

Successful Government Agency Network Migration Success Achieved with NETSCOUT

Improving Video Service Quality & System Redundancy for Critical Agency Monitoring Activities

OVERVIEW

The Challenge

- Network migration from legacy WAN to MPLS technology, with requirements for improved high-value video monitoring
- Extended system redundancy requirements

The Solution

- nGeniusONE® Service Assurance platform, with UC smart analytics
- InfiniStreamNG™ appliances with ASI-generated smart data
- nGenius® 5000 series packet flow switches, supporting 10GbE deployment
- nGenius PFS Fabric Manager

The Results

- Reduced risk in securing next-generation network technology rollout by extending business partner continuity
 - Improved transport video delivery capabilities, with finer-grained UC performance monitoring metrics
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Customer Profile

This government agency provides logistical management for global-scale, high-value transportation services.

The agency places the greatest-possible premium on securing the network, application, and high-fidelity Unified Communications platforms used to deliver streaming video services (in MPEG2 and MPEG4 formats) in low-latency environments. As a result, the agency has designed redundancy throughout data center operations, with primary and secondary data center facilities architected to switch as-needed to failover sites.

The agency effort associated with safely delivering transportation services requires the support of thousands of employees and some 30 global data center locations.

The Challenge

The agency had for years relied on the quality of high-value streaming video activities over a legacy Wide-Area Network (WAN). With this WAN technology, the agency benefited from reliable streaming video service delivery that factored both reduced network latency and minimized jitter (i.e., video display screen flickering). During this time, the agency relied on the NETSCOUT® nGeniusONE Service Assurance platform and InfiniStream data sources to monitor the WAN, provide the video monitoring solution they required, and deliver effective troubleshooting workflows.

While the WAN provided reliability to the agency, this legacy network solution presented some longer-term issues in terms of maintenance and support, including, perhaps most importantly, security challenges. For these reasons, the agency engaged their trusted technology partners to commence a strategic, multi-phase project to transition their transport video network to a

platform running on Multi-Protocol Label Switching (MPLS) technology, which would offer the following benefits:

- Advanced quality of service (QoS) metrics support for video-based communications
- Enhanced disaster recovery support
- Reduced operating expenses (OpEx)

Regardless of the vendor selected for video monitoring on MPLS, it was of utmost importance that this next-generation solution deliver as good, if not better, network and application performance, security, and video monitoring capabilities than they had come to expect from their WAN.

Solution in Action

Based on the agency's long-standing experience with NETSCOUT's Service Assurance technology, as well as their preference for a single-vendor approach offering converged performance management and Unified Communications (UC) monitoring capabilities, the agency selected the nGeniusONE platform to support their network transformation.

The agency is realizing a key goal for reducing potential network latency normally associated with traffic moving across the WAN on a global infrastructure, installing InfiniStreamNG (ISNG) technology to:

- Capture traffic traversing in/out site locations
- Monitor latency and jitter from site to site
- Aggregate traffic to multiple monitoring tools
- Provide real-time/historical reporting and troubleshooting capability

The ISNG appliances use patented Adaptive Service Intelligence™ (ASI) technology to generate the NETSCOUT "Smart Data" required for end-to-end visibility (including analysis of jitter and packet loss) across their transport video delivery environments. The nGeniusONE platform's performance analytics leverage this smart data to provide real-time, contextual analysis of service, network, and video application performance.

In providing them with the MPLS network monitoring they need, nGeniusONE enables IT resources to:

- Use unified real-time and historical views to gain critical visibility into application performance within MPLS environments
- Troubleshoot degradations within the MPLS environment in real time or using back-in-time forensic analysis
- Report on historical trends for network planning purposes

In delivering required redundancy and disaster recovery support for the transport delivery system, the agency installed nGenius packet flow switch (PFS) appliances in their data centers and remote locations to aggregate, replicate, and manage the flows of traffic throughout the network.

The Results

A critical success factor for this project involved reducing the risk associated with network transformation by relying on long-time business partners and service assurance technology familiar to them; in this case, NETSCOUT's nGeniusONE Service Assurance platform.

Regardless of their data center location, the agency's Network Operations team now has enhanced views into streaming video performance, free of latency and jitter that would otherwise compromise their ability to monitor video traffic, sessions, and services. Network Operations is taking advantage of nGeniusONE's enhanced network monitoring features to optimize system performance, including employing bandwidth usage, reporting, capacity planning, and trending analysis functionality.

The agency benefits from enhanced troubleshooting workflows, with nGeniusONE single-pane views providing contextual analysis of converged network and video environments.

The agency is also future-proofing its investment in this transport video monitoring network, with NETSCOUT's vendor-agnostic nGeniusONE platform and ASI-based data sources supporting investments in other vendor monitoring and cybersecurity toolsets.

LEARN MORE

For more information about NETSCOUT Government Agency solutions, please visit:

<https://www.netscout.com/solutions/federal-department-defense-agencies>



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