NETSCOUT®

nGeniusONE Service Assurance for State and Local Government Services

State and Local Government agencies are digitally transforming how they deliver civic services to State, City, County, and Provincial residents, embracing next-generation Cloud, mobile, Web, and voice/video platforms to improve efficiency, reduce costs, and ease access. With so many of today's technology-savvy residents preferring to use their electronic devices to conduct government business (e.g., tax payments, permit applications, snow removal requests), frequently understaffed Government IT teams find themselves managing more technology platforms with increasing real-time performance demands and network traffic associated with larger transaction volumes. Conversely, many of these same IT teams are also challenged with managing aging technologies still used to deliver critical government services, with many of these legacy solutions not moving to Cloud or other digital platforms due to concerns that include security, standards compliance, and operating expense.

While agency resources are stressed in managing these hybrid IT environments (i.e., traditional IT, private cloud, and public cloud), the changing scope of innovative government services emerging at the state and regional

levels poses further challenges, with initiatives that include transforming 911 voice/video/collaboration technology to better support residents and first responders, implementing "Smart City" projects reliant on Internet of Things (IoT) technology to improve quality of life, and shared services collaborations featuring cooperative IT resources (e.g., co-located data center operations supporting cities and adjacent counties).

Performance Issued Solved by nGeniusONE

The NETSCOUT® nGeniusONE® Service Assurance platform delivers end-to-end visibility required to successfully implement and manage the complex technologies deployed in today's government digital transformation initiatives, including Hybrid Cloud, Unified Communications & Collaboration (UC&C), wired/wireless/virtualized network, IoT deployment, and customized government application services. NETSCOUT empowers government IT organizations to achieve peak operating efficiencies, protect user experience, deliver consistent and reliable service levels by predicting and preventing performance issues, and simplify the management of complex, high-performance environments.

In assuring government business against a variety of disruptions in their digital services (whether in availability, performance, or security), nGeniusONE leverages NETSCOUT's smart data technology and smart analytics to help transform IT's approach to planning, testing, integrating, deploying, and delivering government services and applications. The nGeniusONE platform provides service assurance solutions that address wide-ranging IT performance management concerns, including:

- **Application Assurance** – Provides out-of-the-box support for 1,000+ custom, voice, video, business data, and Web-based apps, as well as common platform protocols, (e.g., DNS, DHCP, etc.).
- **Network Service Assurance & Visibility** – Provides rapid and clear insights into service performance across the entire IT environment, from network, application, UC&C, and user community perspectives. nGeniusONE enables network-wide capacity planning and service availability management with customizable reporting, enabling IT to prepare for Data Center expansions, 911/311 Contact Center transformations, and Cloud migration, as well supporting network operations
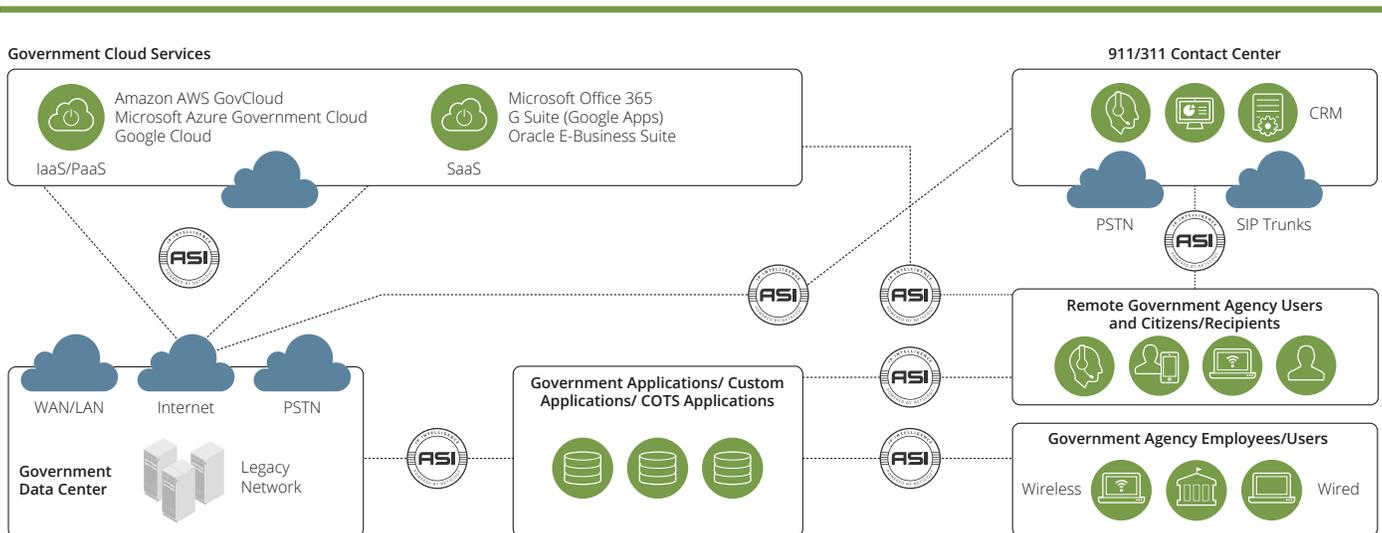

Figure 1: nGeniusONE equips Government IT to manage the complexity of digital transformation technology, including next-generation Data Center, Contact Center, and Cloud Services.

across City campuses and geographically distributed State offices (e.g., DMV, court networks, law enforcement facilities, etc.)

- **Cloud Performance** – Provides visibility into hybrid Cloud-based business services and contextual workflows to speed problem resolution, using NETSCOUT's smart data and smart analytics. When leveraging NETSCOUT's vSCOUT™ and vSTREAM™ Cloud Management platforms, nGeniusONE provides deeper visibility into the interactions of the many components of modern applications running in hybrid Cloud deployments.

- **UC&C Performance** – Provides real-time visibility into end-to-end service performance for voice and video sessions that enables powerful analysis and troubleshooting for both proactive and reactive service management tasks.

- **Security Assurance** – Provides the visibility into potential service performance problems, enabling IT teams to proactively triage outages or degradations before they impact users, accelerate through security forensics, and rapidly respond to problems.

Support for Government Services

In helping IT teams improve how they assure government services, NETSCOUT technology continuously monitors the service delivery environment to identify performance issues and provide insight into network-based security threats, helping administrators and users alike to quickly resolve issues that can cause business disruptions or impact user experience.

nGeniusONE simplifies the challenge for IT in delivering high-quality, consistent user experience for government services by providing the following key analysis layers:

- **Service Dashboard** – Provides real-time "at-a-glance" status visibility of all government business services, including their network, application, and UC&C components, enabling IT to prioritize troubleshooting and reduce mean-time-to-repair (MTTR). Integrated service alarms and analytics-based, intelligent early warnings enable IT organization to proactively and predictively protect service availability and performance.

- **Service Monitors** – Specialized Traffic Monitors, Service Enabler Monitors, Network Management Monitors, and a Universal Monitor for managing network, application, and voice performance DNS, HTTP, and Database Service Monitors expose unique application characteristics and provide the agility to configure support for specific applications not available in any other platform.

- **Service Dependency Mapping** – Provides visibility into all dependencies among various components that deliver a broad spectrum of government IT services. The Service Dependency Map enables IT teams to analyze the service delivery environment and discover the client-server relationships and messaging performance.

- **Site Monitoring** – Enables IT teams to monitor from data centers out to remote facilities across their WAN links to ensure response times for other Government applications are responding at acceptable levels.

- **Situation Analysis** – Identifies network anomalies using an advanced analytics engine that automatically establishes performance baselines and generates alerts on significant deviations from these baselines.

- **Session Analysis** – Provides contextual drill-downs from Service Monitors to specific session-level analysis, ladder diagrams, and hop-by-hop transaction analysis to help identify specific issues.

- **Packet Analysis** – Enables IT teams to perform deep-dive, protocol-level analysis and forensic evidence collection of government applications and services.

Benefits of nGeniusONE for Government Services

- **"Do more with less":** Provides quantifiable MTTR reductions and improved IT collaboration necessary to enhance IT efficiencies and reduce third-party toolsets.

- **Navigate the "innovation impasse":** Provides application assurance for the custom apps frequently deployed to extend the longevity of legacy government applications, as well as COTS applications operating in the Data Center, Contact Center, and hybrid Cloud.

- **Address audit concerns:** Provides reporting and forensics evidence with Compliance Management activities, with NETSCOUT smart data assisting with ongoing data governance activities

- **Assure Cloud Migration success:** Provides necessary capacity planning, and enables IT to establish cost-effective and pervasive visibility across hybrid Cloud environments, quickly identify root cause and repair service issues, and optimize service performance and minimize cost.

- **Improve 911/311 Contact Center efficiency:** Provides end-to-end visibility into multi-vendor UC&C technology performance to optimize all "live" resident exchanges, with nGeniusONE's advanced media analytic leveraging NETSCOUT smart data to provide real-time assessment of voice, video, and signaling performance quality.

- **Assure Government Data Center expansions and consolidations:** Provides necessary "before, during, and after" views of Data Center performance to ensure government service delivery is not adversely impacted by Data Center transformation.

- **Leverage smart data required for security assurance:** Offers security features that include Situation Analysis to identify network anomalies, as well as Forensic Analysis required for deep-dive protocol-level analysis.

NETSCOUT®