Extreme Networks Purview Solution Cuts Network Management Time By 40 Hours Per Week

CASE STUDY

STONINGTON STATS
- Networking IT Staff: 2
- Users: 3,000
- Locations: 6

INDUSTRY
- K-12 Education

CHALLENGES
- Network performance
- Network management and control
- Network and application visibility
- Ability to support BYOD and wireless

PRODUCTS UTILIZED
- S-Series modular core switches
- B-Series edge switches
- 7100-Series virtualization switches
- IdentiFi Wireless
- Purview

RESULTS
- Secure, reliable high-performance network
- Central management, visibility and control of the entire network
- Seamless wireless experience
- Improved troubleshooting
- Cost and time savings

Serving the towns of Stonington and Mystic, Connecticut, the Stonington Public School District is committed to creating an educational environment with structures to support collaboration, personalized learning, and innovative instruction to help students become knowledgeable, problem solving, productive citizens.

In order to meet the mobile needs of 3,000 users across six schools and seven buildings, Stonington Public Schools turned to Extreme Networks to implement an enterprise wireless network that would allow them to roll out BYOD, deploy a virtual desktop infrastructure, and centrally manage the entire infrastructure from a single screen.

The Challenge

As the network's utilization grew, the biggest challenge that Stonington needed to overcome was poor performance. As they looked to grow the number of laptops with a BYOD initiative, the need for a reliable, high-performance enterprise wireless environment became critical to the Department of Technology's goal of using technology to develop and improve student learning and prepare them for a 21st century technical workforce.

The existing Apple wireless network solution at the elementary and middle schools used a pre-shared key which prevented students from switching classrooms or moving between buildings without the need to re-authenticate each time. The outdated Hewlett-Packard wireless solution based on 802.11a/b at the high school was very slow and couldn't handle the amount of clients coming on board or the volume of applications.

Stonington's curriculum required them to grow the network, install a new core and deploy a ubiquitous wireless network that would give them the ability to seamlessly transfer clients between not only classrooms, but also buildings and still be on the same network with the same credentials.

With just two people managing the network, the IT staff was spending a lot of time deploying new users. They had to manually touch each computer in order to provide users with network access. It was very important to choose a wired and wireless solution with the ability to easily manage the credentialing process, centrally.

Extreme Networks' Solution

With cost as the number one criteria in any K-12 environment, Stonington Public Schools evaluated Aruba, Cisco, Extreme Networks, and HP. They also considered performance, visibility, manageability, and ease-of-use. After careful review, they chose Extreme Networks to provide deep insight into who is on the network and how many devices there are, as well as where they are going and what they are doing.

The Extreme Networks solution includes S-Series switches at the core, B-Series switches at the edge, and 7100-Series switches for virtualization, IdentiFi Wireless, and Purview application analytics. IdentiFi Wireless with one AP per classroom provides seamless, secure wireless access and the entire infrastructure is easily managed by Extreme Networks Purview application analytics. Purview provides visibility into applications for improved troubleshooting and decision-making to create a better user experience.

"Purview provides us with a global view of the overall health of the network from a single pane of glass. It's the first stop in the troubleshooting process when network issues are discovered and it enables us to pinpoint issues and drill down to a specific closet or client for fast resolution," says Jason Jones, Director of Technology for Stonington Public Schools. The students and staff love having one log-in that allows them to easily transition between classrooms and the entire district.

Results

The Extreme Networks solution has given Stonington Public Schools the reliable, high-performance infrastructure they need to grow their network and handle the mobile demands of their 3,000 users. Purview has given their small IT staff the tools to easily view, manage, and control the entire network and all the applications running on it from a single screen, saving them a tremendous amount of time and enabling them to improve user satisfaction.

1. **Central Management, Visibility and Control of the Entire Network –** "I can't be everywhere at once, so being able to look at a single pane of glass has made life a lot easier," says Jones. The ability to centrally manage the network means that the IT staff no longer has to go and physically visit the closets. Instead they can sit in one seat and have an overview of the entire network. Extreme Networks Purview gives Stonington Public Schools complete visibility and insight into the utilization of the network, enabling them to proactively shape and direct traffic to better serve their end-users.

2. **Improved Troubleshooting –** According to Jones, the biggest benefit of Purview has been the facilitation of troubleshooting network problems: "Before Purview we just knew that there was a network issue somewhere. The level of detail that Purview provides allows us to home in on the specific switch or port and remediate problems quickly." When troubleshooting an issue, Jones goes to Purview before going to the servers to immediately find out what is going on. From there he is able to identify the issue and see if a node is inaccessible, an AP is unavailable, or if there is a DHCP issue. "Internet access is of utmost importance. Network access has become a rite of passage, our users have to have it and when they can't log on, it creates a tremendous disruption to the learning environment. Purview provides us the ability to quickly drill down to a problem with an end user. Being able to look at any AP connected client with immediacy allows us to protect the network by isolating the device in question," says Jones.

3. **Seamless Wireless Experience –** The implementation of Extreme Networks IdentiFi Wireless has enabled the Stonington School District to grow their mobility and offer BYOD at the high school and middle schools to support personal devices heavily-used Chromebooks, and other classroom technology. "The teachers and staff are happy that they can easily transition around the district and the improved network performance has eliminated downtime and calls into the IT department," says Jones.

4. **Cost and Time Savings –** The ability to centrally deploy clients, manage the network and troubleshoot issues has saved the IT department an estimated 40 man hours per week in supporting their wireless environment. "Not having to manually on-board and off-board equipment, not having to manage the pre-shared key for access, not having to touch every machine, saves a ton of time, especially at the beginning of the year," attests Jones. In addition, Jones says, "Eliminating Cisco Smartnet maintenance has easily saved us well over $100,000."

Jones says that the transition to Extreme Networks has been great and that the engineering staff was fantastic with the deployment. "The knowledge they have, even outside of the Extreme Networks products, has helped us to improve our processes. We have established great relationships and we can call anybody when issues come up," says Jones.

The Extreme Networks solution will allow Stonington Public Schools to continue to grow many initiatives including BYOD access with the potential to start 1:1, the expansion of their robotics program, and introduce more 3D printing at the high school. Purview will be a big help with ensuring that continuous bandwidth is provided for on-line assessments. "Without this network, we would not be able to simultaneously test the number of students we need to. Our Extreme Networks infrastructure will allow us to test more students in a shorter window of time than we were able to before," says Jones.