Bio-Pharma Manages Digital Transformation with NETSCOUT
Company Secures Intellectual Property and Maintains Competitive Advantage

OVERVIEW

The Challenge
• Concurrent data center migration and 40GB network upgrades
• New hybrid Cloud monitoring requirements for AWS and Private Cloud environments
• FDA compliance linked to manufacturing application monitoring

The Solution
• nGeniusONE® Service Assurance platform with UC smart analytics
• InfiniStreamNG™ appliances
• nGenius® 3900 and 5000 series packet flow switch appliances
• NETSCOUT® Onsite Engineer

The Results
• Enhanced safeguarding of invaluable R&D and IP against exfiltration
• Deeper application monitoring eases regulatory compliance, protects brand, avoids penalties
• Service assurance protects data center and 40G upgrades that in turn benefit users, improve network speed, and security tool use

Customer Profile
This global bio-pharmaceutical and life sciences business leader benefits citizens worldwide by providing wide-ranging health improvement solutions. A leader in pharmaceutical and biotechnology, this company helps millions of patients facing serious health issues with medications to treat conditions ranging from cancer to heart disease and more.

With several billion dollars in revenue driven by a large-scale network supporting research & development (R&D), manufacturing, and distribution operations across some 20 data center locations, the importance of the availability and efficiency of this company's application services cannot be overstated.

The Challenge

Needing to maintain their competitive advantage and improve time-to-market, this company is advancing their digital transformation projects to improve business operations efficiency. Internal and external challenges were shaping the company's near-term digital transformation priorities.

Internally, the company's real estate plans were shifting, with some next-generation data centers opening and older facilities closing. These migrations included new locations, a mix of company-owned and third-party facilities, and coordination with service providers contracted to manage some data center operations.

As part of the new data center locations, the company wanted to transition to next-generation 40GB network speeds. This represented an important project for both the Network Engineering and Security teams, since 40GB network speeds would better support new digital platforms, next-generation security tools, and the company's users.
Separate from these initiatives, the company was transitioning certain business applications and services to a hybrid Cloud environment that included both Amazon Web Services and private Cloud platforms. While these moves experienced early successes in improving productivity, both the Network Engineering and Security teams needed to monitor and assure that service quality and data security were not adversely impacted by Cloud migrations.

Regulatory compliance represented another overriding business concern for the company. Regardless of whether their pharmaceutical or custom applications were hosted in the data center or in the hybrid Cloud, the company is required to manage application performance in a manner compliant with rigid FDA specifications regarding manufacturing quality. The Security team was also tasked with protecting the business against potential data exfiltration cyberattacks designed to copy intellectual property. They needed a real-time application monitoring solution that would provide visibility into manufacturing applications and forensic security support which would help them analyze and appropriately respond to events.

As a result of these activities, the IT team needed a business partner that could help the company tackle these diverse service assurance and cybersecurity challenges.

Solution in Action

After considering their long-time experience with nGeniusONE and seeing NETSCOUT’s next-generation solutions in action during a proof of concept (POC), the company turned to NETSCOUT to support their digital transformation activities.

To meet the visibility requirements of their 40GB network speed segments at their new data center installations, the company implemented a combination of nGenius3900 and 5000 series packet flow switches to pass wire data traffic to InfiniStreamNG (ISNG) appliances and other monitoring tools.

As the company transitions to a hybrid AWS/private Cloud environment, nGeniusONE is providing trending data on responsiveness and application dependencies to ensure important business functions are not impacted during the transition from the traditional data center to the Cloud, or with some applications moving to the Cloud and others remaining in the data center.

FDA compliance efforts are assisted by an assigned NETSCOUT Onsite Engineer, who has created nGeniusONE views to monitor performance of key services, including pharma manufacturing, clinical process, research, and custom applications crucial to the business. These pharma, business, and custom applications are monitored by using nGeniusONE views to track performance across multiple service tiers.

The company now uses nGeniusONE “single pane of glass” views into network, application, and UC performance to address the following challenges:

- Assure Voice over IP (VoIP) quality for users by leveraging ISNG appliances that now provide real-time smart data to nGeniusONE Unified Communications (UC) smart analytics. Network Engineering also has deeper visibility into Microsoft Skype for Business and video broadcasting environments.
- Protect against exfiltration attacks on R&D and IP, with the Security team taking advantage of customized nGeniusONE views for proactive monitoring and packet-based forensic support for post-event analysis.
- Service assurance monitoring of their Microsoft Office 365 environment.
- Reduce mean-time-to-repair for network, Cloud, application, and UC services across the company.

In helping meet one top CIO priority, the company also uses the NETSCOUT AUI-generated smart data to assist with the company’s big data and business intelligence initiatives.

The Results

For pharmaceutical market leaders, commercial success relies in part on maintaining the safety of intellectual property, preserving brand integrity, and complying with government regulations. With NETSCOUT, the company leverages one solution to address company requirements in these areas and avoid the potential of costly FDA fines and exfiltration-associated business loss, not to mention damage to their reputation.

The company is realizing a higher return on investment by expanding their nGeniusONE user base to include Security, Business Services, and Operational teams, as well as representatives from their managed service providers.

The nGeniusONE-assured 40G network upgrade offers better service delivery for researchers, manufacturing, and other employees, and it reduces operating expenses via improved IT efficiencies.

The company’s research, manufacturing, and sales teams all benefit by NETSCOUT providing complete analysis and visibility of the multi-vendor business services used in the company’s R&D, regulatory testing, clinical trials, manufacturing, back-office, front-office, and those in the Cloud.

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For more information about NETSCOUT solutions for Digital Transformation in the Pharmaceutical Industry, please visit: