

US Energy Company Tackles Multiple Migrations

NETSCOUT Solutions Deliver Visibility

OVERVIEW

The Challenge

- Ensure visibility during and after migrations and other DX projects
- Root cause of issues difficult to identify in large diverse network and complex application base, all supported by distributed IT teams

The Solution

- nGeniusONE® with Unified Communications and Virtual nGeniusONE
- InfiniStreamNG® Software for Certified appliances
- vSTREAM™ virtual appliance
- Packet Flow Operating System
- nGenius®PULSE

The Results

- Visibility to 90% of relevant traffic, which enabled improved teamwork across IT and application triage across multi-tier applications
 - Reduced MTTR with nGeniusONE and nGeniusPULSE baselining and alarming
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Customer Profile

One of the largest energy companies in the U.S., this organization provides electrical power transmission and distribution generation to millions of customers over hundreds of thousands of transmission lines across multiple states.

For this energy company, technology is a critical part of the business for smart meter data collection, outage management systems, electric and power grid management systems, customer billing applications, contact centers, and agents. Disruptions of any kind in their complex enterprise environment is unacceptable.

The Challenge

The organization relies on NETSCOUT® nGeniusONE with Adaptive Service Intelligence™ (ASI) in their Data Centers to provide valuable packet-based intelligence to the Network, Application, Security, and Server/Virtualization teams.

IT initiated several migration projects to complete aggressive initiatives that support their digital transformation for improved customer experience:

- Migrate applications to Microsoft®Azure. Their corporate web site was a critical migration, since it serves as the “customer front door” to several self-service applications
- Upgrade Contact Center, which has over 500 Customer Service Representatives who receive thousands of calls a day, to a SIP VoIP platform
- Modernize the data center to leaf/spine architecture, with servers at the top of the rack, to give IT greater visibility to all traffic

The company has a large, diverse network with multiple Data Centers with over 200 physical locations that each have network access, a multitude of virtual servers—in total, over 5000 network devices, and hundreds of Tier 1 and Tier 2 applications. They rely heavily on Microsoft® Office 365™, Microsoft Teams, and Microsoft OneDrive for communication and collaboration. All of this is managed and supported by distributed IT teams, some of whom do not have in-depth network experience. With even more cloud and virtual environments being added, they needed to address any potential silos that would create difficulty identifying the root cause of an issue.

Solution in Action

Early in the project planning, IT made the decision that a key requirement in each migration project was to ensure, and even improve, visibility in all network environments. Working with NETSCOUT, the energy company leveraged their current service assurance solutions and expanded to the Cloud.

- Migration to Azure: Implemented Virtual nGeniusONE, vSTREAM and nGeniusPULSE. With the vSTREAMS in Azure and external web servers, they have the visibility to monitor traffic in the Cloud to identify performance or security issues. Importantly, with nGeniusONE packet capture capabilities, they have historical packet information to use if investigations are necessary. Using packet data facilitates advanced tuning for this IT team. Additionally, they are using nGeniusPULSE to run synthetic latency tests inside the Cloud and from the Data Centers to identify potential user-impacting issues. Tapping the Azure ExpressRoute links gives detailed performance views into the Platform as a Service (PaaS) interaction with the corporate data centers and applications that interface.

- Upgrade Contact Center to VoIP platform: Using the nGeniusONE and vSTREAM, the solutions deliver visibility to all Contact Center application's East/West traffic in the server clusters, as well as the energy company's North/South traffic interfacing with the company network. Combining strong application triage capability across multi-tier applications, and cybersecurity type visibility to errors and packets, the NETSCOUT solutions enable the company to be responsible for Tier 1 triage, and data gathering to provide to the application vendor for Tier 2 support.
- Leaf/Spine Architecture (Top-of-Rack Environment): Using nGeniusONE, COTS InfiniStreamNG (ISNG) and Packet Flow Operating System (PFOS), the IT team has visibility to 90% of all application traffic, enabling them to see 'blade-to-blade' traffic flows within the HP enclosure. The leaf switches have a permanent connection to a PFOS and ISNG for reactive troubleshooting. Using PFOS tags isolates the location of latency and facilitates easy access by multiple teams.

The Results

The IT division now has a total solution for visibility across all borders. NETSCOUT solutions combine real-time deep-packet acquisition and analysis, synthetic testing that runs even when no one is on the system, and drill-down capabilities, to more rapidly and accurately isolate issues. Having a single platform solution from NETSCOUT has improved sharing among teams, with Network, Security and Application teams all using the same data to drive decisions. Furthermore, the data and metrics from the NETSCOUT solutions are making collaboration with their new technology partners more effective.

nGeniusONE has become the "go-to" for all engineers, even those without a wealth of network experience, to see where in the network issues are occurring and impacting performance and users. Mean-Time-to-Repair has been reduced by baselining performance metrics, using alerts and quickly triaging issues. The company is maximizing the value of their overall investment in NETSCOUT solutions with the broad use across so many facets of their enterprise environment.

Deployment of the NETSCOUT Service Assurance Solution gives IT the visibility they need to ensure their digital transformation initiatives improve customer experience and business results.

LEARN MORE

For more information about NETSCOUT solutions for Federal Civilian, State & Local Governments visit

<https://www.netscout.com/solutions/federal-civilian-state-local-governments>



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