

Fixed Wireless in Multifamily

What are the opportunities, roadblocks and future paths?

By Valerie M. Sargent and David Coffey / *Multifamily Broadband Council*

Why are fixed wireless companies looking at entering the multifamily market? Let us first make clear what we mean by “fixed wireless.” Fixed wireless is usually distinguished from mobile wireless, or cellular transmission. It is broadband data communication that is wireless, usually connected through two fixed locations that have wireless devices and equipment. Radio links are used to connect the locations, and equipment is often placed on roofs to ensure quality transmission of data.

Though traditional wireless internet service providers (WISPs) usually serve single-family homes in mostly rural areas, those in urban areas realize there is opportunity in multifamily communities. Service providers can get more customers in a compact location and reach more subscribers without having to deploy in more areas. However, working in a multifamily environment takes specific knowledge and expertise.

SPECTRUM ISSUES

Historically, WISPs have operated in unlicensed spectrum, which is free spectrum outside the licensed spectrum that mobile carriers use. This can get complicated: The more people a provider tries to serve with unlicensed broadband, the more “noise” there is. Radio noise has increased because so many products now emit radio signals. Not only computers and smartphones but also connected devices in the internet of things compete for that same limited spectrum. In multifamily environments, more people using unlicensed spectrum devices in close proximity makes noise even worse.

The Wireless Internet Service Providers Association (WISPA) says WISPs that use licensed spectrum can more effectively serve multifamily units. Better broadband depends on better spectrum. Clear, licensed spectrum is the solution to the noise problem.

Right now, WISPA is in a policy discussion at the FCC regarding the CBRS, or the 3.5 GHz band. This spectrum has ideal propagation characteristics for WISPs, but the large mobile carriers are eyeing it as well. WISPs want CBRS spectrum for Wi-Fi; carriers want it for cellular. “WISPs are looking for the path forward and are in the midst of one of the most aggressive advocacy campaigns on this issue ever,” stated Claude Aiken, president and CEO of WISPA.

Two primary ways exist to improve wireless coverage in a building: distributed antenna systems (DAS), which repeat the signal in a building, and small cells. DAS signals go back to the macro tower, so they don’t actually offload traffic to

eliminate the noise problem. With a small cell, traffic goes back to the carrier by fiber and therefore really does offload the traffic from the macro cell, creating a clearer spectrum. A licensed carrier can deploy small cell products that support the frequency spectrum for which it has a license. With no license, the small cell doesn’t work.

What is the fixed wireless benefit to multifamily communities? It provides a needed service for residents and generates revenue for owners. Residents are tethered to their digital devices and need a better network. As residents depend more and more on wireless devices, they continue to seek out faster, more reliable networks that give them the service they need.

MBC AND WISPA AT WISPAPALOOZA

Multifamily Broadband Council will partner with WISPA this year to host a dedicated multifamily track at WISPAPALOOZA 2018. The program will be held on October 10, 2018, at the Rio Hotel in Las Vegas, Nevada. We will discuss this topic and more as we cover game-changing technologies to deploy faster networks in less time to serve more residents and continue to help companies address what’s most important in serving the MDU environment.

WISPA and MBC started conversations last year about the synergies between the two organizations. As trade organizations, both WISPA and MBC represent their members before the FCC, ensuring that smaller business owners and independent providers have a voice in Washington when important policy issues are decided. Both organizations provide resources to their members that allow those in their respective industries to work together more effectively, network, stay informed and learn.

MBC and WISPA look forward to seeing vendors and service providers in Las Vegas this October as we continue to explore these important topics. ❖

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