

How state and
local governments
can overcome
modernization concerns

Modernizing legacy networks and systems has become a priority for state and local governments as they work to improve citizen experience, reduce operational costs and meet cybersecurity requirements. Nearly 70 percent of government IT leaders say business process efficiency is negatively impacted by a lack of IT modernization.¹

Many government IT modernization projects are focused on consolidating systems and moving applications to the cloud.

In the past, modernization meant a lengthy implementation of hardware and software that came with a high price tag. Today, many government agencies are looking to solutions that can help them cut costs while still improving network performance to provide better service internally and externally and tightening up security in response to a rapidly shifting threat landscape.

To meet these needs, many municipalities are turning toward software-defined wide area networks (SD-WAN), managed security solutions, fiber broadband and other technologies. But to go from planning to execution, IT leaders often have to overcome the concerns that come with modernization. This can include the misconception that it is too expensive, as well as the very real lack of resources, security concerns and potential downtime that could negatively impact citizens and employees. However, none of these challenges are insurmountable and, with the right solution, can be overcome.

Overcoming major challenges and concerns

Cost/lack of resources

Not enough money and not enough time are two refrains heard in many government IT departments. However, in many cases, upgrading to new technologies and managed services can actually bring costs down. Instead of buying equipment, municipalities can now utilize pay-as-you-go options. This translates into operating expenses vs. capital expenses, reducing the up-front costs involved with modernization. Federal grants are also available to assist with upgrades. Additionally, managed services can reduce the time needed to maintain systems, freeing up government IT staff to focus on strategic projects, likely increasing citizen engagement and experience.



Managed services can alleviate the staffing burdens that can be associated with modernization projects.

Staffing shortages

Along with cost concerns and a lack of resources, staffing shortages create another roadblock to modernization. The competition for IT talent is fierce, and many fresh IT graduates gravitate toward the private sector. Faced with budgeting constraints for employees, government agencies often find themselves short-staffed and reluctant to overextend existing employees with a massive undertaking. However, by choosing managed services, where vendors do the heavy lifting and provide 24/7/365 support, municipalities can alleviate the staffing burdens that can be associated with modernization projects.

Downtime

Turned off by previous IT projects that have, in some cases, contributed to significant downtime in the agency, as well as causing a negative impact for citizens, many state and local government agencies may be reluctant to go through that again. However, modernization can be done incrementally, while keeping existing IT systems online. This minimizes the impact to citizens, and to the municipality, as new systems are brought online and allows for a way to curtail downtime and build in a safety net.

The impact on citizens

Another concern for state and local governments is the potential for citizens to be negatively impacted by modernization, for example by introducing systems that could be confusing or make it difficult for them to complete self-service tasks like looking up their property taxes or paying their water bills. In many cases, the introduction of new, modern systems can actually make these tasks easier and provide new capabilities for citizens to interact with municipalities, including leveraging Internet of Things (IoT) technology to read water meters or provide information on empty parking spaces in municipal lots.

Security and compliance concerns

State and local governments are tasked with keeping a lot of data secure. At least 29 states have laws that require security measures to be enacted for any data collected, used and stored. Additionally, the Federal Information Security Management Act of 2002 (FISMA) and its December 2014 update, Public Law 113-283, all put in place more requirements if the agency handles any federal programs like unemployment insurance, student loans or Medicare. Modern networking equipment is typically more secure than most legacy systems. It includes controls and protection against the latest threats and can provide a better shield for sensitive information.

Cloud migration concerns

While cloud service providers have in many cases become more secure than on-premises systems, the hesitation still remains. State and local government agencies may also worry that a move to the cloud will hinder application performance, impacting productivity and the citizen experience. But as long as you have private connections to your cloud systems, you can ensure proper application performance and stronger security.



Solutions that can bolster modernization efforts

For government agencies that have been operating on their legacy systems for a significant period of time, the array of products and services they can use in their modernization efforts can seem dizzying. Government agencies have their pick of technology when they embark on modernization projects. They can turn to dedicated fiber internet connections, wide area networks (WAN), cloud services, as well as security, WiFi and voice solutions that will reduce costs and improve efficiency. Here are the top solutions to consider and how they support a modern government digital infrastructure.

Dedicated internet connections and routers

Municipalities can quickly and securely access the internet with reliable, high-speed fiber connectivity. This means it's easier to deploy modern applications to improve efficiency or better serve constituents, including IoT applications.

Private network access

Connecting multiple sites is critical for service delivery and collaboration. To improve network speed and reliability, and allow video streaming, government agencies are turning to private network access with Ethernet services that can link different locations, including data centers and cloud services.

Managed WANs

SD-WANs create a virtual architecture that lets government agencies leverage a variety of transport services, including LTE and broadband internet, and choose which applications are prioritized over the network. This optimizes bandwidth and allows users to direct traffic over primary and secondary network connections. Government agencies can also take advantage of intelligent routing for their network traffic. Modular networking solutions, which bring connectivity, security, routing LAN services (like WiFi and switching) and SD-WAN under one umbrella, have benefits too. One of the biggest is having connectivity, equipment and network management from a single provider. With a managed solution, agencies can leverage and benefit from the expertise of a connectivity solution provider for planning, design, implementation and operational support. Municipality IT staff are removed from burdensome day-to-day management, while still having access to real-time insight into the health of their networks.

Private cloud connections

The cloud is being used to support modernization efforts, and that can include public cloud services like AWS and Azure. Governments can reduce security risks by using private cloud connections that offer dedicated, high-speed, private network access to public cloud services.

Security solutions

Security services that include a firewall and unified threat management (UTM), intrusion detection and prevention, anti-malware, anti-virus, event log management and more can protect sensitive data and provide the extensive controls necessary to protect your system from cyber attacks. Distributed denial of service (DDoS) protection is also key for guarding against volumetric attacks that could overload the network and cripple access to applications, systems and information by both employees and citizens.

WiFi

Being able to connect to the internet across multiple access points or buildings can help government agencies serve their constituents more efficiently. A managed WiFi service — that includes design, installation, service and support — means cost savings and less need for staff support.

Voice and collaboration solutions

Being able to scale government phone services as needed, and having features that enable collaboration — such as chat, voice, video call and desktop share — can help improve efficiency within government agencies and reduce costs.

The clear benefits of modernization

Not only is technology changing, but so is the networking and tele-communications landscape. Citizens are demanding a more consumer-like experience as they engage with state and local government agencies, including mobile capabilities. Meanwhile, many agencies are considering and using more advanced technologies, including robotic process automation and IoT sensors to collect data. Initiatives like these often require upgrading legacy systems.

Modernizing not only brings cost savings by replacing aging, maintenance-heavy legacy systems with lighter weight, pay as you go or pay for what you need cloud solutions but also improves security, boosts efficiency and increases citizen engagement. When state and local governments embrace enterprise connectivity solutions and managed services as part of their modernization efforts, they not only achieve their goals but also become models that other government agencies can learn from.

More help for your modernization effort is available in our IT modernization readiness guide.

[Get the guide](#)

1. "IT Modernization in Government: Challenges and Opportunities," Center for Digital Government, 2020, <https://www.govtech.com/library/papers/IT-Modernization-in-Government-Challenges-and-Opportunities-128222.html>.

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