

Networking Solutions Address State Government Needs

State CIOs have witnessed aggressive change during the first half of 2020. The resulting uncertainties in government revenues have impacted state IT budgets. At the same time, work-from-home requirements for state staff have created almost overwhelming pressures on critical IT services. Maintaining the continuity of agency business operations has become a top priority. Ciena's portfolio of next-generation network devices, software, and professional services can help state IT teams overcome these challenges while containing cost.

While the future may seem daunting, the demonstrated adaptability of state CIOs translates into creative solutions. Rather than pulling back, state CIOs can start strategic and technical conversations with lawmakers, agency directors, and the public about how technology can help improve the citizen experience in this new environment. Strategic thinking integrates current platforms and technologies with the benefits of next-generation networking technologies. Realizing those benefits ensures 'anytime, anywhere, any device' access to digital government assets and maintains connectivity between agency locations, data centers, and backup sites.

Crucial roles emerge

Disruption stirs creativity. The twin tasks of reducing disruption and mitigating risk under severe budget constraints have pushed crucial state CIO roles to the forefront. Meeting the demand for increased government services and assuring business continuity while increasing communication with critical staff, public agencies, and private firms requires them to consider all possibilities. Strategic thinking within this context points to adaptability, scalability, and flexibility.

Building an infrastructure that supports current technologies and new capabilities requires a strategic and adaptive approach to common processes. Standard requirements such as cloud connectivity, backing up data centers, and managing cybersecurity risk balance against new bandwidth-intensive, legacy-sensitive digital applications. As the public demand for critical services grows, network infrastructure design must also consider the growth in data volume involved with video, 'smart' services, Artificial Intelligence (AI), analytics, mobile access, and automated back-office processes.

Transformation begins with efficiency

Although new technologies offer promise, every expectation for services and safety has a foundation in efficiency. In contrast, parallel agency- and application-specific networks used by many state governments drive inefficiency. New applications for those networks require capital funding and specialized support. Maintenance of TDM-based SONET/SDH networks becomes more difficult as technologies near their end of life. Network architectures feature increased latency, while lacking scalability.

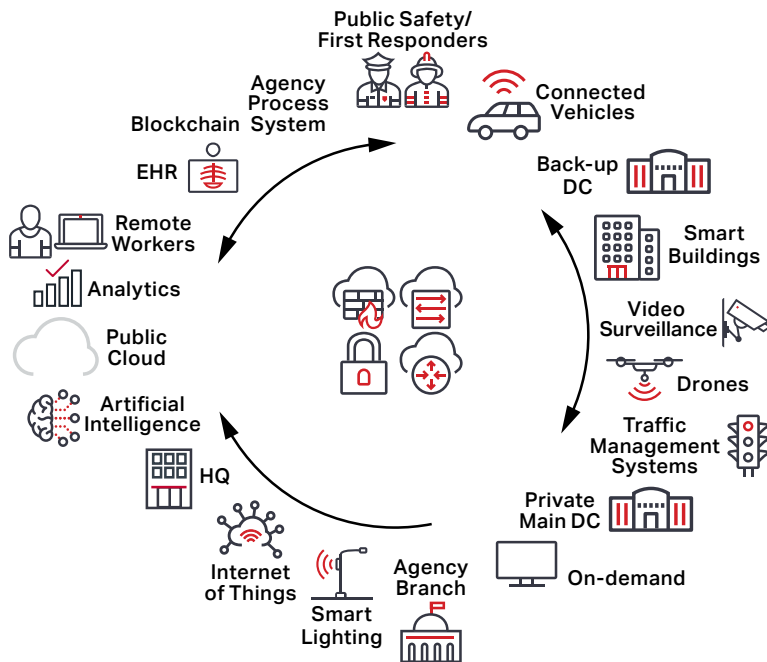
A firm foundation for achieving efficiencies exists within consolidated networks that deliver multiple applications, prioritize traffic where needed, and ensure access to services for agencies, businesses, and residents. Bringing dissimilar networks together while ensuring quality services saves costs and eliminates inefficiencies.

Answering the need

State governments face a critical need to modernize legacy networks while working within budget constraints. With those constraints in mind, state CIOs must find methods for wisely investing time and resources while ensuring always-on access to digital applications and data. In this

Challenge

- Coordinating networks and services among multiple agencies, jurisdictions, vendors and platforms
- Converging infrastructure while ensuring critical traffic prioritization
- Becoming more agile and flexible in operations



Opportunity

- Orchestration of multiple domains and vendors and management through single 'pane of glass'
- Improve operational agility and cost reduction while ensuring priority of critical traffic
- Flexibility to rapidly add network functions at and capacity where and when needed

new environment, network professionals seek solutions that increase the performance of existing platforms and allow state governments to deploy infrastructure as a service.

Modernize networks to improve performance

Ciena assists state CIOs with improving the performance of existing network services through cost-efficient Time Division Multiplexing (TDM) to Packet IP migration technology that enables high-priority, latency-sensitive applications while still supporting legacy TDM-based services. Ciena's intelligent network automation software reduces errors, improves service delivery and assurance, and reduces operational expenses. These technologies enable state IT teams to deliver a higher-quality constituent experience through scalability, flexible connectivity, and on-demand services.

Ciena's Blue Planet® Route Optimization and Analysis (ROA) software gives network administrators the advantage of controlling and improving the performance of IP/Multiprotocol Label Switching (IP/MPLS) networks while delivering critical services to end users.

Automation and orchestration to increase efficiency

Blue Planet Multi-Domain Service Orchestration (MDSO) enables easier optimization of networks through its ability to automate the end-to-end delivery of services by orchestrating the management of multi-vendor devices across network domains. While ROA offers real-time visibility into routing

behaviors and service delivery, combining ROA analytics with MDSO and programmable network devices facilitates the transition to networks that adapt.

Consolidate disparate networks into enterprise architecture

In addition, integrating technologies such as Ciena's packet-optical platforms with existing legacy platforms allows state agencies to consolidate network services within budget and resource constraints. State agencies gain the freedom to reimagine and redesign services. For example, as part of a suite of TDM-to-packet solutions, Ciena's 6500 Packet Transport System (PTS) moves state government networks away from costly fragmented networks that operate through different types of technologies, protocols, and processes while still supporting legacy TDM services.

Enriched citizen experiences occur through smart, connected governments, enhanced transportation systems, and access to digital applications. Each of these experiences becomes possible through programmable network devices, end-to-end intelligent automation, and virtualized edge solutions.

Contact [a Ciena expert](#) to learn more about how these solutions can decrease operational costs and complexity.



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Yes

No