

Visibility During Cisco ACI Data Center Migration Strengthens Government Trust

NETSCOUT Service Edge Visibility Assures Uninterrupted Agency Business

OVERVIEW

The Challenge

- Planned data center and Cisco ACI SDN projects required enhanced visibility and real-time monitoring for reliable performance
- NetOps concerns regarding loss of visibility and IT control, security, and SLA compliance

The Solution

- nGeniusONE® Service Assurance platform
- NETSCOUT® InfiniStreamNG® appliances
- nGenius® 5010 Packet Flow Switches

The Results

- Seamless data center and Cisco ACI transitions
 - Uninterrupted service delivery to users across large-scale agency network
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Customer Profile

The agency's innovative Network Operations (NetOps) team has earned notice for their efforts to maximize annual budget allocations while modernizing the technology platforms used to deliver government services to their employees.

Their deployed NETSCOUT Smart Visibility and nGeniusONE real-time analysis solutions had long supported the agency's network performance monitoring and troubleshooting needs.

The Challenge

The NetOps team was tasked with assuring a successful data center operations technology refresh and migration to an on-premises environment.

For years, this team had relied on NETSCOUT's nGeniusONE Service Assurance solution with InfiniStreamNG (ISNG) appliances to monitor the agency's existing network and application activity and knew from trended reports that the new data center was going to require an upgrade to high-speed links in their environment based on increased traffic volumes over time. This would also require that the nGenius Packet Flow Switches (PFSs) and ISNG appliances could monitor at the new network speeds to assure visibility as traffic transitioned to the new network and continue real-time monitoring after the migration.

As part of ongoing agency data center transformation planning, NetOps had also identified a Cisco® Application Centric Infrastructure (ACI) software-defined networking (SDN) architecture as the next-generation solution best-suited to respond to their evolving network demands. In making the decision to move to Cisco ACI SDN, NetOps was motivated by potential reductions in cost, complexity, and IT overhead in managing performance across their distributed environment. Given the criticality of network performance to this agency's mission success,

NetOps had heightened concerns about outsourcing operations to any third party, particularly focusing on loss of IT control and security, as well as the need to realize performance that complied with the agency's negotiated Service Level Agreements (SLAs) with contracted third parties.

For the NetOps leaders responsible for success of these data center and network migration activities, there was no way to place a value on successfully completing these projects — especially with the high volume of agency business traversing their global network and the need to safeguard confidential data running on it.

Solution in Action

The NetOps team assured success of their data center operations, SDN migration, and technology upgrade activities by again leveraging NETSCOUT's performance analytics, smart visibility solutions, and advanced subject matter expertise. As a result of this approach, NetOps incrementally supplemented their installed nGeniusONE investment to include the following:

- ISNG appliances instrumented in key vantage points to deliver end-through-end visibility into the traffic traversing their data center operations and virtualized Cisco ACI SDN environment. With this deployment, ISNG technology uses NETSCOUT's patented Adaptive Service Intelligence® (ASI) technology to perform real-time conversion of network packet traffic into the smart data used by nGeniusONE single-pane views into the data center, ACI, applications, and infrastructure services supporting the agency's mission.
- nGenius 5000 series PFS appliances supporting high-speed network segments, including 40GB, by distributing wire traffic from network links in the Cisco ACI deployment to ISNG appliances, as well as other downstream third-party monitoring and security tools.

The availability of familiar nGeniusONE Service Dashboard and Service Monitor workflows provided NetOps with before, during, and after views and reporting that were used to inform agency leadership that services had not been interrupted by these data center and network transitions. Additionally, NetOps was able to better collaborate and provide as-needed forensic evidence to Cisco to ensure ACI SDN performance was delivered in compliance with an SLA that defined 99.999% service uptimes.

In complementing NETSCOUT's technology commitment to this Network and IT Operations environment, long-time account management resources have continued to provide recommended-practices guidance to the personnel managing nGeniusONE analysis and ISNG and PFS Smart Visibility sources at the agency. In this manner, NETSCOUT resources bring operations continuity to benefit NetOps personnel focused on maximizing day-to-day operations.

The Results

Historically, when issues occur in this agency's network operations, the nGeniusONE solution is their immediate go-to resource. That level of government reliance on the NETSCOUT solution and local account team has occurred as a result of years of vendor partnership and real-world visibility, monitoring, and forensic troubleshooting successes delivered by NETSCOUT.

As seen in this government-level data center and Cisco ACI SDN migration success, NETSCOUT's service edge visibility and ability to monitor hop-by-hop network and application processing have never been more valuable to this NetOps team.

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