

Top-Tier Hospital Optimizes Performance of Image Analysis Application that Impacts Patient Care

NETSCOUT Solution Helps Remote Radiologists Respond Quicker

OVERVIEW

The Challenge

- Remote specialists experienced on-going problems accessing application and downloading images.
- Delayed troubleshooting because IT had to look at all potential issues to identify problem domain.

The Solution

- nGenius®PULSE Server (virtual appliance) with nPoints (hardware and virtual).
- Already using NETSCOUT® nGeniusONE®, InfiniStreamNG™, and Packet Flow Switch, to monitor in data center.

The Results

- Gained visibility to remote-user performance.
 - Reduced MTTR by starting with objective evidence that is reliable, specific and technically relevant.
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Customer Profile

This over 100-year-old, top-tier US hospital employs 60,000 people, including 4000 physicians and scientists, who work at over 200 locations. They are recognized as one of the top medical and research centers not just in the US, but around the world. As a multi-specialty organization that integrates clinical and hospital care with research and education, they manage over 8 million outpatient visits per year. Known for their breakthrough healthcare treatments, they pride themselves as a leader in innovative healthcare digital transformations, with a complex environment of several hospitals, healthcare centers, ambulatory surgical centers, offices, and remote employees and contractors using the latest IT technologies to better deliver safe, secure patient care.

As with many organizations today, the hospital uses remote workers to deliver expert service to their patients. They have a program for remote radiologists located around the country to read patient images and provide recommendations to physicians to aid in diagnosis and next steps in treatment plans.

The Challenge

One of the key advantages of the remote radiologist program is to ensure expedited turn-around; with the tests being analyzed and results delivered into the hands of the treating physicians as quickly as possible. However, the remote radiologists consistently reported delays when logging in via VPN to access the application delivering the digital images. Further adding to the problem, they experienced very slow download times of the 100MB and larger digital files they needed to analyze. Any delay in accessing and analyzing the digital files could delay a timely diagnosis and treatment for the patient.

IT faced considerable challenges in their efforts to improve the experience for the remote radiologists and help them provide quicker results. Since the radiologists were not in the organization's offices or health centers, IT lacked essential visibility into their experience. With no data around the problem, IT was stymied in troubleshooting, not having a starting place to isolate the root cause.

Solution in Action

The healthcare organization, a long-term partner of NETSCOUT, relies on the nGeniusONE platform to monitor real-time traffic in their data center and wanted to expand that platform to include analysis from their remote sites' perspective. They determined that NETSCOUT's nGeniusPULSE met their needs, with an easy, cost-effective method to monitor from the perspective of the remote users – in this case the radiologists analyzing the digital files.

nGeniusPULSE uses synthetic, automated, tests, which can run at any time interval, to monitor the availability and performance of the network and services over a wired or Wi-Fi connection, even when no one is using the system. Using virtual instrumentation (called nPoints) at the remote radiologist's site, IT runs tests for application availability, network latency and to see the "hop-by-hop" path of the file download process. With these tests, they can easily identify the domain/s causing the slowdown.

One of IT's first exercises using nGeniusPULSE was to run the same tests for a remote user and an "in-office" user to compare the results. They verified significantly slower access and download times for remote users across varying Internet service providers, VPN connections, and end user machines. The medical Doctor in charge of the remote radiology department uses the nGeniusPULSE dashboard to keep tabs on the status of all remote user's sites. The Network Operations team uses the test results to escalate any problems to the appropriate IT team for quicker resolution.

The Results

IT now has visibility into the experience of their remote users and better measurement of the actual client performance with tests that accurately represent the communication directly from the remote user. The process is very efficient for IT; running regularly scheduled tests at various intervals to provide better performance samples for follow-up and larger sample sizes for benchmarking.

nGeniusPULSE provides objective evidence through test results that are reliable and specific with technically relevant data that can be used to follow-up with Internet Service Providers, other IT teams, and 3rd party suppliers. Less time is spent in identifying the root cause and the individual teams spend less time verifying the problem - instead moving more quickly to resolution.

The work of the remote radiology team impacts many lives. The IT department of this healthcare organization is critical in providing and maintaining the technology that ensures optimal results are delivered in the most timely manner possible. Given the passion this IT staff demonstrates in helping improve responsiveness of this valuable analysis for more rapid patient care, it is rewarding to have this healthcare organizations as a valued partner of NETSCOUT.

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For more information about NETSCOUT Healthcare solutions visit:

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



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