Global Manufacturer Leverages nGenius Solution to Avert Performance Problems With New Service Rollout

Early problem warnings powered by automated network-based anomaly detection and Key Performance Indicators (KPIs) predict and prevent user-impacting performance issues

Overview

Customer
A leading European-based manufacturer of home and industrial appliances with 232 offices in 200 countries and 46 factories.

Applications in Use
Top applications include, Lotus Notes, Web applications, OneWorld and in process of migrating to SAP.

Business Challenge
The operations team was looking for a way to more proactively manage the network and application services and reduce calls to the help desk.

Business Results
• The nGeniusONE Service Assurance platform identified design issues with a newly released application before users experienced slow responsiveness.
• Identified and provided a conclusive diagnosis that enabled the network team to collaborate with the third-party application developer to identify and resolve performance issues on a deployed application.

The Challenge
This leading European-based manufacturer of home and industrial appliances manufactures and ships more than 40 million products to customers in over 150 countries every year. With nearly 110,000 products going out the door each and every day, network downtime of even a few hours has the potential to create significant logistical obstacles. Any workflow interruption can back up or even shut down the manufacturing floor, impacting a well-tuned just-in-time inventory management process.

A NetScout customer since 2001, the company uses the nGeniusONE™ Service Assurance platform with a combination of NetScout Intelligent Data Sources and NetFlow collectors to monitor network service delivery to its 57,000 employees in 137 locations in Europe, 60 locations across the Americas and 35 locations in Asia Pacific. The company supports a large, highly dispersed organization with an extremely complex network that utilizes dozens of different WAN service providers. The company's IT organization was looking for ways to automate and optimize the management of their service delivery environment by predicting and preventing service-effecting problems, rather than reacting to user calls to the help desk.

The Solution
The company found that with the nGenius® solution, it was able to immediately leverage their existing investments and packet-flow data. The nGenius solution delivered a powerful, at-a-glance dashboard that provided actionable early warning analysis through automated anomaly detection and Key Performance Indicators (KPIs) - enabling the identification of previously undetectable performance and service delivery issues. The Network Services team quickly concluded that the nGenius solution could help them to identify subtle behavior changes and help prevent service delivery problems in the organization's increasing complex, mission-critical global IP network.
The Business Results

The nGenius solution immediately enabled the Network Services staff to identify problems early - before users were impacted. For example, although the Network Services team did not realize at the time, a newly implemented web-based product management application was having a yet unseen problem that would soon evolve into a service degradation that could potentially disrupt the entire organization. The new application was suffering from a high number of User Event errors which appeared to be causing an increase in slow responses and time outs, but the situation was not yet serious enough to trigger static thresholds on responsiveness.

When the network services manager received a real-time Analytics Alert notification he was alerted to a significant performance issue with the new application. The alert indicated that there were an abnormally high number of user event errors and that the number of errors was significant in relation to the number of transactions. By simply clicking on the alert link, he was able to drill down into the details of the service at the precise time of the incident. In particular, the KPIs over Time chart proved useful as it showed that these client errors were causing an increase in slow responses and application time outs which could impact user performance and productivity.

To further diagnose the problem, the network services manager clicked through to the nGenius analytics console to perform a flow and packet-level analysis of the application behavior. Diving deeper, he launched a real-time file capture from a strategically deployed NetScout Intelligent Data Source appliance. The network services manager was able to examine the trace file which revealed that the user errors were the result of authentication and access issues. This enabled him to immediately determine that the underlying problem was associated with application behavior and was not a network performance issue.

With the detailed performance and application behavior data, the Network Services Manager was able to conclusively identify the root cause of the problem and take action to remediate the issue. Collaborating with the third-party application developer, the data provided by the nGenius solution enabled them to implement an immediate fix within the application, averting noticeable user impact.

The Bottom Line: Preemptive Problem

Identification of issues saves IT Staff time and prevents service degradations. With the advanced warning provided by the nGenius solution, the Network Services Manager was able to identify an emerging performance problem and resolve the issues before application users were impacted or noticed there was a problem.

The nGenius solution’s top-down, services focused workflow accelerated the problem diagnosis. Consequently, the network services manager was able to target the necessary information to diagnose the exact cause of the problem. Seamless drill down from the alert notification to the Key Performance Indicators that provided the initial clues regarding the source of the issue, and then to the underlying packet-based intelligence from which the alert was initially generated, enabled the team to quickly isolate the ultimate problem. As a result, the Network Services Team was able to use this irrefutable evidence to collaborate with the application developer on an immediate solution to the problem.

This rapid identification enabled the IT organization to quickly preempt application performance degradation resulting in significant savings in time for the IT staff while preventing the emerging application performance problem from becoming a larger, service-affecting issue, hence maintaining productivity for the user community.