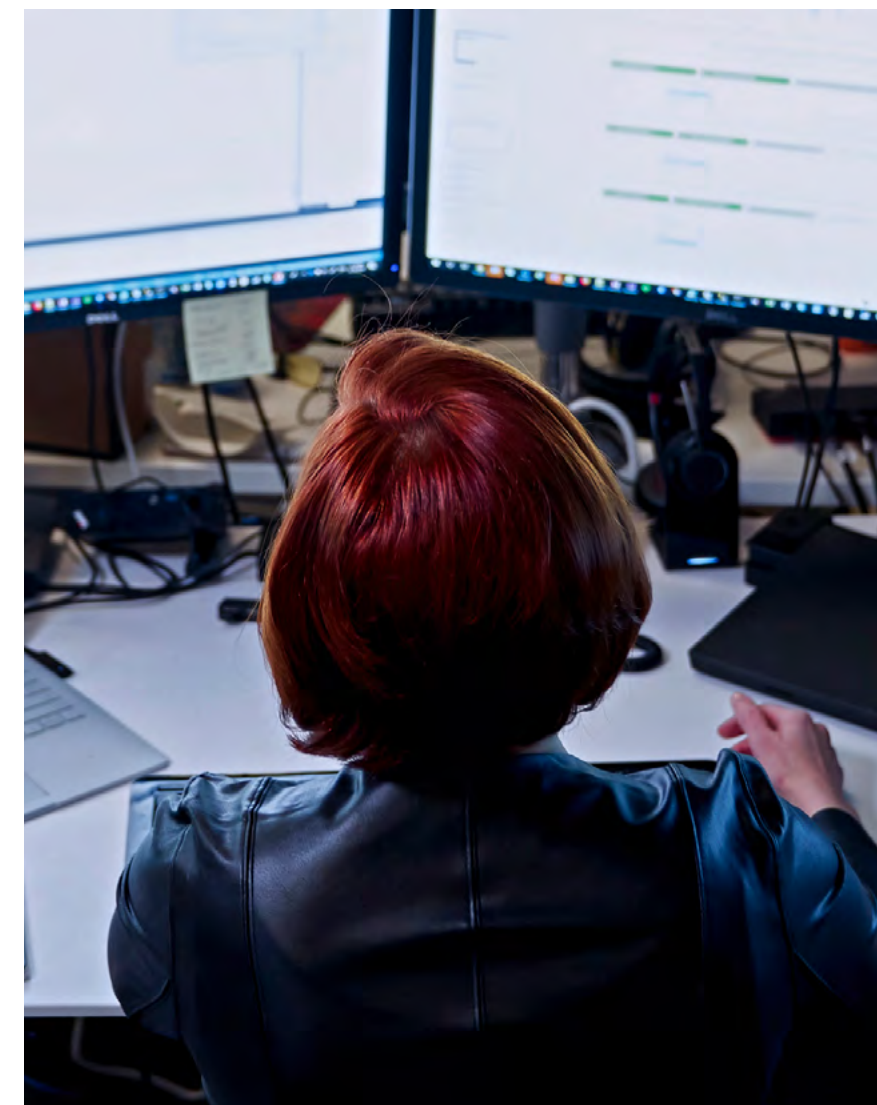
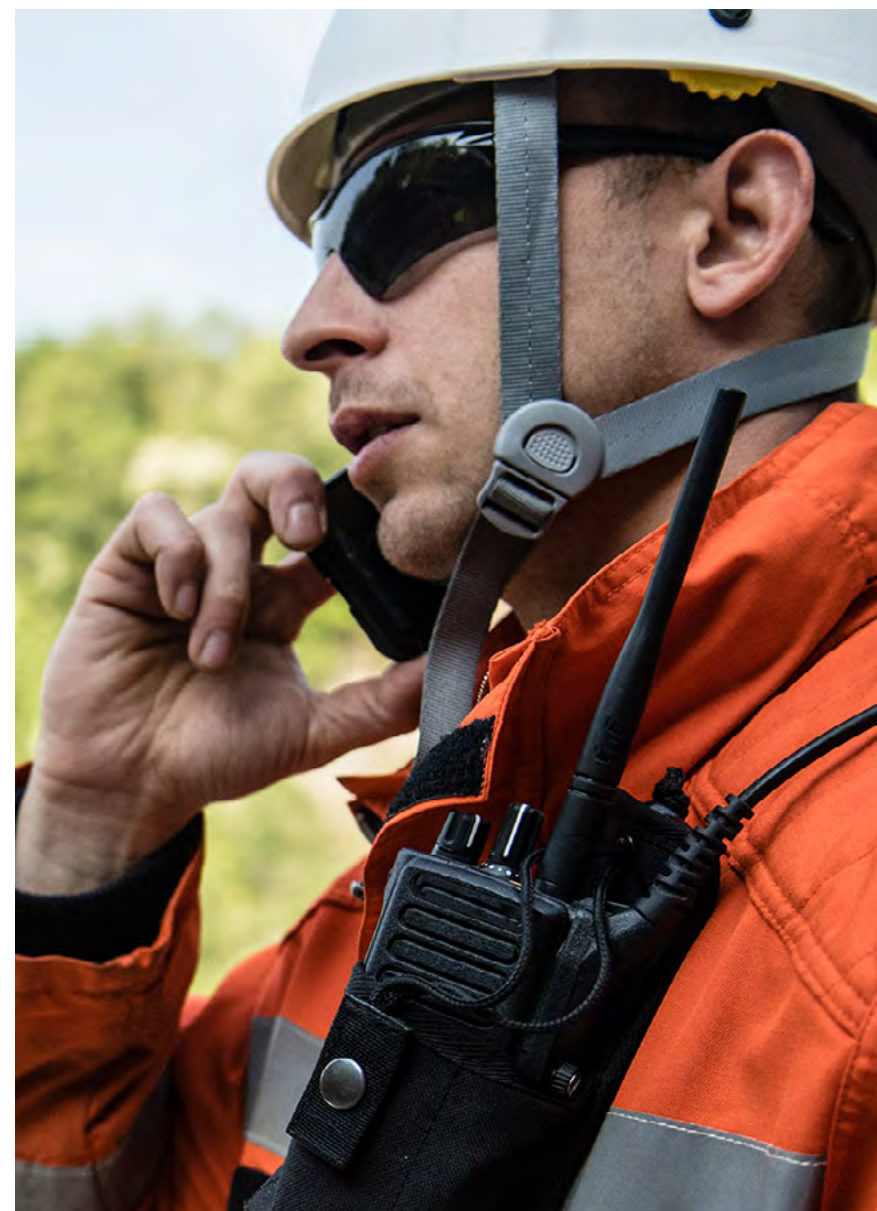
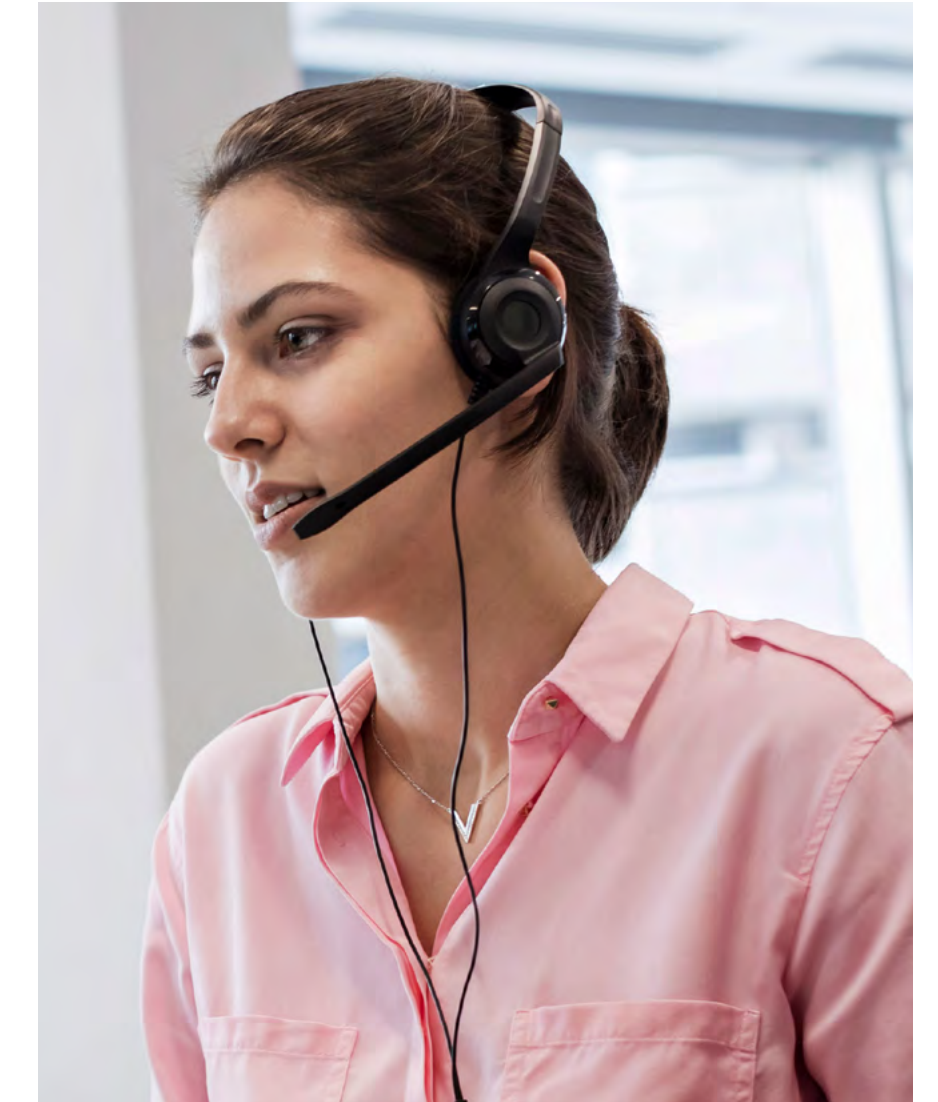




Building Trust with Secure Services

Six Technology Updates for Government



This information is for leaders in government who:

- Recognize the pressure to provide more secure public services to residents and want to understand what this means within specific government activities.
- Are planning a strategic digital transformation initiative and want to ensure all aspects are considered.



Estimated reading time: about 12 minutes

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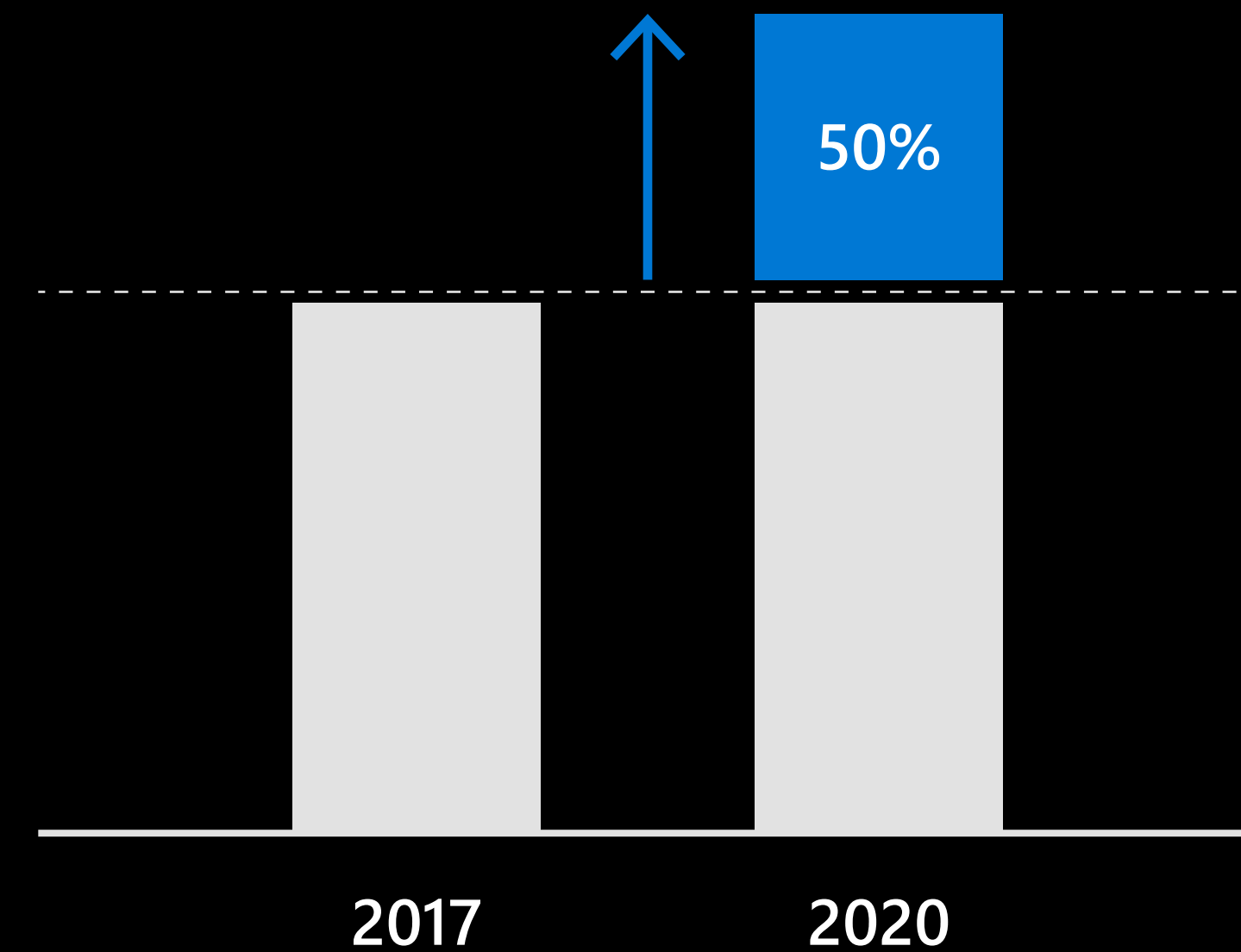
 Getting started

Rebuilding trust

As technologies evolve and people encounter more and more innovation in their everyday lives, they begin to expect more from government services as well. Yes, they want services to be easily accessible. But they also expect privacy and security on all levels, from basic data like name and address, to tax records or health information. And because governments handle extremely sensitive personal information such as tax filings, expectations for privacy in the context of government services is often higher than those for the private sector.

Meeting that expectation gives governments an opportunity to deliver trusted and secure services even as they face an increase in cybersecurity threats. Governments have an opportunity to transform systems and processes to meet the needs of their communities while combating cybercrime.

In this e-book we'll identify six specific technology updates with the most potential to deliver trusted and secure services.



Cyberattacks on state, local, tribal, and territorial governments increased 50% from 2017 to 2020.¹

¹ GCN, "Cyberattacks on state, local government up 50%," September 2020.



Technology update

1. Modern datacenters

Providing trusted and secure services for the public begins with consolidating data in modern datacenters. To run programs and provide services to people effectively, governments all over the world must maintain vast amounts of information. This data includes birth records, addresses, income levels, and much more. As storage capabilities have modernized, many governments have been unable to take advantage of more flexible, automated systems because of budget or process constraints. Using legacy systems for data storage limits the usefulness of the data because it's stored in a way that prevents easy visibility or integration with other systems.

Moving to a modern datacenter in the cloud gives governments the infrastructure for a flexible digital environment with better security, protection, and compliance—wherever they are in the process of digital transformation.

| 65% of global GDP will be digitalized by 2022.²

Modern datacenters help governments deliver trusted and secure services by:

✓ Laying the foundation

Digital transformation is a multiphase, multistep process, but it starts with a strategic plan to create flexibility for technology growth and expansion. This accommodates the unpredictable nature of budgeting and planning around unforeseeable events, while continuing to lay the foundation for digital transformation. New business models in tandem with key technology solutions give governments scalability, flexibility, and extensibility for the future. Near-term planning for modern datacenters might mean being able to connect data sources for services such as transportation, utilities, and public safety for better monitoring and more efficiency. In the long-term, moving government services to the cloud, with public-friendly interfaces, can transform how they operate and help serve people more effectively.

✓ Reducing complexity

Aging infrastructure contains critical systems but working with those systems often involves challenging processes that are also time-consuming to manage. With a modern datacenter, governments can move to a hybrid system where old and new live side by side, aligning technology and processes for more efficiency. Modern datacenters also relieve a significant amount of the burden for compliance with security and privacy laws through automation, and their self-service capabilities put less demand on IT teams.

² IDC, "2021 Worldwide Digital Transformation Predictions," October 2020.

 Customer story

DC Water cuts costs, streamlines processes, improves customer support with tech implementation

Spurred by the pandemic, [DC Water](#) in Washington, DC, continued to migrate most of its applications and workforce systems to the cloud, even as the agency adjusted to working remotely while fulfilling utility customer requests. The agency now runs nearly 100 percent of its apps and IT systems in the cloud, minimizing the need for paper tracking, in-person interaction, and managing multiple inflexible technology systems. In addition, the utility is using Microsoft's cloud and artificial intelligence technologies to conduct predictive analytics on the water distribution system, fast becoming a "digital utility." DC Water has saved USD 1.2 million in software costs and expects to save over USD 1 million in its capital budget from 2019 to 2023—all as a result of their Microsoft partnership.



The implementation of Azure Sentinel as well as other Microsoft security products, such as Defender Advanced Threat Detection, Identity Protection, and Cloud App Security provide the cyber team the ability to monitor, analyze, detect, and respond to cyber events of interest."

Nelson Sims

Senior Advisor of Information Security,
DC Water





Technology update

2. Digital identity

When people register for government services, such as unemployment benefits or attending school or a driver's license, they need a verified, reliable level of privacy. Unlike physical identification, such as driver's licenses or passports, electronic or digital IDs can be authenticated through technologies like biometrics, passwords, PIN numbers, RFID codes, and tokens. Thus, digital identity can become the foundation of trusted and secure services, assuring people that their privacy is protected while enabling governments to deliver better experiences.

USD
16.7B

The amount businesses spend on digital identity verification processes will grow from USD 9.4 billion in 2021 to USD 16.7 billion in 2026.³

Digital identity helps governments deliver trusted and secure services by:

✓ Managing data and compliance seamlessly

Privacy laws regulate how people's personal information can be accessed, stored, and used. With a digital identity system, managing these elements is vastly simplified. It's also easier to provide evidence of how data is being used when there's a digital trail. Moving to digital identity also reduces the chance of errors, since the manual process of creating a physical identity (for example, an immunization record or fishing permit) is eliminated.

✓ Making online processes more secure

When someone is accessing online services, it's much easier to verify a digital ID than a physical ID such as a driver's license. Thus, digital IDs have the potential to reduce fraud and abuse around government services, leading to cost savings as well as time savings for government workers. With a digital identity system, more functions can be completed securely online, which improves the experience of the community and makes governments more efficient.

³ Juniper Research, "Digital identity verification spend to exceed \$16.7 billion globally in 2026, fueled by remote onboarding," June 2021.

 Customer story

Electronic identity in Flanders, Belgium, streamlines public and private services

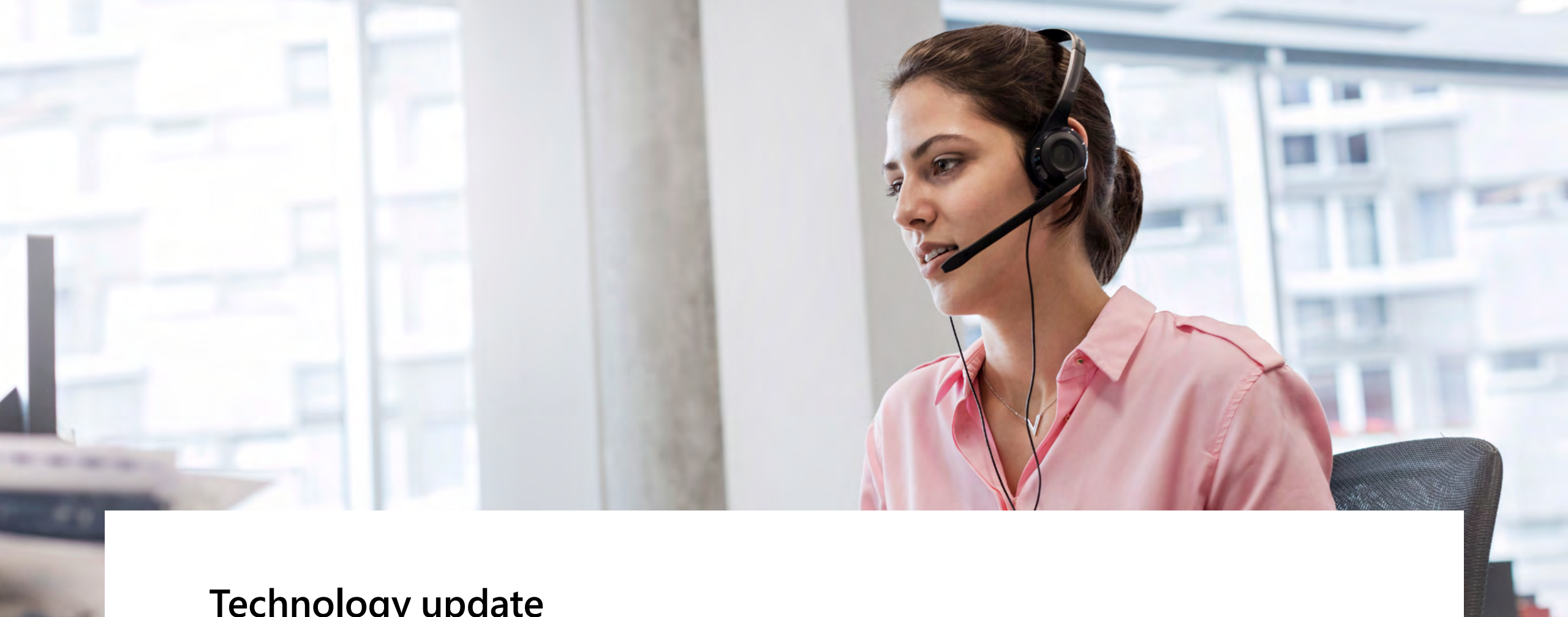
Residents in [Flanders, Belgium](#), can access a wide variety of government resources using their electronic identity. The regional government chose Microsoft, a leader in the field, as a partner for this pilot. The electronic identity gives residents greater control over their personal information through two-factor authentication, including biometrics, passwords, PIN numbers, RFID codes, or tokens. Electronic identities give businesses greater proof of customer identity while protecting privacy, since additional identification is unnecessary. The region of Flanders used an identity system from Microsoft to make it easier for new businesses to get started. Previously, applicants needed to collect personal information from many sources, such as banking documents and legal filings, and share the same information across multiple government departments to verify eligibility for starting the business. Now they use electronic identity and manage all data sharing digitally from a centralized source, securely.



We are convinced that such an open-standards approach can make it greatly simpler for citizens and governmental businesses to accelerate starting new businesses.”

Raf Buyle
Digital Architect,
Government of Flanders, Belgium





Technology update

3. Real-time data for wraparound services

The term “wraparound services” refers to a concentrated and coordinated system of behavioral healthcare for children aged 6 to 17. This system aims to provide support for vulnerable and at-risk populations during critical periods with a goal of helping them become self-sufficient, healthy adults, with less need for government services. Wraparound services are often called for in moments of crisis as a child is facing a potentially difficult transition, such as from one foster home to another, or a mental health facility back to their home. This makes secure, real-time data especially important, so that all caregivers involved across different organizations and agencies have visibility into the current status, the overall plan, where the child is in the process, and what needs to happen next. They also need to be able to discuss and navigate this process without compromising the privacy of the child. Providing reliable, consistent care to children in crisis situations requires enhanced communication

On September 30, 2018, there were an estimated 437,283 children in foster care in the United States.⁴

and collaboration. Truly effective and optimized wraparound services have long-term benefits to the individual and the community, as well as government agencies. Moreover, governments entrusted to temporarily care for children in foster care are legally required to coordinate quality behavioral health services.

Real-time data helps governments deliver trusted and secure services by:

- ✓ **Bringing stability to the individual**

If the care team has visibility into transitions and can manage them across disciplines to prioritize the child’s needs, the outcome will be significantly improved. Real-time data gives the care team the right cues for response, which can help provide the child with a stronger sense of wellbeing and stability. For example, if a foster child’s behaviors are escalating in a foster home, the care team can quickly react and coordinate an immediate and medically necessary intervention. Without real-time coordination, delays could cause physical harm, hospitalization, or disruption and displacement from the current foster home.

- ✓ **Avoiding long-term care and expense**

Children who do not receive adequate wraparound services are more likely to experience adverse outcomes that could eventually lead to homelessness, substance use disorders, hospitalization, in-patient psychiatric institutionalization, and victimization or incarceration—all at a high human and government cost. If real-time data for wraparound services is established, the care team can be appropriately responsive and help children who have suffered abuse and experienced foster care avoid these outcomes.

⁴ Child Welfare Information Gateway, 2020.

 Customer story

Georgia Division of Family and Children Services uses virtual meeting strategy

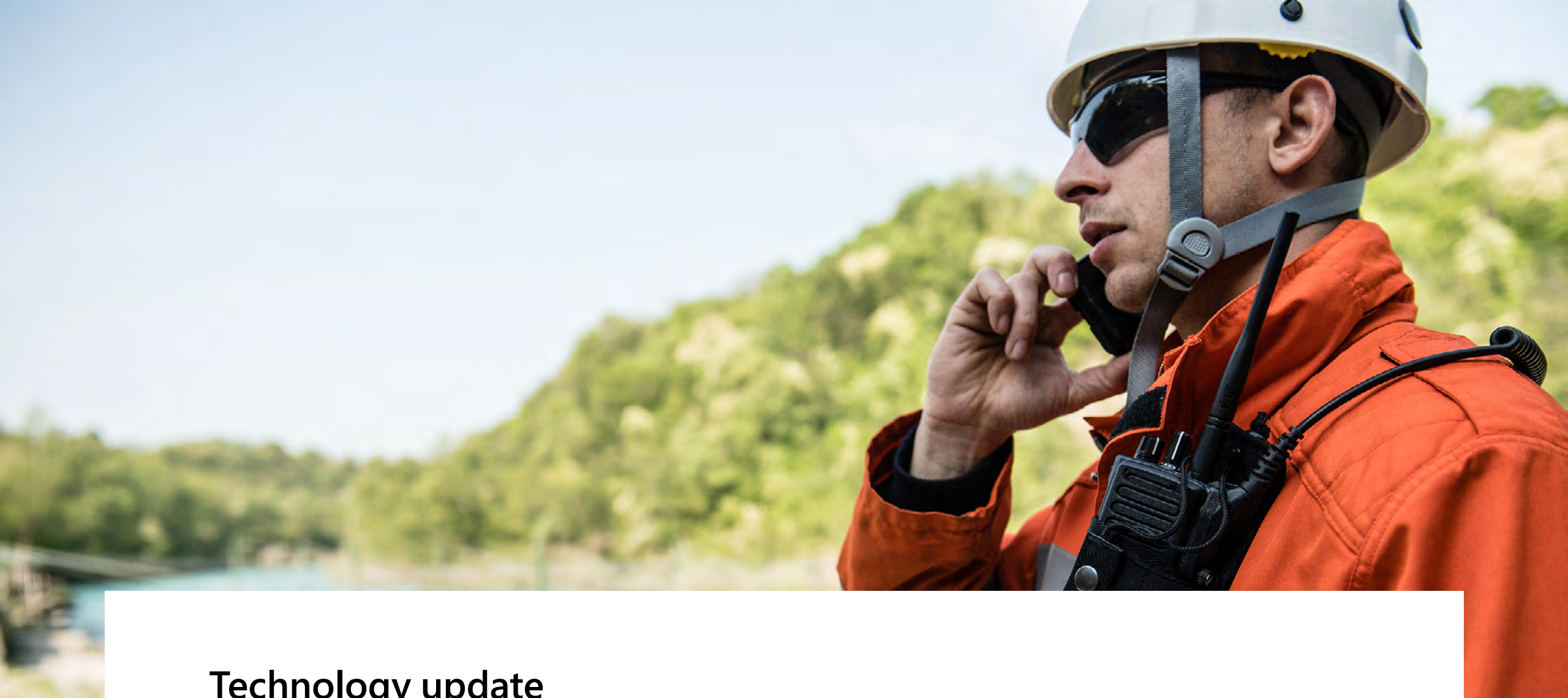
[The Georgia Division of Family and Children Services \(DFCS\)](#) recognized that removal from a home can be traumatic for both child and family. The agency wanted to ensure that all alternatives had been discussed and measures taken before removal happened. With resounding success, Microsoft Teams enabled a diverse group of people to come together quickly for children at high risk for abuse and neglect. Through Teams, users can share information, ideas, and documentation to make critical decisions for the next best steps in child welfare cases.



These tools have enabled us to keep moving forward. We're able to preserve the safety of workers and the families they serve by working remotely, while providing easy access to critical information and maintaining the strictest security. Because all relevant parties have access to edit the documentation via Teams, we maintain a single source of truth, reducing errors and missing information."

Sabrina Watson
Region 13 Director
Georgia Division of Family and Children Services





Technology update

4. Consolidated data for first response

The concept of “coordinated first response” describes an approach by first responders at all levels of government to all kinds of emergencies, from accidents to weather-related events. It’s intended to improve the situational awareness of first responders before they arrive on scene, as well as provide a common operating picture for incident commanders. It’s also imperative that this communication is carried out in a secure, private way so that information doesn’t get prematurely released to the public. This is accomplished by integrating systems, removing data siloes, and putting the right secure digital equipment and solutions in vehicles and operations centers. However, none of this can happen without digital infrastructure that connects police, fire, and emergency medical services

2x

The percentage of fatalities doubles when response times are longer than 5 minutes. The national average response time in the US is 15 minutes.⁵

(EMS) with dispatchers and other response elements, such as mental health services, traffic control, and relevant agencies.

Consolidated data helps governments deliver trusted and secure services by:

✓ Helping first responders prioritize

The more a first responder knows before they enter a scene, the more effective they can be. If police have arrived at an incident first and are able to tell other responders en route that a primary road to the site is blocked, the other responders can change their route and save time. If the dispatcher is able to tell a responding medic that other ambulances are already on site—even from different private companies—the medic can prioritize a new call without wasting time. Every minute saved can make a big difference.

✓ Making it easier to access information

Real-time data enables real-time decision-making. In many scenarios that involve first responders, there’s little time to share information and gather input before decisions must be made. Imagine a truck carrying toxic gas overturns. Immediately identifying the type of gas and understanding current weather conditions can help limit the risk to life and safety by alerting the community that is downwind. Through system integration, emergency responders can significantly limit the negative impact these types of unplanned events can have on a community.

⁵ US Department of Homeland Security, “[First Responder Technologies](#),” no date provided.

 Customer story

Western Australia police put a stop to tech lag

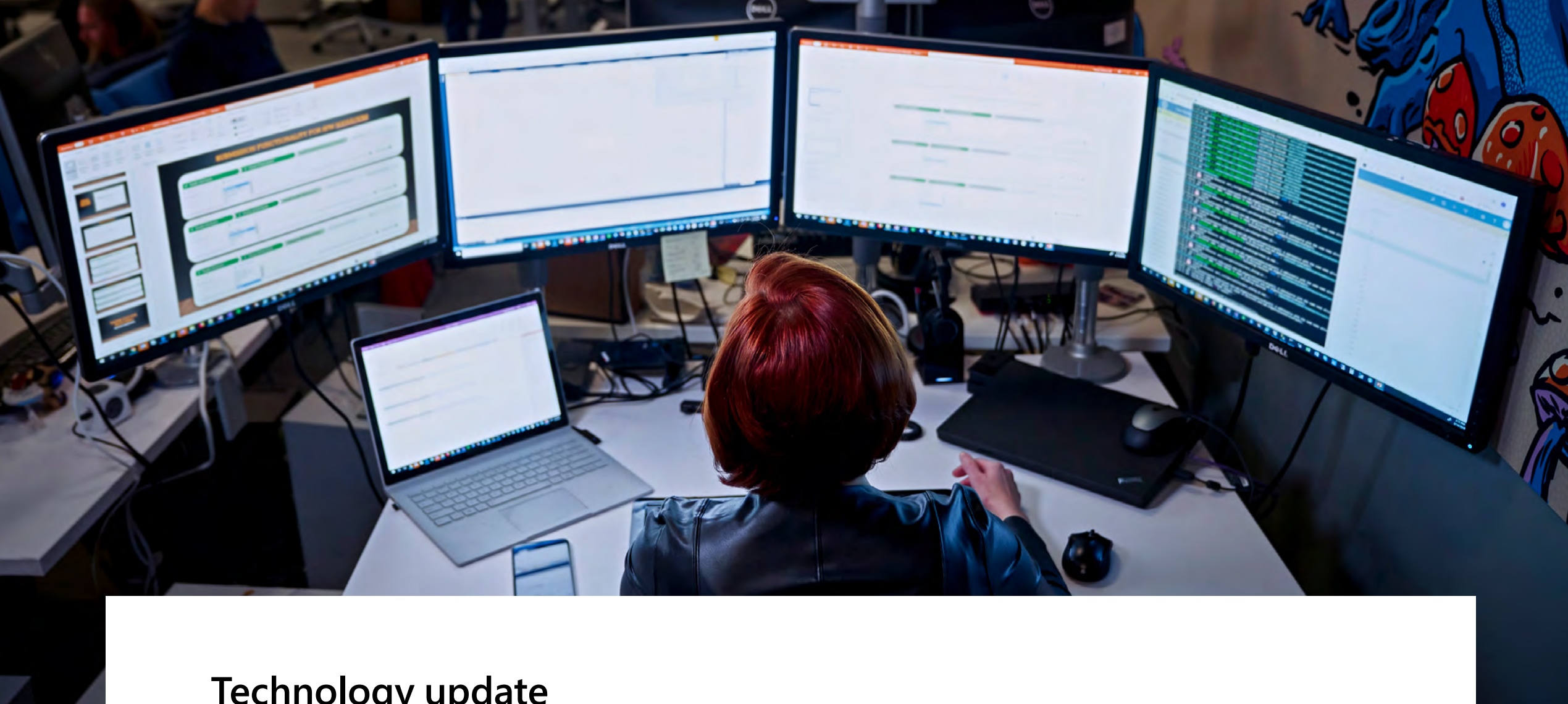
[Western Australia Police](#) (WAPol) are in an ongoing digital transformation journey. They've started with a Microsoft partnership to deploy body worn cameras, cloud migration and service transformation, and a roll-out of smartphones and specially developed apps that keep police connected, supported, and secure. The smartphone rollout gives 6,500 officers the ability to instantly contact colleagues or supervisors anywhere, anytime via specially developed apps that deliver fresh insights, streamline workflow and improve situational awareness. Using Microsoft Intune to manage and secure the devices made it possible to give smartphones to every officer and allow them to be used for both personal and professional requirements, ensuring widespread uptake.



[One of] the app allows video calling and messaging but we are now seeking to also link the Teams platform into it to provide even more capacity for communication, collaboration, and situational awareness. We've had some pretty good success stories of officers using that to manage incidents, to find missing people, and to support lone officers."

Darren Henstock
Innovation and Future Lead,
WAPol's Digital Policing Program





Technology update

5. Enabling virtual tax audits

All over the world, individuals and businesses participate in tax systems unique to their country, city, and county. Identifying and tracking tax payments in a way that's efficient and consistent benefits the individual, businesses, and governments. Tax audits generally require in-person, paper, and manual processes, introducing time-consuming work and increased potential for errors. With virtual tax audits, governments, businesses, and individuals have faster access to files and information, reduce their need for physical storage space, improve cybersecurity, and save time and money.

€140B

The VAT Gap in the EU [i.e., expected VAT revenue minus actual revenue] was €140 billion in 2018 for a total revenue loss across the EU of 11%.⁶

Virtual tax audits help governments deliver trusted and secure services by:

✓ Making the experience more accessible

A virtual tax audit conducted online using a leading collaboration platform is easier for everyone to access, and improved access ensures a more comprehensive audit. Individuals, businesses, and governments all save time on travel when they can participate remotely. Remote audits take less time than in-person audits, which should lead to faster collections on outstanding taxes and faster refunds to people. Automatic built-in security and productivity features in cloud platforms can save IT time so they can focus on more complex, high-impact projects.

✓ Creating a consistent standard of quality

Automated processes bring more accuracy to the audit process. In addition, while you can eliminate error by removing manual processes, you can also curate specialized knowledge from your most experienced tax auditors and convert it into a custom algorithm that's unique to your tax audit scenarios. Automation creates a standard quality for interactions with the taxpayer that's not dependent on the level of experience or maturity of employees.

⁶ European Commission, "[The VAT Gap Report](#)," September 2020.

 Customer story

Cloud platform boosts secure data access for Kenyan audit office

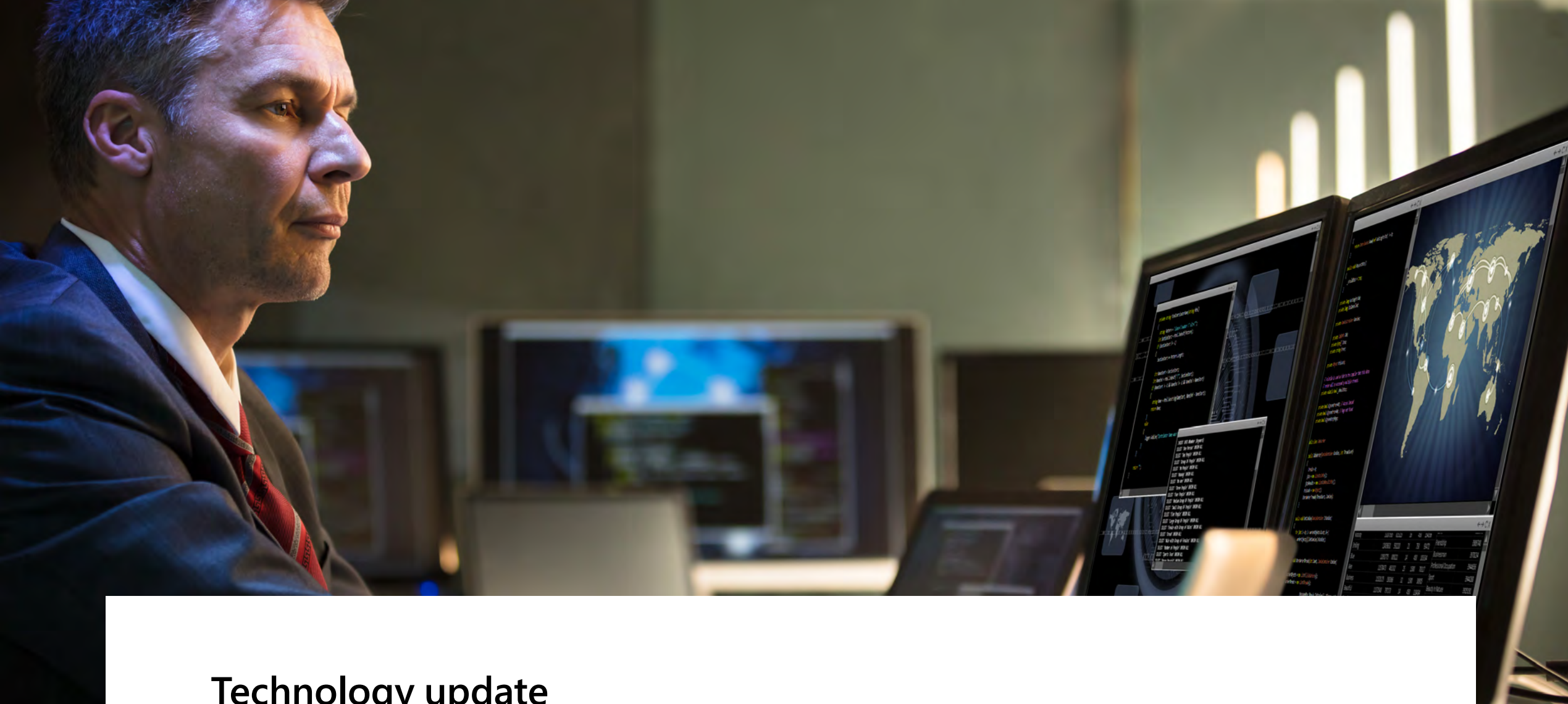
The [Office of the Auditor General](#) (OAG), in Kenya, is an independent, public-sector agency mandated to audit the accounts of national and county governments, as well as their subsidiaries. The organization needed to facilitate document management and ensure maximum uptime of critical apps, but it was struggling with limited IT resources. By moving its on-premises infrastructure, networking, and storage to Microsoft Azure, OAG reduced IT admin costs by 22 percent, while achieving up to 99.99 percent application uptime.



You cannot afford to lose some information, even for a split second. Our data is being backed up using Azure and dependent systems.”

Domenic Mutiria Kamenyi
Director ICT,
OAG





Technology update

6. Digital taxation solutions

Tax collection processes vary across the world, but all governments share an interest in making the process easier for their populations, and more predictable for themselves. With digital taxation, some or all direct involvement for taxpayers can be removed. For example, an employer can automatically send tax information to the relevant tax authority, which can also collect tax payments or deliver tax refunds automatically, all without the individual needing to file any forms. This increases timely tax collection while improving the experience for people and businesses.

234
hours

The worldwide average amount of time required to comply with tax requirements per year is 234 hours per person.⁷

Digital taxation helps governments deliver trusted and secure services by:

✓ Making it easy to file

Digital taxation speeds up processing and response while also reducing the cost of collection, as well as the need for paper and storage facilities. Automating tax filing through employers can make taxation a hands-off experience for taxpayers, saving both time and money on filing costs.

✓ Facilitating compliance

It's difficult to hide taxable transactions that are digital, and therefore verifiable. It's also easier to comply with tax requirements through electronic services and secure data sharing and analysis. With the increased efficiency and volume of digital taxation, governments can also improve accuracy in forecasting budgets.

⁷ European Commission, "[The VAT Gap Report](#)," September 2020.

 Customer story

Poland residents can now file taxes in five minutes

Poland's [Ministry of Finance](#) wanted to simplify the filing process for taxpayers and make it possible for them to submit accurate returns in less than five minutes. In partnership with Microsoft Consulting Services, they developed an easy-to-use digital tool with pre-populated data. Taxpayers can use the service on any computer, smartphone, smart TV, or gaming console that's connected to the internet.



People have spread the word this is a very simple, secure, and effective way to file. Because you can do it in five minutes, people don't wait until the last moment to file."

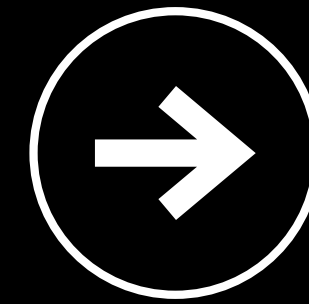
Piotr Patroński
IT Department Director,
Ministry of Finance, Poland



Getting started

What it means to deliver trusted and secure public services is changing. Technology is accelerating expectations for the public, while increasing cyber risk. A shift to trusted and secure services built on Microsoft solutions will move government transformation initiatives forward. With modern datacenters, digital identities, real-time data for wraparound services, consolidated data for first response, virtual tax audits, and virtual taxation, governments can better meet the needs of the community for trusted and secure services.

With a global partner ecosystem, Microsoft stands ready to help governments everywhere modernize legacy systems, enhance cyber-resilience, and create a secure and compliant foundation for the future.



[Learn more](#) >

