SAVANNAH COLLEGE OF ART AND DESIGN

CAMPUS NETWORKS

College Extends Campus Network, Saves on Overhead with Brocade

EXECUTIVE SUMMARY

Technology Challenge

Build a campus network infrastructure to meet the growing performance and reliability requirements of next-generation applications while minimizing operational costs

Solution

A networking infrastructure featuring the Brocade FastIron CX, the Brocade FastIron GS, the Brocade FastIron SuperX family, and Brocade BigIron® switches

Benefits

- Provided the flexibility and scalability required for a dynamic campus network and converged applications
- Enabled network growth without increasing maintenance costs and headcount
- Improved resource utilization and simplified network maintenance, reducing administrative costs and maximizing network uptime
- Reduced risk and downtime by increasing network predictability

The Savannah College of Art and Design (SCAD) was founded in 1978 to prepare talented students for professional, creative careers in art and design. With multiple locations in the southeastern United States and abroad, as well as online distance education offerings, SCAD offers more degree programs and specializations than any other art and design university.

To keep pace with an ever-expanding matrix of campuses, SCAD's IT network must be both flexible and scalable. For example, SCAD's flagship location in Savannah, Georgia, currently consists of more than 60 facilities spread throughout the city, with more than 100 miles of fiber linking these buildings. At the same time, these sites need to link with the new digital media center in Atlanta.

By leveraging networking solutions from Brocade®, SCAD is able to meet the performance, scalability, and flexibility requirements for a next-generation enterprise campus network, while minimizing overhead costs.

LAYING THE FOUNDATION FOR NEXT-GENERATION CAMPUS APPLICATIONS

As SCAD continues to build out its network, it wants to provide students and faculty with consistent, seamless access to resources from anywhere on the system. "We aim to provide a LAN-like feel across our distributed campuses," says Harley Lingerfelt, vice president for information management and technology at SCAD. "Our system always needs to work. That's the level of reliability we strive for, and Brocade has given us the ability to provide that."

SCAD was starting to saturate its 300 Megabit Ethernet link between cities due to its large-scale use of rich media, film, and video editing applications, and its extensive use of replication in a Brocade SAN environment. Aware of the rising use of mobile devices on campus, SCAD sought to expand its network both at the edge and the core by rolling out 802.11n wireless in tandem with 802.1x security and Power Over Ethernet Plus (POE+).

A long-time Brocade customer, SCAD chose to implement Brocade FastIron® CX switches for their superior technology. "We selected Brocade because the FastIron CX supports the PoE Plus standard, and we can power our wireless access points and other power-hungry edge devices," says Brad Grant, director of network services and advanced technologies at SCAD.

Designed for wire-speed and non-blocking performance, the FastIron CX delivers performance and intelligence to the network edge in a flexible 1U form factor, helping to reduce infrastructure and administrative costs. It supports PoE+ to deliver up to 30 watts of power to edge devices, enabling next-generation campus applications.

FLEXIBILITY AND SCALABILITY FOR GROWTH

In addition to meeting SCAD's requirement for PoE+ support, the FastIron CX provides unique stacking capabilities. "The stacking capability was key," notes Grant. "Because the FastIron CX can split the trunk and the multiple stack members, we have full utilization of the trunk while providing redundancy and fault tolerance inside the stack," he adds. "This gave us the scalability and flexibility we needed at the edge of our next-generation campus network."

The FastIron CX also has provided SCAD with investment protection and ease of integration. "As a Brocade solution, the FastIron CX has the necessary level of standardization to coexist with our legacy network technologies," explains Grant. "We can have a switch configured and in production within minutes. And the consistency of the platforms helps us avoid constant retraining."

MAXIMIZING UPTIME AND RESOURCE UTILIZATION

Since implementing Brocade solutions, SCAD has minimized network downtime, improving the quality of service users receive. "The network that we built with Brocade is extremely predictable," says Grant. "Should any issues occur, we can quickly pinpoint the root cause and resolve it."

Brocade networking solutions also have enabled SCAD to grow its network without increasing maintenance requirements. As a result, SCAD can focus existing resources on higher-priority tasks.

GROWING THE NETWORK WHILE REDUCING COSTS

SCAD has been able to scale its network while minimizing overhead. By using Brocade IronView® Network Manager in conjunction with other tools, SCAD has centralized the management of its campus network, simplifying administration. "We have been able to efficiently grow our network to offer new services," says Grant. "In fact, our network is now five times larger than it was in 2000, but our staff is the same size."

WHY BROCADE

- Price-competitive, high-performance solutions
- Simplified integration with existing technologies
- Cost-effective, pay-as-you-go scalability

The FastIron CX has enabled SCAD to deliver both power and data across network connections, providing a single-cable solution for campus edge devices such as Voice over IP (VoIP) phones, video surveillance cameras, and wireless access points. By unifying voice, video, and wireless on a single copper line, SCAD has simplified maintenance and seen a dramatic reduction in work orders and changes. In addition to savings, the university has increased its efficiency and can now maintain 1600 IP phones with a single administrator.

"Thanks to Brocade, we have been able to achieve our goal of delivering new, high-quality services to our university community while keeping operating costs under control," says Grant.

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