DREW UNIVERSITY
Expanding Campus-Wide Wi-Fi

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CASE STUDY

OVERVIEW

Founded in 1867, Drew University is located in Madison, New Jersey. Drew serves over 2500 students and 200 staff over 187 acres. Drew provides housing for over 95 percent of the student population.

REQUIREMENTS

- More coverage at a higher speed
- Simplified deployment
- Low cost of ownership
- Ease of management

SOLUTION

- 28 ZoneFlex 7942 single-band 802.11n APs
- 50 ZoneFlex 7962 dual-band 802.11n APs
- ZoneDirector 3100 Smart WLAN controller
- Deployed R710s & R300s
- Implemented H500 802.11ac across all dorm rooms
- Added the vSZ to manage the infrastructure

MIGRATING IN THE RIGHT DIRECTION FOR BETTER COVERAGE

Mobile devices are creating new pathways for learning in higher education. Students and faculty alike have embraced mobility, but along with the explosion of devices comes new challenges for the network. Yesterday's network was not designed to support the typical usage of today's mobile users. Teachers and students are looking for more Wi-Fi support. As students make college their home away from home, they want Wi-Fi coverage no matter where they are, from classroom to dorm room.

CHALLENGE

Drew University located in Madison, New Jersey, was founded in 1867. Drew serves over 2500 students and 200 staff over 186 acres consisting of a variety of historic and modern structures. Due to the older buildings being made of concrete, brick, and other unfriendly materials to Wi-Fi, coverage became a challenge. Increased cost, complexity and time to configure and deploy each AP was taking a toll.

"Cisco gear was getting very expensive for us, and we were having to add external antennas to each of them to ensure good coverage," states Christopher Stave, Network Administrator at Drew University. "So moving forward, we began looking at alternatives that could provide better price/performance, simpler administration and systems designed and optimized for 802.11n technology," continues Stave.

Change was necessary to ensure more coverage, higher speed, simplified deployment, and lower cost of ownership. After researching 802.11n WLAN systems from Colubris, Aruba, Cisco, and Ruckus Wireless, Drew decided on the Ruckus ZoneFlex Smart WLAN system. Ease of management, total cost of ownership, and signal range were the deciding factors.

"With Ruckus Wireless, we are able to deploy a very sophisticated, campus-wide 802.11n network that is much easier to deploy and manage, at 802.11g prices. No other vendor we found delivered such value," comments Stave.

SOLUTION

Their initial installment consisted of deploying Ruckus' ZoneFlex 7942 and 7962 access points in over 25 classrooms. Managing the access points was the Smart WLAN controller, Ruckus' 3100 ZoneDirector. It was a great start to their Wi-Fi networking providing better coverage, reduced deployment cost, and more adaptive and automatic control over the RF domain. "We didn't find anyone really paying attention to the physical layer and felt that this is where most of the problems needed to be solved," stated Stave.

"We were happy to go with Ruckus Wireless again for another good experience."

CHRISTOPHER STAVE
Network Administrator, Drew University

"The ZoneFlex system gave us all the requisite central management, but with a lot more value. The system requires fewer APs, provides a more consistent and adaptive signal without external antenna and is ridiculously simple to install and manage. It's hard not to like that."

However, with over 95 percent of students living on campus and as the proliferation of mobile devices has increased over the past few years, Drew needed to expand their coverage even more by migrating to the students' dorms. With the existing Ruckus products working beyond their expectation, Drew decided to continue to blanket more of the campus with Ruckus' R700, R300, and the H500 802.11ac.

"We aggressively took action on implementing access points in the dorms. If the Wi-Fi is bad, then it is harder to recruit and keep students at the university. For most students, the school is their home so they want to be able to connect online at all times," comments Stave.

Shifting to 802.11ac provides a big increase in spectral efficiency, allowing clients to go on and off the Wi-Fi network at faster rates thereby boosting WLAN capacity. With the influx of more devices 802.11ac capable, the higher the need for support.

The H500 was installed in 15 different buildings providing the dorm rooms with integrated Wi-Fi access points, 5GHz signal, and Ethernet wall switches for a wide range of devices and applications. Each one placed at the height of a wall switch providing a dual-band, dual-concurrent 2 stream wired/wireless access point in one form factor. With an IT staff of 4, Drew found the network more user friendly by also adding the vSZ to manage the infrastructure. This is the key building block to enable them to manage their network through virtualization.

For user authentication, Drew University uses the standard 802.1x for students and staff.

"We were happy to go with Ruckus Wireless again for another good experience," concludes Stave.

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