

Multi-Dwelling Unit WLAN: An Essential Resource for Modern Life

An IDC InfoBrief, sponsored by Ruckus | April 2016

What Is a Multi-Dwelling Unit (MDU)?

A property where typically more than 6 different families reside

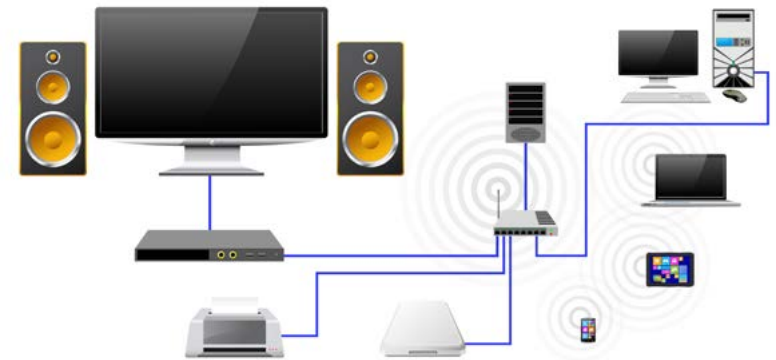
On- and off-campus student housing, luxury and market-rate apartments, condominiums, assisted living facilities, and military housing are types of multiple-dwelling units (MDUs)



What's Driving Wi-Fi Demand in MDUs?

Residents' need for high-speed, reliable Internet/Wi-Fi is acutely felt in the MDU market. Wi-Fi is an essential utility, like heat or hot water:

- ▶ Bulk Wi-Fi is a dynamic that is changing the way MDUs purchase and deploy Wi-Fi solutions. MDU owners are able to make their buildings more competitive and appealing to residents.
- ▶ The average home has more than 8 devices connecting to the Internet; in an MDU setting that number multiplies exponentially by the number of residents in a unit.



MDU WLAN: Residents Expect to Connect Everything

Work (home office)

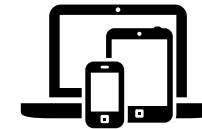
- ▶ Remote access
- ▶ Web conferencing and collaboration



Over 85% of US enterprises use web conferencing to reach remote workers

Play (wireless entertainment)

- ▶ Streaming music, movies, TV
- ▶ Gaming (video game consoles, web gaming)



Over 1.4 billion networked video devices will be connected by 2019

Connect Multiple Devices

(Smartphones, laptops, tablets)

- ▶ Video Chat
- ▶ Voice over Wi-Fi
- ▶ Social Media
- ▶ Smart Home (IoT: intelligent thermostats, home security, kitchen appliances, etc.)



Over 40% of consumers regularly engage with video chat and VoIP in the home

WLAN in the Student Housing Market

Exponential device growth and bandwidth usage is driving higher demand

- ▶ As students are increasingly demanding ubiquitous coverage in dorms, schools are outsourcing Wi-Fi implementation to property managers
- ▶ Property managers want to take advantage of low TCO and enjoy a profitable ROI
- ▶ Student housing needs to include automated onboarding to accommodate the influx of new devices students are bringing



WLAN in the Luxury Housing Market

What do luxury housing providers seek in a Wi-Fi solution?

- ▶ Residents expect speed and ubiquitous coverage for multiple devices, often including “smart home” devices and security
- ▶ Property owners want a platform that is easy to manage
- ▶ Property owners want to take advantage of the trend of Bulk Wi-Fi, which enables them to monetize their WLAN investment and resell at a much lower cost to residents



WLAN in the Military Housing Market

What are the considerations for a Wi-Fi solution for military housing (barracks)?

- ▶ Military personnel need high QoS for multimedia applications such as video calling
- ▶ Service providers need a vendor partner with established inroads into the defense sector
- ▶ Final decision makers are tasked to meet strict budget guidelines



Networks Are Getting Crowded

Connectivity costs will fall while the value of connecting things will rise. Consumer devices - from smartphones/tablets to the Internet of Things - will increase the throughput demands in MDU.

OVER 1.2 BILLION
CONNECTED INTERNET DEVICES IN
THE U.S. EXPECTED BY 2018

- Smartphones **288.3M**
- Connected TVs **197.1M**
- Home Internet of Things **185.1M**
- Tablets **162.7M**
- PCs **130.4M**
- Blu-ray Players **100M**
- Digital Media Adapters **93.4M**
- Video Game Consoles **86.4M**
- eReaders **7.5M**



MSPs Play an Important Part for MDUs

- ▶ University, luxury, and military housing providers often rely on MSPs to help with selection, implementation, and management of a Wi-Fi solution
- ▶ MSPs can help ensure proper support for organizations without large IT staffs
- ▶ MSPs are important business partners — a good service provider seeks to maximize business value for the end customer
- ▶ MSPs enable housing providers to bring modern enterprise-grade Wi-Fi to residents faster



MSPs Are Challenged

MSPs face increasing network demands due to:

- ▶ Convergence and the network's enabling role
- ▶ Cloud computing, desktop virtualization, and software as a service

Mobility explosion

- ▶ 5 devices per person worldwide by 2018
- ▶ Supporting new applications/services

Migration of voice/video/TV to IP

IDC expects that by the end of 2019, more than 25% of U.S. households will not subscribe to a traditional pay TV service, opting for an over-the-top IP application

- ▶ Emergence of social networking
- ▶ Growth of network endpoints
- ▶ Almost 30 billion IoT devices by 2020



How MDUs benefit from Enterprise WLAN:

- ▶ Pervasive coverage across the campus
- ▶ High density to accommodate users with multiple devices
- ▶ Thorough, easy to administer and secure BYOD
- ▶ Flexible deployment and scalability
- ▶ Value-added services (location-based services/user analytics)
- ▶ Help desk support

Key Enterprise WLAN MDU Benefits In Depth



Pervasive coverage

Once, Wi-Fi was viewed as a “nice to have,” and now it has become mission and business critical. Today, people expect uninterrupted Wi-Fi coverage for their favorite applications, no matter where they go.



High density to accommodate users with multiple devices

MDU residents can be simultaneously connected to a smartphone, laptop, tablet, wireless gaming devices, and so much more. This puts strain on the network, affecting all residents. A Wi-Fi solution designed for the MDU market accommodates high density.

Methodology

For this report, IDC drew from its library of research on enterprise networking, US public higher education, and connected consumer devices to form a comprehensive view of the opportunities and challenges contained within the multi-dwelling unit market.