Transforming Government Business for the Digital Age
How to understand and prepare for IT modernization
Introduction

The way humans communicate has been evolving for some time, and it bears heavily on the way the federal government interacts with its constituents. For some, this future may feel intimidating. But agencies within government have access to powerful tools and resources that can contribute to meaningful and lasting change.

This e-book will walk through the ways communication is changing and explore how government can utilize technological advances in productive, financially responsible ways. We’ll see how citizens and employees will benefit as a result of modernization, as well as what updating network technology can do for security.

The new wave of communications innovation will prepare agencies for new threats and changing mindsets. This piece will catalogue the technology, case studies and expert perspectives that prove this to be true.
The expectation of instant and constant access to information has changed how people interact with the modern world. Technology is reshaping behavior — oftentimes, the little device in your pocket is responsible for keeping you connected 24/7.

Consumerization — the specific impact that consumer-originated technologies can have on enterprises — and virtually unrestrained access are shifting agencies away from legacy technology, says Matt Davidson, Senior Executive Briefer at Avaya Government Solutions.

The force behind this shift, Davidson says, is the changing mindset behind communications technology.

"It’s a mindset that’s pushing agencies to say, ‘How do we extend our communications and unify them in order to improve our mission?’” he says.

Whether it’s internal communication or citizen-facing services, collaboration and citizen engagement can help to support a variety of needs across government.

Mobility is the perfect example of communications’ foray into the future. Take the University of Washington (UW) as an example. In 2013, the IT department at the campus of over 80,000 users made the decision to test a number of unified communications systems, ultimately finding the Avaya Aura Platform to be the best option.

The Aura Platform and its Communication Manager application allowed UW to move away from antiquated telecom systems and into a centrally managed network of diverse technologies.

Giving users a flexible and convenient way to access government from wherever they are, on whatever device they are using, can change the pace of internal and external collaboration, driving greater focus on an agency’s mission.

The advantages are all there, Davidson says. In addition to boosting worker productivity and engaging...
citizens more deeply, communications optimization also cuts costs. At UW, modernization both boosted productivity and proved to save money in the process.

Security will also benefit from communications modernization. Regardless of a user’s location — be it home, on the road or in the field — an effective, modern network will be secure and manageable from end to end.

The best part? Transformation doesn’t have to happen overnight. At the root of all this change is openness of system architecture, making integration with legacy and standards-based technology easier and agencies able modernize at their own paces, on their own terms.

This is helping agencies turn to virtual, app-based solutions more and more to improve communication and deliver better customer service experiences.

“If I’m thinking like the citizen, I want someone who can quickly serve my needs,” Davidson says. “And if I’m the agency, I need to be thinking about how that service delivery can be meaningful, engaging and deliver on the overall mission of the organization. That’s how unified communications will drive greater transformation.”

5 Keys to IT Modernization

1. Consolidation
   Automating routine tasks inside the network to reduce costs and save resources

2. Simplification
   Creating a unified hub for communications systems that syncs up existing technology with technology innovations

3. Open Standards
   Architecting a platform that is open and can operate with a variety of service needs

4. Infrastructure Optimization
   Assessing an organization’s IT infrastructure and application platform across capabilities and continuity

5. Reliability and Security
   Ensuring that network activity is safe, secure and at peak performance
Government agencies face the unique challenge of constantly trying to do more with less — particularly when it comes to IT. But the solution is often closer than most agencies realize.

“The answer, really, is that there’s opportunity in waste,” says Craig Haskins, Chief Customer Officer at Avaya Government Solutions.

As a strategic advisor to many government organizations, Haskins uncovers inefficiencies that are creating cost within agencies. His technology benchmarking process allows the agency to see exactly where they are overspending.

Haskins and his team at Avaya have formalized this process, providing financial and business audits along with a consultation that can help refine investment priorities and determine where innovation can benefit an agency over time.

The first step is to gather data on an agency’s existing expenditures. In this critical phase, the agency examines operations and maintenance associated with daily business and, in doing so, exposes legacy systems that could be wasting assets.

As soon as agencies pinpoint these expenses, they can transition to the second phase — a scan analysis of network infrastructures. This includes a look at performance versus cost, amount of usage and any redundancies created by technology use.

“From there, we can determine specific, manual steps or key performance indicators resulting in inefficiencies,” Haskins says.

This is also the phase in which waste can be turned into savings for further business transformation. Agencies can forecast cost savings year-over-year, which add up to funding for the architecture and planning of new solutions.

In phase three, the design phase, the self-funding model starts to take effect. Agencies can use savings to deploy a solution that might support a more unified communications strategy.

For example, if an agency were experiencing
longer-than-expected call wait times, a strategy like Callback Assist — a technology that automatically calls back the customer when an agent is ready — could help flatten call volume and increase efficiency. Savings in staffing and resources could then support the development of self-service applications that automate the customer service experience, streamlining it even further.

Other technologies, like Avaya’s Session Initiation Protocol (SIP)–based communications technology, revolutionize communication and save money at the same time. With a fact-based analysis of current networks, agencies can understand exactly where new technology will help conserve resources.

“It’s important to think of the self-funded roadmap as a process,” Haskins says. “You are starting by taking an organizational look at your business, then locating the inefficiency and finally realizing cost savings that can help to support future transformation.”

Agencies need high-level planning to succeed in the future, Haskins says. But a baseline review can prove that IT modernization is a very real, achievable possibility.

3 Steps to the “Self-Funded Roadmap”

1. Gather data on the agency’s existing expenditures
   This includes operational expenses, like legacy systems, applications and people costs.

2. Perform a scan analysis on existing infrastructure and processes
   Scour network and telecom data for any types of trends or usage patterns that could be inefficient. Also look at end-to-end processes that are no longer needed.

3. Prioritize and design a plan for innovation
   Begin to architect and plan for IT modernization. In this phase, think about achieving larger business transformations down the line.
Government leaders should be able to answer a basic question about their agencies: Does poor customer service delivery adversely impact your mission?

According to Michael O’Brien, Sales Director for the Contact Center at Avaya, effective communication and service come down to meeting citizens where they are, when they need it and on whatever device or collaboration method they use.

A disconnect has emerged, it seems, between the kind of communications citizens expect and the kind many agencies provide today. Perhaps this rift contributed to a three-year decline in citizen satisfaction with the government.

But agencies have a solution.

“Efficiency and effectiveness require deep engagement at every step of the experience,” O’Brien says — and engagement is where technology and mission can combine to help government best serve the public positively and seamlessly.

Engagement refers to meaningful, communications-empowered connections between individuals, teams and customers that deliver high-quality service across any modality, on any device. This depends on a standardized flow of information from agency to citizen, regardless of channel. The challenge is to forge a single, continuous communications process.

And citizens have expressed their love for seamless experiences. In 2013, 82 percent of customers surveyed by Avaya in collaboration with British Telecom said they prefer organizations that offer multiple channels to meet different needs.

“If the citizen is following up via voice communication from a previous email interaction, the specialist should be able to quickly and easily reference the entire communication thread as well as any other relevant context,” O’Brien says.

Agencies can also leverage engagement processes for the likes of IT assistance, human
resources requests and other internal correspondence. The openness of system architecture mentioned at the end of the first chapter allows for platforms like Avaya Breeze, which sits at the heart of communications evolution. Technology like Breeze leverages its openness to run a vast array of applications targeted at a variety of specialized business needs.

As agility and responsiveness become government’s standard and not simply an aspiration, this sort of development environment will become an essential way to utilize resources automatically. Avaya supports Breeze with its Snap-ins, code modules aptly named for their ease of implementation into the workflow of an agency.

Since Snap-ins are pre-programmed and automated, no development expertise is necessary to bring revolutionary communication to life in agencies. They can even be used to build custom solutions.

But the real fruit of automation comes from engagement through data analytics. Applications running on a virtualized platform can address some of the most specific challenges in government — think monitoring vocals in a call center for compliance or automated delivery of post-engagement materials. Data analytics drive citizen experiences, particularly when it comes to gathering business intelligence. Everything about agent–customer interaction can yield valuable data, O’Brien says.

In order to use engagement to achieve mission success, agencies must understand the motives and goals of those they serve. Then, the right agency can implement the right technology to serve exactly the right customer, all from the very first interaction.

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Thanks to a slew of high-profile breaches at agencies — including one at the Office of Personnel Management that impacted over 21.5 million people — government is thinking about cybersecurity now more than ever.

Detected security incidents are growing at an alarming rate in public and private networks across the globe, with a 38 percent increase in cyber threats in 2015. When it comes to the total overall cost to the global economy, estimates put the damage to enterprise businesses somewhere between $375 to $575 billion a year.

Driving this problem are the myriad technologies now connected via the Internet of Things (IoT), says Avaya’s Federal Consulting Sales Engineer Richard Eskelund. These devices serve as entry points for hackers to gain access to the network. Once inside, they can steal sensitive data and records, doing real infrastructure damage.

Compounding the issue is the fact that current networks still run decades-old technology on the majority of agency infrastructures. Networks that have historically been bastions of security are suddenly seeing vulnerabilities due to rapidly multiplying points of entry.

“For instance, imagine if you had a hard time securing 20 access points to the network,” Eskelund says. “Just imagine when it’s 20,000. That’s what’s happening right now as agencies are confronted with the Internet of Things.”

But software-defined networking (SDN) is catching on in government, Eskelund says. And it’s ushering in changes. With SDN, IT shops can automate control of the network and move away from distributed hardware components to keep up with server virtualization.

Modernizing the network with an end-to-end, fabric-based solution is not only important for security; it’s essential for business transformation. By reducing their

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number of manual tasks, agencies can simultaneously enhance operations, reduce OPEX and strengthen security against bad actors and human error.

“Virtualization lets you run multiple applications on a single server,” Eskelund says. “There are also associated savings in terms of power consumption and cooling, systems management and deployment.”

End-to-end network virtualization also allows for a greater focus on training individuals to manage the policies and processes that govern cybersecurity agency-wide.

“Automating network operations will help free up your staff to work on more mission-critical tasks,” Eskelund says. With SDN, administrators no longer have to spend excessive time provisioning and configuring the network.

“Rather,” he says, “these leaders can focus on identifying and implementing the most effective security controls to prevent and detect future breaches.”
The 2014 Sochi Winter Olympics may very well have been the first Winter Olympic Games of the smartphone era. But the newness of the technology didn’t halt organizers in embracing its ubiquity. The Avaya architects working on the Sochi project estimated four times as many wireless connections as wired, a massive increase from 2010. The revolution had happened.

As athletes competed for gold, another gold standard was working behind the scenes at Sochi. Avaya’s network technology would make the Olympics one of the world’s largest success stories for open communication access.

To date, Sochi was one of the largest guest networks offered at a sporting event, serving more than 40,000 users during the games and ensuring essential communications for staff, media and athletes.

In most countries, over 60 percent of the populace owns smartphones. iPads and other tablets had also entered the mainstream shortly after the 2010 Winter Olympics. Planners were already preparing for Sochi to be the first ever “Bring Your Own Device Games.”

Then two curveballs came flying: First, the Organising Committees for the Olympic Games elected to provide free Wi-Fi for all media members. Then, Samsung gave every competitor their own Galaxy Note 3. Architects and organizers had to swiftly adapt to what was now a “Bring Your Own Devices” event.

Avaya set things back on track by multiplying the number of access points installed and ensuring that there was enough bandwidth to handle the traffic via Fabric Connect, through which designers created multiple virtual service networks (VSNs) on a single physical infrastructure. Limitations around physical distance became insignificant.

Mass adoption of mobile devices is driving citizens to engage in new communication methods, says Matt Davidson, Senior Executive Briefer at Avaya Government Solutions. Cloud technology, big data and social channels are just a few of the forces giving shape to larger technology transformation.

The agility and flexibility displayed at Sochi make up just one example of the attitude government should
have when facing the future. Apprehension around new technology should not be cause for inaction. With clear steps ahead of them and trusted partners to act as guides, agencies have the means to manage.

“Government leaders must now decide how best to modernize in order to keep pace while still serving people in secure, efficient and cost-effective manners,” Davidson says.

Many agencies are starting with a leap from legacy IT to SIP because it can simplify complex communications networks and reduce infrastructure costs, as well as quickly deliver voice, video, messaging, presence and web applications to users in any location. From there, even more transformation becomes possible.

Regardless of which networking solution is on the docket, Avaya’s experts are equipped to help with service strategies to prepare before deployment, manage and mitigate risk as systems are deployed and test and evaluate afterward.

As detailed in this e-book, the impacts of modernized communications reach far, affecting everything from security to engagement to customer service delivery.

When reimagining networks and thinking about the future, it’s important to have the appropriate expertise and resources guiding the project, Davidson says. With a trusted partner and eyes locked on the prize, government agencies can go for gold with their networks and walk confidently into the future.
About Avaya

Avaya is a global provider of business collaboration and communications solutions, providing unified communications, contact centers, networking and related services to companies of all sizes around the world. For more information please visit www.avaya.com.