

# Wow! 1 Million FTTH Customers

The number of fiber to the home customers tripled in the past year, Mike Render says

By Steven S. Ross ■ Editor-in-Chief

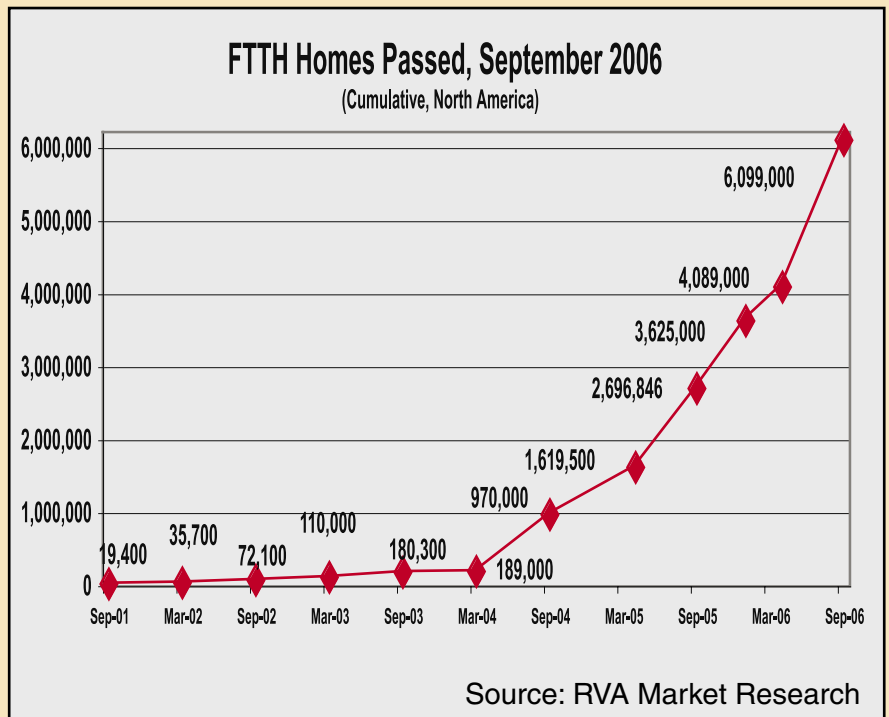
There are now more than 1 million homes directly connected to fiber optic networks. The word comes from Michael Render of RVA (www.RVALLC.com), who announced the tally at the annual FTTH Council meeting in Las Vegas October 5. In a decidedly upbeat presentation, Render said that although there are more than 6 million homes passed by fiber, only 5 million were actually being marketed by network providers.

This, Render said, can be due to many reasons, including an unwillingness to provide services until a critical customer mass is reached. There is also a lag between completing a network and obtaining a local video franchise, although eight states now handle franchising on a state-wide basis.

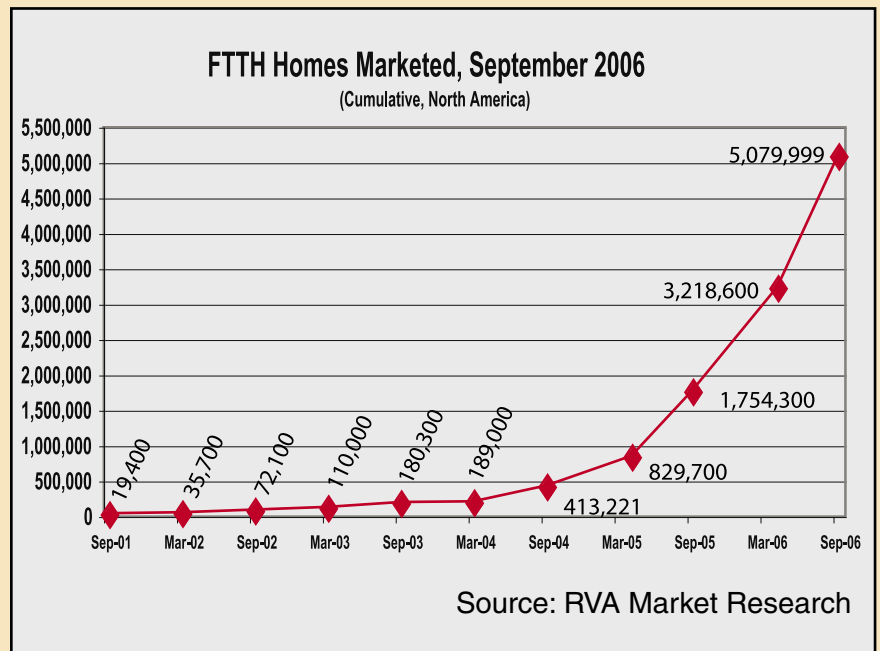
His semi-annual survey of FTTH is funded in part by the Telecommunications Industry Association (TIA) and the FTTH Council. He says the figure on total homes passed could be off as much as 6 percent in either direction, due to various ways companies define the figure.

The million homes taking FTTH is up 340,000 (about 50 percent) since early April alone. The number has tripled since this time last year.

The take rate (homes buying fiber services divided by number marketed to) is over 20 percent for the FTTH industry as



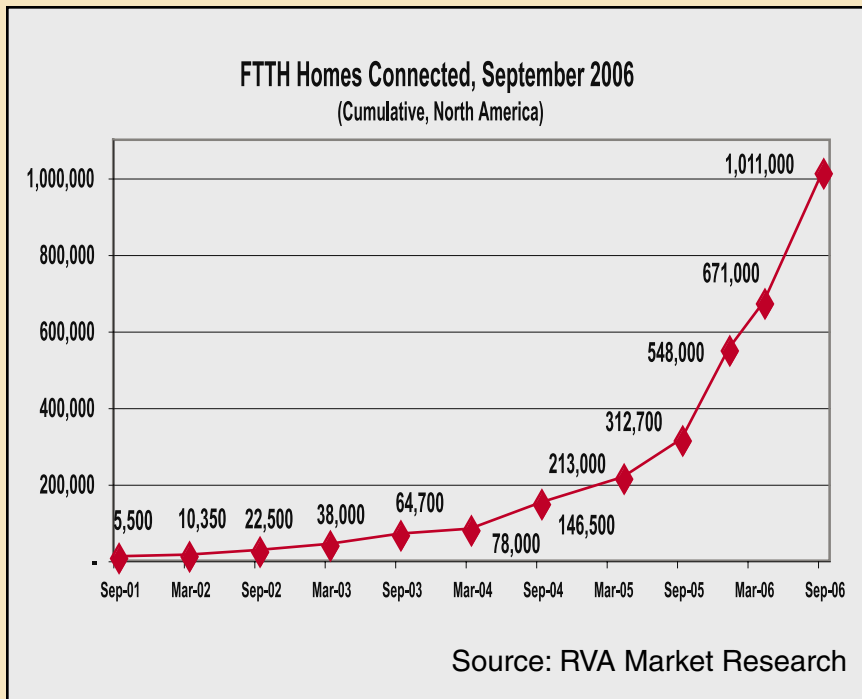
The number of homes passed by fiber more than tripled since April 2005, to 6 million from 1.6 million. Non-RBOCs accounted for more than half the growth until last spring; now Verizon accounts for about 75% of homes passed.



Homes marketed increased at a faster rate than did homes passed, more than tripling in a year. Now, despite the acceleration in homes passed, five out of six are being marketed.

a whole. That includes Verizon, which is expanding its networks quickly, and is mainly overbuilding areas with existing video, data and phone services. Backing

out Verizon and smaller FTTH builds by other RBOCs, the industry-wide take rate is over 52 percent, and has been steadily rising since 2001. It was at



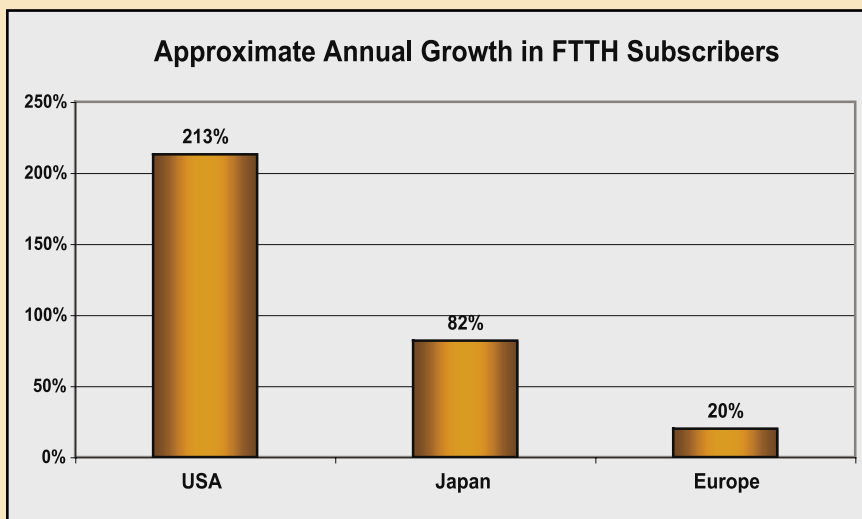
But the rate of homes connected is now 17 percent of those passed, barely up from January. For most of 2005, however, the rate was even lower, at about 12 percent of homes passed.

48 percent just a year ago.

Render noted that many of the non-RBOC builds are in greenfield areas, or by municipalities forced to provide broadband services because existing providers in their areas offered poor broadband service, or none at all. Thus,

competition is much lower and take rates correspondingly higher than those experienced by Verizon. “In greenfields and areas without broadband, fiber take rates of 80 or 90 percent are not out of the question,” he noted.

“In 2002, Wall Street was asking



The United States is the world’s fastest growing major FTTH market, on a percentage basis. But Japan, with six times the number of FTTH subscriber homes, is growing faster on an absolute basis.

how people would ever use 7 Mbps,” Render said. “But we predicted that there would be a million FTTH homes by early 2007 – and it happened [ahead of schedule].” It was not until 2004 that Verizon announced its FiOS buildout, however. And Verizon might have delayed its FTTH push, if it were not for the Federal Communications Commission decision that year allowing telcos to deny use of their fiber networks to local CLECs.

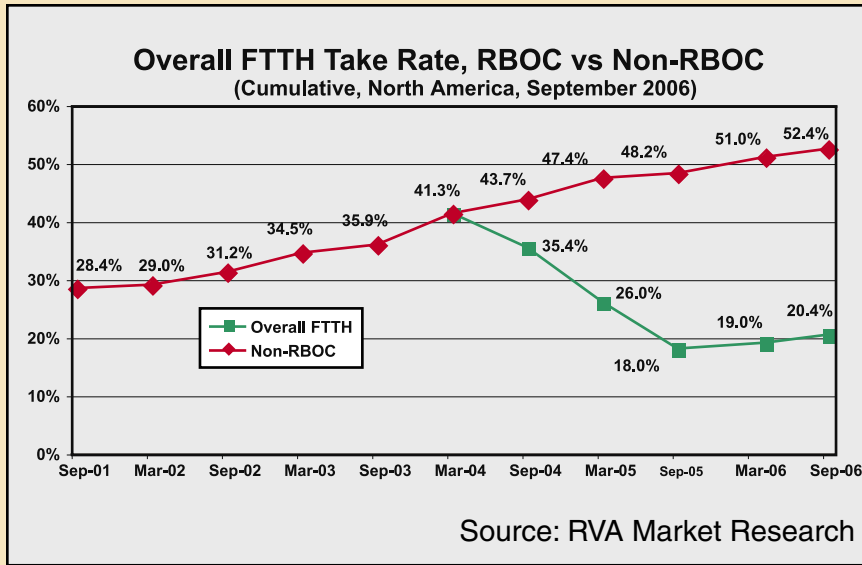
While Verizon is responsible for about three-quarters of the homes passed with FTTH, independent

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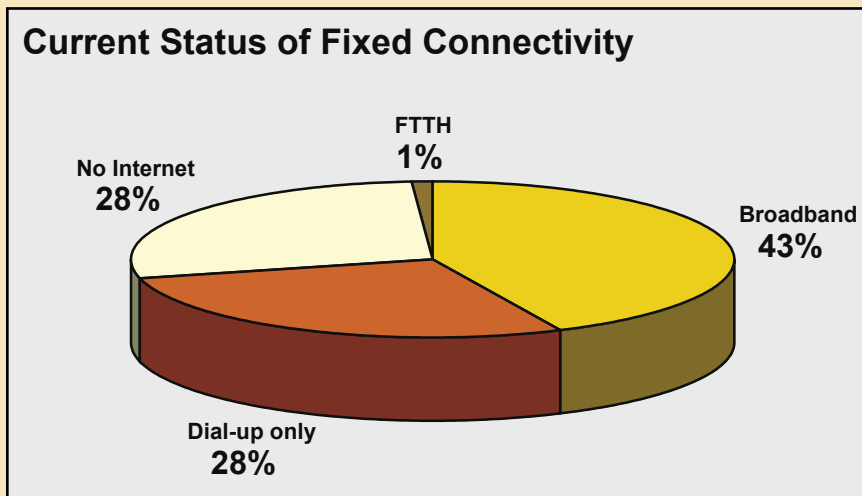
telcos, municipal operators and network builders targeting greenfield developments have played an important role, Render said. They also tend to build more advanced networks, using the very latest technologies. Render also noted that some cable companies are installing fiber. “Some 1.5 percent of FTTH deployments are by cable companies,” he said.

**The Broadband Market**

Render reports that his surveys show 43 percent of American homes had a



Non-RBOC take rates (homes buying services versus those marketed) continue to rise. But the RBOCs, mainly Verizon, were just beginning to market video services last fall. Thus, their take rate has just begun to improve. Also, non-RBOC, non-muni deployments are often greenfield, where take rates, as would be expected, are highest (75 percent as of last fall). Greenfields raise the overall average.



Almost three-quarters of all Americans have Internet access at home, but less than half have a broadband connection; this figure is less than that reported by the FCC, which considers 200 Kbps as “broadband.”

broadband Internet connection by late spring of this year. This is below the FCC’s estimate of over 60 percent, possibly based in large part on an outdated definition of broadband as being only 200 Kbps downstream.

His estimate of those without any Internet connection at all, 28 percent, is in line with the FCC totals. Not all FTTH customers actually take Internet

services, either. Nevertheless, he said, “We’re seeing a lot of growth in all segments. The consumer has not started to become a driver yet, however. We need more services.”

In other words, consumers don’t know enough yet about the benefits of higher bandwidth, and have not been educated about new services bandwidth makes possible.

Render predicted that all telcos will have to follow Verizon. “AT&T says FTTN [Fiber to the Node, with VDSL2 carrying the signal to the home over copper] is an intermediate step.

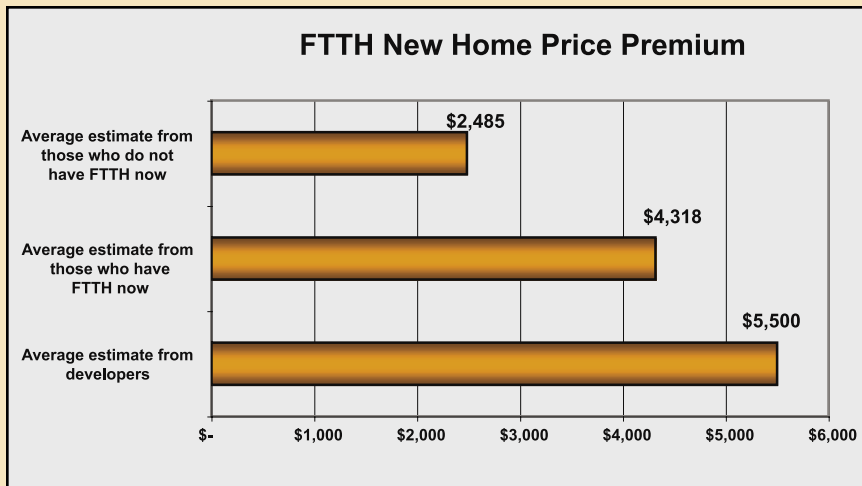
We will see them change soon,” he predicted, especially with AT&T absorbing BellSouth. The latter company has been installing fiber to the curb, with copper loop lengths often less than 1,000 feet.

### FTTH: They Have to See It

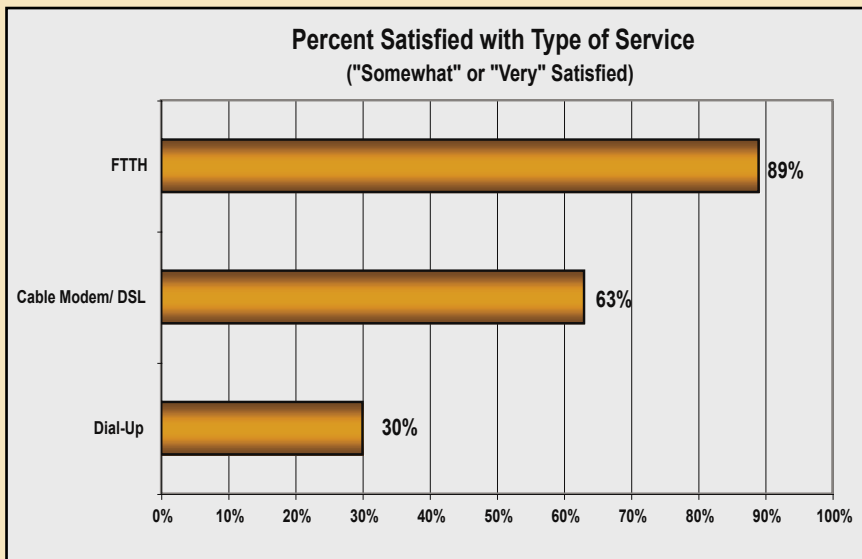
Those consumers who do have fiber love it, Render says; 89 percent say they are “somewhat” or “very” satisfied, in a survey of more than 1,500 consumers done this spring. In contrast, only 63 percent say they are similarly satisfied with cable modem or DSL broadband.

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Render also asked consumers, “What if you were purchasing a new home today and one had fiber, the other not, what premium would you pay?” Among consumers who already were using FTTH, the premium was \$4,318. Other consumers were told of fiber’s advantages and asked the same question. They also agreed FTTH was worth a premium, but much lower at



Even those who have not used FTTH say they are willing to pay about \$2,500 extra to get it when they buy a home, once the benefits are explained.



FTTH reliability and bandwidth contribute to very high satisfaction rates. Confirming Render's data, Verizon is reporting 1.5% monthly churn in FiOS accounts. That's roughly the rate at which people change addresses in the United States -- once every five years.

\$2,485. Developers were in the same ballpark, but said they expected even higher premiums.

The surveys were done as the housing market was showing weaknesses this past spring, but since then developers have reported a more serious deterioration on housing prices and sales volumes than expected. Anecdotal comments from developers who are interested enough in FTTH to attend major conferences such as the BBP Summit

suggest that FTTH helps sell homes in a down market – that it is even more valuable as an amenity but that it is still only one amenity among many. This again highlights the notion that consumers are not always familiar enough with the benefits of bandwidth to make a wise choice.

Render also noted that upstream bandwidth is becoming more important as well and that “provision of upstream bandwidth with FTTH is growing at a faster

### Cable Needs Fiber

City Cable Shunan in Japan, Cable One in the United States and Cable Bahamas in Nassau have joined a small but growing group of cable operators that are building fiber-to-the-home networks, usually in greenfield developments.

What's driving them to fiber, according to a recent study from ABI Research ([www.abiresearch.com](http://www.abiresearch.com)), is IPTV, which telcos are starting to deploy on both copper and fiber networks, and which enables a wide variety of interactive services. Michael Arden of ABI Research says “some cable companies see fiber as a means to offer advanced video services that they are hard-pressed to provide today.” Arden notes that many cable operators have core networks that are fiber-rich already, and says that extending the network to the home is a logical next step.

pace than downstream bandwidth.”

This, he said, is due in part to entirely new uses such as YouTube, which generate 100 million video downloads a day, but also generate more than 65,000 uploads as well. He noted that working at home is increasing as well, and is enabled by FTTH. “In our survey, respondents with FTTH say they work at home an average of 1.3 days a month, versus 0.3 day before they got fiber,” he said.

“This is a major shift in habits, changing the economy, saving fuel and the need to expand other public utilities such as roads. Wireless doesn't do that. It is not capable of a paradigm change for the economy,” he said.

“Who knows,” Render added. “At one of these conferences someone will be speaking by hologram some day.”

Maybe sooner than we think. **BBP**

### About the Author

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