

CASE STUDY

DYSART TAPS ARUBA TO STAY AT THE HEAD OF THE CLASS

The Dysart Unified School District adopts secure Aruba WLAN with AirWave and ClearPass to support an innovation culture at Arizona's fastest-growing school district.



To realize his district's vision for enabling worldwide video collaborations, embracing new eLearning opportunities and improving security systems, John Andrews needed to put an appropriate wireless networking infrastructure in place.

"Our district has attracted local, regional and national recognition for our technology leadership efforts," says Andrews, CIO of the 25,600-student Dysart Unified School District in Surprise Arizona. "This includes developing an in-house set of learning management tools to assist educators with delivering individualized instruction and offering 24/7 access to online professional development resources."

"We've also embraced teacher and student BYOD by encouraging individuals to bring their own devices," he adds. "It's part of our culture to continuously take teaching and learning tools to the next level."

STATE'S FASTEST-GROWING DISTRICT FACES NEW CHALLENGES

Although technology is a high priority at Dysart, budgets have remained flat since the significant Great Recession belt-tightening. At the same time, enrollment at the 24-school institution has been growing at a rate of about 1000 students annually, making it Arizona's fastest-growing district.

HIGHLIGHTS

- Secure, scalable Aruba WLAN supports innovation culture, including BYOD, videoconferencing and online testing.
- Aruba ClearPass for security and centralized, comprehensive policy enforcement.
- Aruba AirWave optimizes the network for exceptional user experiences.
- Enables future adoption of Gigabit Wi-Fi with 802.11ac-compliant access points.



"Our Aruba WLAN, with AirWave and ClearPass, provides us a scalable and cost-effective Wi-Fi network, giving us new opportunities to innovate."

John Andrews

CIO, Dysart Unified School District

As a result, Andrews sought a WLAN with advanced software tools to assist with keeping management costs aligned with available resources. “We needed to make a cost-effective move from a hot spot paradigm to pervasive Wi-Fi access inside and outside our facilities,” he says.

Although the district had previously relied on Cisco for its wireless gear, Dysart’s technology selection and partnership model suggested it might be beneficial to make a change.

“Rather than signing multi-year technology agreements, we sign one-year contracts to ensure we have the flexibility to change course,” Andrews explains. “Then, we continuously evaluate every technology relationship based on a rubric that combines quality of product, service and the needs of the district.”

THE AIRWAVE AND CLEARPASS SOLUTION

Along with its integration partner, Vector USA, Dysart explored several options and settled on a scalable enterprise wireless infrastructure solution from Aruba Networks. “Beyond quality and price, Aruba also offered an exceptional software suite for network optimization and device access management,” says Andrews. “This included Aruba AirWave and Aruba ClearPass.”

“Such tools were essential to helping us meet our performance and security goals without placing additional burdens on our limited IT staff,” he adds. “The ability to remotely monitor and manage the network, as well as provide user-friendly guest registration, was critical.”

Gaining Critical and Granular Insights

Indeed, with Aruba’s AirWave Network Management organizations like Dysart gain critical and granular insights into their Wi-Fi networks. This includes the types of devices logging on, the specific access points devices are connected to and the total number of devices on the network at any given time.

“With AirWave we can optimize our network based on the data and analytics Aruba provides,” Andrews says. “If there is an issue on the network, AirWave ensures we can pinpoint the location or AP involved for fast troubleshooting and resolution. Naturally, this assists us with achieving our desired end-user Wi-Fi experiences.”



Centralized Policy Control for Security and Reliability

To supply its educators and students with a secure wireless experience, institutions like Dysart also appreciate Aruba’s ClearPass Access Management System for centralized, comprehensive policy enforcement. By providing AAA (Authentication, Authorization, and Accounting) services, ClearPass Clear Pass delivers comprehensive network policy management, secure device onboarding and management plus the ability to admit guest users — all from a single platform.

“Using Aruba’s tools we can not only see how many devices are connected to an individual AP, but also visualize individual devices,” says Andrews. “This enables us to bounce certain devices off the network — or restrict a particular device altogether — based on the device’s behavior or other criteria.”

“As a whole, Aruba’s tools are extremely important for security,” he continues. “The safety of our young people is priority one.”

PERVASIVE, UNLIMITED ACCESS

Because a few schools had recently received wireless access point (AP) upgrades, Dysart developed a phased rollout approach. “But, over time, every location will be moved to Aruba,” Andrews says.

At schools where Aruba is rolled out, educator satisfaction is high. "Prior to the deployment, we received calls almost daily about limited availability," says Andrews. "Now we get comments like 'hey, no problem, we have more than we need.'"

Before and After Scenario

To put the before and after scenario at Dysart into perspective, Andrews explains each of the Aruba-enabled elementary schools previously had about 20 APs. Now they each have 80-90 APs, ensuring pervasive access. At the high schools, each facility went from 50-60 APs to 120-130 APs.

From a device perspective, elementary schools were previously limited to 250 devices accessing the network simultaneously and at the high schools it was 600. "Now, with the combination of more APs and Aruba's management software, the number of devices at each location is unlimited," says Andrews.

Robust and Pervasive Access

Such robust and pervasive access is vital to supporting Dysart's technology culture, Andrews adds. "We're in the process of replacing all of our desktops with laptops," he says. "Also, we're a Google Apps district, which means every student educator and administrator has an account.

"Beyond Google," Andrews continues, "our teachers use many online and local educational resources. Plus we encourage students to find and use online resources. As a result, we're seeing a demonstrable upswing in students engaging with technology for learning."

SAVINGS, SECURITY AND REVENUE REWARDS

Another benefit of Dysart's new Aruba WLAN is assisting with a move to all-online testing. "We're benchmarking online testing for every test at every grade levels, not just for standards assessments," says Andrews.

"This will save the district significant funds over using paper-based tests, whether it's a fifth-grade spelling quiz or a 10th-grade composition exam," he adds. "Also, the grading and data-gathering aspects of tests will be more efficient and less error-prone."

"In addition," Andrews continues, "exam results will not only be immediate but also integrated into our learning management system. As a whole, these innovations will assist teachers with making the right decisions for each of the students in their classroom."

District Reaps Revenue Rewards

From a revenue perspective, the Aruba WLAN is also reaping rewards. "We rent our facilities, such as our high school auditoriums, to businesses and organizations for conferences and events," explains Andrews.

"Previously," he adds, "only a few dozen devices could access the Internet even though the auditoriums can hold 1500 people. Now, our ubiquitous Wi-Fi, inside and out, improves the marketability of our facilities. We've already received excellent feedback from our guests."

Aruba's infrastructure will also help Dysart improve physical security for students and educators. "We'll be expanding our surveillance camera system," Andrews affirms. "Aruba provides the flexibility to deploy the latest camera and software technologies."

EXPLORING GIGABIT WI-FI

Additionally, Dysart is exploring APs that support the new wireless standard 802.11ac, also known as Gigabit Wi-Fi. Because Gigabit Wi-Fi is designed to deliver high-performance access in high-density situations, it is well suited to handle increased network traffic as more users, devices and apps connect to classroom wireless networks.

"As new access point technologies come along we test them," Andrews says. "Aruba provides us with the flexibility to implement .11ac APs in all future deployments."



Most importantly, Dysart now has the wireless infrastructure to enable this and other future initiatives. "Network performance has exceeded our expectations," says Andrews.

"With Aruba, we have the now have the hardware and software technologies necessary to help us make further innovations," he adds. "We look forward to the new opportunities it presents for our district."

“ Network performance has exceeded our expectations ”

ABOUT ARUBA NETWORKS

Aruba Networks (NASDAQ:ARUN) is a leading provider of next-generation network access solutions for the mobile enterprise. Its Mobile Virtual Enterprise (MOVE) architecture unifies wired and wireless network infrastructures into one seamless access solution, enabling entities of all sizes to securely address the Bring Your Own Device (BYOD) phenomenon, dramatically improving productivity and lowering capital and operational costs.

Based in Sunnyvale, California, Aruba has operations throughout the Americas, Europe, Middle East, Africa and Asia Pacific regions.

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