

# Is It Time to Renovate?

Property owners and managers need to know when to upgrade their broadband infrastructure.

By Masha Zager / *Broadband Communities*

Here's a quick quiz:

*The broadband infrastructure in your multifamily property is:*

- a) *Just fine*
- b) *In need of some tweaking*
- c) *Ready to be replaced.*

**D**id you pass? How did you decide what to answer?

**BROADBAND COMMUNITIES** spoke with several experts who help property owners and managers make these decisions. They offered guidelines for evaluating residents' needs and determining how to meet those needs cost-effectively.

The first question to ask is whether current residents are happy with the broadband services available to them. This question can be answered by reviewing penetration rates, surveying residents, talking with on-site managers and reviewing trouble tickets.

A company buying an MDU building may not have direct access to this information, but it should always perform due diligence on the inside wiring, no matter the age of the building, says Nicole Kane, president of Property Connect Advisors – and the due diligence should include a site inspection. Kane adds that owners may want to inspect inside wiring on buildings they already own if, for example, the building is more than 20 years old or if on-site managers report problems.

The second question – a less obvious one – is whether prospective new residents are satisfied

with what's on offer. "Residents may not know what they don't know," explains Mike Coco, president of Choice Property Resources – but new residents moving from different buildings might be aware that better alternatives exist. "Are you competing against other properties that have something different?" Coco asks. He suggests using a professional adviser to help compare the broadband offerings in nearby, similar buildings. Kane recommends using analytical tools, such as those offered by Axiometrics, to find comparable buildings and then research their broadband offerings. Certain rules of thumb apply, at least for the moment. For example, Kane says, "When it comes to student housing, if you do not have the ability to offer 100 Mbps per user, residents will complain."

## UPGRADING WITHOUT FULL RENOVATIONS

If current or prospective residents demand better broadband, the next step is to find out whether services can be upgraded without major changes to the building infrastructure. This may be possible if the building wiring is sound and if an existing or competitive provider can provide sufficient backhaul. Michael Slovin, vice president of XFINITY Communities, Comcast's MDU division, says that because Comcast is investing in its backbone network and transitioning to DOCSIS 3.1, it can now offer gigabit speeds to many MDUs wired with coaxial cable. "All they have to do is swap out the modems," he says. "They don't have to work out the ROI or put in new infrastructure." Comcast plans to complete the rollout of gigabit speeds across its entire footprint in 2018.

Slovin explains: “When providers initially launched gigabit speeds over fiber, they were training the market [to expect 1 Gbps service] – but the ROI for fiber to the unit is hard to justify. ... So when we launch DOCSIS 3.1 in a market, it allows every property to say, ‘I’m now competitive.’ Our conversations with customers are about how we can help them offer these speeds and market the fact that they’re a technology leader.”

Comcast’s gigabit DOCSIS 3.1 service, unlike its fiber service, is asymmetrical. However, Slovin says, residential traffic is heavily asymmetrical, and upload speeds can be customized based on usage. In exceptional cases (for example, medical-student housing, where residents upload huge files), DOCSIS 3.1 might not fill the bill, but in nearly all apartment communities, it does.

Some service providers that have not proactively invested in their backbone networks are willing to do so at a property owner’s request – for example, by splitting a DOCSIS node or even bringing fiber all the way to the basement. However, if a service provider is unwilling to upgrade its network, an owner may be able to invite a competitive provider into the building and allow it access to inside wiring. This may require the owner to invest in a neutral lockbox – a significant expense but not as significant as rewiring the building.

In other cases, the problem is the property owner’s responsibility but can be solved relatively easily. Sometimes only switches or wireless access points need to be updated. Sometimes the problem is outdoors; Coco cites the example of a property whose frequent outages were caused by a problem in the distribution cable between buildings.

Even an inside-wiring problem may be limited in scope: One property owner with a high rate of trouble tickets determined that a few home-run wires caused the bulk of the tickets. After testing all the wires in the building, the company replaced only the few faulty ones.

In-unit wiring may need to be expanded to comply with regulations

or meet market demand. For example, older properties often have a single coax outlet for each unit, but residents today expect an outlet in every bedroom. Again, this expansion can sometimes be done at less cost than a full renovation.

### REWIRING BUILDINGS

Sometimes the best – or only – remedy for slow or unreliable internet service is to replace the infrastructure altogether. To minimize construction costs and disruption (and tap into more favorable financing), owners often wait until buildings are being rehabbed to rewire them. But Coco lists several circumstances in which owners may replace their broadband infrastructure in the absence of an overall building rehab:

- The wiring is obsolete or poorly designed. RG-59 coaxial cable or old twisted-pair copper may not support the wired or wireless internet speeds that residents demand; daisy-chained wiring can cause problems to cascade through a network. In old buildings wired for cable after they were built, unprotected cable may pose aesthetic or safety problems.
- The owner needs to install a separate network for building operations such as security, access control and life safety, and a new resident network could be installed along the same pathways.
- The building is being repurposed and needs more (or differently located) infrastructure. For example, some apartments are being converted to retail spaces.
- The service provider is a telephone company that is retiring its old copper network and replacing it with fiber.

### CHOOSING A NEW INFRASTRUCTURE

If a building is to be rewired, what type of infrastructure should be used? For future-proofing, everyone agrees fiber optic cable is the best bet. Slovin says MDU owners across Comcast’s footprint now commonly use fiber in new builds and rehabs, and Comcast is willing to leverage that fiber-to-the-unit infrastructure.

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However, not every service provider can deliver services over fiber. As Coco points out, “I could pull two or three fiber home runs to every unit, but if no provider can utilize that, I’ve just wasted money.” He adds, “If you respect distance limitations and have good home wiring inside the units and the right distribution points, Cat 5 and RG-6 cable can take you a long way into the future.”

Condominiums pose special problems. Coco says condo associations that want to upgrade their infrastructures are sometimes stymied by their lack of ownership and control of in-unit wiring. Condo owners who are concerned about a disruptive renovation process or the aesthetics of the proposed new infrastructure may refuse to cooperate. If the association can’t bring fiber all the way to each unit, Coco says, “Try to back up a little further in the network and bring fiber to that point.”

Kane believes rumors of disruption are greatly exaggerated; she says the problems encountered in fiber overbuilds a decade ago have largely been solved. Building owners and condo unit owners may not be aware that many contractors and providers can install fiber with very little disruption to residents. Aesthetic problems, too, are easily solvable. A provider’s default installation method may not be aesthetically pleasing, but “owners just have to ask.” Any contract with a fiber overbuilder should include clear language about making the fiber unobtrusive.

In addition to inside wiring, a property may need a wireless overlay. Propertywide managed Wi-Fi began in student housing, but as students graduate and enter the conventional housing market, they bring with them their expectation of always-on Wi-Fi. Slovin says this type of service, which is

“creeping into the multifamily space,” is generally provided on a bulk basis, with owners and providers working together to set it up. Comcast is also test marketing a product it calls Wi-Fi Ready, which Slovin describes as an “intermediate step” to managed Wi-Fi.

## TAKING THE FIBER PLUNGE

Kane recommends to her clients that they make every effort to outfit their buildings with fiber infrastructure, even if they don’t have to. “If there’s no agreement in place, push for the provider to upgrade. If there is an agreement in place, think outside the box. ... If you’re in the AT&T footprint, push AT&T to evaluate the building for a fiber overbuild. [See p. 16 for the story of a condo building that succeeded with that strategy.] Look to see where there are other fiber possibilities.” One incentive for providers to upgrade to fiber is the ability to wire the common areas of the building.

Kane says some fiber overbuilders are willing to bring fiber into a building even if the owner already has an exclusive marketing agreement with the existing provider. The owner may lose door fees or other revenue sharing from the existing provider as a result, but if the fiber makes the building more attractive to residents and better positioned for future needs, that loss is usually justified.

Though many owners are happy to have a service provider absorb the cost of fiber cabling, Kane believes fiber is almost always a good investment; property owners who own the fiber in their buildings can reap the full benefit of a bulk wireless amenity. “If you’re able to offer 100 Mbps or more seamlessly, residents are usually willing to pay whatever the owner wants – it’s a great source of ancillary income. The payback period is typically 27 months if you increase the rent. ... Even if you don’t increase the rent, you’ll get it back when you sell the property.” ❖

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