# NETSCOUT

# County Health Agency Assures Quality Performance of Cloud-based EHR Platform

## Improves Patient Care Services with nGenius



## OVERVIEW

### The Challenge

- County healthcare agency lacked visibility into Cloud-based EHR platform
- Challenged to solve issues with patient-impacting services. EHR vendor denied its Cloud service was the cause
- Needed visibility into data center expansion, new Cloud environments, and virtualized desktop platforms

### Solution

- nGeniusONE® service assurance platform
- InfiniStreamNG™ appliances
- vSTREAM™ virtual appliance
- nGenius® 3900 series packet flow switches

### The Results

- Reduced MTTR from vendor finger-pointing
- Better cost control with WAN management from site monitoring
- Improved patient care experience with better application performance

## Customer Profile

In supporting 500,000+ annual patient visits, this leading U.S. County government healthcare agency is focused on extending its heritage of providing high-quality patient care to under-served citizens, leveraging the dedicated efforts of 20,000+ staff members and employing a 5-year patient improvement care plan.

Beyond personnel efforts and strategic plan guidance, the agency has introduced several next-generation technologies that improve patient care, including an expanded Contact Center that handles higher volumes of patient calls and an electronic patient consultation platform which reduces the turnaround times for appointments.

The agency is a long-time NETSCOUT® customer, using the nGeniusONE service assurance platform and nGenius InfiniStream packet capture appliances to coordinate network monitoring from two data center locations'.

## The Challenge

Implementing a Cloud-based Electronic Health Record (EHR) platform at 20+ locations represented a major accomplishment for the healthcare agency, replacing a previous siloed solution operating on six different servers. Operating in the Cloud, this EHR Software-as-a-Service (SaaS) solution is a mission-critical, patient-impacting application. It is used at all agency locations and requires always-on monitoring by the IT team, as any performance anomaly potentially impacts quick and safe delivery of patient care services. When the EHR platform is not functioning, electronic orders cannot be placed, patient information is limited or unavailable, and care providers may resort to inefficient paper-based record keeping.

With the EHR rollout nearly complete, the agency began experiencing issues with the patient records system, which interoperates with the agency's Picture Archiving and Communications Services (PACs), radiology, and pharmacy services. In response to agency communications regarding these system issues, the third-party vendor denied these performance problems were in any way associated with the EHR SaaS platform. As issues continued across the organization, the agency's CTO and IT team became prominent organizational targets for user frustrations. The CTO expressed a sense of being perpetually "on call" when the hospital experienced performance issues, while the IT team scrambled to resolve them. They were losing valuable time, and the problems impacted more patients as they would rule out potential causes but not quite pinpoint the true source.

In another significant initiative, the agency had recently added new clinical facilities that expanded the geographic reach of in-county care services. As a result, the IT team had expanded their two-site data center operations to a distributed network of six hospital and clinical facilities. IT needed visibility into the network and application environments at these new locations, including monitoring virtualized desktops. Since some of the EHR performance issues were originating at these new locations, the lack of visibility furthered hampered the IT team when it came to trouble-shooting EHR issues.

Given these issues, agency doctors and other users were forming a bad perception of the new EHR service and the IT team itself. In the current-day state financial climate, any impact on compromising healthcare delivery to County residents could impact future department funding.

## Solution in Action

In looking to identify potential solutions to their EHR and new data center monitoring issues, the CTO investigated NETSCOUT's next-generation Cloud solutions, with the agency's IT team also turning to their assigned NETSCOUT Remote Support Engineer (RSE) for recommended best-practices guidance and assistance in addressing the near-term EHR issues.

Factoring these discussions and after witnessing how NETSCOUT temporarily redeployed the existing nGeniusONE performance analytics and InfiniStream® appliances to troubleshoot EHR issues at other data center locations, the agency expanded their NETSCOUT Service Assurance technology deployment.

As part of a first phase NETSCOUT technology expansion, the agency has deployed nGeniusONE standalone servers and expanded nGeniusONE licensing for their new data centers, with InfiniStreamNG (ISNG) appliances feeding smart data to nGeniusONE's smart analytics.

In addition, the agency is now able to monitor both the overall healthcare enterprise as well as the communications path to the third-party Cloud provider for their EHR application. This is helping to quickly determine if slowdowns are due to the agency's network or from the provider Cloud. They have also implemented nGeniusONE Site Monitoring from the data centers out to their hospitals and clinics across their WAN links to ensure response times for other services, including radiology and imaging, are responding at acceptable levels. nGenius 3900 series packet flow switches are providing network traffic visibility associated with new data center locations to the InfiniStreamNG appliances, as well as other monitoring tools.

## The Results

The agency was quick to see the value of an expanded nGeniusONE solution for EHR application performance. Time-to-resolution has been significantly reduced with the ability to share information with their Cloud provider as to the impacted communities and the source of the application slow-downs. While this was the most important reason for the expansion, the agency has identified other benefits to expanding their NETSCOUT deployment. Costs for WAN services to the other hospital and clinical locations are being better planned and budgeted, while simultaneously ensuring key application performance.

Ultimately, the IT team is being credited with improving the performance of wide-ranging agency applications that support patient care and business operations.

## NETSCOUT®