

# Monitoring to the Edge with Smart Visibility in Data Center Operations

Network Security team leverages NETSCOUT Service Assurance

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## OVERVIEW

### The Challenge

- The new data center needed visibility into inbound and outbound network traffic on 10GgE links
- The applications key to back-end and customer facing operations needed availability and performance monitoring

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### The Solution

- nGeniusONE® Service Assurance platform
- InfiniStreamNG® appliances
- nGenius® 5010 packet flow switches (PFS) supporting 10G & 40G network speeds
- nGenius Packet Flow Extender (PFX) Software providing advanced switching capabilities

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### The Results

- Successful Data Center re-location, with uninterrupted service delivery to customers and employees
  - Nimble IT responsiveness in addressing growth
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### Customer Profile

This large, long established Credit Union has all the customer facing performance and security challenges of any retail bank. Although all of their branches are in one geographical region of North America, their territory includes a major metropolitan area and the surrounding suburbs as well as beyond to some very rural locations. They offer their members a wide portfolio of services that includes investments, deposits, loans, credit card services, and wealth management options. The Credit Union has the same goals as other financial institutions when it comes to providing their customers with ways to do their banking as flexibly and conveniently as possible. This has led to the introduction of applications for smart devices, web portals, and enhanced customer experience with call centers. Their business is growing both organically and through acquisition, and the organization is constructing a new data center to better support their members throughout the region.

### The Challenge

With this growth in business operations, the Credit Union's leadership reviewed the existing data center, network, and application monitoring investments. They concluded that the Network Security and the Network Operations team did not have the required visibility into all their traffic in all locations. Their requirements include visibility into their many network protocols and business applications, performance analysis of customer facing applications, trending of overall traffic utilization, utilization by application, alongside network bandwidth and capacity. Further, they needed a solution that would support their operations today, as well as in the future, as they implemented their digital transformation strategies for the credit union.

In an effort to establish a strong foundation for the protection of their members' data, and the continuous availability of their customer facing applications, they needed to deploy a monitoring solution that had visibility from their core network at the new Data Center location to the edge where customer transactions take place. They tasked IT with deciding how these two objectives could best be accomplished. The IT team's evaluation quickly discovered that the existing service assurance solution had not been fully implemented, primarily because the packet flow switching infrastructure was not adequate. It did not have sufficient usability to quickly make the changes in filtering and aggregation that were needed for troubleshooting. It also lacked the more advanced switching capabilities necessary to keep pace with the evolution of the network. Finally, visibility and analysis were not implemented widely enough. Additional taps and other physical access points were needed to provide truly pervasive visibility. The existing packet flow switch solution had become far too expensive over time to support the expansion and advanced features necessary to meet the growing demand for visibility throughout the transforming digital environment.

### Solution in Action

The way the IT team addressed these long- and short-term challenges is as follows:

- While the IT team had long used the nGeniusONE Service Assurance platform in their legacy environment, they knew additional data sources would be required to provide comprehensive visibility in the new data center. Implementing nGenius 5010 packet flow switches (PFS) to monitor many 10G network links at the company's data center locations, while providing the abilities to aggregate, replicate, and manage the flows of traffic throughout the network. The PFS then delivers specific network traffic to downstream monitoring systems, such as the InfiniStreamNG

(ISNG) 9700 series used here, often over even higher speed links such as 40G. The nGenius 5010 contributes to the future proofing goal by being flexible with available 10G and 40G ports able to be quickly configured to monitor new network segments or feed new tools as the network grows. By selecting the software model of the PFS, the credit union gained significant cost advantages as well.

- By installing the nGenius PFX Software, the advanced aggregation, distribution, and packet de-duplication features they needed today were provided. Further, both the PFS and the PFX met the future-proof goal because of the platforms' flexibility to be upgraded to support enhanced security or capacity requirements at a later date.
- Once these changes were made in the infrastructure, additional training was provided to ensure that service assurance and performance related metrics provided by nGeniusONE could be utilized by a larger number of IT personnel, from both the Network Operations and the Network Security teams.

These additional data sources are providing much-needed visibility into the new Data Center environment and passing network packet traffic to ISNG appliances for smart data to be analyzed by nGeniusONE performance analytics. IT seamlessly uses familiar Service Dashboards, Monitors, and Service Dependency workflows to successfully troubleshoot issues, regardless of their origin in the network itself or the applications depending on it.

### The Results

IT is now provided with single-pane snapshots of mobile application availability and user experience of all these services using nGeniusONE Service Assurance and application performance management functionality for real-time monitoring of the entire business system at the new Data Center.

Because of the budget savings made possible by deploying the NETSCOUT PFS and PFX solutions in the Certified software model on industry standard hardware, the path to grow the monitoring network as the production network grows is now far more cost-effective and affordable.

Successfully migrating financial services operations in this complex Data Center relocation without disruptions to customer transactions or employee productivity represented a major win for this IT group and enabled their Credit Union to easily accommodate their growing member base in the expanding regions they serve.

Extending their commitment to NETSCOUT as their service assurance and application performance provider enables the business to realize capital and operating expense efficiencies by using a single-vendor approach to address their traffic acquisition, Smart Data Analysis, and security requirements for monitoring in the new Data Center. When it comes to customers' access to their financial accounts, cost effective, enterprise visibility is essential!

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### LEARN MORE

For more information about NETSCOUT Service Assurance and Data Center Transformation solutions, visit:

<https://www.netscout.com/solutions/service-assurance>

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**Corporate Headquarters**  
NETSCOUT Systems, Inc.  
Westford, MA 01886-4105  
Phone: +1 978-614-4000  
[www.netscout.com](http://www.netscout.com)

**Sales Information**  
Toll Free US: 800-309-4804  
(International numbers below)

**Product Support**  
Toll Free US: 888-357-7667  
(International numbers below)

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