Large Multinational Electric Utility Assures Smart Grid Data Transfer with Proactive Monitoring and Troubleshooting

NETSCOUT Solutions Enable Smooth Smart Meter Rollout and Improved Customer Experience

OVERVIEW

The Challenge

- IT lacked a proactive solution for both detecting and troubleshooting smart grid data collection problems
- Needed forensics on past smart grid performance issues to determine root cause post event
- Needed a solution to monitor and manage VoIP in call centers

The Solution

- TruView™ Network and Application Performance Monitor
- nGeniusONE® Service Assurance platform
- InfiniStream® appliances
- Packet flow switches

The Results

- Increased the reliability and performance of data transmitted from smart meters to the smart grid data center with proactive detection and troubleshooting.
- Increased IT productivity by solving intermittent problems using historical data, thus preventing time spent chasing them in the future.
- Improved customer experience by proactively detecting and troubleshooting call quality issues before they impact call center and customer interactions.

Customer Profile

This multinational electric utility is headquartered in Europe and services countries around the world, supplying electricity to more than 100 million customers. In addition to being a world leader in clean energy and fighting climate change, they are dedicated to digital transformation to provide better quality of service and more power options to meet the individual needs of customers, while providing more competitive pricing. Their customers and more than 20,000 employees depend on their advanced network and application services to be responsive and available. After all, there can be no ‘off’ when it comes to power companies!

The Challenge

As part of the utility’s ongoing effort to improve the customer experience and drive greater efficiency, smart grid technology, including smart meters were being rolled out to all customers. Because smart meters must be able to transfer information to the smart grid data center effectively and efficiently, reliability and performance of the Automated Metering Infrastructure (AMI) is absolutely imperative. Slow connections were creating delays in data collection, which meant customers couldn’t get real-time meter information on their mobile app or web portal. As the utility plans to roll out more time-based services and variable billing, data performance will be vital.

In order to meet the growing data demands of the business, the utility’s IT team faced the challenge of proactively monitoring and troubleshooting its networks. The existing solution, which was cumbersome and time-consuming, only provided reactive troubleshooting and had no ability to triage problems once intermittent symptoms ceased. IT needed the ability to perform forensics on past smart grid performance issues in order to determine the root cause after the fact, allowing them to make proactive corrections and prevent future problems. In addition, IT needed a solution to monitor and manage voice-over IP (VoIP) in the utility’s call centers for real-time issue discovery and problem solving.
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Solution in Action
In order to ensure the successful rollout of its smart meters, the utility turned to NETSCOUT® to more effectively monitor the transfer of information from smart meters to the smart grid data center. NETSCOUT’s TruView solution was deployed to monitor data flows and ensure network availability and performance. Using TruView, the IT team was able to detect both latency and connection problems. This was important because some locations were high-speed with fiber connections and others were low-speed data networks. The NETSCOUT solution allowed IT to detect issues proactively and troubleshoot them both in real time and historically using the back-in-time application. The back-in-time application allowed them to retrieve packet captures and conduct forensics to see what issues may have caused problems in the past, thereby solving ongoing and intermittent issues. TruView empowers IT to determine whether problems are related to a network issue or a protocol level issue on the smart grid.

The nGeniusONE Service Assurance platform with InfiniStream appliances was the solution of choice to achieve service assurance for VoIP in the contact centers. Wire-traffic was necessary for nGeniusONE to help pinpoint issues that could create a negative experience for their customers, including such things as dropped calls, connection delays and/or echo, to name a few.

NETSCOUT Packet Flow Switches were used to feed data to TruView and the InfiniStream appliances.

The Results
The NETSCOUT solution has proven to be tremendously beneficial to this utility. The IT team is now able to proactively detect and troubleshoot network and data center problems, thereby increasing the reliability and performance of data transmitted from smart meters to the smart grid data center. This has allowed IT to be far more productive, as they can now solve intermittent problems using historical data from the back-in-time application, thus eliminating the time that would be spent chasing down these issues in the future.

In addition, by detecting and troubleshooting call quality issues before they impact the utility’s call center, customer interactions are dramatically improved, ensuring the high quality customer experience – which is critically important to customer loyalty.

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