

# MDUs Can Use Their Wires

A combination of core network planning and opportunistic reuse of existing in-building wiring can provide gigabit and multi-gigabit high-speed fiber broadband networking.

By Roberta Silverstein / *MoCA*

Currently, the U.S. has more than 38.5 million multiple dwelling units (MDUs) consisting of apartments, condos and townhouses. Of those, approximately 231,000 MDUs were built before 2003.

For these MDUs, offering prospective and current tenants high-speed broadband internet is the No. 1 ranked expectation, according to a Parks Associates research report. High-speed fiber broadband networking is also the network highway to smart technology, property technology and smart apartments.

Smart apartments, the result of a smart technology framework, are in high demand by tenants and can include amenities such as remote and in-unit control of lighting, cooking equipment, energy, multiple internet security management controls, home security options, and smart-building services such as security, lighting control, proactive maintenance, grounds and property safety and even parking space notifications.

What do all these IoT smart apartment features have in common? All need high-speed broadband networking.

New MDU builds can incorporate a full fiber-to-the-home (FTTH) approach for high-speed broadband networking. That doesn't leave existing multitenant environments (MTEs) and MDUs built before 2003 behind. Though wireless is a common broadband network access strategy, building-material types may decrease a wireless network's efficiency. Similarly, 5G may have challenges operating beyond the line of sight – an issue common in metro-area high-rise MDUs.

For existing and dense metro-area MDUs, a combination of core network planning and opportunistic reuse of existing in-building wiring can provide both gigabit and multi-gigabit high-speed fiber broadband networking. When on-site MDUs are wired with preexisting coaxial TV cabling, property owners and managers can repurpose that coax into the ideal in-building network-access component for high-speed fiber PON broadband networking.

## REASONS TO REUSE EXISTING COAX TV CABLES

Advantages of reusing existing building coax cabling include the following:

- 1 Future-proofing the network for multi-gigabit performance
- 2 Keeping high-speed broadband PON fiber installation costs under control
- 3 Minimizing construction and tenant distributions
- 4 Limiting congestion with existing wireless networks
- 5 Reducing ongoing network upgrade costs
- 6 Facilitating hands-off subscriber self-install and maintenance at the unit
- 7 Establishing a faster network buildout timeline
- 8 Minimizing building owner, building manager and tenant unit disruptions
- 9 Eliminating fiber ducting issues

A full fiber rollout to a tenant can get costly quickly. Average fiber optic cable installation costs for MTEs or MDUs is approximately \$440 per unit based on the

experience of Multimedia over Coax Alliance (MoCA) members providing fiber PON solutions using MoCA Access technology. In addition to install costs, outlays can include time spent seeking waivers and permits in metro areas along with entry permissions and scheduling from MTE and MDU tenants.

Reusing existing coaxial cabling can reduce installation costs to approximately \$125 per unit while providing gigabit and multi-gigabit speeds. This is a significant cost savings to MDU owners and property managers seeking high-speed, multi-gigabit, fiber broadband networking, the foundation for smart technology and smart apartments.

### MORE BENEFITS

As Parks Associates reports in its “Smart Solutions – Boosting Revenue” study, once high-speed fiber broadband

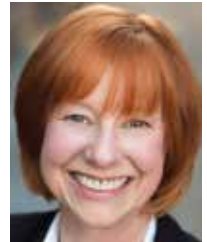
networking and smart devices were installed, 85 percent of MDU owners and managers were able to increase rents between 10 percent and 30 percent and realize an almost equal decrease in complaints from existing residents.

There’s a famous quote attributed to Thomas Edison: “Good fortune is what happens when opportunity meets with planning.” All the benefits of smart technology and smart apartments don’t have to come with the challenges of a full fiber broadband installation. Though the *opportunity* is smart technology and smart apartments, installing the backbone fiber broadband network necessary can be as simple as reusing existing in-building wires.

By employing industry standards such as MoCA Access, and products from MoCA members such as InCoax Networks, existing coax TV cabling can be part of the *planning*. Edison’s quote rings true: Good fortune

(good fiber broadband networking) is indeed a combination of *opportunity* (fiber broadband networking plus smart technology and smart apartments) and *planning* (repurposing existing in-building wires, including coaxial cabling in combination with industry-standard MoCA Access and solutions from vendors such as InCoax Networks). ❖

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