CASE STUDY

ARUBA WI-FI CONNECTS 11 MILLION SQUARE FEET AT THE UNIVERSITY OF MIAMI AND UHEALTH

By standardizing on Aruba's mobility solution for fast Wi-Fi, strong security, streamlined onboarding, and reduced IT burden, the University of Miami and the University of Miami Health System (UHealth) address varied academic, clinical care, research and residential needs with a single WLAN consisting of over 6,300 APs.

BENEFITS

- Approximately 6,300 Aruba APs connect 11 million square feet spread across 200 buildings and 528 acres in multiple geographic locations.
- Pervasive, scalable Aruba WLAN enables seamless Wi-Fi experiences throughout all facilities.
- AirWave centralizes network optimization and management for academic, clinical care, research, residence and administrative facilities.
- Transitioning to 802.11ac Wi-Fi with patented ClientMatch™ technology.
- AppRF™ assists with future transition to unified communications (UC).

MIAMI INFORMATION TECHNOLOGY

Entrusted with infrastructure for over 11 million square feet of facilities spread across 200 buildings and 528 acres in multiple geographic locations, Brad Rohrer's team needed a scalable wireless network that could meet modern academic, clinical care, research and residential demands.

"Almost overnight, everyone had a smart phone, laptop and a tablet, with the total number of devices on our network growing daily," explains Rohrer, Associate Vice President and Deputy CIO for the 15,000-student University of Miami. "Our old Wi-Fi infrastructure really suffered when people began bringing multiple devices and asking for wireless access everywhere."

As a private institution ranked in the Top 50 nationally, the organization sought a robust, secure and scalable enterprise WLAN to address its varied environments with a single, high-performance network.

Additionally, the ability to handle the skyrocketing density of mobile and wireless devices was critical, as the institution's needs included innovative new wireless medical equipment at its University of Miami Health System/UHealth.

"With our enterprise, scalable Aruba WLAN, using AirWave for performance and reliability, we've been able to address multiple differing needs on a single network that serves all of our users."

Brad Rohrer

Associate Vice President and Deputy CIO, University of Miami

"Mobility is strategic to the success of the University and UHealth," Rohrer says. "One of our key initiatives is implementing an Electronic Medical Records (EMR) system. We needed an appropriate wireless infrastructure to enable various wireless medical devices to communicate with the EMR."

ARUBA NETWORKS PROVIDES THE ANSWERS

To fulfill the needs of all its users, who are increasingly representative of #GenMobile – the new generation of mobile students and workers defined by their preference for mobility – the University of Miami/UHealth embarked on a thorough solution evaluation. This included its incumbent vendor plus several challengers, such as Aruba.

According to Stewart Seruya, Assistant Vice President and Chief Network Officer for Information Technology at the organization, the evaluation was led by a broad mix of the institution's decision-makers, including the hospital and research teams.

"We completed multiple pilots in high-concentration areas with students, as well as dense areas on our Medical campus," says Seruya. "Aruba's solution passed all of our stress tests and hand-off scenarios. At the end of the evaluation, our decision to standardize on Aruba was straightforward."

As part of a Dell Networking solution, the University of Miami/UHealth decided to purchase Dell's OEM offering of the Aruba Wi-Fi solution. Aruba's technology is completely integrated into Dell Networking's W-Series enterprise solutions.

PERVASIVE ARUBA WI-FI + ENTERPRISE MANAGEMENT TOOLS

To achieve pervasive Wi-Fi, the organization elected to install a total of approximately 6,300 Aruba access points (APs), along with mobility controllers, which are fundamental components of Aruba's Mobility-Defined Networks architecture.

The institution is also adopting Aruba's enterprise tool, AirWave Network Management, to ensure exceptional performance and reliability, resulting in outstanding user experiences and high-quality clinical care.

Meeting Ever-Growing Connectivity Demands

According to Rohrer, the organization's new WLAN will meet ever-growing connectivity demands. "We suspect that more than 25,000 devices are connecting every day," notes Rohrer. "We've already seen peaks as high as 20,000 devices simultaneously."

"The expectation is to keep all of these users connected reliably and securely without disruption, anytime and anywhere, across the entire organization," he adds. "Aruba's infrastructure and robust management tools are absolutely critical in making this happen."

ARUBA AIRWAVE MEETS DIVERSE WLAN MANAGEMENT DEMANDS

To regulate the overall health of its WLAN, the University of Miami/UHealth turned to another scalable, vendor-agnostic Aruba solution: AirWave Network Management.

AirWave provides the institution with critical and granular visibility into its entire Wi-Fi network. This includes real-time and historical information on types of devices logging on, the specific APs devices are connected to and the total number of devices on the network.

"We're very happy with AirWave and all of the efficiencies it enables," Rohrer says.

Total Visibility and Control, Regardless of Device Type

With AirWave, the organization enjoys a map-like visual representation of each AP, and its location, at every facility. This visualization includes the number of users connected to a specific AP and whether they're using a institution-owned or BYOD device. Such capabilities assist with diagnosing issues as well as planning for where APs are needed – or whether other steps should be taken – to maximize performance.

"Using AirWave, we're able to get statistics on how many unique devices are connecting per day, how much they roam and where," says Rohrer. "Also, we now have visibility into the types and ratios of devices that are connected – how many are Apple versus Android versus Windows – which is useful for both planning and support."

"AirWave has even revealed that many television-related devices are connected, such as Apple TVs and Google Chromecasts, as well as wireless printers," he adds.

VisualRF™ Boosts Operational Efficiencies Plus Improves Network Design

In addition, AirWave's VisualRF goes beyond current and historical device information to also report on applications and their performance. With such visibility, problems that previously took hours to resolve can be done in minutes. This provides substantial savings through operational efficiency, reduced downtime and consolidated management toolsets.

"AirWave and VisualRF provides us with great insight into our wireless environment," says Seruya. "We're informed about AP uptime, rogue APs and client device status as well as providing reports, triggers and much more."

"These features assist with both troubleshooting and ongoing network design," he adds. "In short, it helps us stay ahead of the game."

Combining AirWave With AppRF™ Enables End-to-End UC View

To assist with future transitions to unified communications (UC), by expanding its deployment of Microsoft Lync, the organization can also combine AirWave and Aruba's built-in next-generation mobility firewall with AppRF. This capability classifies and prioritizes network traffic using self-optimizing technology.

> "Mobility is strategic to the success of the University and UHealth"

Via a consolidated dashboard for viewing network health and app performance, only Aruba provides an end-to-end view of UC, making it easier to quickly identify issues and isolate problems to help ensure UC sessions achieve optimal performance.

"It's critical to have the right infrastructure in place as we explore expanding platforms that require video for successful implementation," says Rohrer. "In addition to UC, this includes our own telemedicine program."

INNOVATING WITH 802.11AC AND MORE

Moving forward, the University of Miami/UHealth plans to begin converting to the latest wireless standard, IEEE 802.11ac, commonly known as Gigabit Wi-Fi. The institution will utilize Aruba's next-generation APs with patented ClientMatch™ technology.

"From this point forward, we plan to only purchase 802.11ac – that's how committed we are to this new technology," says Rohrer. "Deploying Gigabit Wi-Fi allows us to provide our community with wired-level performance using wireless, which means users no longer need to stay plugged into a jack to experience high-speed network access."

Additionally, the University of Miami/UHealth is considering adoption of another enterprise tool, Aruba's ClearPass Access Management System, to boost network security and improve access management.

ONE ARUBA NETWORK — MANY NEEDS ADDRESSED

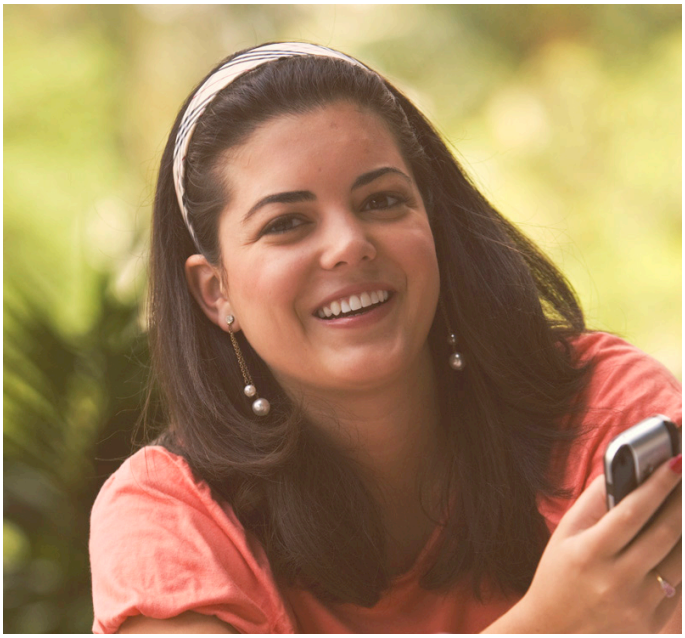
Regardless, the organization is excited about the benefits of using Aruba to meet ever-increasing density and performance demands.

For example, the University of Miami/UHealth will expand its Aruba infrastructure to a new 200,000-square-foot UHealth outpatient facility as well as a unique research and science facility incorporating three stories of water to study weather patterns and storm impact. Also, it will outfit new facilities at the School of Music and the Marine School.

"We're working toward the point where it doesn't matter what type of device people are using, as long as they can do their job," says Rohrer. "Now, with our new Aruba Wi-Fi network, we can do just that.

"We had multiple differing needs to consider as we designed our network," he continues. "With Aruba, we've been able to bring them all together into a single network that serves all of our users.

"As we move forward," Rohrer adds, "I'm certain that we'll see more users, devices and applications and, therefore, more challenges. We feel confident that our new Aruba infrastructure will help us face these challenges head on."



ABOUT ARUBA NETWORKS, INC.

Aruba Networks (NASDAQ:ARUN) is a leading provider of next-generation network access solutions for the mobile enterprise. The company designs and delivers Mobility-Defined Networks that empower IT departments and #GenMobile, a new generation of tech-savvy users who rely on their mobile devices for every aspect of work and personal communication.

To create a mobility experience that #GenMobile and IT can rely upon, Aruba Mobility-Defined Networks™ automate infrastructure-wide performance optimization and trigger security actions that used to require manual IT intervention. The results are dramatically improved productivity and lower operational costs.

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

To learn more, visit http://www.arubanetworks.com or get real-time updates on Twitter and Facebook. For the latest technical discussions on mobility and related solutions, visit Airheads Social at http://community.arubanetworks.com.

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