School District in Wine Country Picks Juniper to Cultivate Digital Learning Future

Summary

Company:

St. Helena Unified School District

Partner:

Sacramento Technology Group (Sactech)

Vertical:

Education

Business Challenge:

The school district's 20-year-old network was unable to reliably support Common Core assessments and the thousands of laptops, netbooks, tablets, and desktops used for digital learning.

Technology Solution:

- EX4200 and EX4550 Ethernet Switches
- SRX550 Services Gateway
- Junos Space Network Management Platform

Business Results:

- Students are experiencing the latest digital learning, including 1:1 learning.
- When network throughput doubled, classrooms experienced excellent performance for web-based apps and online assessments.
- IT staff manages all administration tasks easily from a single interface.

Technology-based learning is a familiar friend to today's kids, who have been surrounded by laptops and mobile devices their whole lives. St. Helena Unified School District (USD), in the heart of California's Napa Valley, wanted to bring the latest digital learning methods to its 1,200 students. Apple TV, Apple iPads, Google Chromebooks, white boards, video, and online apps have become a regular part of learning. But nothing can disrupt a learning moment more quickly than a slow, poorly performing application or an unreliable network connection—and that is what the St. Helena school district was facing with its legacy network.

Business Challenge

A 20-year-old network was holding St. Helena USD back. When Common Core assessments took place, for example, a one-week testing period turned into three weeks because of unreliable connectivity. The district was piloting the use of a web-based application for the Common Core curriculum, but was hesitant to expand its use because the network was too unstable. The legacy network simply could not support the new federal teaching requirements or the influx of requests from the district administration for more computer-based and online instruction.

Selection Criteria

After passing a school bond to pay for a network upgrade, the district interviewed possible solution providers to lead the project. The district's IT team engaged first with a managed service provider and then with a value-added reseller, but ended both relationships. "Neither was a good fit for us. We chose Sactech because of its Juniper expertise and willingness to work with us on a short timeframe," says Josh Brock-Walder, IT systems analyst at St. Helena Unified School District.

St. Helena USD district staff and Sactech worked closely to complete the migration to Juniper networking and security, which were chosen for superior performance, reliability, and ease of management. As a Juniper Elite partner, Sactech provided the district with the architectural consulting, network upgrade, and firewall assessment and implementation it needed to bring the network into the age of digital learning. "The timeline was extremely tight, but Sactech was able to deliver the professional services necessary to migrate to the Juniper infrastructure and standardize on the configuration," says Eric Ureta, director of business development at Sactech.

"We have dozens of improvements in the works that are possible because of the strength and flexibility of the Juniper network."

Josh Brock-Walder, IT systems analyst, St. Helena Unified School District

Technology Solution

Success hinged on the ability to upgrade the network very quickly. St. Helena USD engaged with Sactech in June, and the new network needed to be live before the doors opened and kids streamed in for their first day of school in August. Sactech and district staff worked side by side, creating an effective team in tandem to achieve the district's goals. "We upgraded our entire environment in less than three months," says Brock-Walder. "We have dozens of improvements in the works that are now possible because of the strength and flexibility of the Juniper network and Sactech."

St. Helena USD uses the highly available, powerful Juniper Networks® EX4550 and EX4200 Ethernet Switches for its on-premises data center and school sites. Multiple switches are in a Virtual Chassis configuration, which enables them to operate as a single device, reducing operational expense and management complexity.

"In the core, the difference we're experiencing with Virtual Chassis is pretty much unbelievable," says Brock-Walder. "It gives us lots of breathing room. We lost one of the power supplies recently, and it brought down one of the EX4550 switches, but no one noticed a change in network performance. The Virtual Chassis failed over to a different switch with no network interruption."

Sactech worked with St. Helena USD to uncover firewall misconfigurations and strengthen its network security to protect the district's sensitive data and ensure compliance with Children's Internet Protection Act (CIPA). The district is deploying Juniper Networks SRX550 Services Gateway for next-generation protection with advanced threat intelligence at its data center and school sites.

Juniper Networks Junos® Space Network Management Platform is used to simplify and automate the management of Juniper's switching, routing, and security devices. As Brock-Walder explains, "Before, we had no baseline for our network. With Junos Space, we are more prepared. Rather than implementing a new app and hoping it works and canceling it if it doesn't work, we are able to analyze and test it and be confident that it will be functional and not bog down the network."

Business Results

"Doubling the network throughput and improving network reliability has been the biggest improvement for us," says Brock-Walder. And that has allowed the district to fully embrace digital learning. With the new network in place, students immediately experienced better performance from their online apps. With reliable connectivity, the teachers are much more confident in their 21st century learning activities, and students will have more opportunities to engage in learning.

"We're seeing huge benefits from Juniper," Brock-Walder adds. "We really like that we can further optimize the network as we need it. With Juniper, we have an advantage because we can make improvements on our own timeframe to fit the school schedule."

"Sometimes organizations are apprehensive about making a change because they don't think that reliable and fair partners exist," says Ureta. "Sactech strives to be a trusted advisor. We enjoy tough challenges and our engineering is second to none."

Brock-Walder agrees. "Working with Sactech has been great. We would have been stoked if they just supplied the equipment we needed quickly, but the fact that they designated a couple of engineers to configure it for us is a huge benefit. Sactech exceeded all of our expectations."

Next Steps

St. Helena USD and Sactech continue to collaborate, and the district is planning on moving its data center in 2016. In addition, the district will upgrade its WAN connection to 1 Gbps, enabled by Juniper Networks MX5 3D Universal Edge Router, and it will upgrade the connections to the wiring closets to 10GbE.

For More Information

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

About Sactech

Sactech is a next-generation value-added reseller focused on sourcing, securing, networking, and managing technologies from cloud to closet. Our value is delivered by the people who service and support the innovative technologies used by our clients. Learn more at www.sactech.com.

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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