

Healthcare Identifies Cause of EMR Slowdown with NETSCOUT

nGeniusONE Help Improve Performance of Voice and Healthcare Applications with Visibility

OVERVIEW

The Challenge

- Lacked visibility into their complex, distributed healthcare network for service assurance
- Specific, major incidents with their custom EMR application, voice communications, and performance at their remote hospitals and clinics

The Solution

- nGeniusONE® Service Assurance platform
- InfiniStreamNG™ software appliance
- nGenius® Visibility-as-a-Service

The Results

- Reduced MTTR to resolve EMR & voice application issues impacting patients
 - Becoming more proactive and effective with nVaaS as an extension of their IT team
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Customer Profile

This United States healthcare organization has seen spectacular growth in the last decade due to a greater number of patients requiring their specialized care, as well as through strategic mergers and acquisitions. Nearly 50,000 part-time and full-time employees provide wide-ranging medical services to patients, from urgent care and occupational medicine to outpatient physical rehabilitation and therapy.

To say that this healthcare organization's enterprise network is complex would be an understatement. Between their own facilities and joint ventures, they deliver treatment and applications to more than 125 hospitals and 1,500 clinics and health centers in almost all of the United States. With quality patient care as well as billions in revenue in the balance, the safe and secure delivery of patient treatment is a top priority for this healthcare organization – which means delivery of application services related to patient care is also critical.

The Challenge

A core issue facing the IT staff at this healthcare was the challenge of determining the cause of the slowdowns reported by doctors, clinicians, physical therapists, and nursing staff when trying to use their electronic medical record (EMR) application. It is a critical application that holds all the information related to their patient's health, diagnosis, treatment history, medications, etc. Accessing this application from many of the more than 10,000 end-point devices used by the staff as they worked with patients involved a front-end Citrix service that managed use of and privileges to the EMR. The cause of the slowdown could be anywhere –

- The centralized data center
- Across the WAN links to the hospitals and clinics – a combination of traditional MPLS and a few SD-WAN links

- The EMR itself, a custom application designed specifically for the healthcare
- Possibly with the Citrix services
- Related due to something in the network at the hospitals or clinics or end-points

The IT staff was facing other issues, as well. They were struggling to establish application and network benchmark metrics for the services and communities necessary for understanding what represented normal, good-quality performance. They were also experiencing voice and unified communications (UC) issues, Session Initiation Protocol (SIP) failures, and reports from their clinics regarding poor performance from voice and other services. The IT staff needed a way to gain visibility into all their applications and services, from the data center to the remote locations, to effectively triage these issues.

Solution in Action

The IT staff performed a thorough evaluation of alternatives to gain visibility into the most pressing issues related to their EMR and Citrix services, voice quality and SIP trunking technology, and end-user slowdowns at remote hospitals and clinics. For comprehensive visibility, the IT team selected NETSCOUT's nGeniusONE Service Assurance solution with InfiniStreamNG software on custom-off-the-shelf (COTS) appliances, which is delivering smart data from packet analysis with Adaptive Service Intelligence™ (ASI) technology for service assurance in their environment. In order to immediately benefit from their new visibility, the healthcare also contracted for nGenius Visibility as a Service (nVaaS), which is helping to implement their nGeniusONE platform and configure the NETSCOUT® solution for immediate troubleshooting.

Leveraging the nGeniusONE solution, along with their nVaaS experts, the troubleshooting concluded the following:

- They identified and monitored the custom EMR application including the application flows and tiers, which were previously unknown, to provide rapid response to slowness issues and errors with the service. Researching a major incident, they pinpointed errors in the application over a week's time was due to one of the database servers.
- In troubleshooting another major issue affecting voice quality, nGeniusONE found QoS mismatches and 100% packet loss with their voice traffic passing through one of their firewalls.

The Results

The IT team at this healthcare company is benefiting from a level of application and network visibility that they have never had before. Suffering real degradations in performance of their EMR application and quality issues with their voice services, this healthcare organization is benefiting from reduced Mean-Time-to-Resolve (MTTR) issues using nGeniusONE and nVaaS from NETSCOUT. With surgical precision, nGeniusONE pinpoints the source of a degradation, so the right staff can proceed with the appropriate corrective action to restore quality service to doctors and staff and/or patients.

The healthcare organization is also realizing improved workflows, operational successes, and cost efficiencies using nGeniusONE to proactively monitor all their well-known, custom, and voice applications. Their network operations, devops, and voice personnel are all benefiting from the single-pane-of-glass views to spot anomalies, errors and slowdowns as they occur, so they can be addressed before they become debilitating to their user community. Working with a single vendor to address all these areas is also saving capital expenses, as well as vendor management costs.

The value of using the experienced nVaaS team to perform initial set up and configuration, as well as best practices workflows is giving the healthcare a quick time to value for the investment in the nGeniusONE solution. Given the prevailing problem of most IT organizations – too much work for too few staff - the nVaaS team acts as an extension of their own IT team, so much so, that they have even begun proactively baselining the performance of key application services and end-user experience / performance at remote hospitals and clinics.

For a business that has medical / patient information flowing through the networks, safe, responsive performance of treatment-impacting applications is critical. This healthcare is achieving that with visibility from NETSCOUT.

LEARN MORE

For more information about NETSCOUT solutions for Healthcare organizations, please visit:

<https://www.netscout.com/solutions/service-assurance-healthcare>



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