



Colorado Mesa University Wireless Infrastructure Overhaul

Zunesis helps state university upgrade its wireless system to improve performance and reduce costs



CHALLENGE

All state colleges are under strain from a budgetary standpoint. At the same time, each institution's IT department must find ways to improve the student experience as more elements of their education go online.

At Colorado Mesa University, the situation is no different. The institution was looking to upgrade systems for a fast-changing online world while simultaneously trimming operational costs. One of the primary focal points was the campus wireless network.

"We got impressions from students that when moving from one building to another, you had to disconnect and reconnect to the wireless network," says Jeremy Brown, Vice President for Information Technology at Colorado Mesa University. "It could be a bothersome process to move between locations."

Additionally, the IT team at Colorado Mesa University was never entirely happy with the management software that came with their old wireless management solution. It wasn't as user-friendly as they would have liked and lacked features.

Upgrading the wireless network at Colorado Mesa would be no small task considering there are more than

950 wireless access points placed around the campus. Replacing all this hardware would require a phased approach, and the new system would need to coexist with the former solution as the new access points and network rolled out. So two different wireless infrastructures would need to be maintained at the same time, preferably under one management system.



30%

Annual savings in support costs from switching to the new Aruba wireless solution.

100%

Improvement in wireless speed. Post-implementation trials show a doubling of connection speeds.

950

wireless access points seamlessly serve more than 10,000 students as they move around campus

SOLUTION

Working with Zunesis, the team at Colorado Mesa opted to upgrade to an Aruba controller-based wireless access point and Airwave Management Platform on-premise solution. The system comes with built-in security features designed for mobile and IoT, and will integrate with a potential future Aruba ClearPass project for advanced policy management.

With a three-year transition plan, Colorado Mesa initially purchased two redundant Aruba controllers and associated management software. Then they incrementally replaced the older access points with Aruba hardware and deployed the Aruba management system.

RESULTS

As soon as the first phases of the project rolled out, Colorado Mesa began noticing improved performance, easier system management, and reduced support costs.

End users have experienced notable wireless network performance as they roam campus with their wireless devices. Wi-Fi coverage for campus quads expanded through the deployment of Aruba outside access points. Overall improvements in the wireless performance can be attributed to Aruba's client match technology, which dynamically manages client (device) connections to access points and optimizes data throughput speeds. "This is especially helpful in our environment, where students with multiple mobile devices live and congregate in higher density areas, such as the University Center and the library," says Brown.

The Aruba system improves performance by automatically distributing wireless clients between access points and assigning clients to the best radio on an access point. "Now we have a system that allows users to connect to the access point that works best for their device and provides the best experience," says Brown. In initial tests, network connection speeds registered twice as fast as the previous system.

Aruba's AirWave management software has made life for network admins much easier. While the Colorado Mesa team phases in the Aruba solution, the network admins have been able to manage access points from their old vendor, as well as the new Aruba access points, using a single interface.

The improved performance and easier maintenance has also come at a lower price point. The cost of the Aruba system was slightly less than a comparable system from their old provider, but the controllers and support packages are significantly less expensive. In fact, the university has saved about \$15,000 a year in support costs since implementing the new Aruba system.

As the project continues, the system upgrade has demonstrated the value of a strong vendor-client relationship. "Zunesis brought impressive insights to the table regarding how the wireless experience could improve," says Brown. "You really need your technology partner to not only bring the product but to help match it to your needs, and Zunesis did that very well."

