



SonicWALL

Rochester School Department secures BYOD with Clean Wireless



Customer profile



Company Rochester School Department

Industry Education

Country United States

Users 3,000

Website
www.rochesterschools.com

Challenge

Rochester School Department sought a way to easily and cost-effectively secure a "bring your own device" (BYOD) initiative to facilitate flexible, cloud-based collaboration while lowering IT equipment costs.

Solution

The school district deployed a Dell™ SonicWALL™ Clean Wireless™ solution combining Dell SonicWALL E-Class Network Security Appliance (NSA) and NSA Series Next-Generation Firewalls with SonicPoint-N Dual-Radio access points, as well as Dell SonicWALL Content Filtering Service across 11 locations.

Benefits

- BYOD lowered IT costs while enhancing academic experience
- Saved \$100,000 over comparable solution
- Ease of use sped implementation 4 months ahead of schedule
- Reduced costs of additional equipment and training

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Chris Pike
Computer Technician

The School Department of Rochester, New Hampshire, saw how a “Bring Your Own Device” (BYOD) initiative could reduce equipment costs and enhance education. To accomplish this, the school district needed to securely enable 2,000 students and their teachers to use personal wireless devices, such as laptops and tablets, to collaborate via the cloud.

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Computer Technician*

“Since we started rolling out wireless throughout our district, we’ve been focusing more on collaboration and the cloud,” says Chris Pike, computer technician at the Rochester School Department. “We’ve been doing a big push with different high school departments to actually get their classrooms to be paperless.”

Under the program, teachers post customized videos and assignments to a district website, where students can access and complete their homework from their own laptops, tablets or smartphones either at home or over the school’s wireless network.

The district’s IT organization was well aware of the trend towards consumerization of IT and saw how it could lower the costs of buying and maintaining computer equipment. “Consumer technology changes so fast that it can be difficult for IT to keep up with it,” says Pike. “Letting students use their personal technology seemed to be a good approach. However, we needed to block inappropriate and time-wasting traffic.”

Pike sees consumerization and BYOD as the leading edge of broader changes that demand close attention from IT. “Data security is still our biggest concern. We have a lot of sensitive student data, such as grades or special education information, that shouldn’t get out there. We have to follow CIPA guidelines for protecting students when they’re on the Internet.”

Saving thousands while launching ahead of schedule

To assist in the selection and implementation process, the district engaged the services of Pittsburgh Networks. “It was a team effort between us, the district and Dell SonicWALL engineering,” says Steve DePaula, director of sales and marketing at Pittsburgh Networks.

The district evaluated solutions from Aruba Networks®, Aerohive Networks™ and Barracuda Networks before selecting a Dell SonicWALL Clean Wireless solution. Clean Wireless offered the district secure, simple and cost-effective wireless networking by integrating universal 802.11 a/b/g/n wireless features with an enterprise-class firewall/VPN gateway.

“In the original bids, the Dell SonicWALL solution was almost \$100,000 less than another vendor. It was at least \$10,000 less expensive than the closest alternative,” says Pike. Performance was as much a deciding factor as affordability. “The other products didn’t catch as much as Dell SonicWALL did and lacked the same ease of use. Aruba required a separate license for each access point which was a major reason we went with Dell SonicWALL. We didn’t have to buy a separate controller to manage the access points.”

Establishing a district-wide Clean Wireless environment

Working with Pittsburgh Networks, the district deployed a Clean Wireless environment using dual, high-availability Dell SonicWALL E-Class NSA E5500 firewalls at their data center, NSA 250M firewalls at 11 sites and 150 SonicPoint-N

Dual-Radio wireless access points at 8 schools. The 250M Series high-performance, modular next-generation firewalls give the district in-depth frontline security, application and user control, network productivity and optional 802.11 dual-band wireless.

"We selected the E5500 because we wanted to step up to enterprise-class deep packet inspection of wireless traffic, as well as the peace of mind of high availability," says Pike.

The NSA E5500s feature breakthrough multi-core performance, Reassembly-Free Deep Packet Inspection®, intrusion prevention, application control and anti-malware.

"The NSA 250M firewalls are ideal to manage the distributed SonicPoints at our school sites," says Pike.

The district reduced equipment costs by extending the range of their wireless solution using SonicPoint-N Dual-Radio devices, which secure Clean Wireless networks simultaneously across 2.4 and 5 GHz bands.

"With BYOD, you don't always know which frequency the devices are on," says DePaula. "The SonicPoint Dual Radio access points work in more than one frequency. The district could extend the antennas up to 50 feet, and so place most of the access points in hallways. That way, we did not have to put access points in each classroom, which would have bumped up the price."

"Pittsburgh Networks helped us better manage our firewalls for our wireless network from day one. Plus, Dell SonicWALL support was very good. That made setting up wireless one of the easiest things we've had to do," notes Pike. "It just worked—it was all up in a couple weeks. Because deployment was so easy, we finished four months ahead of schedule."

Enhancing student-teacher collaboration for less

The launch has proved beneficial for students. "Now, there is no more digital divide. Instead of three students sharing one device, they can bring in their own. They know how to use it, and when they work on their assignment in the classroom, they can save it, bring it home with them and keep working on it," says Pike.

Teachers and staff also benefit. "One of the nice things about wireless is it gives teachers flexibility in where they can put their computer," says Pike. "When they rearrange classrooms at the start of the year, they no longer have to worry about where the wired network drop is located. We have a lot of traveling employees that benefit from wireless access."

The deployment is future-proofed to take on the additional traffic that BYOD can generate. Pike continues: "Video driven education has increased, which impacts our traffic. We've been watching bandwidth consumption with the App Flow Monitor. It's great to know we can throttle back BYOD traffic so it doesn't take out the whole pipe."

At the same time, the district reduces expenses, for a greater return on investment. "Our biggest return on investment is that the district now spends less money on hardware, because both teachers and students can bring in their own equipment," says Pike. "We can avoid the costs of purchasing upwards of 400 computers a year that we would otherwise be upgrading through attrition."

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Additionally, the district also receives a green, paperless educational platform that reduces both power and supply expenses. "With BYOD, there is also a big shift to paperless. For instance, one of our math classes is now going to use virtual textbook instead of buying 500-page algebra books. There is a huge reduction in paper products, whether it is books, forms, or student assignments, which further reduces costs," says Pike.

"What I especially appreciate with Dell SonicWALL is that because we can place wireless segments on a different zone, the BYOD network cannot access any of our internal servers, desktops or printers," concludes Pike. "Yet we still have the flexibility to grant access to the library program, grade systems and email for staff and faculty."

As BYOD continues to play a greater role in education in the future, the district can successfully secure and manage its traffic.

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