

Service Assurance in State Government



Many State Government information technology (IT) teams today are balancing two high-profile missions:

- Implementing digital transformation initiatives that improve service delivery and reduce operating expenses (OpEx).
- Addressing daily demands tied to their role as “IT service provider” to dozens of essential State agencies.

Further complicating those challenges, these IT teams face budget fluctuations, greying workforces, and aging technology environments, as well as State-critical network platform migration and expansion plans.

State residents are adversely impacted when digital initiatives falter and cause government service delivery issues. For those reasons, State IT teams benefit from service assurance solutions providing end-to-end views into, and always-on monitoring of, their disparate multi-vendor network, application, hybrid cloud (AWS, Microsoft Azure), virtual (VMware), and Unified Communications & Collaboration (UC&C) services.

Our Approach

The NETSCOUT® nGeniusONE® Service Assurance platform provides State IT teams with the end-to-end network visibility and continuous, real-time monitoring necessary for assuring valuable business applications for agency users and constituents. Further,

as high-profile deployments for State-level digital transformation projects are rolled out, nGeniusONE provides visibility throughout the initiative, from pilot phase, to subsequent transitions involving initial production, and onto ongoing agency operations.

Our patented Adaptive Service Intelligence® (ASI) technology is an intrinsic element of NETSCOUT's Service Assurance solution, providing a common data source for nGeniusONE performance analytics by transforming high-value network packets into “smart data” in real time. Our approach also factors NetFlow data, with those data elements complementing core InfiniStreamNG® (ISNG) software and hardware appliance data sources, with NetFlow converted to NETSCOUT smart data for nGeniusONE “smarter analytics.”

Our Solutions

The nGeniusONE platform addresses the strategic planning initiatives articulated by today's State Chief Information Officers (CIOs), equipping IT teams with a solution that provides a services-oriented approach toward ensuring critical State services – reliant on network, voice, video, email, mobile, virtual, and cloud platforms – are available and performing at high levels.

In leveraging NETSCOUT smart data to provide a common set of performance analytics, our approach helps unite State Network, Application, and UC&C teams and IT business owners.

State agencies today are using NETSCOUT to tackle the IT challenges detailed in the subsections that follow.

Broadband & Connectivity Services Support

Many State IT teams continue their efforts to provide available, reliable, and cost-efficient Internet access to residents and schools, especially in regions with rural populations.

The nGeniusONE platform leverages NETSCOUT smart data to provide critical insights regarding how new broadband services are performing before problems become customer constituent. nGeniusONE delivers detailed IP-level insight and holistic visibility into network and service domains, providing IT teams and their third-party WAN providers with actionable intelligence to reduce mean-time-to-repair (MTTR). This may also aid in preventive measures for the IT team, as ongoing historical analysis and reporting will illustrate trends that may lead to adding or reducing bandwidth prior to a user-impacting bottleneck or to avoid over-subscription and cost overrides.

Cloud Migration Support

In response to many CIO priorities, IT teams are migrating to cloud-based platforms and Infrastructure-as-a-Service (IaaS) solutions to maximize staff efficiency and service delivery, while reducing OpEx. Our approach enables government agencies to migrate to cloud platforms with confidence. In hybrid cloud environments, nGeniusONE provides visibility across the entire service stack, including the interdependencies involved in the application and service delivery infrastructure. Our solution also leverages NETSCOUT's pervasive instrumentation for cloud environments with vSTREAM® virtual appliances. vSTREAM helps provide cost-effective visibility necessary for assuring cloud and virtual transformation project success, using ASI-generated smart data to assess performance before, during, and after migration, regardless of the private, public, or hybrid cloud strategy or vendor technology (e.g., AWS, Azure, Google Cloud, VMware virtual servers) utilized.

Contact Center Support

With State Contact Centers supporting residents' abilities to conduct important financial business and coordinate human services support, there are ongoing needs to assure high-quality service delivery for government agencies and flawless user experience.

Government agencies are improving the quality of services delivered to residents by nGeniusONE to provide visibility into, and real-time monitoring U&C, network, application, and cloud services environments, as well as unified communications as a service (UCaaS) solutions.

Cybersecurity Support

With many States prioritizing cybersecurity safeguards, government agencies must have real-time, accurate insights into their IT security postures to enable swift and effective responses to cyberthreats. The nGeniusONE platform provides visibility into potential service performance problems, enabling IT teams to proactively troubleshoot outages or degradations before they impact users, accelerate through security forensics, and rapidly respond to problems.

In addition, NETSCOUT's Omnis® Security platform includes:

- **Omnis Cyber Intelligence** – Provides a central console for network-based threat/risk detection and contextual threat investigation (its primary use case) using network-derived Smart Data and packets collected via ISNG and vSTREAM instrumentation (via NETSCOUT Cyber Adaptor) and our Omnis® CyberStream data source. Omnis® Cyber Intelligence provides bi-directional integration with SIEM/SOAR solutions (sending alerts to SIEM, enabling contextual investigation from SIEM), as well as our Arbor Edge Defense® (AED) hybrid DDoS protection solution.
- **Arbor Edge Defense** – Deployed on the network perimeter, inside the router and outside the firewall, Omnis Arbor Edge Defense detects inbound and outbound (e.g., north/south) threats, such as DDoS attacks, scanning, brute force password attempts, malware and other IoCs using highly scalable, stateless packet processing technology and threat intelligence.

- **NETSCOUT ATLAS Intelligence Feed (AIF)** – AIF is a NETSCOUT-curated, threat intelligence solution for detection of DDoS and other cyber threats. The AIF solution feeds Arbor Edge Defense and Cyber Intelligence solutions, enabling network-based detection and mitigation.

Data Center Transformation Support

State agencies are transforming Data Center operations to incorporate hybrid public/private cloud services, virtual platforms, software defined networks, and conventional infrastructures. Our smart visibility solution leverages software, virtual, and physical data sources to convert network traffic traversing these end-to-end environments into smart data consumed by nGeniusONE performance analytics. In this manner, nGeniusONE provides single-pane-of-glass views into these next-generation data centers, including real-time monitoring of application, UC, and network service elements that now rely on cloud, virtual, and traditional platforms.

Network Visibility Support

As State IT networks grow and evolve to accommodate new digital platforms and additional users, so too are associated performance monitoring infrastructures. The challenges are especially acute as IT teams upgrade their networks to 40G and 100G.

NETSCOUT nGenius® packet flow switch (PFS) software and hardware appliances optimize the flow of traffic from the network to security systems and the nGeniusONE platform, providing traffic aggregation, distribution & load balancing, and interface/speed conversion. IT teams benefit from the NETSCOUT PFS solution's ability to optimize and scale nGeniusONE and cybersecurity deployments, so that they can spend less time adding, testing, and managing their tools.

In addition, the NETSCOUT nGenius®PULSE application (which integrates with nGeniusONE) provides IT teams with a solution for accountability for third-party SaaS SLA compliance by sharing verifiable performance data.

Service Edge Visibility Into Remote Government Worker Experience

NETSCOUT's innovative Smart Edge Monitoring (SEM) solution provides IT Managers real-time performance visibility into the digital experience of the distributed workforce in the modern government agency environments. NETSCOUT Smart Edge Monitoring enables government agencies to maintain business continuity, ensure application performance, and optimize employee productivity. This solution provides robust, comprehensive visibility via NETSCOUT ASI "smart data" for integrated, smarter analytics from nGeniusONE Service Assurance solution.

Our Value to State Government

NETSCOUT Service Assurance solutions enable State Government IT organizations to:

- Reduce MTTR to pinpoint the source of slow-downs in State services impacting employee productivity and/or residents' ability to access benefits.
- Successfully pilot and implement digital initiatives and migrate associated platforms with confidence.
- Vendor-agnostically visualize wide-ranging third-party and custom applications operating across large-scale data centers and in the cloud.
- Establish proactive, cost-effective bandwidth management plans with baselines of service utilization and response times of new and existing services.
- Achieve high-quality service delivery end-to-end across data center, cloud, network, and remote service edges necessary for high-quality end-user experience.
- Reduce mean-time-to-knowledge (MTTK) with rapid service troubleshooting.
- Save time by eliminating finger-pointing between IT project stakeholders and vendors.



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