AIRVINE

APP NOTE

When Your Next Hop is Right There

But You Can't Quite Reach It

Every day there are articles and studies that show that broadband is now regarded as critical infrastructure.

Over $350B is being made available to states in the US. By and large most of this money is about extending network infrastructure to homes and apartments. Not so much for indoor or LAN networks. Even more overlooked: how do people connect nearby facilities that are part of a single campus? An apartment complex consisting of several buildings needs to connect all the structures onto one network. A hospital or medical group with natural and man-made barriers such as roads separating buildings. How do you do this without reaching out to your local carrier? You can literally see your next network hop just a hundred feet or so away, but getting there can take months and tens of thousands of dollars.

There are niche solutions available that can do this wirelessly, and all of them are outdoor, IP67 rated industrial looking boxes that you spend time figuring out how to hide. Or, you can simply extend your Airvine WaveTunnel network used for upgrading your indoor network and "shoot" from inside the buildings to the next hop. One system, one network with multi-gigabit capacity.

The Airvine WaveTunnel nodes can be located up on ceilings, indoors, and aimed through a window to the next hop.

Using the WaveTunnel in this fashion offers all the advantages of the system when it is used indoor – virtually zero construction, installation, and deployment on your schedule not the wiring company or large service provider, high performance and tri-layer security: Simple to install, simple to use and simply secure.

Some might say, “Hey I’ll just use some off the shelf Wi-Fi gear.”

The challenges with this are numerous, from spectrum sharing limitations in the 6GHz band with GPS requirements to the existing saturation of the 5GHz bands. According to the Wi-Fi Alliance, this year will see over 19B, that’s billion with a B, Wi-Fi devices in use, with the vast majority operating in the 5GHz band. The 5GHz noise floor has risen to the level where it can be used reliably only for indoor, short-range applications.

A clean and simple alternative to waiting for weeks and spendings gobs of money on your local service provider.

When that next hop or connection is “just there” but it just may as well be across an ocean in terms of your ability to connect, think Airvine and WaveTunnel – a single network operating as a clean, integrated backbone.