

# Springhill Medical Center

## EXECUTIVE SUMMARY

### Challenge

Replace failing switch infrastructure to improve healthcare application performance and user experience while earning a higher return on investment

### Solution

- Brocade ICX 7750 Switches
- Brocade ICX 6610 Switches
- Brocade ICX 6450 Switches
- Brocade Network Advisor

### Results

- Deployed robust, high-availability 10 to 40 GbE network for critical healthcare applications
- Saved 30 percent on purchase price of new equipment, significantly reduced maintenance costs, and achieved rapid return on investment
- Gained unprecedented visibility into network traffic
- Simplified network management dramatically

## Choosing Simplicity, Savings, and Satisfaction

Springhill Medical Center (SMC) was founded in 1975 by Dr. Gerald L. Wallace, who understood the importance of a physician's input when designing and creating an ideal hospital environment. The 252-bed medical center in Mobile, Alabama, is still family-owned and for-profit, and it continues to operate according to its original mission "to accept challenge, anticipate, then answer the needs" of its patients and caregivers.

SMC relies on its network to provide state-of-the-art healthcare services. SMC had been a long-time Cisco customer and in 2001, was the first healthcare organization to deploy a Cisco voice solution. However, over time, high equipment and maintenance costs had prevented timely upgrades. Switches were failing because of heat and age. They required more management and were a source of continued frustration. Springhill needed to move to a 10 GbE infrastructure in order to upgrade its wireless capabilities, support its Picture Archiving and Communications System (PACS) and Allscripts Sunrise platform, and be ready to support emerging healthcare technologies.

From an operational perspective, SMC needed a network that had to be easy to operate and maintain, even for less experienced staff members. SMC also wanted to improve the return on its networking investment. That meant achieving a longer lifecycle, reducing maintenance and support costs, and gaining greater flexibility.

"We wanted to be sure we made the right choice for Springhill Medical Center's best interests," said Troy Hopkins, Technical Services Manager for SMC. "We evaluated several vendors before making our decision to go with Brocade."

SMC's Allscripts applications run in an open environment, and the SMC team likes the open approach that Brocade takes to networking because it complements their goals and offers greater flexibility. However, value was the primary reason for choosing Brocade® solutions.

"Switch for switch, Brocade switches were considerably less expensive," said Hopkins. "We saved more than 30 percent in capital costs alone. When combined with the fact that we also would no longer have tremendous service contract renewal costs, the decision was easy."

## Transformation Starts With High Availability

Hopkins' team deployed Brocade ICX® 7750 Switches to replace a pair of legacy chassis from another vendor in its data center distribution and campus distribution layers. These switches connect to legacy core switches, which will be replaced soon. Brocade ICX 7750 Switches provide 10/40 GbE switching in a 1U, stackable form factor. For SMC, they deliver wire-speed, non-blocking performance across all ports for outstanding performance of SMC's PACS and Virtual Desktop Infrastructure (VDI) environments. Numerous features, such as instant hitless failover and hot insertion and removal, ensure continuous availability for critical healthcare applications. A stackable approach also enhances flexibility, enabling SMC to "pay as it grows," which reduces cost of ownership, power consumption, and space required in the wiring closets.

In the campus distribution layer, the Brocade ICX 7750 Switches extend high-availability features with Multi-Chassis Trunking (MCT), which enables wiring closet access switches or rack servers, to be dual-homed. This eliminates the risk of a single point of failure affecting overall network availability. SMC also implemented the extension of Virtual Router Redundancy Protocol (VRRP-E) from Brocade, which provides redundancy and sub-second failover for both Layer 2 and Layer 3 traffic.

Brocade ICX 6610 Switches are implemented as top-of-rack switches to extend these high-availability features across the SMC campus. Brocade ICX 6610 Switches provide unprecedented levels of performance, availability, and flexibility in a stackable form factor. Brocade ICX 6610 Switches give SMC the capabilities of a chassis with the cost-effectiveness of a stackable switch. These switches are also deployed in Intermediate Distribution Frame (IDF) closets across campus and support SMC's storage environment.

## A new Access Layer Enables Wireless Transformation

Brocade ICX 6450 Switches are deployed in campus wiring closets. These powerful, enterprise-class stackable switches deliver the high availability and scalability needed to evolve SMC's network over time—at an entry-level price. They provide 10 GbE dual-purpose uplink and stacking ports, as well as vital Power over Ethernet (PoE) capabilities that enabled SMC to replace its wireless network. With the new access layer and 10 GbE speeds across the network, SMC was able to replace its legacy wireless network with an Aerohive controller-less wireless network to support its overall campus wireless needs, including clinical point-of-care and guest wireless applications. The Brocade open standards-based unified wired and wireless architecture enables the Aerohive wireless network to unify easily with the Brocade wired network and deliver 10 GbE performance while maintaining compliance with HIPAA privacy mandates.

## Unprecedented Visibility

"We use Brocade Network Advisor and we love it," said Hopkins. "Brocade Network Advisor moved us leaps and bounds ahead of where we were. It's easy to pinpoint anomalies, and we can immediately identify devices. We never had this level of visibility before now."

SMC uses sFlow, which is embedded in the Brocade routing and switching products, for always-on monitoring across every port in the network. Within an hour of turning on its sFlow application, the SMC team was collecting data and pulling statistics that were previously impossible to access.

## Fast Deployment and Simpler Management

The implementation process went quickly and smoothly. The Brocade ICX 7750 Switches were up and running in the data center in just two days. Even though SMC's engineers had no experience in configuring Brocade switches, they were able to quickly familiarize themselves with the equipment and manage it on their own.

"We were amazed at the configuration and management simplicity compared to our old equipment," said Hopkins. "Not only do we save time, but we don't need specialized experts just to manage the network."

## Increased Return on Investment

The Brocade solutions dramatically increased SMC's return on investment. The IT team now has superior visibility, much simpler management, and 10 to 40 GbE capabilities for the same price as 10 GbE features alone.

"My biggest challenge is protecting the assets of this organization on a day-to-day basis," said Mark Kilborn, Chief Information Officer for SMC. "That means making sure that we get the best return on technology that technology can produce."

The new infrastructure is already supporting SMC's award-winning Electronic Medical Record implementation. In February 2015, HIMSS Analytics awarded Springhill Medical Center with its Stage 7 Ambulatory Award—the highest level on the Electronic Medical Record Adoption Model (EMRAM) for both its hospital and physician practices. SMC is the only hospital in Alabama and one of only a very few nationally to achieve this level.

"For more than 35 years, we've been taking care of the little things that are important in keeping patients and physicians happy," said Celia Wallace, owner of Springhill Medical Center.

"We know that quality care and the continued satisfaction of our patients and physicians are fundamental to our success. That's why we choose to grow better, not just bigger."

## Next Steps

In its next step of network evolution, SMC will replace its legacy core switches with Brocade solutions and continue to anticipate and meet the needs of SMC patients and caregivers as new technologies emerge.

"I couldn't be happier," said Hopkins. "It doesn't matter how long you've been on a particular manufacturer's platform, it's in your best interest to look at everything out there and make an informed decision based on the needs of your organization. I believe that far too often, people are hesitant to introduce new vendors into their environment because they believe it's easier to stay with what you know. We made the choice to consider alternative solutions to what we have known, and as a result, we have received much greater value with Brocade."

For more information, visit [www.brocade.com](http://www.brocade.com).

## WHY BROCADE

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— Troy Hopkins, Technical Services  
Manager for Springhill Medical Center

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