Victor Central School District
Digital learning goes districtwide

CUSTOMER

Victor Central School District

LOCATION

Rochester, New York

OVERVIEW

Victor Central School District (VCSD) is a suburban school district located approximately 12 miles outside of Rochester, New York. The district serves 4,500 students from pre-K through 12th grade and has 600 of staff. Dealing with an aging network, VCSD needed to future proof its infrastructure.

REQUIREMENTS

- A unified, indoor and outdoor wireless LAN that could be easily and centrally managed

- Ubiquitous Wi-Fi coverage and strong signal strength to deliver high data rates to thousands of concurrent clients

- Higher capacity client support per access point (AP)

- A network that could grow to support exploding demand from an increased number of students and devices
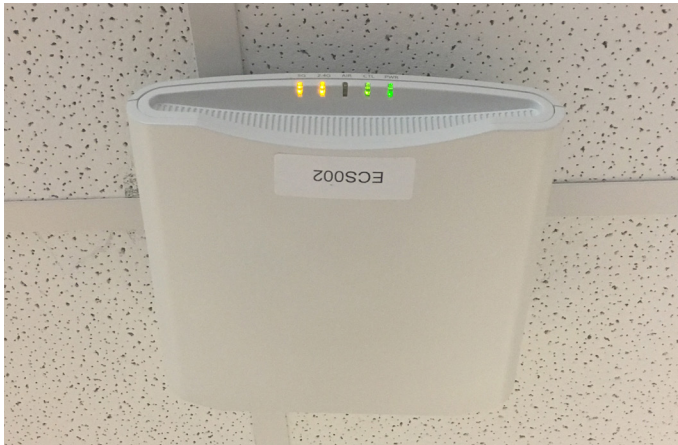
SOLUTION

- Deployed 400 RUCKUS® 802.11ac Wave 2 R710 indoor APs and five T710 outdoor APs

- Installed the RUCKUS virtual SmartZone™ (vSZ) for redundancy to deliver the high availability needed for online learning

- Installed Cloudpath® for security—allowing IT to keep track of who is using the network

BENEFITS

- Equipped VCSD students and staff with a reliable and secure infrastructure

- Increased the number of concurrent clients supported per AP while improving signal strength and wireless reliability

- Seamless coverage throughout the entire campus

- Future-proof network to grow as their district grows

Elevating the classroom experience with scalable networks while securing student data

If the mission of schools is to teach, learn, support, improve and help students achieve success, then providing a robust Wi-Fi network is a must. We live in a digital world where technology is advancing at a fast pace. The younger generation needs to be equipped and ready for the future. Every educational institution must be at the cutting edge of new development. Helping schools achieve a reliable and secure network is at the core of what RUCKUS does.

Challenge

Victor Central School District (VCSD) is a suburban school district located approximately 12 miles outside of Rochester, New York. The district serves 4,500 students from pre-K through 12th grade and 600 of staff. VCSD had an aging network designed to support teacher laptops, rather than 1:1 mobile learning in the hands of students with the implementation of Chromebooks.

Ultimately, it became too difficult for teachers to instruct without a highly available, reliable network to support screen learning time in the classrooms. This led to frustrated students and a challenge for the IT department to manage.

David Henderson, IT director at VCSD states, "Our current wireless network was seven years old and just couldn't keep up with the explosion of devices hitting the network. Putting in a future-proof, wireless network was key. During a 40-minute class, we would have up to six Chromebooks dropping off the Wi-Fi all the time. It was a pain to deal with and even our teacher's laptops would have a difficult time staying on the wireless."

VCSD was in need of an infrastructure that would be easy to scale, manage and secure without overwhelming a lean IT team.

Solution

VCSD's decision to move to 802.11ac Wave 2 was spurred by the growing amount of devices on the network and the availability of funding from the Federal E-rate program and New York State's Smart School Initiative. VCSD was in need of brand-new cabling. By using E-rate, it was able to offset the cost of that portion of the project. The rest of the district's technology was covered by New York's Smart School Initiative funding.

VCSD worked with partner Mainline to find the best solution to meet its needs. After an extensive look at five different suppliers, two vendors remained: RUCKUS and Aruba. These two finalists were placed in a 10-hour bake-off where both had their equipment tested to the limit. The test objectives consisted of measuring:

1. Wireless coverage

2. Client throughput at varying distance from the AP

3. Client throughput as additional clients were added to the network

4. How well a client handled AP-to-AP handoff

> "Everyone has been fantastic to work with and we are very pleased with our RUCKUS network."
>
> **David Henderson**
> **IT Director**
> **Victor Central School District**

A total of 40 laptops were used for the testing either inside or close by the Victor Senior High School library, using three APs from each vendor. RUCKUS outperformed Aruba in the proof-of-concept for performance and proved to be easier to manage.

After having a site survey done to ensure good coverage and density, VCSD installed 400 of RUCKUS' R710 APs in every other classroom and hallways. The district also deployed five T710 APs to cover the outdoor areas. All APs include the RUCKUS BeamFlex® patented adaptive antenna array technology that provides extended range and less co-channel interference. The R710 AP supports 4x4:4 MU-MIMO 802.11ac Wave 2 to address VCSD's need for high density, delivering up to 5dB of signal gain while being backward compatible with the district's existing Wi-Fi clients.

Managing these APs is a virtual SmartZone (vSZ) controller for simple, centralized management, and a backup vSZ for redundancy to deliver the high availability needed for online learning. The vSZ platform gives the network the capability to grow and adapt to the changing needs of VCSD.

"The advantages that we've seen since the deployment has been huge. The first building we installed has been getting glowing reviews and things just work," said Henderson.

Providing reliable classroom connectivity has led to elevating the classroom experience. Teachers can deliver digital curriculum without interruption and students can complete all their online tasks, via their new, reliable RUCKUS network.

> "Cloudpath is an excellent security management tool that works, allowing IT to easily keep the network secure," states Henderson."

David Henderson

**IT Director
Victor Central School District**

VCSD is using Cloudpath Enrollment System for user and device authentication. This security and policy management platform enables IT to onboard many devices, such as Chromebooks, protects students from harmful content and easily keeps track of who is on the network.

"Cloudpath is an excellent security management tool that works, allowing IT to easily keep the network secure," states Henderson.

The RUCKUS network has equipped the students and staff at VCSD with a reliable and secure infrastructure. The teachers and students are thrilled to be able to accomplish all classroom work related tasks over the Wi-Fi without the headaches of poor connections. RUCKUS was able to change the way Wi-Fi was viewed at VCSD and there are no longer any complaints about poor connectivity rather, there are positive remarks on how great it works.

"Everyone has been fantastic to work with and we are very pleased with our RUCKUS network," concluded Henderson.