NETSCOUT

Meeting Project Timelines for Redundant Data Center Introduction with Visibility

HIGHLIGHTS

The Challenge

- New redundant data center for business continuity
- Replicate patient information and application services from several primary data centers to new data center efficiently and error free

The Solution

- nGeniusONE® Service Assurance platform
- InfiniStreamNG™ appliances
- nGenius 5100 Packet Flow Switches

The Results

- Project meeting timelines and milestones with visibility
- Proactive monitoring and analysis help meet capacity planning and compliance goals

Customer Profile

This more than 50-year-old, leading U.S. healthcare provider services to some 9 million patients across more than a half dozen states with life-saving health-related services. Whether it is family care, emergency services, or many other specialty care services, the hospital boasts tens of thousands of physicians and nurses, along with hundreds of thousands of employees across their numerous hospitals and hundreds of medical and outpatient offices, all of whom are dedicated to providing safe, swift diagnoses and personalized treatment plans. They all depend on prompt, efficient, high-quality communication to enable them to deliver an exceptional patient experience.

The Challenge

Like every other U.S. healthcare operation, network and application availability is a mandate for rapid, secure, up-to-date access to patient records. When a recent natural disaster came uncomfortably close to one of their data centers, the IT organization decided to augment their existing business continuity plans. Compliance risks were at stake! The healthcare organization's doctors and members had to have up-to-date access to patients' records and a patient portal for information from the hospital Electronic Medical Records (EMR), so they could evaluate history, prescriptions, diagnostic test results, and members' insurance coverage, as well as make appointments and speak with their doctor's offices. If the primary data center was unavailable for ANY reason, the data needed accessible from a back-up location.

A major challenge facing the IT organization as they developed their plans for replicating the EMR applications and other existing information in the redundant data center, was how to do so efficiently and effectively. They needed to consider both the initial transfer and the subsequent daily updates; leading to such questions as - How much data needed to be replicated? How would the data be transmitted? What is the best way to back it all up without failures (e.g., dropped packets, errors, etc.).

Solution in Action

In this case, the healthcare organization was a long-standing NETSCOUT® partner and had deployed nGeniusONE Service Assurance platform and InfiniStreamNG (ISNG) 9800 series appliances with NETSCOUT's patented Adaptive Service Intelligence™ (ASI) technology for monitoring wire traffic at the existing data centers. This had served the NetOps team well, as they would use the dashboards, alerts, and session analysis to help troubleshoot network and application issues, Voice services, and electronic prescription services, as well as manage capacity for bandwidth-intensive image transfers. With the addition of ISNG appliances at the WAN edge of these existing data centers, the IT staff could monitor application backups as they were replicated to the new disaster recovery data center.

IT executives in Data Center and Capacity Planning also added the nGenius 5100 packet flow switch (PFS) for visibility into wire traffic at the existing data centers to pass to the ISNG appliances for analysis across the WAN to the distant data center to ensure they have the right capacity for seamless replication of applications and patient records. Both the nGenius 5100 PFS and the ISNG 9800 appliances have the ability to support up to 100 Gigabit Ethernet speeds, which provides the scalability and investment protection that the IT team was looking for given the potential growth requirements for connections going to the new redundant data center.

The nGeniusONE solution is monitoring and analyzing for slowdowns, application errors, dropped packets, network bottlenecks, etc., so the operations team can be alerted as issues emerge. This is allowing the team to avoid delays, meet project milestones, maintain application and patient record integrity, and reduce the time to resolve (MTTR) issues that do occur.

It has also helped in working with WAN providers that are delivering the connectivity between the data centers to best-plan capacity decisions and remediate unplanned disruptions. Over the long term, patient data will constantly be replicated to this site, thus making the ability to monitor these segments an essential part of their overall business continuity design. Having the nGeniusONE solution in place will enable the operations team to ensure they have visibility to quickly address disruptions on any given day that might otherwise put the organization at risk of not having accurate, updated, readily available patient records due to a power outage, equipment failure, or natural disaster.

The Results

This healthcare company is moving forward with its business continuity project with visibility and service assurance monitoring. Slowdowns or disruptions are quickly evaluated and resolved with real-time monitoring of the applications and patient data being replicated to the disaster recovery site. The IT Planning team is confident in the data replication, and they are meeting project timelines with proactive information and quick analysis when issues arise. They are ensuring the right bandwidth is available and are saving time when resolving problems with their WAN provider armed with detailed information and evidence.

This healthcare organization has also extended the value of their initial investment in the nGeniusONE solution as they added visibility for this redundant data center project. Be it capacity planning, compliance assurance that the patient data backups are occurring as designed, or troubleshooting issues impacting that activity, the NetOps team is using the same enterprise-wide views and analysis that they use in the primary data centers every day. As an IT organization, collaboration with the nGeniusONE solution has enabled them to become a much more efficient team when it comes to planning, building and running their highly available environment. Ultimately, the patients benefit in the end, with always-available and up-to-date information for high-quality patient care.

LEARN MORE

For more information about NETSCOUT solutions for the Healthcare industry, please visit

https://www.netscout.com/solutions/service-assurance-healthcare

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