

Aruba Case Study

LEDYARD PUBLIC SCHOOLS IN LEDYARD CONNECTICUT

Aruba Gigabit Wi-Fi + wired network solution modernizes Ledyard School District, benefits from expanded E-Rate funding



Ensuring teachers have the modern instructional tools and access to the technology they need to help students learn and excel in the 21st century is a balancing act for John Mercier.

“The way students are learning around the country is changing, and technology is a huge part of that,” explains Mercier, Director of Instructional Technology for Connecticut’s Ledyard Public Schools. “However, when it comes to technology infrastructure, budget is always an issue.”

Modernizing Outdated LAN and Wi-Fi Infrastructure

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JOHN MERCIER, DIRECTOR OF INSTRUCTIONAL TECHNOLOGY, LEDYARD PUBLIC SCHOOLS IN LEDYARD, CONNECTICUT

As a rural district with six schools and just over 2400 students, Ledyard looks for every opportunity to stay ahead of the technology curve, including improving its wireless capabilities.

When the federal government expanded its E-Rate funding program, the school district immediately jumped on the opportunity to modernize its infrastructure. This included enabling pervasive Wi-Fi to support 1:1 secure computing.



Ledyard selected Aruba Networks, a Hewlett Packard Enterprise company, Hewlett Packard Enterprise, and local partner Versatile to bring their schools up-to-date.

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Aruba ‘Unseats’ Cisco from E-Rate Deal

Ledyard first submitted its E-Rate paperwork requesting Cisco Meraki as its technology vendor. However, when the district evaluated Aruba’s portfolio, they determined it to be the best and most cost-effective solution.

“We needed a lasting, high-performance investment,” says Jason Lathrop, Ledyard’s Business Manager. “Only Aruba and HPE would give us a five-year life expectancy. They also beat Cisco on price and value.”

802.11 ac WLAN and HPE Networking Switches Provide ‘Textbook’ Solution

To meet current needs and make way for a future of complete 1:1 computing, Ledyard deployed a pervasive enterprise Wi-Fi system that includes Aruba 802.11 ac indoor and outdoor access points (APs) and 7200 Series Mobility Controllers.

The school district also adopted AirWave, Aruba’s vendor-agnostic management tool.

For their LAN upgrade, they implemented Aruba 5400 Series and 2900 Series switches. These switches bring enterprise-class resiliency and innovative flexibility and scalability for a better mobile-first campus network experience.



“I used to spend a lot of time kicking people off of our network,” explains Steve Gordon, Ledyard’s Network Administrator. “Now, I’m saying, ‘Come on, everyone, and get on the network.’ ”

Worrying about security isn’t as much of an issue either. “We can control bandwidth for different groups or SSIDs,” Mercier explains. “And are better able to manage access to appropriate resources

depending on role, i.e. student or staff.”

Limited bandwidth dictates school day

Before moving to an Aruba solution, the district relied on Cisco access points. “They weren’t centrally managed,” Gordon says. “We couldn’t control bandwidth for groups or SSIDs. Cisco can provide these capabilities now, but it will cost you.”

Before updating its infrastructure, it was normal to experience dropped connections and outages. It also caused major headaches during student assessments.

“If the fourth grade was testing, for example, we’d have to ask the entire third grade to stay off of the network,” Mercier says. “There just wasn’t enough bandwidth. It was panic time. We couldn’t afford to have the network going down during testing.”

New infrastructure eliminates bandwidth ‘panic’

Standardizing on a single manufacturer for wired and wireless provides a uniform experience for administering the Common Core and other online assessments.

“These are important measurements to help our teachers improve their skills and for our students to succeed,” Mercier says. “It makes everyone’s day better when technology doesn’t get in the way. With better and more consistent access, we are hoping to see improved scores.”

When conducting speed tests, the district discovered that wireless users can achieve 300 to 350 mbps with a good network adapter. Before, it was easy to top out at 4 to 5 mbps.

When connecting to the Internet through the state system, they always had delays and drops and their top speed was 100 to 150 mbps. Now, they’re pushing close to a gigabyte a second.

AirWave Makes Optimizing Wi-Fi Easy

AirWave is a very robust tool and provides broad visibility into Ledyard’s entire network. “I regularly check the AirWave portal and make tweaks to improve our network capabilities,” says Gordon.

If an access point goes down, it’s easy to see. And the mapping feature helps the district identify problem hardware. For instance, a computer could be malfunctioning or have a limited network card.

The district can also easily restrict access to the network. For instance, a parent didn’t want their child using their personal device on Ledyard’s wireless network. “I simply blocked the student’s wireless access,” says Gordon. “We wouldn’t have been able to do this with our old Cisco access points.”

AirWave lets you monitor client behavior, proactively troubleshoot application issues, and plan for capacity.

Leading-Edge Infrastructure Lays Groundwork for Future

Ledyard's adoption of pervasive Wi-Fi is a showcase for how other school districts—large and small—can navigate in a world quickly going digital. "More and more resources, including textbooks, are moving to digital," Mercier explains. "We're ready for that shift."

In addition, the district is excited about providing all students with 1:1 computing. "This is where technology becomes a true collaborative tool and everyone has equitable access to technology," Mercier says. "This will be our next step."

"We encourage every school to move forward," Mercier continues. "Technology isn't going to go away. We're glad we received the funding, and are grateful to Aruba and our partner Versatile for building a competitive network that will last for years to come."

REQUIREMENTS

Unified wireless and wired experience

Lasting, high-performance investment

Solution compatible with [E-Rate requirements](#)

SOLUTION

[802.11 ac-enabled Indoor & Outdoor APs](#)

[7200 Series Mobility Controllers](#)

[Aruba AirWave](#) for Network Management

[Aruba 5400 Series Switches](#)

[Aruba 2900 Series Switches](#)

BENEFITS

Pervasive 802.11 ac-enabled Wi-Fi

Serves more than 2400 students, plus faculty and staff

Unified wireless and wired network centralize management

Vendor-agnostic tool streamlines management, optimizes network

Makes way for complete 1:1 computing in the future