

PARK WEST

Largest Student Housing Develops into a Smart Campus with Ruckus Networks



CASE STUDY



OVERVIEW:

Park West is a luxury student housing community that includes over 47 acres on the Texas A&M University campus in College Station. Looking to provide the students of Texas A&M University with all the necessary amenities, Servitas needed to find a reliable network for the student housing community.

REQUIREMENTS:

- A wired and wireless solution that was easy to manage
- Ubiquitous Wi-Fi coverage and strong signal strength to deliver high data rates to thousands of concurrent clients
- A network that could grow to support exploding demand from an increased number of residents and devices
- Provide residents with secure and high bandwidth access

SOLUTION:

- Deployed ICX switches to provide reliable enterprise-class stackable switching to meet current demands while offering plenty of room to scale-up for future extensions
- Deployed indoor and outdoor access points (APs) for fast, reliable connectivity for seamless roaming
- SmartZone controller is used to manage the APs and to simplify the network set-up and management

BENEFITS:

- Simplified network set-up and management, enhanced security, minimized troubleshooting and made upgrades easy
- Increased the number of concurrent clients supported per AP while improving signal strength and wireless reliability
- Seamless coverage throughout the entire housing complex

BEST-OF-BREED WIRED AND WIRELESS NETWORK SOLUTION

Multi-dwelling units (MDUs) require wired and wireless networks that can readily accommodate many demands. Residents of student housing complexes, luxury apartment and condominium communities expect seamless connectivity to a growing array of devices and applications. In many cases, the inclusion of high-performance Wi-Fi as a housing amenity can be a factor in choosing a particular MDU community. Our partner, Synergy Fiber is well aware of this when working with developers.

THE CHALLENGE

Park West is a luxury student housing community that includes over 47 acres on the Texas A&M University campus in College Station. It consists of 15 buildings that provide 3,406 beds, a 50,000-ft. rooftop lounge, multiple pools, three state-of-the-art fitness centers, outdoor cooking space, sand volleyball and a jogging trail.

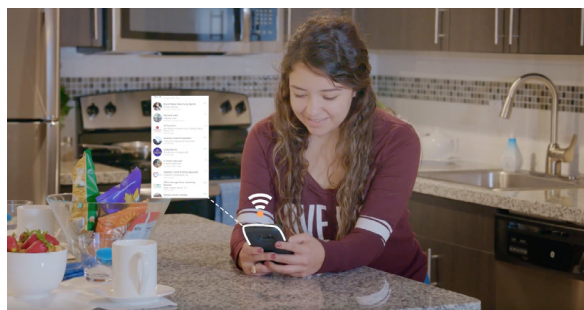
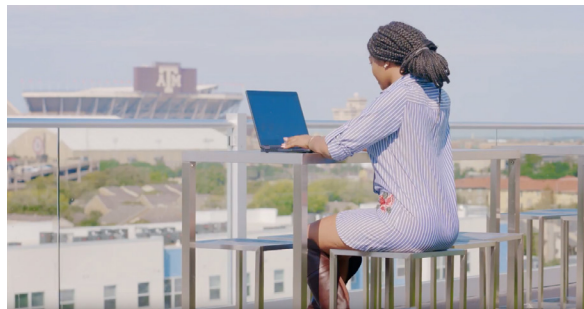
Park West is a public and private partnership between Texas A&M and student housing developer, Servitas. Looking to provide the students of Texas A&M University with all the necessary amenities, Servitas contacted Synergy Fiber about providing a reliable network for the student housing community. With experience in MDU deployments, Synergy Fiber wanted a future-proof, robust solution that would grow as the needs of the community grew. The goal was to be the forgotten vendor with an infrastructure built on durability and reliability. The network needed to be easy to manage and provide a great user experience.

"Student housing is a challenging market. Our goal was to provide residents with secure, high bandwidth access to meet all of their networking requirements. In addition, maintaining a simplified network that is easy for us to manage was critical," stated Jenean Kaiser, chief operating officer at Synergy Fiber.

THE SOLUTION

Based on previous experience on other MDU deployments, Synergy Fiber prides itself on selling quality products. "Our number one goal is to have proper deployment of quality equipment and thorough testing before we hand the property over to the owners so that we have the fewest support tickets possible. Responding to tickets cost us money and an excessive number of tickets can lead to a bad reputation with students and with the property owners," commented Destiny Soliz, PMO manager at Synergy Fiber.

Synergy Fiber chose Ruckus Networks including Ruckus' ICX switches, indoor and outdoor access points (APs) and the SmartZone controller. The ICX platform provides reliable enterprise-class stackable switching to meet current demands while offering plenty of room to scale-up for future extensions with features such as having 1Gbps-to-10Gbps uplinks "ready to go" without a hardware upgrade on the ICX 7250 access switches. While the existing network is based on a flat



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NORM ROE

Chief Executive Officer at Synergy Fiber

layer 2 network, having layer 3 features available is another important capability as Synergy Fiber anticipates future requirements such as the expansion of the Internet of Things (IoT).

Each ICX 7250 switch uses 10 Gbps ports for stacking and 10 uplinks to the ICX 7450 switch for aggregation. Stacking reduces the overall number of IP addresses (“management touch points”), simplifying management. Ruckus’ stacking capabilities of hitless failover and In-Service Software Upgrades (ISSU) combined with dual, redundant links and UPS systems deliver high availability for the students that are depending on the network for much more than just video games.

In addition to providing wireless, and wired, network access for students, Synergy Fiber is elevating Park West to a Smart Campus, integrating that with the security network of video surveillance cameras connected and powered by the switches along with the building automation network monitoring and managing energy usage within individual units.

“By consolidating the functions over a single network infrastructure plus the improved energy efficiency, it has reduced costs by 30 percent,” stated Andres Gomez, marketing coordinator at Synergy Fiber.

Using a heat map, Synergy Fiber could determine where to place each AP for tenants to receive the best Wi-Fi performance. Ruckus’ R610 (3x3:3 dual-band 802.11ac) and H510 (wall-mounted 802.11ac) indoor APs were deployed in every other room to cover the inside of the buildings. With the adaptive antenna technology, the APs create more spatial streams which correlate to higher performance in denser environments. The APs provide fast 802.11ac data rates (up to 1900Mbps) to support dozens of users with guaranteed throughput. For the outdoor areas of the complex, Ruckus’ T301 outdoor APs (2x2:2 802.11ac) was deployed for the same fast, reliable connectivity for seamless roaming.

Managing these APs is the SmartZone Controller. Supporting up to 30,000 APs, the controller simplifies the network set-up and management.

With Synergy using Ruckus Networks as their single vendor integration, it’s a managed end-to-end network which allows Synergy Fiber to have complete control of the network. Combining the access, security and building automation into a single network simplifies management and reduces cost.

Since the grand opening of Park West in August, the benefits of the Ruckus infrastructure have been outstanding. The residents are putting the network to the test with between 2000 and 3500 users daily. The Ruckus solution has provided the residents with a reliable, fast and secure network. Guests can go anywhere within the complex without worrying about coverage.

An enterprise-grade, best-of-breed wired and wireless network solution has led to a great MDU resident experience. Today’s residents use the network to complete coursework, telecommute, surf the web, deploy smart appliances and other IoT devices, and obtain services over Wi-Fi.

“Ruckus is top of the market. They always deliver on their promises and provide the best of the best products. Our experience with Ruckus has been outstanding,” concluded Norm Roe, chief executive officer at Synergy Fiber.