

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 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 by 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 complaints. 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.

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, Arbor Networks, the security division of NETSCOUT, provides cybersecurity solutions that complement NETSCOUT's Service Assurance portfolio, including:

- **Arbor Edge Defense (AED)** – A DDoS protection solution for cybersecurity teams that acts as first- and last-tine defense for the organization.
- **Arbor Cloud DDoS Protection for Enterprise** – Combines on-premise AED DDoS defense with global cloud-based traffic scrubbing services for best of breed, hybrid, DDoS attack protection.
- **Arbor Threat Analytics (ATA)** – An enterprise-wide network threat and risk investigation solution that helps reduce the impact of cyberthreats on the business.
- **Arbor Networks Spectrum** – When combined with NETSCOUT ISNG software and hardware appliances, Spectrum provides a high-performance network threat analytics platform that helps IT reduce the “time to know” critical threats are already inside the organization.

Data Center Transformation Support

State agencies are transforming Data Center operations to incorporate hybrid public/private cloud services, virtual platforms, 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 are growing and evolving 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.

Shared Services Support

In implementing shared services (e.g., data center and cloud resources) for multiple government services, many IT teams are addressing budget challenges by realizing associated cost reductions and operational efficiencies. However, such shared services are often accompanied by Service Level Agreements (SLAs) that require the need to assure network, application, UC&C, cloud, and virtual performance elements. For these reasons, IT teams benefit from nGeniusONE's ability to leverage key data points from the network, application, server, database, and devices to provide service-oriented analysis. In this manner, the nGeniusONE platform visibility across the entire service delivery fabric, enabling all branches of IT to ensure high performance delivery.

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

Web-based Services Support

Web-based services support citizen and business access to numerous government resources, including housing, automotive registration, unemployment, property, and tax functions.

For Web-based applications, nGeniusONE provides a comprehensive view of service performance across complex multi-tier, multi-vendor, and multi-location environments. In providing agencies with a single platform with which to assure delivery of Web-based services, nGeniusONE provides real-time analysis for visibility of all HTTP and HTTPS traffic flows, removing the need to rely on server agents or vendor-specific tools.

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 the enterprise, on premise, or in cloud and virtual platforms
- 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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