

3 Key Pillars to Optimize Government for the Future

State and local governments are undergoing a digital transformation to improve decision-making, deliver innovative citizen services, streamline operations and reduce costs — with the ultimate goal of improving quality of life for their citizens and employees.

For instance, the State of California is using a next-generation 9-1-1 solution to help improve emergency response.¹ Las Vegas is deploying sensors on heavily congested streets to detect traffic patterns and prevent accidents.² And the State of Utah has connected more than 1,400 education and healthcare clinic sites on a resource-sharing adaptive network to give teachers and students more capabilities (like taking courses via teleconferencing or conducting research in a digital library) and meet the big data needs of research universities.³

At the center of these digital solutions is a technology foundation that enables organizations to harness data and maximize its value — not only for today but for the future. This foundation consists of three pillars: an adaptive network, cloud-based services and built-in security.

The Pillars of Transformation

Pillar 1: The Adaptive Network

Traditional networks are unable to keep up with the ever-growing amounts of data government leaders are tasked to manage. To respond intelligently and flexibly to this continuous, high-velocity change, they are embracing the concept of adaptive networking. An adaptive network consolidates disparate connections under a common,

software-defined umbrella to improve efficiencies and gain greater insight, while adding resilience, control and automation. Drawing on real-time data, this unified platform can instantly predict, prioritize and dynamically respond to changing needs (e.g., storage, bandwidth or security) to ensure uninterrupted, secure access to data, applications and services.

These capabilities are crucial for things like interactive voice response (IVR) systems used to provide assistance in health and human services, high-resolution video feeds and imaging required for on-the-scene triage during public emergencies, data analytics needed to run smart cities and other sophisticated functionalities.

Pillar 2: Cloud-Based Agility and Innovation

Government data centers are reaching capacity as they run a multitude of resource-intensive applications and workloads to support citizen-facing services and back-office operations. Hybrid, multi-cloud environments provide the integration, scalability and performance capabilities organizations need for real-time data analysis, automation and continuous innovation.

Many state and local governments are taking cloud-based solutions a step further by incorporating as-a-service solutions (IaaS, PaaS and SaaS) and fully managed services to help fill talent gaps and alleviate the staffing, operational and financial burdens associated with on-premises IT resources. Using these cloud-based solutions, organizations can integrate public and private clouds, edge computing environments, IoT devices and on-premises systems to

Keeping Pace with High-Velocity Change

With the three pillars as a foundation for digital transformation, state and local governments will be equipped to overcome some of the most common challenges facing the public sector.

Citizen Expectations

Eighty-five percent of citizens expect government digital services to provide the same or higher levels of service as the private sector.⁴ Cloud-based applications help many agencies increase agility and modernize their services quickly and effectively.

Proliferation of Data

IDC predicts IoT devices alone will generate more than 90 zettabytes of data by 2025.⁵ Highly flexible networks can push computing power, data storage and data processing to the edge to help curb costs, reduce data latency and better protect data.

Security and Compliance

State CIOs continue to rank cybersecurity and risk management as their top concern.⁶ Connected and built-in security allows agencies to improve their risk posture and better comply with regulations to protect sensitive data.

Staffing Shortages

More than two-thirds of government respondents in a Gartner survey said that a talent shortage was one of their top five risks.⁷ The right digital tools help improve employee satisfaction and retention and allow them to focus on higher-priority work.

create a framework that allows them to maximize the value of the data being generated, collected and shared across their enterprise. Organizations can use this data to deliver innovative services, reduce costs and improve operational efficiency — all of which provides agility to enhance the citizen experience.

Pillar 3: Connected, Integrated Security

As the network ecosystem expands, the attack surface becomes increasingly difficult to visualize, monitor and manage. Bolt-on, piecemeal security slows down the flow of data, interfering with an organization's ability to maximize data's value. It also creates gaps in security. To protect the network and the data traversing it, organizations need an integrated approach that builds security directly into the network.

Connected security is founded on the premise that the more an organization can see, the more attacks it can stop. It ensures infrastructure availability and application performance by providing global network visibility, consistently applied policies, identity and access management tools, and data and infrastructure protection tools that mitigate threats earlier in the attack process.

When consumed as part of a global threat intelligence service, connected security provides visibility, identification and defense against threats from both within and outside the organization. Equally important, it provides actionable threat intelligence by enabling organizations to understand threats within the context of their own environment and prioritize responses accordingly.

Future-Proofing Digital Transformation

Digital transformation is a complex process that requires agility and adaptability over time. With the three pillars of digital transformation — an adaptive network, cloud-based services and built-in security — state and local governments will be well positioned to move forward with modernization efforts that address the changes, challenges and opportunities of today while paving the way for the future.

What to Look for in a Digital Transformation Partner

When implementing the three pillars of digital transformation, government leaders should work with a trusted partner to ensure they create a cohesive, sustainable solution that truly meets the organization's goals. Some things to look for include:

- ➔ **State-of-the-art technology** that provides fast, reliable and secure end-to-end delivery of data and services, software-defined capabilities for networking and security, and easy integration and management of cloud-based applications and services
- ➔ **Deep expertise and experienced** staff that focus exclusively on delivering technology solutions to the public sector community
- ➔ History of **dedication to public sector** innovation and partnership
- ➔ **Proven methodology** to customize solutions that meet public sector requirements
- ➔ Hands-on, in-house **experience** with the solutions it offers
- ➔ **Commitment** to citizen experience and the community it serves
- ➔ Deep understanding of the problems that government organizations face and the ability to **collaboratively find custom fit solutions**

This piece was developed and written by the Center for Digital Government Content Studio, with information and input from Lumen.

Endnotes

1. <https://www.companynewshq.com/company-news/telecoms-company-news/centurylink-chosen-by-state-of-california-to-deliver-faster-more-reliable-911-system/>
2. <https://www.govtech.com/fs/automation/Las-Vegas-Partners-with-NTT-to-Study-IoT-Impact-on-transportation.html>
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6. <https://www.nascio.org/TopTen/ArtMid/659/ArticleID/856/State-CIO-Top-Ten-Policy-and-Technology-Priorities-for-2020>
7. <https://www.gartner.com/en/newsroom/press-releases/2019-01-17-gartner-survey-shows-global-talent-shortage-is-now-the-top-emerging-risk-facing-organizations>

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