NETSCOUT

U.S. University Adds Smart Visibility Solutions for Data Center Transformation

Managing Successful Virtual, Cloud, and SDN Rollouts with NETSCOUT Single-Pane Views and Smarter Analytics

HIGHLIGHTS

The Challenge

- Visibility issues with 10G network interfaces, and concerns over virtual and cloud monitoring
- Cumbersome application and network troubleshooting provided by legacy NPM tool

The Solution

- nGeniusONE® Service Assurance platform
- InfiniStreamNG™ hardware appliances
- vSTREAM™ virtual appliances

The Results

- Reduced risk and ensured quality of experience during digital transformation in a cost-effective manner
- Smart visibility into next-generation data center environment improves IT collaboration

Customer Profile

This historic U.S. university is world-renowned for its commitment to wide-ranging academic programs, as well as its athletic, cultural, philanthropic, and research activities. More than 10,000 undergraduate and graduate students are enrolled at the university, with 850 faculty members providing education across nearly 50 fields of study.

The university depends heavily on their network for many student- and professor-oriented services. For example, their website and portal for admissions serve as the university's public face to new and prospective students – any delays in processing their applications could set a poor first impression. Admitted students use critical applications across the network to register for classes, complete payment for tuition and fees, and submit class assignments. Professors looking to review papers and exams, post scores, and complete student grading at the end of a semester have no time for slowdowns or unavailability. Student social media memes of poor campus network performance can be swift and caustic, so maintaining quality experience is a top priority.

The Challenge

A cohesive information technology (IT) team oversees delivery of application, network, and voice services operating across numerous schools and colleges at the university. Located in a primary data center, this team prioritizes a collaborative culture, emphasizing responsiveness and efficiency in addressing IT issues.

Wanting to improve application, network, and voice performance for students and educators, the university had begun their data center transformation, including virtualization and high-speed connectivity. However, there were early signs that their legacy network performance monitoring (NPM) may not be up to the task of supporting this important strategic initiative.

For example, as IT deployed newer routers to support transitioning to a10G network environment, the NPM tool had limited visibility due to its use of a NetFlow-focused data source. As a result, collaboration was nearly impossible, with lack of integration between data and voice monitoring tools.

In addition, the reactive troubleshooting processes were reportedly cumbersome and slow, which delayed resolution to application and network performance issues.

With the university's data center transformation including plans for VMware ESX hypervisor infrastructure, Cisco® Application Centric Infrastructure (ACI) software-defined networking (SDN), and cloud-based Microsoft Office 365 services, there was a sense it was time to look at other NPM alternatives. The university conducted a rigorous assessment of current-day vendor capabilities, including technology approaches that would support their ongoing IT transformation activities, while meeting firm budget guidelines.

Solution in Action

As a result of their evaluation process, the university is moving forward with a NETSCOUT® solution that provides IT with the smart visibility required to effectively deploy and proactively monitor next-generation SDN, virtual, and cloud environments.

With the NETSCOUT nGeniusONE Service Assurance platform, the IT team has a single pane of glass to view data, voice, and video service delivery performance and proactively manage the availability, performance, and quality of university users' experience. The real-time nGeniusONE information platform leverages NETSCOUT smart data as a universal data source for providing smarter analytics for end-to-end visibility throughout the university's virtualized and hybrid cloud environments.

Deployed in the data center environment, InfiniStreamNG (ISNG) hardware appliances with NETSCOUT's patented Adaptive Service Intelligence™ (ASI) technology are transforming the university's packet traffic into smart data, enabling the IT team to ensure security, manage risk, and drive service performance for students and academics alike.

The IT team addressed VMware ESX platform monitoring needs by deploying the vSTREAM virtual appliance, which supplements the ISNG platform's visibility into north-south traffic by monitoring east-west traffic in the data center's virtualized environment. The vSTREAM works in combination with nGeniusONE to provide the IT team with smart data and smarter analytics required to address server-to-server performance challenges.

The Results

The IT team is advancing their data center transformation initiatives, having closed virtual, cloud, and voice technology visibility gaps by using NETSCOUT solutions to monitor east-west and north-south wire traffic.

For the university, it was important that any next-generation service assurance solution support their already-successful collaborative approach to IT delivery, and that's where nGeniusONE won them over. In supporting the approach IT was already performing, nGeniusONE allows multiple voice, application, and networks teams to login to a single service dashboard offering real-time views into university services and user experience.

The university's Voice over IP (VoIP) performance is vastly improved when compared to that provided under the legacy NPM tool, with nGeniusONE's unified communications & collaboration monitoring integrated alongside network and application analytics.

The IT team can also now build cloud-based university services with confidence by using nGeniusONE to establish required service reliability and responsiveness baselines for before, during, and after views of service performance.

Similarly, students benefit from a more responsive university Web presence and academic application suite, with IT leveraging nGeniusONE's real-time views to monitor Internet usage and coordinate related trend analysis.

With the university's budget containment goals for this project in consideration, the nGeniusONE solution also offers an integrated approach for IT's voice performance management without the need to roll out a separate voice solution interface or software/hardware agents at an additional charge.

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