NETSCOUT

Medical Center Improves Application Performance With NETSCOUT VaaS

Gain Real-Time Intelligence Into EHR, Radiology Reporting, and UC&C Performance; Consolidate IT Tools

OVERVIEW

The Challenge

- Lack of visibility to troubleshoot issues with clinical applications impacting patient care; staff efficiencies
- Tool consolidation, multi-vendor management, and operating expense challenges

The Solution

- nGeniusONE® Service Assurance platform
- InfiniStreamNG® software appliances
- vSTREAM® virtual appliances
- NETSCOUT® Visibility as a Service

The Results

- Improved patient experience and staff efficiency
- Real-time intelligence into healthcare applications, remote service delivery, VMware, and UC&C environments
- IT tool and vendor consolidation

"The dashboard and the analytics reports we get every month helped us start to see trends within applications, things that you couldn't normally see within an application - but you could see through the packet data from NETSCOUT."

– Medical Center IT Manager

Customer Profile

This top U.S. health care organization maintains a network of hospitals, outpatient centers, clinics and specialty institutes that support more than 2 million annual patient visits with the support of 25,000 dedicated employees. Their renowned specialized services are delivered through their children's hospital, psychiatric hospital, transplant center, rehabilitation hospital, cancer care system, and biomedical research center. Actively involved during the COVID-19 medical crisis, they conducted research & development on innovative treatment alternatives. Clearly, this organization relies heavily on their digital application services and network to perform their jobs every day.

The Challenge

The medical center's IT team was responsible for an increasing number of complex, patient impacting applications and systems used for electronic health records (EHR); including radiology and medical imaging, Health Layer 7 (HL7) interoperability, centralized blood management, oncology treatment, telehealth, storage management, and patient identity management. Their challenge was to provide pervasive visibility into the organization's clinical applications for troubleshooting, application service assurance, and problem identification before they became disruptions.

They were also dealing with existing issues with their Nuance PowerScribe, a voice-based application offering voice-to-text support for radiology reporting. Issues with this service were intermittent and frustrating to users and IT. Lacking visibility into unified communications (UC) technology and/or service dependencies, the IT team could not pinpoint root cause.

From a networking perspective, the IT team needed visibility to troubleshoot and deliver service assurance for users connecting through their virtual private network (VPN) and VMware Horizon virtual desktop infrastructure (VDI) environments. COVID-19 pandemic drove dramatic increases in use of telehealth services, collaboration tools (such as Zoom), and work-from-home for employees. This made reducing mean time (MTTR) to resolution with VPN and VDI issues that much more critical for the IT team. Gaining visibility into the organizations high-speed network as well as their VMware ESX environment was also essential.

"In some cases when you have support for something, they don't know your environment. With VaaS, they know where to go, what to do. They're an extension of the team."

– IT Manager

The IT team still lacked visibility and capabilities necessary to see and analyze their digitally transforming network and modern applications. The overlapping tools conflicted or suffered gaps where visibility was still required. IT leadership needed comprehensive service assurance that offered broad visibility and enterprise-wide intelligence for service assurance of network and applications, now and in the future. And they required quick impact and expedited value to ensure IT performance did not impact the quality and timeliness for health care delivery.

Solution in Action

Following a thorough review, IT leadership deployed NETSCOUT technology and their innovative managed service including:

- nGeniusONE, Certified InfiniStreamNG (ISNG) software appliances on COTs, and vSTREAM virtual appliances for real-time intelligence and troubleshooting of all their clinical and business applications, voice-based apps, VPN/VDI services, and VMware NSX environments.
- NETSCOUT's Visibility as a Service (VaaS) for managed services providing continuous 24/7 proactive monitoring, proactive monitoring, troubleshooting, and regular review meetings to augment expert analysis reports.

The VaaS team quickly implemented the nGeniusONE solution, and through tight consultation with the IT team, designed and configured dashboard workflows and expert analysis reports, starting with the most critical health care applications, delivered by subject matter experts well-versed in the healthcare IT ecosystem.

IT's decision to standardize on NETSCOUT technology and VaaS managed services expertise has already reaped troubleshooting, and monitoring rewards, including:

- Identification of root cause of intermittent PowerScribe downtime issues: Within minutes of NETSCOUT VaaS resources joining an in-progress war room, a service dashboard view was launched, leveraging vSTREAM-generated smart data in the VMware environment to provide IT leadership with root cause analysis. The true source was not associated with voice performance as anticipated, but rather with the application server not communicating with the database server. This nGeniusONE intelligence was shared with the medical center's Application Development team for corrective action.
- Proactive problem identification: VaaS team recognized an elevated PowerScribe transaction failure rate occurring and alerted the IT team to investigate before user complaints were even registered.
- VPN/VDI monitoring: nGeniusONE's integrated monitoring of the remote business service environment reduced troubleshooting time and maintained quality service delivery during the pandemic-related workforce transitions between home and proactive monitoring, troubleshooting, and regular review meetings to augment expert analysis reports.
- Collaboration between NETSCOUT VaaS team and Zoom Video team: Communications early in the pandemic (troubleshooting and resolving issues) helped assure availability for remote medical center staff.
- Accelerated deployment: The VaaS experts' configuration of the initial NETSCOUT solution accelerated IT team access to smart visibility for real-time intelligence regarding their clinical applications and business services environment.

The ongoing interaction with the NETSCOUT VaaS team has been successful in creating executive reporting, dashboards, and analytics analysis that has revealed potential issues that are only seen through the nGeniusONE packet data, identifying performance degradation trends and spikes which were addressed before causing patient impacting incidents.

The Results

The powerful collaboration between the medical center's IT team and NETSCOUT VaaS experts operating the nGeniusONE solution is assuring reliable performance for those doctors and specialists depending on clinical application services to do their jobs, as well as for at-home employees counting on uninterrupted business service access. Troubleshooting by the VaaS team quickly reveals the full benefits of NETSCOUT smart visibility, providing on-the-fly differentiation between performance issues occurring in the voice gateways, virtualized servers running on VMware, web front-end, application servers, and database servers.

The medical center realizes sustained value from its NETSCOUT investment by using VaaS to assure nGeniusONE is consistently used and operationalized across the business, enabling IT teams to dramatically reduce MTTR to meet their application and business service performance challenges. Value realization continues as dashboards, reports, and regular meetings with the VaaS team enable the IT team to see and address problems before they impact users.

Using the single pane of glass views and analysis provided by nGeniusONE led to the retirement of multiple ineffective legacy tools, reducing operating expenses and improving collaboration within the IT team and with vendors. Ultimately, the medical center is better equipped to provide the quality, efficient in-person and telehealth service delivery their patients have come to rely on.

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

www.netscout.com/solutions/healthcare

and NETSCOUT VaaS solutions

www.netscout.com/solutions/netscout-visibility/healthcare

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