NETSCOUT

Healthy Hybrid Cloud Helps Municipality Deliver High Quality Medical Services

Also Enhances Staff Productivity and Agility

OVERVIEW

Business Value

- Improved service performance 80-100 percent
- Lowered business risk 80-100 percent
- Delivered investment payback in three to six months through improved patient experience and increased collaboration
- Expanded visibility and reporting of application bandwidth utilization for executives without additional cost

Business Assurance

- Granular infrastructure insights enabled IT team to be more proactive in preventing and solving failures
- In-depth contextual analysis and monitoring of total internet and Cloud provider application bandwidth utilization
- Unrivaled system-level interoperability across the monitoring fabric enabled smarter data to support rapid identification of service performance problems

Customer Profile

This California government agency is the second largest integrated municipal health care system in the United States. With over 19 health centers and clinics, four hospitals, and an annual operating budget of $4 billion, the agency employs over 19,000 people that provide world-class health care to over 670,000 patients annually.
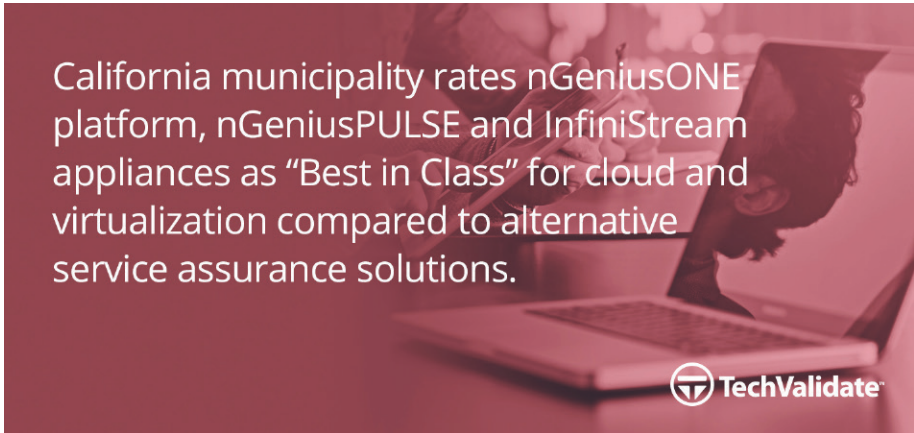
Introduction

An integral component of modern-day health care is the backend IT service-delivery infrastructure. Without the critical IT services and applications supporting today's caregivers, patient care inevitably suffers. Just as health care staff needs to often make critical decisions in a fast-paced setting, IT professionals, too, need to make real-time decisions in a highly agile and evolving environment.

Challenges

It may seem a contradiction but health care organizations are as affected by IT services as any business – perhaps more so. Like any organization, the health care sector needs to leverage the Internet of Things (IoT), Unified Communications and Collaboration (UC&C), virtualization, cloud and continuous software delivery. Moreover, endemic digital services vital to health care providers include electronic medical records (EMR), electronic health records (EHR) and enterprise resource planning (ERP) systems as well. And that's not all. Oracle® databases, Microsoft Exchange® email services, bring-your-own-device (BYOD) initiatives and policies are essential for health care provider teams and the industry at large.

Thus, the requirement to have comprehensive end-to-end visibility of the entire IT infrastructure is mandated by the seamless flow of crucial, mission- and patient-critical data. In fact, EMR requests alone are literally made millions of times a day. As complexity grows with digital

California municipality rates nGeniusONE platform, nGeniusPULSE and InfiniStream appliances as "Best in Class" for cloud and virtualization compared to alternative service assurance solutions.

TechValidate™

systems and automation, so does the opportunity for things going wrong anywhere along the service-delivery path and this can severely diminish patient care. That means the IT organization must get ahead of service-performance problems before they become health care problems.

Some of the specific challenges this Southern California agency grappled with are:

- Understanding capacity utilization
- Automatic, end-to-end awareness of all service dependencies and interrelationships within the IT chain
- Maintaining an evolving IT infrastructure
- Automating the process of software delivery and infrastructure changes
- Isolating and resolving service-delivery infrastructure problems
- Clinical application availability 24/7/365
- Contextual analysis for applications and digital services

Furthermore, the agency faced a limitation with coverage of the physical and virtual IT infrastructure. The IT teams required continuous monitoring and real-time analytics in order to have a complete understanding of the health care service experience and enable quick identification of performance problems. A critical business need for the agency is the ability to monitor their total internet and cloud provider application bandwidth utilization. In addition, they must produce executive level reports for critical applications within their infrastructure on a per WAN circuit basis. Fundamentally, the agency had a critical need for a system-level telemetry approach that relies on specific performance metrics across their entire physical, virtual and hybrid service-delivery framework.

As the IT Director of the agency soon learned, the NETSCOUT® solution, which includes the nGenius® Packet Flow Switch (PFS) and InfiniStream® appliance, could provide the necessary real-time, actionable traffic-based intelligence from a single solution without any limitation and additional costs.

Service Assurance with NETSCOUT

After extensive testing and comparison of various competitive products including offerings from CA, Splunk, Riverbed, SolarWinds and AppDynamics, the agency chose the NETSCOUT nGeniusONE® Service Assurance platform including the InfiniStream appliance and nGenius PFS for its unparalleled ability to monitor, organize and visualize traffic data necessary to manage and measure IT infrastructure and services. Powered by its powerful Adaptive Service Intelligence™ (ASI) engine, the NETSCOUT nGeniusONE platform addresses service assurance challenges with smarter
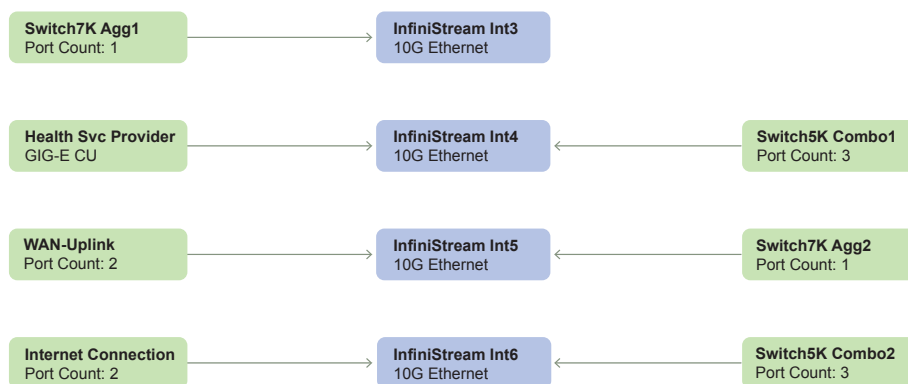
data and superior analytics. By inspecting traffic data continuously and analyzing large volumes of data at high velocity for complex, distributed IT services, NETSCOUT helps the Southern California health care agency solve performance issues before they impact health care services.

Moreover, the agency leveraged a combination of PFS Mode on each InfiniStream and VLAN tagging on the nGenius PFS switches to isolate traffic data and create additional physical interfaces needed for comprehensive visibility and reporting. The solution entailed several important adjustments including the appending of VLAN tags at the nGenius PFS switch to abstract the physical topology and to thus eliminate congestion, which was made possible by:

- Enabling the aggregation of several different ingress ports to a single egress port to optimize available bandwidth utilization
- Enabling several ingress ports of the same traffic type to be seamlessly separated across the topology without concern for data "mixture"

At the InfiniStream, the PFS Mode allowed the association of the appended VLAN tags with a unique physical interface. Lastly, the agency also has the ability to run Link Usage reports on the newly created VLAN physical PFS interfaces.

At its core, the NETSCOUT nGeniusONE platform provides unmatched service triage capability, facilitating the identification and resolution of even the most vexing service performance issues.

Figure 1: nGenius PFS Management software illustrates the combining of multiple ingress ports to egress ports.

Agency Achieves Stellar Results with NETSCOUT

The agency has reaped significant benefits with the NETSCOUT solution. According to the IT director, the most effective approach for assuring digital initiatives and services within the organization has been the continuous monitoring and real-time analytics of mission-critical data flowing over its service-delivery infrastructure.

Some of the specific benefits the agency has derived include the reduction of business risk by 80-100 percent and the improvement of service performance by a whopping 80-100 percent as well. This massive improvement has resulted in dramatic ROI with the agency deriving a payback return of only three to six months in operational efficiencies. Increased collaboration, too, has been much improved with a payback of three to six months as well.

The results and benefits have been so dramatic, the IT Director considers the NETSCOUT nGeniusONE Service Assurance platform as "Best in Class" for virtualization, performance monitoring in the IoT infrastructure, and also for continuous application deployment performance monitoring.

Summary

The inexorable demands upon the agency's IT infrastructure have been significant. Yet through the deployment and utilization of the world's best service assurance and performance monitoring platform, it has derived quantifiable results and a significant ROI. The agency is committed to providing the best health care services possible and with an optimally functioning and supportive IT infrastructure, it is doing just that.

Visit NETSCOUT's Voice of the Customer website to find out what businesses like yours are doing to assure service delivery in complex, large-scale digital environments or call +1-800-309-4804 today.

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