We stand on the brink of a technology transformation that will mark significant changes in the way we live, work, and relate to one another. Advancements in network communications, digital systems, machine learning, and large-scale data analysis are driving this transformation.

The next industrial revolution will be driven by government and industry working together to integrate these rapidly moving technologies. They will help achieve greater operating efficiencies, improve user experiences, and run mission critical applications with the potential to change the world.

LIVING IN AN AGE OF DISRUPTION

These possibilities come from millions of people connected to powerful mobile devices, multiplied by emerging technology breakthroughs disrupting almost every industry sector. From cloud to cybersecurity to IT modernization, federal agencies are facing myriad pressures and initiatives to transform.

Two examples are the Cloud First policy, which states agencies should consider adopting cloud technologies above other application solutions, and the Federal Information Security Modernization Act (FISMA), which updates federal cybersecurity practices. These initiatives encourage agencies to revisit their approach to acquiring IT services, providing better services, securing data, and creating operating efficiencies to execute their mission.

Amidst all of this change, government IT leadership are looking both forward and back. They’re faced with difficult decisions as they consider exactly how to spend their IT budgets, with an eye toward both investing more in new solutions and supporting legacy systems.

FEDERAL GOVERNMENT IT SPEND

Within the size and scope of the U.S. federal IT budget, there is serious consideration on next steps. Government agencies are looking to invest in new technologies and platforms to enhance the services they provide and enable secure access to those services from all types of devices.

It’s up to government IT leaders to implement secure and future-proof solutions by building an evolution plan into acquisition decisions. Modernization is a journey, so the next version of each technology should already be part of the plan. The General Services Administration (GSA), for example, has done an outstanding job developing procurement vehicles to ensure technology improvements are an expected part of the acquisition process.
FOCUS ON IT FUNDAMENTALS
There is widespread recognition throughout government agencies of the need to upgrade outdated systems. Doing so will help accomplish two other longstanding goals—improving cybersecurity and reducing operating and maintenance costs of legacy systems.

The focus should start with the fundamentals. Agencies should consider focusing their near-term efforts on building a reliable and resilient network foundation for delivering applications and services as they begin to execute on their digital transformation strategy. Starting with the network backbone provides a strong network foundation upon which to build.

CONVERGED NETWORKS
A secure, powerful, and reliable network is the backbone for government transformation and delivering services into the future. Many agencies are moving toward advanced, converged IP networks. This type of network configuration combines multiple communications technologies—voice, data, video conferencing, and other collaboration approaches—into a single network. This improves

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Migrating to VoIP is as Easy as 1-2-3
Like every other aspect of IT operations, there have been major advances to phone systems with digital technology. You’d be surprised how many organizations have not yet fully transitioned from legacy phone systems to VoIP. Some organizations have simply prioritized other factors, since there is no shortage of technology out there to explore and deploy. In many cases, though, phones have an innate familiarity that makes it easy to ignore them as a source of increased efficiency.

Eventually, though, the phone’s familiarity can’t mask the cost and inefficiency of running two networks. A single converged network can handle voice and data, as well as unified communications and integrated applications. This is an area where government can quickly migrate to modernized networks with a few simple considerations:

1. Bandwidth planning: You must ensure the network has enough bandwidth to handle your call volume. That means you need to understand not only your typical call volume, but also your spikes. For government agencies, those spikes are often driven by crucial time periods in the calendar—tax season being a great example. Appropriations periods or hurricane season might play the same peak role for other agencies. The potential ramifications of not enough bandwidth include poor voice quality, dropped calls, and a general slowing of network data.

2. On-premises, off-premises: Larger organizations with in-house IT staff might opt to keep their infrastructure on-site. There are many reasons for agencies to go with a hosted solution, though. Secure a provider and agencies can share monitoring and maintenance responsibilities, depending on capabilities and overall IT direction. And this leads to the management question.

3. Who will manage your VoIP system? VoIP and converged networks are becoming part of the foundation of agency operations. Agencies’ management options include managing the system internally, sharing management responsibilities with a provider, or turning over management entirely to a provider. A number of engagements start with VoIP managed by the customer. When they see its full capabilities, though, they start getting ideas for new things they can do to deliver services to citizens or collaborate with other agencies. They’ll often decide to put their internal resources into other capabilities and opt for managed VoIP, including training so staff can learn about and use the new capabilities.
manageability, reduces operating and maintenance costs, and simplifies operations.

The Social Security Administration and the U.S. Department of Veterans Affairs recently deployed a converged IP network solution. By pooling their advanced communications traffic for voice, e-mail, instant messages, video conferencing, and online collaboration into a single network, they can now deliver services more efficiently.

**COMMUNICATION AND COLLABORATION**

A secure and converged network provides the foundation for better communication and collaboration among agencies and across the federal government. As the U.S. Senate transitions to VoIP, for example, it will be better able to coordinate within the institution. Individual senate offices will streamline collaboration between capitol offices and local offices in all 50 states.

Integrating voice and data into a common network allows for better integration, such VoIP deployments that help tightly integrate advanced digital calling services with online services like e-mail. An integrated voice and data network can also save taxpayers money and reduce maintenance costs.

**CLOUD APPLICATIONS AND SERVICES**

The future of digital services delivered from the cloud is rapidly growing. Cloud solutions are only as good as the network supporting them, so federal IT executives require a network that can adapt to the unique requirements of an organization and its application needs. The push for a more reliable, secure, predictable, and controllable cloud-networking solution means agencies should consider established network service providers that cater to government needs. This will ensure the highest possible performance of their mission-critical applications and services, whether they reside in public, private, or hybrid clouds.

**SHAPING THE FUTURE OF GOVERNMENT**

Ultimately, government agencies’ ability to make smart technology decisions will determine their success and the future of government. Agencies should look for a technology partner with a record of innovation, one who understands agency missions, and shares their vision of the future. Modernization is a journey, not a destination. And it all starts with a solid foundation of network and fundamental IT services.

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