Where the Broadband Systems Are

They're more likely to be in the Midwest than in the high-tech West or East Coast

By Steven S. Ross ■ *Editor, Broadband Properties Magazine*

When one thinks of broadband communities, the mind naturally wanders to Silicon Valley, suburban Boston, or to other high-technology Meccas. But the real action is in America's heartland – the Midwest and the Rust Belt. We took a close look at a fast-growing list of FTTH communities that's compiled and kept by Michael Render of the market research firm Render, Vanderslice & Associates for the FTTH Council and the Telecommunications Industry Association. The firm also sells a well-respected annual marketing report on the topic. The list (not the marketing study) ignores some recently announced fiber installations by telcos such as SBC and Verizon. It also ignores today's dominant broadband technologies, DSL and cable. Instead, the list chronicles fiber systems in housing developments, communities, and counties.

Those who have seen the list have been marveling at the growth itself – 216 communities, up 70 percent between May and late October, and more than double the 94 of a year ago. But how has the growth been accomplished, who's responsible, and where is it taking place? We converted the list to a database and fed it into a mapping program to get some of the answers.

Most surprising is where the growth is taking place. If you are looking for community-wide broadband systems, you'll find them mainly in Kansas, North Dakota, Minnesota, Indiana,

The dominant provider type varies around the country; County Public Utility Districts (and one utility cooperative) predominate in the Northwest, while CLECs and ILECs are strong in the Midwest.

Ohio and Pennsylvania. And, we might add, the tendency is for these systems to be in fading industrial towns that also have some proximity to colleges. (The detailed list itself is available at http://www.ftthcouncil.org/dbfiles/techexchange/OptFiberCommun-List10-20-04--FINAL.pdf; we used a version that was slightly more up-to-date as of late November.) As detailed in this issue by Doris Kelley (page 10), such communities see fiber as a way to gain competitive advantage in the fight to attract new jobs. But who builds the system? Wrong again. These community-wide systems are built overwhelmingly by CLECs (the folks who resell unbundled bandwidth) and ILECs (the local telephone providers), not municipal utilities. The communities stimulate investor interest with tax breaks, access to capital, and the kind of political climate that says "we won't nickel-and-dime you to death with petty regulation… we want you to come."

That's not to ignore the role of the public purse. But that role is highly dependent on a given state's legal and regulatory environment. Most countywide systems, for instance, are in Washington State, where they are being built by public utility districts. That area has a long history of public utilities feeding off of huge federal dam projects. Another county project is in Oregon, being built by an electricity cooperative. But the other two county projects, in Kentucky, are by ILECs. Utah does not allow municipalities to control content; by law their systems must be open-access.

At professional and financial meetings, CLEC managers have been complaining that their access to capital has been reduced by the FCC's seeming to favor the former regional Bell operating companies. But we certainly see many projects on this list – almost half – set up by CLECs. The big change: The majority of those projects are in partnership with housing developers or

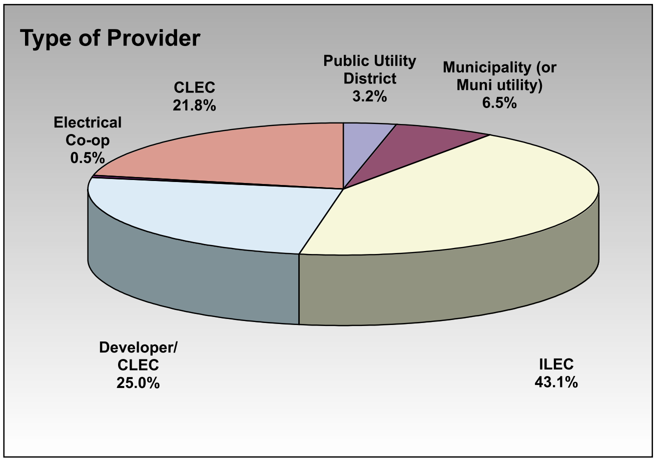
Community-wide deployments dominate the nation's midsection. Development-wide projects dominate in the South and West.

set up by the developers themselves.

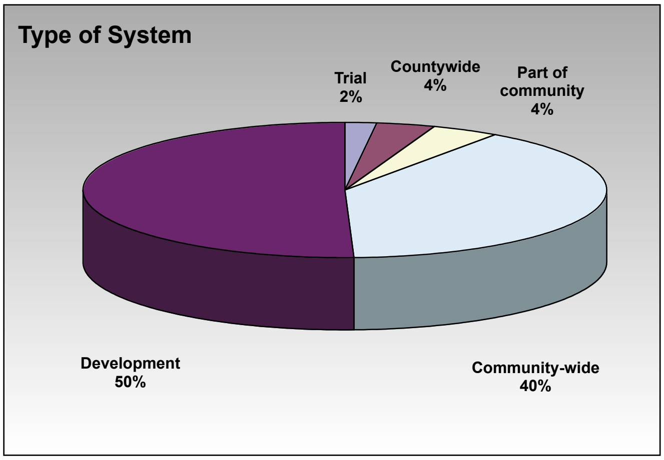
Indeed, community-wide and county-wide projects make up only about 44 percent of the total nationwide, with a smattering of test projects that cover part of a community now and that may grow over time. Fully half the announced projects on the list are for developments within communities – although only half of those (25 percent of the total) are developer projects. In the other half, developers have simply allowed access to other parties – often the telcos (ILECs). And those ILECs are not always the majors. There is new headroom emerging for smaller independent carriers as well.

Broadband developments are particularly common in California, suburban Washington DC, Texas, and the Southeast. That's where much of the nation's population growth is happening. Growth brings large, new residential developments.

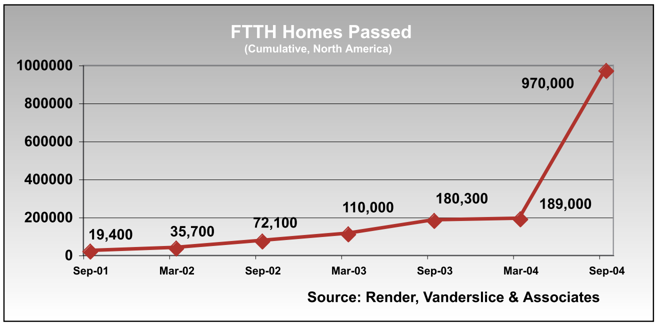
Overall, the market for fiber-to-the-home is growing rapidly according to Render, Vanderslice & Associates LLC. As of October, homes passed grew to 970,000, homes marketed to 413,000, and homes connected to 146,500. "While such overall market numbers are impressive," says Michael Render, "a thorough review of underlying market trends is even more im-



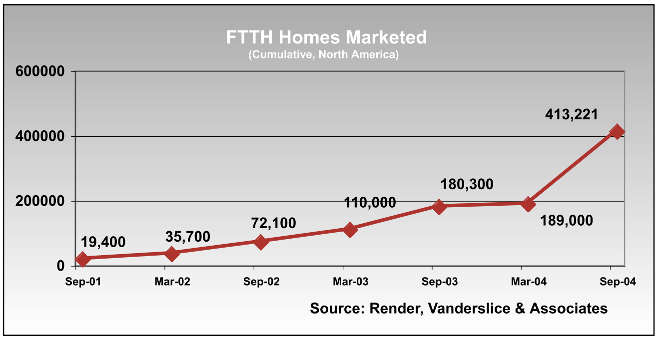
Private capital from developers, phone companies, and bandwidth resellers funds 90 percent of broadband communities.



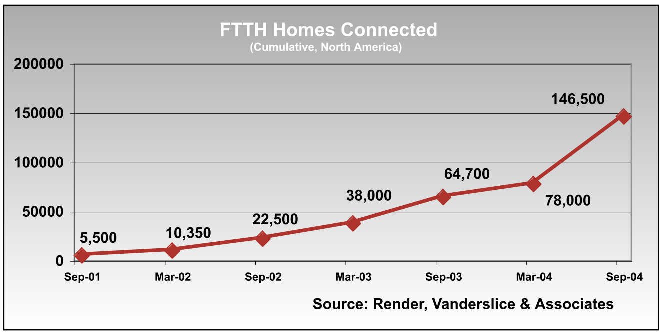
New real estate developments and a mixture of community-wide initiatives split the community list evenly.



Marketing lags deployment. The number of homes passed by fiber increased five-fold since October 2003.



The number being marketed to residents has only doubled.



Only a third of those households are actually connected.

portant." RVA predicts that homes connected should grow by over 400 percent in 2005.

RVA has just released its new annual study, based on over 600 interviews conducted with nearly all current deployments and random samples of potential service providers. The new study shows many FTTP/FTTH technologies are being used and no one technology is yet set to dominate. According to RVA, Ethernet and ATM technologies each have about half of the market in terms of homes passed.

"While BPON will clearly grow a great deal in 2005 because of RBOC involvement [BPON is Verizon's technology], there is also an underlying trend toward higher-end technologies such as EPON, GPON, and point-to-point Ethernet," said Render.

Vendor market shares are also shifting. Besides RBOCs, deployments are growing from municipals, developers, independent ILECs, and others. As an example, the study used random sampling to determine that 3 percent of independent ILECs expect to offer FTTP/FTTH to some of their customers within five years, up from just 3 percent who currently offer it.

The study also shows that over 80 percent of FTTH deployments offer the "triple play" (excluding RBOC deployments which have not yet launched video). "While analog/ RF video is most common, there are clear trends toward more IP delivery," Render notes.

The study also concludes that consumer acceptance of FTTH has been strong, and it includes a model for predicting take-rates based on characteristics of deployments.

The new study, called Fiber-To-The-Home The Third Network FTTP/FTTH 2004/2005 is available at www.RVAllc.com or 1-800-619-3102. ◆

About The Author

Steve Ross is Editor of Broadband Properties. He can be reached via email at steve@broadbandproperties.com.