LiveAction™

CASE STUDY

# ACCELERATING AND OPTIMIZING THE TRANSFER OF PATIENT-CRITICAL MEDICAL IMAGING

## EXECUTIVE SUMMARY

**CUSTOMER NAME:** National Surgical Healthcare

**INDUSTRY:** Hospital and Healthcare

**LOCATIONS:** Arizona, California, Connecticut, Georgia, Idaho, Illinois (HQ), Louisiana, North Carolina, Michigan, Texas, Wisconsin, Wyoming

**EMPLOYEES:** 1,001–5,000

## BUSINESS CHALLENGE

- Inability to quickly transfer and manage document imaging across the network from each facility to headquarters

## SOLUTION

- Deployed LiveAction's LiveNX* to gain more network visibility, better manage and monitor network performance, and prioritize traffic with Quality of Service (QoS)

## BUSINESS RESULTS

- Improved end-to-end productivity and collaboration for physicians, patients and payors
- Enabled the delivery of optimal, high-quality patient and healthcare services

## CUSTOMER CHALLENGE

National Surgical Healthcare (NSH) is an innovative healthcare company that provides a full range of capital, development, and management services for physician and company-owned surgical hospitals throughout the United States. The company currently supports over 20 community-based facilities from coast-to-coast and takes on the responsibility to ensure that each one remains true to its goal of providing "efficient, friendly, and cost-effective care" to all its constituents including physicians, the patients, payors, and the community-at-large.

By providing comprehensive facility and management services, NSH frees surgeons and clinicians to focus on providing the highest quality healthcare and patient services. One important component of the service is providing a secure, fast, and reliable IT network connecting each facility to the NSH headquarters in downtown Chicago. The NSH has an all-Cisco network. According to Senior Network Systems Engineer Chris Paalman, each location uses a Cisco 2900 ISR router connected to a third-party MPLS service as its primary link to the Chicago office. Each location also uses a VPN connection over the Internet as a backup link.

For some time, nearly all of the network traffic went in one direction from the central office to the remote locations. Today this is changing. The member hospitals are now sending medical imaging files and print files to the main office, as well as enormous amounts of archive files created by scanning years of paper-based medical records.

"We knew we had to be preemptive in handling document imaging if we were to prevent our core applications from getting stepped on," Paalman said. "We started getting some calls from users saying there was contention during peak times such as when people were logging in. Most of the time the circuits were not overtaxed, but there were definitely bursty moments. Document imaging has become a big concern and we've had to evaluate our controls on the WAN, which had been mostly wide open until now," Paalman said. "The old adage of just throwing more bandwidth to the problem no longer works. We knew we had to deploy Quality of Service (QoS) to prioritize our traffic, but the configuration that went along with it was a little overwhelming."

Although he has 20 years of experience with routing and Cisco's command-line interface, Paalman had only limited experience with QoS and was not sure if his initial implementations were actually making a difference. "We began looking at different tools that could explain how this additional traffic was impacting our network."

## SOLUTION

Paalman saw an article in Network World about LiveAction (now known as LiveNX*) and proceeded to download and install a trial version of the software. He quickly realized that for the first time he could easily see and measure the before and after effects of QoS. After trying LiveAction's graphical QoS policy editing and deployment features, he began pushing for the purchase of the software for his network.

Today, Paalman and Systems Engineer Brandon Craig continue to use LiveAction software to monitor and optimize performance on their network. However one of the biggest benefits of LiveAction is the time it saves them to do other things.

Both are responsible for providing network access, services, and support for approximately 1,800 users—most of them at remote locations. "Security is of high importance here," Paalman said. Having a tool that can simplify our QoS and WAN operations frees us to devote our time to this and other critical issues such as HIPAA compliance."

In addition to the QoS functions, Paalman uses the LiveAction NetFlow function to watch and learn what's going on in his network. He relies heavily on its flow visualizations to help him decide what changes he needs to make to his QoS policies.

In a separate project, he used the LiveAction policy based routing (PBR) feature to route bandwidth-hungry disk backup operations over the mostly idle backup links. This freed up large amounts of MPLS capacity, enhancing performance without incurring any extra costs. In the future, Paalman wants to use LiveAction's IP SLA capabilities to help him prepare new services over the WAN links. In the meantime he appreciates the software's graphical user interface (GUI), which helps ensure there are no typos when he configures a network router.

## CUSTOMER RESULTS

How long did the NSH QoS project take? According to Paalman, it took only a couple of days to implement everything he wanted to do. That said, he gave the project 2-3 more weeks to evaluate the results, so he could make fine adjustments slowly and precisely, while using LiveAction to measure the changes.

Interestingly, in the process he did find some old devices talking to each other that he thought had been stopped years ago. That extra chatter is now turned off. "We hardly ever have to look at our results now," he added. "Phone call complaints just don't happen anymore."

## MORE ON NATIONAL SURGICAL HEALTHCARE

National Surgical Healthcare facilities are focused on providing inpatient and outpatient surgical services primarily for orthopedic, spine, and pain management for physicians and their patients in an ambulatory surgical center-like setting. Each facility is dedicated to providing a pleasant and friendly environment with the customer service and operating efficiency of an outpatient surgery center.

## ABOUT LIVEACTION

LiveAction provides comprehensive and robust solutions for Network Performance Management. Key capabilities include Cisco Intelligent WAN visualization and service assurance, best-practice QoS policy management, and application-aware network performance management. LiveAction software's rich GUI and visualization provide IT teams with a deep understanding of the network while simplifying and accelerating management and troubleshooting tasks.

## FOR MORE INFORMATION

**LiveNX and LiveUX Downloads**
Free downloads of LiveNX and LiveUX are available now. Visit our webpage to discover more details and benefits of LiveNX and LiveUX.

**Upcoming Webinars**
Check out our updated webinar schedule—gain insights from our special presenters about topics like QoS, Hybrid WAN Management, Capacity Planning and more.

**Additional Resources**
Case studies, white papers, eBooks and more are available for your learning on the LiveAction resources page.

**Note:** This customer story is based on information provided by National Surgical Healthcare and describes how that particular organization benefits from the deployment of LiveAction solutions. Many factors may have contributed to the results and benefits described.



*Product Disclaimer: LiveAction has renamed their software solution, formerly known as "LiveAction" to "LiveNX." From 2016 and on, LiveNX will remain the official name for the software solution.