

CHARLESTON SOUTHERN UNIVERSITY



IP NETWORKS

Keeping a Campus Connected

EXECUTIVE SUMMARY

Challenge

Reduce backup time to increase availability and network performance while ensuring Network Access Control (NAC) security for highly demanding campus users

Solution

- Brocade FastIron SuperX 10 Gigabit Ethernet (GbE) switches in the core
- Brocade FastIron GS switches in the access layer
- Brocade FastIron EdgeX switches at the network edge
- Brocade Turbolron 24X
- Impulse Point Safe-Connect NAC solution

Results

- Reduced backup time by almost 50 percent
- Achieved greater than 99 percent uptime since installation
- Reduced maintenance costs, freeing up resources for more strategic IT initiatives
- Reduced time required for installation of student computers by 27 percent
- Reduced the time spent on student help desk requests by 84 percent

Founded in 1964, Charleston Southern University (CSU) is one of South Carolina's largest accredited independent universities, with more than 3000 students and 450 faculty and staff. Credited with several technology firsts, including becoming the first all-wireless campus in South Carolina, CSU is committed to using technology to enhance the learning experience and student life—which includes smart classrooms with sound, projectors, and smartboards.

"Everything we do here is designed to support students and learning," explains Rusty Bruns, Chief Information Officer at CSU. "The network has become integral to enabling the university to meet its mission—helping students develop intellectually, socially, culturally, and spiritually."

Unfortunately, a long, bandwidth-intensive backup process was starting to affect users' ability to access network resources, impacting the productivity of both students and staff.

"We were looking for a way to improve the performance between our high I/O servers, specifically for backup purposes," says Tony Boone, Network Administrator at CSU. "Our backup window was taking up to 60 hours to complete, and that was unacceptable because it affected our campus users."

While the backup was taking place over the weekend, when many students and faculty were off-campus, it often wasn't complete until well into Monday. When students and faculty returned to campus for the week, the backup process was still consuming bandwidth that was needed for classroom instruction, staff, and faculty.

DELIVERING HIGH NETWORK PERFORMANCE AND EVEN HIGHER VALUE

To overcome this challenge, CSU decided to deploy Brocade® FastIron® SX and FastIron GS switches, creating a 10 Gigabit Ethernet (GbE) backbone capable of increasing campus bandwidth, application availability, and network performance. The CSU team found that the Brocade solution wasn't simply faster than its previous Cisco infrastructure. It also delivered a better value—a combination of lower price, reduced maintenance costs, higher performance, and superior support.

“One of the reasons our new network solution is so successful is because we've been able to develop a long-term partnership with Brocade, where they understand our campus goals,” Bruns explains. “That's why I trusted Brocade to help us address our network access control challenges as well.”

CSU had been using Cisco's Network Access Control (NAC) solution, which required burdensome administrative support and maintenance. The university felt that the Cisco software was difficult to install and lacked an intuitive Web-based user interface. In addition, Cisco's support to the university had become less responsive, while maintenance costs continued to rise.

Together, Brocade and Impulse Point (a Brocade Systems Alliance Partner) delivered a more secure and predictable campus network solution that offers the ability to manage specific IT endpoint security policies such as identity-based user access, anti-virus and anti-spyware protection, patch maintenance levels, access points, and peer-to-peer file sharing.

RESULTS CSU CAN COUNT ON

Today, all campus network traffic goes through the Brocade switches, resulting in a network that not only supports the demanding campus and its users, but does so reliably. In fact, the Brocade network has achieved greater than 99.5 percent uptime since installation.

With the new highly available and reliable Brocade network infrastructure, CSU has reduced backup time to approximately 32 hours—almost half of what it once was. In addition, the joint Brocade and Impulse Point solution has reduced the time required to complete installations of student computers on the network from 110 hours—involving eight people for two and a half weeks—to just four people for four days.

“The results have been amazing,” says Bruns. “With the reduction in backup time, coupled with the reduction in maintenance and support costs associated with the installation of student computers on the network, Brocade has delivered a win-win solution for us.”

WHY BROCADE

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— Rusty Bruns, Chief Information Officer at CSU

A SOLID FOUNDATION FOR THE FUTURE

CSU and Brocade have developed a business relationship that continues to thrive and meet the changing needs of the university. As the school looks ahead to new technologies, such as mobile and collaborative applications and virtualization, Bruns is confident that Brocade will help his team continue to support academic excellence.

“We know that there are new technology opportunities, and challenges, on the horizon,” Bruns admits. “We're also confident that Brocade will be there to help us every step of the way.”

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