NETSCOUT

NETSCOUT Visibility as a Service for EHR Management System Assurance

EHR Is the Heart of Today's Digital Healthcare Ecosystem

With rapid adoption in the last decade, digitization of healthcare ecosystem has become the de facto practice across the industry. Significant advancement in storage, data exchange, mobility & security along with advent of cloud hosting services and virtualization have accelerated this transformation to new heights. The Electronic Health Record (EHR) plays the most significant role in this digital healthcare ecosystem across hospitals, clinics, labs, doctors, researchers, technicians, billing and insurance systems. Everyday operations are heavily dependent on accessibility, availability, safety and efficiency of the EHR management systems.

EHR Management Systems Are Complex

EHR management systems are a complex web of databases, servers, clients, service enablers, network equipment, infrastructure, applications, devices, protocols and standards in a multi-vendor, distributed, hybrid cloud environment working in tandem for smooth exchange of the records. Failures in today's sophisticated EHR systems are often related to issues within the broader environment that supports it. Being an essential piece in accelerating safe and efficient treatment to patients, their availability is critical. At a minimum, service disruptions would be readily noticeable to patients and hospital staff; at its worst, it could delay life-saving treatment. In a 7x24x365 industry where even scheduled downtime is considered inconvenient, these unscheduled outages are simply unacceptable.

IT Issues Are Getting Complex and Diverts Attention Away From Core Healthcare Operations

With multiple stakeholders and entities involved in the Health Information Technology (HIT) ecosystem from a EHR hosting datacenter, seamless network equipment and the end-user infrastructure, it has become very laborious and time-consuming to quickly identify the root cause and resolve issues. They could be hidden behind the scenes in applications, platform, public cloud, network infrastructure, end-user devices, mis-configurations, standard and customized architectures and are becoming very difficult to uncover. This side-effect of such technology advances requires healthcare organizations to divert their attention to HIT issues rather than focus on their core strengths of healthcare.

Some of the typical issues noticed across the industry include connectivity, latency, availability and lack of clear inter-operability standards across server and client applications. These degradations manifest as EHR application responsiveness that threaten to disrupt the daily operations of hospitals and clinics.

NETSCOUT Visibility as a Service

NETSCOUT® Visibility as a Service (NETSCOUT VaaS) provides the perfect combination of eminent healthcare IT expertise and industry leading service assurance platform in a monthly subscription pricing model that takes your focus back to your core business. Our experts are well versed in all areas related to the healthcare IT ecosystem, including data centers, server farms, network connectivity, configurations, infrastructure, platform, applications, industry-specific protocols, and vendor-specific customizations. They are industry proven in preventing issues with a proactive attitude toward network and applications assurance with the customer's objectives in mind. They understand your business processes and critical needs and convert them to meaningful and impactful set of key metrics that help assure and visualize your IT health. Beyond troubleshooting, our Expert Analysis team will provide monthly reports containing utilization summary, performance benchmarks, trending, and consultative meetings with best practices recommendations.
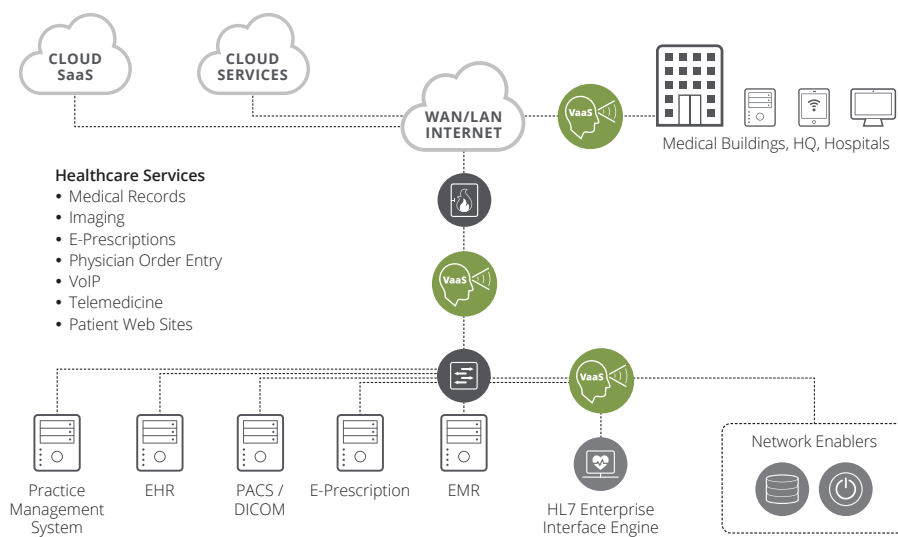

Figure 1: EHR Management Systems - complex web of network, infrastructure, applications, standards and protocols in a hybrid cloud environment.

The NETSCOUT VaaS platform is powered by Adaptive Service Intelligence® (ASI), our patented, industry-leading Deep Packet Inspection engine that delivers real-time performance metrics. The platform is designed for use in both physical, virtual, or on off-premises and cloud environments in the world's largest and most demanding enterprise networks. The platform's proven scalability and versatility enables rapid deployment on demand.

"This is exactly what I was hoping to hear! This is awesome. The insights you provided helped us improve our customer's experience in delivering patient care."

Director of Operations, Global Healthcare Information Technology Solution Provider

NETSCOUT VaaS has provided deep insights and visibility into healthcare IT systems like

- **Sluggish EHR accessibility:** NETSCOUT VaaS experts drilled down to byte level of data in the TCP networking layer to notice sluggish acknowledgement of data received. Further drill down and in-depth investigation revealed a load-balancing misconfiguration between the server and client applications.

- **Dropped session connectivity:** NETSCOUT VaaS experts noticed specific end-user sessions dropping connections frequently. Our years of industry experience quickly pinpointed to the application server sending bytes of data that did not conform to defined standards, resulting in client misinterpreting and resetting the connection.

- **Network inefficiency:** Within the complex web of connections, our experts observed frequent TCP resets and disconnects, that on further investigation revealed a high number of re-transmitted packets with lack of acknowledgements from the peer connection. This led to the insights of packet loss within a specific section of the network that went unnoticed earlier.

"Average cost of unplanned downtime in Healthcare Data Centers - $918K/incident"

2016 Ponemon Institute and Emerson Network Power Survey – Jan 2016

NETSCOUT, a leader in network and application service assurance, offers a broad portfolio of solutions and services to meet the unique demands of Healthcare enterprise organizations and their associated IT strategies.

NETSCOUT VaaS Benefits for Healthcare Information Technology

- Hands-free service assurance
- Proactive monitoring to prevent quality degradation and enables focus on core healthcare
- Comprehensive visibility
- Actionable Insights that improves healthcare provider productivity
- Efficient management of healthcare facilities and broader ecosystem
- Easy and rapid deployment
- Addresses IT resources and skill gaps
- Leverages best practices

LEARN MORE

For more information about NETSCOUT VaaS, visit: http://www.netscout.com

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