

SPECIAL SECTION:

Doing Wireless Right



Wireless is often seen as the shortcut for municipal governments and MDU owners under pressure to supply broadband but unwilling to pay for fiber

Wireless is important. Period. In a mobile world, citizens and tourists and customers expect it, in venues ranging from coffee shops and restaurants to parks, airports and convention centers. Even Loma Linda, a "poster child" for fiber, embraces wireless.

But wireless is NOT a cheap substitute for fiber. It must be an option in areas where copper or fiber is prohibitive. But wireless is not secure, not reliable, not easily maintainable, and not capable of the bandwidth we need and expect.

In these pages eight experts explain what works, what doesn't, and what tools are available for designing wireless systems.

One key to making wireless work is more corporate than technical. As a traveler, I find it frustrating to enroll in multiple WiFi plans. I've carried T-Mobile WiFi, Comcast, Verizon, and several international and regional brands. But I still get ambushed. Enough! If vendors would get together, they could double or triple the market. They'd all win. Now I often go without WiFi rather than pay \$10 for a brief airport wait.

Some pricing plans are bizarre. At Orlando's convention center, the charge is \$25 a day — guaranteed to turn off all but the most needy WiFi customers. Some limitations are bizarre as well. Marriott blocks SIP packets, for instance, so WiFi can't be used for VoIP. Why? Security? Evidently it is just cluelessness and habit; Marriott corporate PR had no answer.

The Executive Director of the Utah Telecommunication Open Infrastructure Agency said it best, before the Senate Judiciary Committee on June 14:

"About four years ago a few local officials in Utah began exploring the best way to provide advanced telecommunications services within their jurisdictions. They acted on the conviction that their communities needed access to services that would be second to none, both in terms of bandwidth capacity and competitive pricing. These local leaders carefully examined the options. After extensive evaluation, they concluded that a fiber-to-the-premises network was the best alternative for both current and future applications and that it should be operated on a wholesale basis.

"Fiber supports virtually limitless bandwidth, enabling multiple private service providers to offer unparalleled competitive services over a common transport infrastructure without getting in one another's way. The wireless alternative as a primary broadband infrastructure was rejected because it did not satisfy the communities' goals. Wireless tools did not support the needed bandwidth capacity. The UTOPIA cities understood that wireless and fiber networks are not substitutes for each other but rather are complementary. Fiber offers plentiful bandwidth while wireless offers mobility."