

WISPs Have Opportunity to Enable Broadband in More Affordable MDUs

Policy changes can remove some barriers to closing the digital divide by addressing physical impediments and facilitating bulk purchasing on behalf of affordable housing residents.

By David Gilford / *HR&A Advisors*

The popular conception of the digital divide is that it's a problem of insufficient density; rural areas lack critical mass for infrastructure investment. According to the FCC, 97 percent of Americans in urban areas have access to high-speed fixed internet service. In reality, at least 13.9 million disconnected households live in cities and metropolitan areas, representing more than 75 percent of the nation's total.

Even in the country's largest city, New York, nearly 30 percent of residents lack home broadband connections. Poverty levels correlate with lack of fiber infrastructure and lack of end-user adoption, which are both symptoms and causes of economic inequities. Solving the problem requires addressing interrelated challenges of infrastructure and affordability.

Technology offers reasons for optimism by making it easier to reach buildings. Where fiber is not easily accessible, fixed wireless is changing the economics of bringing broadband access to larger urban buildings. Using rooftop-mounted point-to-point radios, a typical multifamily affordable housing building may have an alternative to ILEC or cable company service. Wireless internet service providers (WISPs) have received attention for their ability to service

hard-to-reach rural areas, and companies such as Starry and Honest Networks are able to advertise near-gigabit speeds in urban areas.

SERVICE DISTRIBUTION CHALLENGES

Reaching a building is only half the challenge. Distributing service from WISPs is also a particular challenge for apartment buildings more than 20 to 30 years old. Crowded conduit in such buildings often limits the opportunity to easily run new wiring, and wireless transmissions struggle to penetrate physical barriers. Installing Wi-Fi access points in hallways and common areas may deliver baseline connectivity but threatens to create a two-tiered system in which lower-income residents have substandard service. If ISPs do not expect a high-enough take rate, or are concerned about residents' credit quality, they may choose to bypass an affordable housing building altogether, effectively cherry-picking buildings in pursuit of lower costs and higher average revenue per user.

Policy changes can remove some barriers, addressing physical impediments while facilitating bulk purchasing on behalf of affordable housing residents. In March 2021, the New York City Department of Housing Preservation and Development released new

design guidelines stating city-supported development “must be designed and constructed to provide high-quality internet access and service as part of their lease contract and at no additional cost to the tenant.”

By further defining “high-quality” to include a wired connection point and a preferred speed of 100 Mbps symmetrical, equitable service between market rate and affordable housing buildings becomes more achievable.

BROADBAND BY DEFAULT

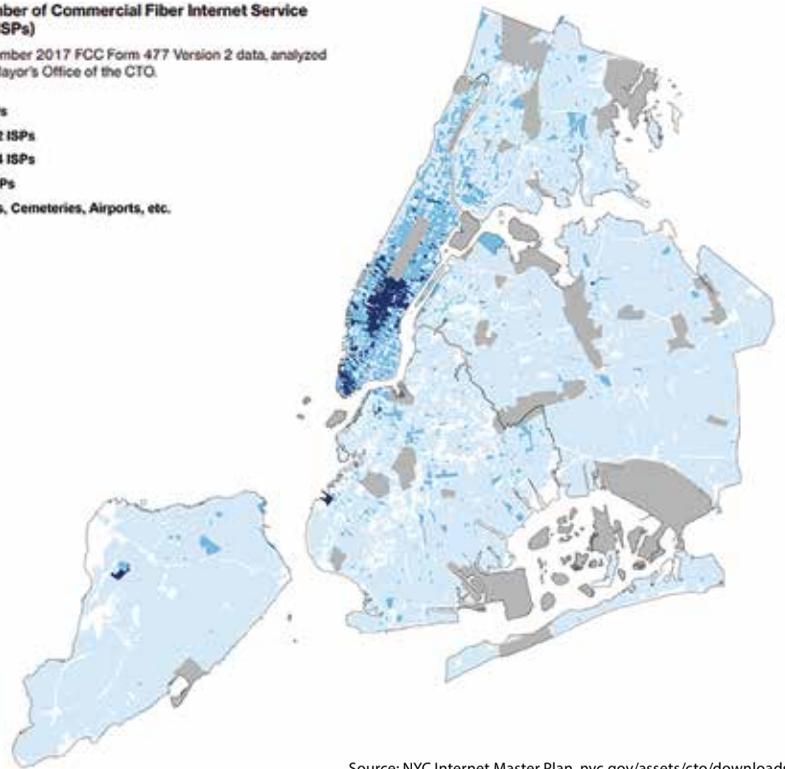
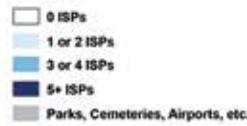
Such steps are a positive sign, but most affordable housing residents live in older buildings that will not benefit from changes to design standards for new construction. Community-based organizations have been at the forefront of addressing this challenge.

In Cleveland, Ohio, for example, DigitalC’s empowerCLE+ initiative provides home broadband service for \$18 per month to affordable housing residents in several neighborhoods. With the support of local philanthropic partners, including the Cleveland Foundation, empowerCLE+ deployed Siklu mmWave fixed wireless radios and leveraged legacy copper wiring to deliver in-unit connectivity to residents of the Cuyahoga Metropolitan Housing Authority’s properties.

For-profit WISPs also see this as an opportunity. Starry’s StarryConnect service is now available to more than 29,000 public and affordable housing units, including a partnership with the Housing Authority of the City of Los Angeles for free service. Similarly, Monkeybrains partnered with the City of San Francisco to create “Fiber to Housing,” providing free access for residents of 36 public housing buildings.

Such programs demonstrate feasible technical and business model options, but simply making something affordable or even free is not enough to get universal adoption. In response to the COVID-19 pandemic, many jurisdictions offered completely free broadband services yet found that outreach and uptake were far from complete. A 2021 survey by the state of Connecticut found that common reasons for not signing up for free

Map 2: Number of Commercial Fiber Internet Service Providers (ISPs)
Source: December 2017 FCC Form 477 Version 2 data, analyzed by the NYC Mayor’s Office of the CTO.



Source: NYC Internet Master Plan, nyc.gov/assets/cto/downloads/internet-master-plan/NYC_IMP_ExecSummary_1.7.20_FINAL.pdf

The NYC Internet Master Plan | Executive Summary

Lower Manhattan has ample options for commercial broadband service, but fiber optic infrastructure is relatively sparse throughout the rest of the city.

service included mistrust of providers, language barriers, prior past due balances and fear of hidden costs.

Rather than requiring an application, affordable housing providers can make broadband on by default, the equivalent of providing a “dial tone” in all units. Realizing broadband’s full benefits requires going further, working with trusted community organizations to ensure the availability of devices and digital literacy training. Going even further, organizations such as human-I-T have partnered with cities to refurbish and distribute older devices while reducing e-waste.

The local success of these diverse programs shows that the problem is solvable, yet to quickly reach millions of disconnected households will require national action. Federal funding offers one lever, with the American Jobs Plan proposing large-scale broadband funding that would benefit urban and rural areas alike.

More-targeted approaches may help close the divide in affordable housing even faster. A Congressional bill recently introduced by New York Rep. Jamaal Bowman would fund retrofits of in-building wiring for subsidized housing while updating federal definitions to make broadband a reimbursable expense, “recognizing broadband as a 21st century utility.”

Such actions show that broadband is increasingly viewed on par with energy and water, which are universally accessible in all housing types. For the broadband industry, this represents both a market opportunity and the chance to participate in ending one of the most persistent modern inequities. ❖

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