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Regional Community College Modernizes Infrastructure and Student Experiences with Aruba

West Hills Community College Success Story

West Hills Community College District has a long history of innovatively serving a diverse spectrum of educational and community needs on the west side of the San Joaquin Valley. The District covers nearly 3,500 square miles with three primary campuses, child development centers throughout neighboring rural communities, and a Farm of the Future facility.

Use Case

Take a rich history of educational innovation into the future by providing excellent academic experiences via a wired and wireless infrastructure modernization, resulting in a reliable, secure, easily managed, AI-enabled network providing considerable capital and operational savings.

❗ REQUIREMENTS

Responsive, effective technology partnership with premier support services

Streamlined, secure and unified wired and wireless network

Significantly reduced capital and operating costs

💡 SOLUTION

Aruba Indoor & Outdoor APs

Aruba CX 8400 Switch Series

Aruba 3810 Switch Series

Aruba 2930F Switch Series

Aruba Central

Aruba ClearPass

✅ OUTCOMES

Saved $250,000 in capital costs for wired and wireless networking by replacing Cisco

Reduced staff overhead from an expected three individuals to one with automated, centralized, AI-powered solution

Slashed IT support turnarounds from weeks and months to hours and minutes.

Delivers on expectations to supply exceptional academic and off-hours experiences

Gains future-proof, cloud-enabled, adaptable network to meet evolving educational needs

To take its rich 80-year history of educational innovation into the future, California's West Hills Community College District (WHCCD) needed a reliable, modern networking infrastructure.

"We experienced multiple deficiencies with our existing Cisco wired infrastructure from the start," explains Jack Ramsey, Network Engineer for the Coalinga-based institution that also delivers education and training via partnerships with local school districts and industries.

"For example, whenever the power went out, almost a monthly occurrence in our rural area, 10 percent of our switches failed," he says. "To make matters worse, it could take months to receive warranty replacements. With today's reliance on technology for student success, we had to make a change."

Respected Reputation and Customer-First Culture Top the List

When it came time for a core-to-edge networking refresh, support topped the priority list. "Our classrooms are active from early morning to late at night," says Jeff Seed, Director of IT Infrastructure and Security at WHCCD. "Plus, we have on-campus housing, which is unique among our community college peers, generates data traffic 24/7."

Given its ultra-lean IT staff servicing three main campuses and two satellite locations dispersed across 3,500 miles, WHCCD also sought a reliable, secure solution capable of scaling to meet evolving demands.

Long partnered with Hewlett Packard Enterprise for servers and storage, WHCCD was accustomed to VIP treatment and trusted its HPE reps. "If any of HPE's equipment failed, we could count on replacements within a few hours," says Ramsey.

"Our HPE reps introduced us to Aruba solutions," he adds. "Aruba's 'customer first, customer last' culture, along with its respected wired and wireless networking reputation, gave us the confidence we needed to invest."

Aruba CX Core Switching Saves the Day

Working with its local integration partner AMS.NET, WHCCD selected an end-to-end wired and wireless solution from Aruba with advanced, comprehensive, AI-enabled management tools.

For wired networking, the institution planned to deploy an Aruba CX 8400 core switch, with its microservices-based AOS-CX operating system, at each of its main campuses. Aruba's 3810 and 2930 access switches would complete the deployment.

While the equipment was still in the AMS warehouse, the existing core switch at one campus burned up completely. "With Cisco estimating three days just for a replacement to arrive, we called up AMS to ask about installing the CX 8400," Ramsey says. "The next morning, an engineer installed the Aruba switch and brought the entire campus back online in a couple of hours."

Resilient design and analytics engine improve operations and reduce overhead

By pairing the CX 8400 with Aruba's access switches, WHCCD gains the ability to use various task automation capabilities and powerful analytics engine for proactive management and faster troubleshooting. Other management pluses are the Python interpreter and RESTful APIs.

Additionally, the CX 8400's resilient design and open standards operating system provided further benefits. For example, its active chassis components are not only field-replaceable but also hot-swappable, reducing associated operational overhead. Also, having open standards adds flexibility and agility for adopting companion technologies.

Cloud-based Aruba Central and ClearPass Complete the Stack

To complete its modernization and deliver seamless Wi-Fi experiences, WHCCD adopted Aruba's indoor and outdoor Instant Access Points (IAPs), for zero-touch provisioning, with Aruba Central, for cloud-based network optimization and management.

Using Central, WHCCD automated device onboarding, including for the many types of user-owned IoT devices proliferating across higher education campuses. "Before, we were approving devices manually," says Seed. "Now, users simply self-register."

Addressing security concerns while eliminating hours of manual effort

For streamlined network access control (NAC), WHCCD unified wired and wireless security with Aruba ClearPass. "The tight integration between ClearPass, our switching environment and Wi-Fi helps us address a number of security concerns," Seed says.

On the wired side, the colorless port capability in the 3810 switches enables ClearPass to assign roles and policies for connecting a specific device in real time. "This eliminates countless hours of manual effort around assigning and updating switch port configurations," says Seed.

It's a similar story for Wi-Fi, where ClearPass automatically grants access rights based on the same granular roles and policies WHCCD applies to its wired connections.

"Using ClearPass' intuitive dashboard and granular access capabilities we're not only giving users a consistent experience across wired and wireless, but also enjoying remarkably simplified management and significantly improved control," Seed says.

Future-Ready Network & Superior Support at a $250,000 Savings

With academic technologies growing increasingly bandwidth-intensive, such as for augmented reality/virtual reality (AR/VR), 3D computer-aided design (CAD) and other streaming visualizations, WHCCD now has the scalable, reliable and cost-effective infrastructure to respond.

"Due to the redundancy and resiliency built into our core switches we only needed to deploy a single unit at each location," says Ramsey. "That's a considerable capital savings versus installing two cores per campus."

WHCCD is also delighted with its operational savings. "From past experience, we expected to need at least one more person, and probably two," says Seed. "Instead, it's taking so much less time to manage the network that I'm functionally the sole administrator."

And the difference in support is night and day. "Although we have had very few occurrences, we're impressed with the level of expertise Aruba supplies," Ramsey says. "The appropriate engineers are always available to help resolve an issue quickly, even on weekends."

As a result, WHCCD estimates it's saving at least $250,000 versus staying with its previous vendor. "That's just for the initial investments," says Ramsey. "We certainly expect additional efficiencies to come."

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