

Case Study: Rio Rancho Public Schools



Aruba Instant + Aruba switches and Aruba ClearPass supply streamlined, secure Wi-Fi for current & future classroom needs.



**RIO RANCHO
PUBLIC SCHOOLS**
Igniting Student Potential

Increasing mobility demands and looming online testing requirements were straining Scott Leppelman's existing Wi-Fi. But upgrading didn't seem to help.

"Although we began upgrading with our existing vendor, Fortinet Meru, we experienced a variety of issues," says Leppelman, Senior Network Engineer for the 18,000-student Rio

Rancho Public Schools located just north of Albuquerque, New Mexico. "We decided to seek a more robust infrastructure that would work consistently for us."

Controllerless Aruba Solution Proves Attractive

To enable leveraging BYOD and pursue 1:1 computing, Rio Rancho officials reviewed the Wi-Fi market, including Aruba, a Hewlett Packard Enterprise company, Cisco Meraki and Ruckus Wireless.



REQUIREMENTS

- High-density, high-performance Wi-Fi
- BYOD support and security
- Simplified, centralized solution

SOLUTION

- 802.11ac Aruba Instant APs
- [Aruba 5400 zl Switch Series](#)
- [Aruba AirWave](#) for network management
- HPE Intelligent Management Center (IMC) Software
- [Aruba ClearPass Policy Manager](#) for secure network access

BENEFITS

- Pervasive 802.11ac-enabled Aruba Wi-Fi blankets 18,000-student district.
- Zero-touch, controllerless solution for simplified architecture.
- Securely supports BYOD with self-service onboarding & automated access rights.
- Integration and central administration of wireless and wired networks.

As its new WLAN would serve the District's 21 academic and administrative buildings spread across multiple square miles, centralized management was critical. During a meeting with Aruba, Rio Rancho learned about Aruba's Instant controllerless AP environment.

- Scalable to meet future instructional and operational needs.

"Although a controllerless approach was new to us, it offered some clear advantages for our situation," recalls Leppelman. "Plus, Instant can also be configured as controller-managed, so we could easily make the transition should our needs change."

Aruba Joining HP Wins the Day

As Rio Rancho completed its research, Aruba and HP announced they were joining forces. This helped seal the deal.

"We're an HP wired shop and use HP Intelligent Management Center (IMC) to manage the wired side," explains Leppelman. "We've looked at moving to Cisco, but there are no functionality benefits. Then, with the HP acquisition of Aruba, we knew the future would bring various cool integrations to help wired and wireless work together even more fluidly."

Aruba Instant APs and Switches Answer Myriad Needs

To meet its various needs, Rio Rancho elected to deploy a pervasive, enterprise Wi-Fi comprised of over 400 indoor 802.11ac Aruba Instant APs for a simplified, streamlined WLAN. In addition to fixed APs, the environment includes dozens of cart-mounted APs to boost Wi-Fi connectivity during testing periods.

Also, the 2,200-teacher district invested in Aruba's network management tool, AirWave, for optimizing Wi-Fi experiences.

Adding Aruba AirWave to Instant streamlines administration

Our Aruba solutions work great and we look forward to future capabilities enabled by the integration of the product lines.

SCOTT LEPELTMAN, *SENIOR NETWORK ENGINEER, RIO RANCHO PUBLIC SCHOOLS*

Given its ultra-lean IT staff, Rio Rancho appreciates the simplicity of Aruba Instant's zero-touch, self-provisioning capabilities, which are enhanced by the addition of AirWave.

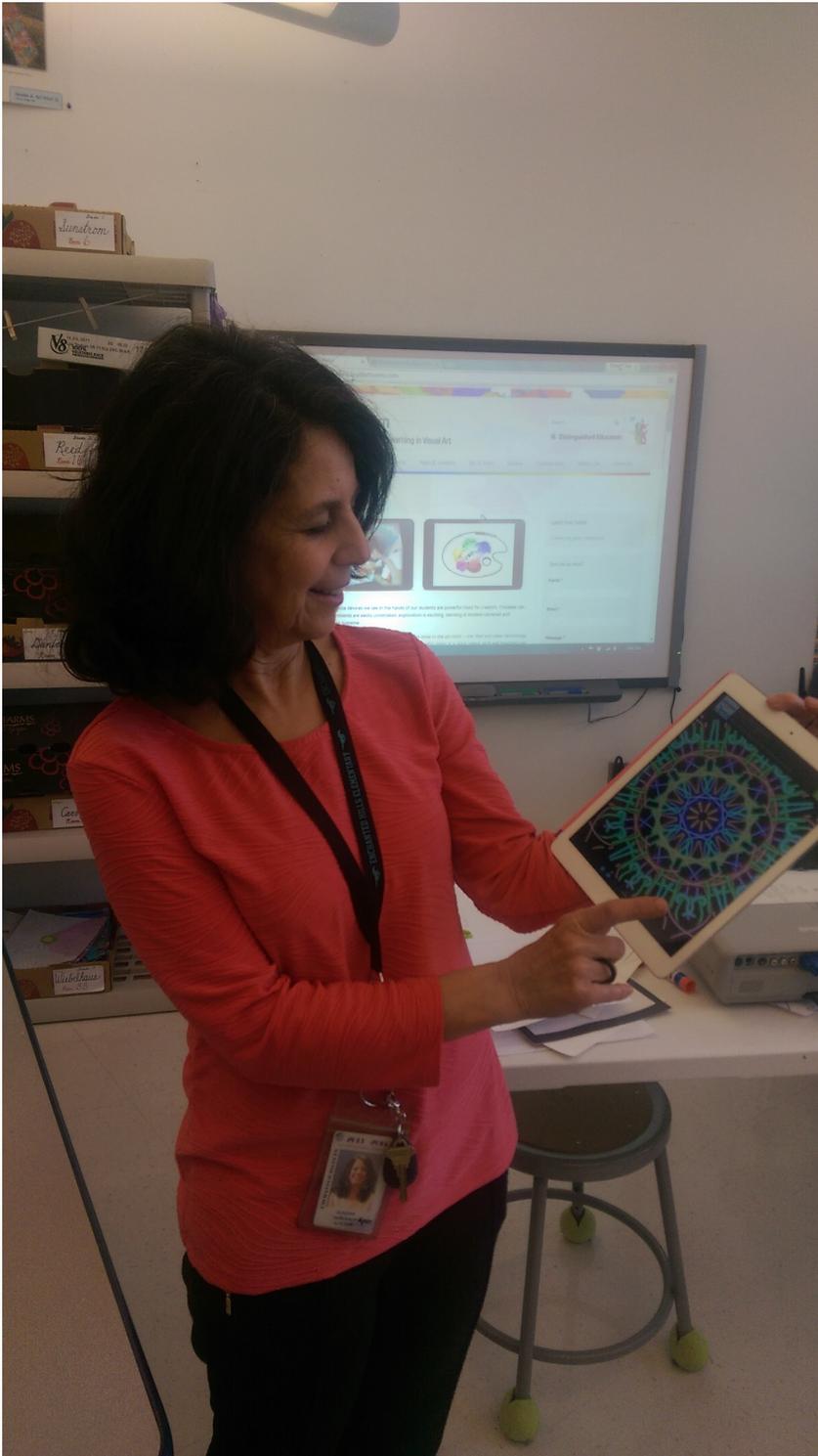
“Leveraging Instant’s built-in intelligence, along with AirWave’s robust management tools, enabled us to create templates for automatically configuring groups of APs,” says Leppelman. “I just plug in the APs and walk away.”

Dynamically connecting to Aruba switches a key benefit

Rio Rancho also relies on Instant’s capabilities to dynamically connect cart-based APs to the correct port on the district’s 5400 zl switches.

“Because we intended the cart-mounted APs to give us the flexibility to deploy them anywhere, we’re very pleased that our Instant APs can be configured to automatically connect to the appropriate switch port,” Leppelman says. “It’s just one more way that Aruba simplifies management.”

Aruba ClearPass = Strong Security and BYOD Support



To support its BYOD plans, Rio Rancho intends to improve security and deploy a robust guest network by implementing ClearPass Policy Manager for network access control.

ClearPass combines context-based policy management with next-generation AAA (Authentication, Authorization, and Accounting) services for comprehensively managing network access policies, onboarding and managing devices securely, and admitting guest users.

Self-service onboarding with automatic access rights

“We look forward to self-service guest network onboarding, which includes automatically assigning the appropriate access rights,” says Leppelman. “Then, students, teachers and administrators can use their smartphones, and other mobile devices, for various instructional purposes while we maintain central control.”

“Ultimately, we’d also like to use the ClearPass features that enable wired networking access control,” Leppelman adds. “That includes computing equipment as well as printers, HVAC and other static devices.”

Seamlessly connecting thousands of devices

In the meantime, Rio Rancho’s WLAN enables 3000 to 5000 district-owned devices to connect seamlessly at any given time. This includes mobile access to Apple Bonjour-enabled devices, such as Apple TVs, that are managed by Aruba’s AirGroup feature.

Any-device flexibility plus Wi-Fi scalability for today and tomorrow

Further, the District enjoys the flexibility to deploy whatever type of computing devices teachers and students want most. This includes Apple, Windows and Android equipment. “We already own Windows laptops and Apple iPads,” says Leppelman. “Now people want Chromebooks, so we’re going to start purchasing them, too.”

Most importantly, Rio Rancho’s wireless and wired networks are scaling out to meet new needs. “We continue to deploy more Instant APs as our needs grow,” Leppelman. “Overall, our Aruba solutions are working great for our users and are easy to administer from a single pane of glass.”