NETSCOUT

Assuring Quality Performance and Availability of Healthcare Services

OUR APPROACH

NETSCOUT's approach to service assurance is built on a foundation of High Quality Data and real-time High Quality Analytics. Based on wire traffic, NETSCOUT's patented Adaptive Service Intelligence™ (ASI) technology provides the most robust data source available to ensure that high quality services are delivered to the business by measuring the actual transactions and dependencies of the service. NETSCOUT analytics are the industry leading standard for scalability and ease-of-use, enabling proactive service triage. Leveraging ASI, nGeniusONE® Service Assurance platform delivers unmatched capabilities that ensure the reliable and uninterrupted delivery of critical healthcare applications including electronic medical records (EMR) and imaging services.

While CIO's in healthcare organizations today are implementing innovative next generation technologies to improve the overall efficiency, quality, speed and security of patient care, their minds are never far from the technology issues raised by the Coronavirus pandemic. Technology advancements into IP convergence, Network Functions Virtualization (NFV), Software Defined Networking (SDN), Virtualization, Cloud, Mobility, WiFi, Web, and the evolving Internet are all key to their digital transformation strategy. Further, their strategy for improving and implementing both clinical and business related applications addressing patient care have far reaching implications as well. Any disruption in that flow can mean delayed patient care approvals, diagnostic test results, medical image analysis, or e-prescription services.

When slowdowns and outages in modern, multi-cloud healthcare environments do occur, visibility into the packets flowing throughout are necessary for quickly and accurately diagnosing the root cause. NETSCOUT® harnesses traffic flow information to proactively monitor and manage these inherent complexities in a cost-effective manner, delivering dramatic CapEx and OpEx reductions and ensuring high quality patient experience.

Rapid triage and faster MTTR for issues impacting high-quality service delivery of EMR, radiology imaging, telemedicine, e-prescriptions, HL7 and other healthcare applications.

A patient's hospital experience is going to be impacted by the performance of several different application services. The effect of disruptions in communications with patient records, telemedicine sessions, admissions, diagnostic tests, insurance coverage and billing can mean delays in administering treatment or worse.

Effects of unplanned outages at hospitals can mean staff relies on read-only patient records, cancellation of surgeries, transfers of patients, closing of ERs, and inability to administer medications and prescriptions, just to highlight a few of the risks.

OUR SOLUTIONS

NETSCOUT delivers solutions that support both the wired and wireless infrastructures in healthcare organizations. For the wired environment, the nGeniusONE platform provides unmatched visibility into IP-based business and healthcare services along with contextual workflows to speed problem resolution that is both easy for a Level 1 responder to use and powerful for an expert to operate. Rather than look at individual elements in isolation, nGeniusONE provides an overarching view into the performance characteristics of the components associated with service delivery. This exposes underlying service dependencies between such services
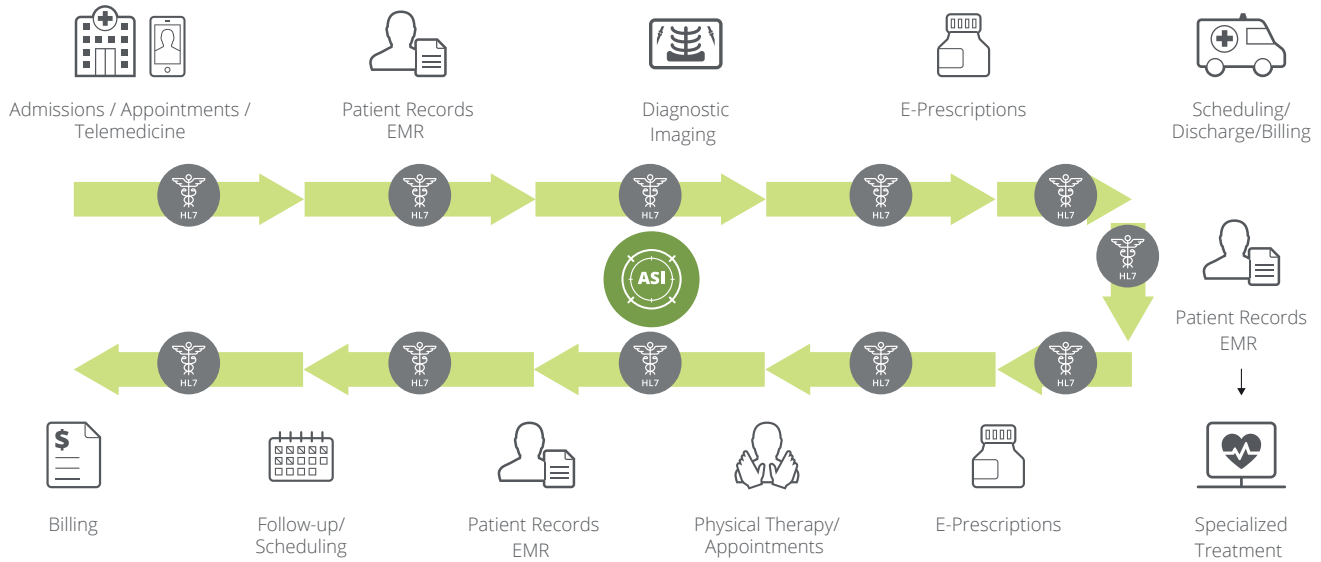
ENTERPRISE

Figure 1: From the point a patient begins their engagement with a medical center, their experience is going to be affected by a variety of software applications, across different facilities, for several different patient care services. Any disruption in quality performance or availability of patient information, appointment scheduling, telemedicine session, imaging services or accounting will have patient care impacting results – delaying treatment or worse. NETSCOUT delivers service assurance solutions for both wired and wireless infrastructures in healthcare organizations.

as EMR and Radiology and the individual applications servers, their backend Databases, and all the necessary service enablers such as DNS, DHCP, and authentication like LDAP, Active Directory or Radius. This helps IT operations to more effectively manage health, availability and patient experience issues, and improves the teams' ability to proactively identify the root cause of problems.

nGeniusONE platform with ASI technology supports over 1,000 voice, video and data applications

The nGeniusONE platform is powered by ASI, NETSCOUT's patented next generation Deep Packet Inspection engine that efficiently delivers real-time performance metrics. ASI generates Key Performance Indicators (KPIs) from analysis of traffic utilization, application and database servers, and network errors. Providing analysis of over 1,000 voice, video and data applications, including healthcare

specific services like EMR, DICOM imaging, and telemedicine, and e-prescription, and e-prescription, the solution is further enriched with data from individual Health Layer 7 fields and a specialized HL7 Service Monitor. With scalability to support 100Gbps speeds, the nGeniusONE platform is designed for use in both physical and virtual environments in the world's largest and most demanding healthcare, enterprise and service provider networks.

For the wireless environment, NETSCOUT offers the nGeniusPULSE and nPoint hardware and/or virtual nPoint sensors that support advanced service testing over Wi-Fi and Ethernet connections providing IT a way to compare the trended results for fault isolation and determine if any service impact is, or is not, due to Wi-Fi. Tests can also measure the difference in latency over Wi-Fi and Ethernet on the same nPoint 3000. This is particularly useful across disperse hospital campus environments, from different buildings and floors, as well as to analyze performance for at home workers using local Wi-Fi.

Visibility to protect the healthcare organization from enterprise-wide network threats to the business can be accomplished with NETSCOUT security solutions. With the ability to promptly and efficiently detect, validate, and respond to threats, it serves as an early warning system of damaging incidents. Leveraging the same ASI data for analytics, healthcare organizations can reduce the time cyber criminals can lurk in the network, thus reducing exposure to the company's resources and reputation.

OUR VALUE TO HEALTHCARE ORGANIZATIONS

For Healthcare organizations, NETSCOUT solutions are designed to respond to service disruptions with a combination of powerful capabilities that encompasses strategic wired to wireless environments. With NETSCOUT, healthcare IT organizations can:

- Proactively triage and reduce MTTR for EMR, e-prescription and HL7 performance degradations before they become service outages through analysis of response times, as well as key monitors for service and network-related errors.

- Improve planning for bandwidth intensive imaging services (PACS) with traffic-based network capacity analysis for all services throughout the healthcare ecosystem.

- Quickly identify the cause of an issue as the Wi-Fi network, a device or the wired network with nGeniusPULSE.

- Solve problems rapidly to maintain quality VoIP, telemedicine, and collaboration services.

- Streamline and simplify IT operations with comprehensive service delivery management.

- Confidently implement cloud-based and SaaS solutions with visibility anywhere with ISNG and vSTREAM™ appliances and assure end user experience with nGeniusPULSE.

- Ensure faster response to serious threats to minimize catastrophic impact to the business when cyber criminals are able to lurk in the healthcare network over a lengthy period of time using ATA.

The solutions for wired and wireless environments from NETSCOUT enables healthcare IT staff to ensure a high quality patient care experience.

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