

TELEPHONY

Verizon's FTTP 'moving on up' to tackle tough MDU market

Telephony

By Ed Gubbins

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Verizon Communications is working with its equipment suppliers to bring its FiOS fiber-to-the-premises services to multidwelling units, or MDUs, in January. Though the density of MDUs yields economic benefits, experts say it will also be more challenging than the single-family deployments carried out so far.

Single-family homes typically have everything an FTTP installer needs — a power source, grounding, copper and coax — all in one spot on the back of the house. MDUs are often more diverse and therefore more difficult to wire.

“There's not one cookie-cutter scenario,” said Jay Holcombe, director of network planning for CHR Solutions, which helps service providers deploy FTTP. “If there's multiple power meters on an apartment complex, which power source do you terminate that [fiber] at? Which tenants are getting charged on that meter for everybody else's service?”

In addition, wiring any MDU requires negotiating with the building's landlord. As Verizon dreaded asking each city's permission for video franchises, it's sure to find sitting down with each landlord even more tedious.

For smaller MDUs (those with two to 10 units), Verizon has been using the same optical network terminals (ONTs) it uses in single-family homes. A source close to Verizon's FiOS deployments to Florida MDUs says the carrier is stringing fiber from distribution hub cabinets in the building's attic or basement (depending on where a power source is) to each customer's residential unit, putting ONTs in wiring closets or even bedroom closets. The fiber runs inside wall-mounted channeling from one closet to the same closet on the next floor, giving residents access to their neighbors' fiber, a potential drawback not present in greenfield MDUs, where fiber can be hidden inside the walls. “If you piss off a neighbor, he could hit [the fiber] with a shovel and put you out of service,” the source said, admitting the risk was minimal.

Some of the new ONTs, designed specifically for MDUs, don't require fiber to each customer's closet. Verizon is currently testing new MDU-centric ONTs from both of its FiOS equipment suppliers, Tellabs and Motorola. At Supercomm 2005, Motorola announced two new MDU ONTs, one of which supports 16 customers, the other supports a single user. Tellabs' MDU gear, to be unveiled near the end of this year or early next, will contain eight to 16 phone lines rather than the four lines in its typical single-family versions. Each Tellabs MDU box will sit in a building's basement and connect to customers using existing wires: twisted copper pairs for voice and VDSL data (or 10/100 Ethernet if the wiring's available) and coaxial cable for video.

“This in many ways resembles [FTTC],” said Stuart Benington, Tellabs' director of portfolio marketing.

Other vendors such as Optical Solutions and Wave7 Optics have offered MDU-focused ONTs for some time. But Tellabs said its customers only recently have demanded one. ONTs that serve one customer each have long been an expensive part of FTTP. MDU-specific ONTs, as a specialized subset of ONTs, theoretically would be purchased in fewer numbers, so the costs couldn't be spread as far. Whereas single-family ONTs might cost less than \$500, Holcombe

said, the MDU kind might cost \$1600. If a service provider's sales efforts succeed, the concentrated density of an MDU can be more economical than a single-family home, he said.