



case study



OVERVIEW

Hunziker Property Management located in Ames, Iowa, has over 20 years of experience managing commercial and luxury apartments.

REQUIREMENTS

- Wireless network that delivers predictable performance and coverage in high density environments
- Enable students and residents to have the connected home experience
- Securely connect tenants devices to the wireless network

SOLUTION

- Deployed ZoneFlex R500 and R600 APs covering 330 residential units
- Ease of management with ZoneDirector 3000 controller
- Maximized performance and coverage
- Dynamic Pre-Shared Key (DPSK) deployed to ensure the highest level of security

DELIVERING A CONNECTED LIFESTYLE EXPERIENCE

RUCKUS CONQUERS MULTI-DWELLING UNITS WITH 802.11AC

We all depend upon and use various types of technology to accomplish important tasks in our lives. More people are working remotely and the need to always be connected is imperative. When it comes to rental apartments, tenants are drawn to properties that cater to their lifestyles; Wi-Fi is no longer a luxury to have, but a must have.

Property owners have seen the need to deploy reliable Wi-Fi to attract new tenants and retain them.

Based in Ames, Iowa, approximately 30 miles north of Des Moines, Hunziker Property Management has been managing commercial apartments for more than 20 years. Hunziker is known in the industry as a premier provider of luxury apartments and student housing. It is important to Gary Hunziker, CEO and founder of Hunziker Property Management, that “our tenants have a quality connected home experience whereby users can easily and securely onboard their consumer devices such as laptops, over-the top content (OTT) streaming video, gaming consoles and smartphones to the wireless network.”

In June 2015, Hunziker embarked upon its largest retrofit project, which included over half of its residential units. Due to the magnitude of the project, the owners of Hunziker needed to make a decision on how to best provide wireless services to their tenants.

MDU:

Hunziker Property Management

“The connected home experience is essential, since this correlates to high tenant satisfaction and reduced turnover. Having a superior Wi-Fi experience helps us differentiate over other property management companies.”

Gary Hunziker
CEO / Founder
Hunziker Property Management



CHALLENGE

The Hunziker housing was facing a large number of challenges. It needed to be able to handle high device density. The property is located close to Iowa State University and attracts many college students. Fifty percent of the residents are college students who, on average, have three to four devices which must reliably connect to the network. The network needed to be able to handle bandwidth-intensive applications such as streaming live, high-definition video of lectures or network-based games.

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The first concern was the old construction of brick and concrete walls that is notorious for degrading Wi-Fi performance with existing legacy Wi-Fi infrastructure. Based on actual performance testing, even 5 Mbps per user was difficult to achieve.

Because of the poor wireless Internet connection, tenants purchased their own consumer grade routers out of frustration. This only complicated the connection problem due to overlapping channels and multiple access points contending for airtime without centralized management. The performance was further reduced to 2-3 Mbps.

Hunziker knew the property needed an upgrade. Along with an upgrade, the company needed to ensure that tenants' devices would be securely connected. Based on surveys conducted with existing residents, Internet security of the Wi-Fi ranked high when making a renting decision. With these requirements, Hunziker was on the search for a reliable and secure Wi-Fi solution.



MDU:

Hunziker Property Management



“We are now able to maintain our reputation as a premier provider of luxury living and deliver the connected lifestyle that residents expect.”

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SOLUTION

To help steer the property management team in the right direction, Hunziker reached out to ICS Advanced Technologies. ICS is a Ruckus partner focused on the multi-dwelling unit (MDU) market. For the initial assessment, ICS network engineers leveraged Ruckus ZonePlanner site survey tool to provide a predictable Wi-Fi coverage map on the entire premise, taking walls and building construction material into consideration.

Prior to the retrofit project, ADSL/VDSL modems with legacy Wi-Fi were used throughout the property. This equipment was inadequate to meet the demands of a high density MDU deployment. Property management decided to overhaul legacy broadband and wireless with a full-fledged high performance Wi-Fi deployment running on a fiber backbone.

Deploying the Ruckus ZoneFlex R500 access points (2x2:2 dual band 802.11ac and ZoneFlex R600 access points (3x3:3 dual band 802.11ac with BeamFlex+), the team converted 330 residential units. With the BeamFlex+ technology, the access points create more spatial streams which correlate to higher performance in denser environments. These access points use dual polarized adaptive antenna elements and algorithms to dynamically generate antenna patterns, ensuring each client device achieves the highest throughput for the given environment.

Managing these access points is the ZoneDirector 3000. With a holistic view of the wireless network, access points can be proactively managed to accommodate for varying traffic conditions, apply policies and quality of service for differentiated services, and troubleshoot bottlenecks.

Another important factor that influences renting decisions revolves around wireless security. Residents need assurance that devices connecting to a common wireless network are isolated and secure from other residents.

Hunziker took advantage of Ruckus patented Dynamic Pre-Shared Key (DPSK) technology to isolate and secure devices on the network. A unique encryption key is assigned to every device that connects to the network. The ZoneDirector controller authenticates the devices so whenever residents leave and rejoin the network, all their devices will automatically be authenticated with the highest level of security. DPSK eliminates the complexities of 802.1x and RADIUS server authentication and use of insecure passphrase method.



MDU:

Hunziker Property Management

DPSK device authentication methodology



RESULTS

After the initial deployment, a dramatic improvement in performance was observed throughout the property. Based on real world, over-the-air testing with the new deployment, the Hunziker property was able to achieve an average of 20 Mbps uplink and downlink TCP performance per resident. This 300 percent increase in performance enabled residents to finally enjoy the home experience, stream high resolution media (video and music), play online games, or have VoIP calls with friends and family. Within a short period, Ruckus transformed the Wi-Fi experience of Hunziker residents.

Due to the tremendous results of the first deployment, Hunziker is now in the midst of deploying Ruckus Wireless throughout its properties. Armed with simply better wireless, according to Gary Hunziker, "We are now able to maintain our reputation as a premier provider of luxury living and deliver the connected lifestyle that residents expect."

