

Juniper Helps Armstrong Atlantic State University Build the Best Network and Achieve 30% Savings in Maintenance

Summary

Company:

Armstrong Atlantic State University

Industry:

Higher Education

Challenges:

As the number of mobile devices on campus exploded, the university needed to increase its wired network capacity.

Network Solution:

- EX4600, EX4500, EX4200, EX3300, and EX2200 Ethernet Switches
- Junosphere Classroom

Results:

- Lowered network operating cost while meeting growing demand for bandwidth
- Enabled support for online and blended learning programs
- Saved 30% on network maintenance costs

**ARMSTRONG ATLANTIC
STATE UNIVERSITY**

Located in beautiful Savannah, Georgia, Armstrong Atlantic State University focuses on student success as its singular guiding principle. With about 7,400 students, Armstrong is small enough to foster a sense of community, but large enough to offer more than 100 academic programs that prepare graduates for success in their careers and their communities. Armstrong awards the most undergraduate degrees in the allied health professions in the University System of Georgia.

Challenge

“Technology is a disruptor in the educational market,” says Robert Howard, CIO at Armstrong. More students, faculty, and staff want to access coursework, applications, and information from their laptops, tablets, and smartphones—both inside and outside the classroom. As with other universities, the consumption of video, whether for education or recreation, continues to spiral upward. Armstrong’s online and blended learning programs offer active duty military, veterans, and nontraditional students a pathway to learning.

Armstrong must balance the advantages of a small school experience with the reality of budgets. “Our number one priority is giving the best experience to support student success at the best cost,” says Howard. “We look for ways to be economical and be good stewards of the taxpayer’s money while giving students the best experience possible, whether it is students who consume IT services on campus or prospective students.”

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Robert Howard, CIO, Armstrong Atlantic State University

Armstrong’s network had grown organically over the years, but it had an opportunity to holistically design a network that would support the university’s current and future needs—while reducing cost. The university decided to replace its incumbent network vendor.

“We had a perfect storm of funding opportunities and we were able to partner with Juniper in a way that made sense,” says Howard. “We had initial capital savings, but like other IT organizations, we’ve been continually hit with astronomical cost increases for maintenance. Anything we can do to reduce cost is good.”

Solution

Armstrong deployed Juniper's switching, security, and wireless products to enable simple, secure access to critical information and applications. "We are end-to-end Juniper," says Howard.

Armstrong uses the high-performance, highly available Juniper Networks® EX Series Ethernet Switches in its data center and campus networks, including EX4600, EX4500, EX4200, EX3300, and EX2200 switches. "Using EX Series switches has reduced complexity, maximized uptime, and minimized risk to our organization," says Howard.

Juniper Networks Virtual Chassis technology enables multiple interconnected EX Series switches to operate and be managed as a single logical device, consolidating switch layers to reduce management overhead. Meanwhile, programmability delivers the flexibility required for the network to quickly respond to changing educational needs.

"Armstrong uses Virtual Chassis technology to allow for ease of management and Layer 2 hardware diversity without the complications and convergence times introduced when using Spanning Tree," says Howard.

Armstrong's campus core consists of EX Series switches in a mixed-mode GbE/10GbE Virtual Chassis configuration spread across three geographically distant locations. Each location has a pair of EX4200 or EX4500 switches.

In the data center, Armstrong uses a pair of EX4600 switches with XRE200 External Routing Engines. Using Virtual Chassis technology, the top-of-rack switches can connect to the network core via different line cards on different chassis. Virtual Chassis also greatly simplifies the configuration and management of Armstrong's top-of-rack switches.

Results

"At Armstrong, part of our job is to build the best student experience," says Howard. "Part of that student experience is building the best network for their personal lives and their educational curriculum as well. Juniper has enabled us to build the best."

The new network from Juniper enables Armstrong to support the growing use of technology in its academic programs as well as residential life. "It's a fundamental part of a student's education to have ubiquitous access to wireless networking and all of the tools that the Internet provides."

The university has also reaped a 30 percent savings on maintenance contracts. "With Juniper, we have even better service at a lower cost," says Howard.

With the new network from Juniper, operations have been simplified. "We've made it easier for our staff to do their jobs," says Howard. "We've increased security and reduced complexity—that's a win for us."

Another benefit of deploying a Juniper network was the ability to incorporate Junosphere™ Classroom, a virtual environment from Juniper that can be used for network planning and modeling, into its curriculum for its computer science and IT program. "With Junosphere Classroom, our faculty and students can do network design and testing in the cloud," he says. "Junosphere has been well-received."

Next Steps and Lessons Learned

Armstrong prides itself on offering a diverse body of students a small school, affordable educational experience that will instill a love of learning that will last a lifetime. It continues to expand, and in fall 2013, the university will break ground on a major expansion for the Armstrong Liberty Center in Hinesville, GA, which brings higher education to the surrounding areas and special services to Fort Stewart and military families.

For More Information

To find out more about Juniper Networks products and solutions, please visit www.juniper.net.

About Juniper Networks

Juniper Networks is in the business of network innovation. From devices to data centers, from consumers to cloud providers, Juniper Networks delivers the software, silicon and systems that transform the experience and economics of networking. The company serves customers and partners worldwide. Additional information can be found at www.juniper.net.

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