

Large U.S. Energy Company Takes Proactive Approach to Service Assurance with NETSCOUT Solutions

nGeniusONE and nGeniusPULSE enable pre-emptive mitigation of network and VoIP issues

HIGHLIGHTS

The Challenge

- Lack of visibility and inability to quickly triage performance issues with Advanced Metering Infrastructure (AMI) service (i.e. smart meters)
- Inability to rapidly troubleshoot business applications such as Office 365, Outage Management System (OMS), Crew Management System, SaaS, and VoIP

The Solution

- nGeniusONE® Service Assurance platform
- InfiniStreamNG™ Appliances
- nGenius® 3900 Series Packet Flow Switches
- nGeniusPULSE with virtual nPoints

The Results

- Ensures AMI performance, delivering better rates to customers and more control over energy production, lowering overall costs
- Reduces MTTR with ability to quickly identify, isolate and mitigate application and Cloud service issues
- Identifies which remote sites are experiencing VoIP issues, enabling prioritization for investment in deeper analysis



Customer Profile

As one of the largest energy companies in the United States, this organization provides electrical generation, transmission and delivery to millions of customers across multiple states. The company manages nearly a dozen electric utility operating companies and has subsidiaries that trade energy commodities in the deregulated markets. While in the process of implementing smart meters across its customer base, the utility placed a significant emphasis on performance, in particular preventing outages and service degradations to customers.

The Challenge

For this energy company, the rollout of smart meters was seen as highly beneficial for both consumers and the business. This proven technology would allow consumers to take advantage of lower rates by adjusting their utility usage during times of peak demand and implementing devices such as the Nest thermostat to automatically adjust usage. At the same time, more accurate usage information would enable the company to reduce spikes and valleys making it easier and more cost effective to manage energy production, as well as help avoid outages.

Because the Advanced Metering Infrastructure (AMI) service, i.e. the smart meters, rely heavily on network communications, the company's back-end infrastructure and applications were subject to performance issues, such as bandwidth contention, slow connections, and virtual services or key service enablers, that wreak havoc with applications. The challenge for IT was to quickly identify and isolate issues and reduce the time it takes to triage performance problems. The team needed critical visibility into the company's virtual servers, Enterprise Service Bus (ESB), and collection engines across distributed data centers, all without having to move between different tools.

Not long after the AMI project was implemented, IT faced pressure to improve their troubleshooting abilities for several other business application services including Microsoft Office 365, the Outage Management System (OMS) and Crew Management System. The company needed to ensure quality VoIP services - especially from remote sites and the customer facing contact centers. Failure to address these problems threatened to create unacceptable business risk which could impact customer service and revenues.

Solution in Action

The energy company's IT team turned to NETSCOUT® to pre-emptively avoid network issues and troubleshoot future potential problems. nGeniusONE servers and InfiniStreamNG appliances provided application service triage with encrypted drives for compliance. nGenius Series 3900 Packet Flow Switches (PFS) connect to the company's data centers and feed the InfiniStream appliances, along with a PFS switch manager and redundant server. PFS instrumentation is also employed in the company's contact centers to provide wire-traffic visibility for monitoring and analysis of UC&C services.

Because of the importance of assuring the performance of the company's AMI service, which has a significant impact on billing and energy usage reporting, IT leveraged their NETSCOUT deployment to quickly identify, isolate and mitigate application and cloud service issues as well. With port tagging in the PFS the IT team is able to isolate the network location where issues exist. nGenius PFS and the nGeniusONE platform are used to identify traffic patterns and usage trends, which in one case, exposed flows to an improper proxy. Further investigation revealed the proxy was not supported for Microsoft Office 365. Using the NETSCOUT solution, IT was able to quickly identify the problem, allowing reconfiguration of the system to avoid using the suspect proxy.

After the initial NETSCOUT deployment, the IT Network and Incident Management teams needed to address the issues impacting access and performance of some of their SaaS applications and quality issues impacting their VoIP service. After evaluating their options, they again turned to NETSCOUT and in collaboration with the Server team, they added nGeniusPULSE for ongoing synthetic testing of SaaS and VoIP services from remote sites and the contact centers. They are alerted to potential VoIP-impacting problems with new visibility into poor MOS scores, discards, high latency and packet loss. This information, gathered by nGeniusPULSE even when employees are not working, is used to perform deep dive triage of the situation in the call managers using contextual workflows with nGeniusONE.

The Results

The initial AMI project was valued at over \$100M and had high visibility at the executive level, so it was easy to justify protecting that investment with the NETSCOUT solution for only a small fraction of total project cost. Since implementing the NETSCOUT solution, the energy company's IT team has successfully ensured AMI performance, which is critical for delivering better rates to customers and more control over energy production, thus reducing overall costs. IT has been able to quickly remove performance barriers for users, proactively identifying and alerting of outages and service degradations, while at the same time increasing productivity.

After their success with the AMI project, the company extended the value of their investment by further leveraging their NETSCOUT deployment with the addition of synthetic testing with nGeniusPULSE to identify which sites were experiencing SaaS and/or VoIP problems. Once they had this data, they could correlate to the business criticality of the site and determine which sites warranted further investment to ensure quality service.

NETSCOUT's end-to-end solution provides a single solution with the visibility, early detection, and proper evidence necessary to troubleshoot response time issues before they impact the business or customers.

LEARN MORE

For more information about NETSCOUT solutions visit:

<https://www.netscout.com/solutions/digital-transformation-utilities>



Corporate Headquarters

NETSCOUT Systems, Inc.
Westford, MA 01886-4105
Phone: +1 978-614-4000
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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