NETSCOUT

Energy Company Solves Inter-Building Communications Problem with NETSCOUT

OVERVIEW

The Challenge

- Experiencing inter-building communications problems at their large corporate campus

- Intermittent access issues to some applications, by some users, was perplexing IT, and negatively impacting end-user productivity

- IT lacked visibility to verify network access between each of the multiple buildings and between each building and the datacenter

The Solution

- nGenius®PULSE Server

- nGeniusPULSE nPoints (hardware)

The Results

- Reduced Mean Time to Know (MTTK) when there is a network issue on the campus with visual dashboards and alerts from nGeniusPULSE

- Improved end-user experience across the campus by monitoring inter-building network access

- Improved communication with 3rd party vendors by having data-driven synthetic test results to pin-point problem domain

Customer Profile

This multi-billion dollar, major Fortune 500 enterprise is a century-old, multi-national oil and gas company. With tens of thousands of world-wide employees, this company is one of the largest integrated refiners, marketers of petroleum products, and chemical manufacturers in the world, producing essential commodities that include fuels, lubricants, and specialty chemical products. The complex design of multiple data centers, voice and video communications in every office, and dozens of interconnected manufacturing & research facilities makes their enterprise network a critical part of the company's day-to-day operation and business success.

The Challenge

The company opened a new corporate headquarters campus in the US that brings together thousands of employees from all the multiple business units, in a world-class facility designed to foster communication and collaboration. The employees are tasked with addressing global business challenges, and the campus IT network is designed for high volumes of network traffic between the many buildings and with the corporate data center.

Once all the campus buildings were fully staffed, the company experienced inter-building communication problems. Since the campus houses many business units, it is critical that they each have reliable access to all the other buildings, as well as the the datacenters, to communicate and share systems. IT needed a simple way to verify and monitor this complex grid of access points. After a vendor completed a fiber upgrade, users in some buildings were experiencing intermittent degradations with some applications. It was difficult to pinpoint the problem because only certain buildings' traffic was affected at certain times. This negatively impacted user's productivity when they could not access a critical application, while users in other buildings could access.

ENTERPRISE

Many of the applications are provided by third-party vendors supplying fiber, SaaS applications and other services, and the IT team wanted a way to clearly identify when the network problems were the result of an outside issue.

Solution in Action

A long-time NETSCOUT® technology partner, the IT team decided to use nGeniusPULSE with synthetic testing to monitor availability and performance between buildings. nGeniusPULSE nPoints were deployed in each building and set as source/destination points to isolate the campus ring. A script was written for sub-second testing configured to run across a matrix of the buildings so that each building continuously tests access to each other building and to the corporate datacenter.

The nGeniusPULSE dashboards visually alerted the IT team when tests between two buildings could not be completed. The affected traffic lined up perfectly with the alerts from nGeniusPULSE; if the source and destination tests completed successfully, they weren't impacted, but if the test did not complete - it was an indication of a possible fiber failure. With this information, IT discovered that that a DWDM line card had failed silently during the upgrade, which caused a partial failure affecting part of the campus.

While working to fix the above problem by replacing the failed card, the entire campus network went down. Instantly, the nGeniusPULSE dashboard "lit-up" with the failed tests, identifying the problem much quicker than other tools they had been using and alerting IT before the users could even begin complaining!

This company has long relied on NETSCOUT's nGeniusONE® to monitor real-time wire data. As a compliment, IT uses the synthetic web tests in nGeniusPULSE to verify access is available to log-in to nGeniusONE from each building, even during times when no one is on the network. This monitoring of their own tools is a "fail-safe" to ensure that the entire campus is connected.

The Results

The end-user experience in all business units has improved with IT using nGeniusPULSE to monitor inter-building network access across the multiple buildings on campus. The grid of possible connections between buildings is constantly tested, even when no one is on the system, so IT can identify potential issues, often before the users are affected.

IT has reduced MTTK (Mean time to Know) when there is a network issue anywhere on the campus by using the visual dashboards and alerts from nGeniusPULSE. With this early-warning of a problem, they can quickly do more research and assign to the correct ream to resolve to resolve the issue, often before users even know a problem has emerged.

Communicating with third-party vendors will be faster and more efficient with the addition of data-driven test results from nGeniusPULSE to help pinpoint problem domains. This reduces the back-and-forth with the vendor and expedites actual issue resolution.

LEARN MORE

For more information about NETSCOUT nGeniusPULSE visit:

https://www.netscout.com/product/ngeniuspulse

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