

There's Still Fiber in Google's Future

Google has been a surprisingly small player with a surprisingly outsized voice in the broadband industry. It looks as though that will continue. Here's why.

By Steven S. Ross / *Broadband Communities*

Is Alphabet, aka Access, aka Google Fiber, still interested in gigabit broadband? Will it deliver that broadband mainly by fiber or by wireless? Do these questions still matter now that Google's gigabit initiative, announced in 2010, has energized broadband competitors and equipment vendors in North America and worldwide?

First, some perspective. Soon after Google Fiber (now part of Access, which is part of Other Bets, which is part of Alphabet) enticed 1,100 communities to submit proposals for hosting a Google-funded network, it talked about having 5 million fiber-connected customers by 2015. There are about 20 million fiber-connected customers in North America now, but Wall Street analysts estimate that Access accounts for well under 500,000 of them. At the end of 2015, there were probably no more than 300,000. Fiber builds are underway in seven metropolitan areas, and two more were promised but have been put on hold.

Alphabet does not break out its gigabit network expenditures. In 2015, Access was listed as part of Other Bets along with Nest (the temperature control business) and Verily (a tiny life sciences operation) for a total of \$869 million, with revenue at \$448 million. Nest alone was supposedly budgeted at \$300 million.

Recode and several analysts estimated North American broadband revenue for Google Fiber as about \$100 million for 2015 or about 100,000 customers at an average \$1,000 annual revenue each – \$85 a month. That's almost certainly a low estimate. Vendors and consultants estimated 200,000 residential and commercial customers at the start of 2015, most in the Kansas City area but some in Austin and some inherited from the takeover of iProvo in Utah.

Still, Google Fiber has hardly become a major player. A generous estimate of its annual capital expense is \$500 million, and an even more generous estimate of its gross revenue is \$350 million. In most industries, that's huge. In telecom, it is tiny – less than 1 percent of annual telecom investment, revenue and customer base in the United States.

AT&T and Verizon each spend about \$20 billion a year improving their wireless and landline networks!

WIRELESS EXPERIMENTS

Speaking at Alphabet's annual meeting this June, Eric Schmidt, the company's executive chairman, said wireless would soon offer a cheaper alternative for gigabit broadband

than “digging up your garden” for fiber. A week later, at the FTTH Council conference in Nashville, Chris Smith, a senior program manager at Google Fiber, said only that the company considers wireless a supplement to fiber.

A week later, Alphabet announced its purchase of Webpass, a company that has FTTH deployments in and around San Francisco and San Diego but is best known for its clever use of gigabit millimeter wave (60 and 70 Ghz) point-to-point wireless links. The hardware has become cheap and easily integrated into fiber and copper networks via Ethernet. Webpass has also been efficient in its network design, marketing and operations. That may be another key issue for Alphabet, whose broadband effort has been plagued by stops, starts, hiccups and strategy changes since 2010.

The most obvious hiccup affects Mountain View, Palo Alto and San Jose, where Google Fiber put its announced FTTH projects on hold.

The San Jose Mercury News reported in late August that Google Fiber will fire half its 1,000 employees, but the accuracy of that report is unclear, as is the net employee gain or loss after the Webpass operation is included. Google had already been testing 3.5 GHz wireless (midway between the two main Wi-Fi bands in the United States) in Kansas City and cleared tests with the FCC for another two dozen sites nationwide. Webpass has licensed millimeter wave use (the FCC lightly licenses the 60 GHz band) in about that many sites as well. Combining the two bands in one device would improve reliability – if heavy rain blocks the 60 GHz band, there would still be some bandwidth at 3.5 GHz. But existing millimeter wave devices tend to default to standard Wi-Fi bands instead, taking advantage of less expensive radios for Wi-Fi.

So: Is Google Fiber still interested in fiber? Yes. The gigabit initiative? Also yes. Is that broadband to be delivered mainly by fiber or by wireless? Both – probably to the same customers. Wireless, even conservatively implemented, is cheap and reliable, and it enables fiber.

What can cities do to help providers create gigabit networks quickly? Lots of things, especially guaranteeing access to poles for all deployers. Cities that get bogged down in special deals for Google miss the point: Don't tax things you want. And you want broadband. ❖

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