

Case Study: Ravenwood Apartments, Ithaca NY



Ravenwood Apartments

A 40 Apartment, 5 Building property, home to ~140 Cornell University students in Ithaca, NY. The rental business in college towns across the United States is extremely competitive and, needless to say, Internet and strong Wi-Fi are an absolute “Must Have” for college students. The structures are a combination of apartments which house from one to five students and are laid out so as to make ubiquitous Wi-Fi a challenge. The other challenge, as one could imagine, is the tremendous bandwidth required by the students, on a consistent basis. Ravenwood’s objective was to be able to offer excellent Wi-Fi and Internet as part of its baseline leasing program, as opposed to each apartment contracting independently with the ISP.

Networking Challenges

Ravenwood is cabled with coax in every living room and every bedroom in each apartment. While the building construction is predominantly wood and sheetrock, the layout of the property and the apartments make installation of Ethernet cabling prohibitively expensive. The Ravenwood’s geographical layout would make outdoor access points even less effective than the pre-existing scattered ISP AP’s.

Why Wi3 Inc?

The Ravenwood management team was originally approached by Finger Lakes Technology Group (FLTG) marketing their fiber based Internet service. Ravenwood felt their options were severely limited because there was no category wiring throughout the property and to install CAT 5e or CAT6 cable was prohibitively expensive. Hence, no cost effective and easy way to deliver the high speed WiFi service to each apartment, other than adding ISP Internet Modems to each apartment. FLTG, familiar with Wi3’s MoCA solution, brought Wi3 in to help resolve the issue. Utilizing Wi3’s MoCA2.0 solution, FLTG was able to offer Ravenwood Fiber to the facility and full speed Internet and Wi-Fi to each apartment.

The Deployment

- (1) Main Distribution Frame (MDF) Enclosure equipped to bridge Ethernet onto the coax network and distribute the Ethernet to IDFs
- (4) Intermediate Distribution Frames in telecom “closets” in each of the remaining buildings. Each IDF distributes the Ethernet signal via MoCA2.0, over Coax, to Wi3 WiP7500 802.11 ac access points placed in each apartment
- (40) WiP7500 802.11 ac WiFi Access Points, concurrent Dual Band 2.4GHz and 5GHz, MoCA2.0
- Cisco Meraki MX100 Gateway to remotely manage and monitor access points as well as provide security and data traffic shaping capabilities

Results

- Solid property wide coax network established for current and future Internet and Wi-Fi requirements.
- Deployment resolved Internet delivery limitations and provides Wi-Fi capability to each apartment
- Establishes upgrade path for the future, only requiring electronics upgrade without cabling infrastructure changes
- Centralized visibility, security and monitoring of all devices
- Improves Ravenwood’s competitive position by enabling owners to offer great Internet and Wi-Fi services to each of its students, without significant capital expense.