

Energy Company Takes Proactive Approach to Service Assurance

NETSCOUT Solutions Deliver Pre-emptive Mitigation of Today's Network Issues and Tomorrow's Troubleshooting Requirements

OVERVIEW

Business Challenge

- Inability to quickly triage performance issues with Advanced Metering Infrastructure (AMI) service
- Lack of insight into AMI servers, Enterprise Service Bus (ESB), and collection engines across distributed data centers
- Inability to rapidly troubleshoot business applications such as Office 365, Outage Management System (OMS), Crew Management System, and UC&C services

NETSCOUT Solution

- nGeniusONE® quickly identifies, isolates and mitigates application and Cloud service issues
- Provides a service dashboard view into key services: data collection, SAP, Big Data analytics, Oracle, email and Cloud
- Leverages PFS port tagging to isolate the location of issues

Business Value

- Ensures AMI performance, delivering better rates to customers and more control over energy production, lowering overall costs
- Removes performance barriers for users, increasing productivity
- Provides early detection and speeds troubleshooting response times, reducing impact to the business and customers
- Provides capacity planning in support of a large technology implementation



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.

Business Challenge

For this energy company, rolling out smart meters was seen as highly beneficial for both consumers and the business. This new technology would allow consumers to take advantage of lower rates by adjusting their utility usage during times of peak demand and implementing smart devices such as the Nest® thermostat to adjust usage automatically. At the same time, more accurate usage information would enable the company to level out peaks 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, a key component of the smart grid, relies 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 insights into the company's virtual servers, Enterprise Service Bus (ESB), and collection engines across distributed data centers. In addition, IT was under pressure to quickly troubleshoot other business applications such as Office 365, the Outage Management System (OMS), Crew Management System, and Unified Communications & Collaboration (UC&C) services. Failure to address these problems threatened to create unacceptable business risk which could impact customer service and revenues.

NETSCOUT Solution

The energy company's IT team turned to NETSCOUT® to pre-emptively avoid network issues and troubleshoot future potential problems. Multiple, redundant nGeniusONE servers were installed, along with 9795 series InfiniStream® appliances for application service triage with encrypted drives for compliance. nGenius® 3900 series Packet Flow Switches (PFS) were implemented to connect to the company's data centers and feed the InfiniStream appliances, along with a PFS switch manager and redundant server. PFS instrumentation was also employed in the company's contact centers to provide connectivity for monitoring of UC&C services.

NETSCOUT Solution in Action

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 turned to NETSCOUT to quickly identify, isolate and mitigate application and cloud service issues. The NETSCOUT solution leveraged PFS port tagging to isolate the location of issues. nGenius PFS and the nGeniusONE platform were used to gain insights into traffic patterns, which exposed flows to an improper proxy. Further investigation revealed the proxy was not supported for this particular web application. Using the NETSCOUT solution, IT was able to quickly identify the problem, allowing reconfiguration of the system to avoid using the suspect proxy.

NETSCOUT has enabled IT to rapidly triage the environment, detecting and resolving service impacting issues. To facilitate triage, nGeniusONE provides a service dashboard view into key services, including data collection, SAP, Big Data analytics, Oracle, email and Cloud. In addition to providing important monitoring functionality, the NETSCOUT solution offers IT an invaluable performance baseline for use with new application rollouts and version upgrades.

Business Value

This critical 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. NETSCOUT's end-to-end solution provides early detection and the proper evidence necessary to troubleshoot response time issues before they impact the business or customers.

The NETSCOUT solution delivered benefits including:

- Ability to quickly identify, isolate and mitigate application and Cloud service issues
- Proactively notify of service and cybersecurity issues
- Deliver troubleshooting and capacity planning insights
- Lower mean-time-to-repair (MTTR)

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