



# Lessons from the Latest FTTH Report

By Steven S. Ross ■ *Editor-in-Chief*

As we note in our cover story, fiber to the home can now be considered mainstream. That is, fiber is now the “safe” choice for builders, property owners and government officials thinking about adding broadband to their mix.

Fiber’s bandwidth, reliability, and quality of service are, of course, unmatched. But we’re particularly gratified to see the technology’s costs come down. The capital costs are, in fact, actually lower per household passed than what cable operators spent over the past decade to upgrade their plant. The cable operators, mainly MSOs, paid \$700 to \$800 per home. In absolute dollars, FTTH will be at about that level some time next year. When inflation is taken into account, FTTH pulled ahead in 2005. The detailed figures behind those calculations are in our First Mile section, this issue.

And, of course, FTTH operating costs are far lower than OPEX for either cable coax or for twisted-pair copper.

## Why Not More?

The issue, therefore, is not to celebrate four million households passed by FTTH. The issue is why the figure is not already far higher. There are three broad questions to solve. First, only now is fiber technology becoming the construction industry’s standard way of doing business. A builder wanting to install fiber still feels the need to hire special consultants and hunt down specialized construction talent. Thus, too many builders and property owners still consider fiber the “magic extra,” rather than merely the normal way to do business. It is no more an extra than is the kitchen sink, or electrical wiring.

Builders and property owners are also concerned about system design and durability – issues that have been overcome in the past few years. Today, GPON, GePON and point-to-point active fiber network topologies are actually more standardized than cable or DSL, and more reliable.

Second, there are investor issues. While it

is obvious to insiders that fiber is the low-risk solution, that’s been clearly so for only about two years. Verizon can, for instance, justify its FTTH build with lower operating expenses once it stops running the fiber in parallel with legacy copper. We also see AT&T touting its “good enough” fiber to the neighborhood solution, while quietly keeping its copper loop lengths rather short on average – 1200 meters or less – to make it possible to serve the 50 Mbps that HDTV households will be demanding in just two or three years. What AT&T calls FTTH is actually closer to fiber to the curb. And AT&T is absorbing BellSouth, which has been more upfront about its FTTC installs anyway.

Third, there is a changing regulatory landscape. It is the regulatory framework, even more than the technology, that will make or break any broadband investment. As we have noted in the past, Congress is considering many changes in the Telecommunications Act, but is unlikely to pass a new version before the fall elections. The issues are complicated and Congress clearly wants to milk the pending bill to extort as much campaign funding as possible out of the industry.

## Lessons for the Congress

What should a new bill contain to promote broadband in general and FTTH in particular? Here’s our list:

- Statewide video franchising, with states getting guidelines under which they would have to enact legislation. Federal franchising would be better, and probably passes Constitutional muster. After all, local franchising is done under FCC rules. But it would lead to a court fight. We see no reason to go along with AT&T, which is claiming that its video services are incidental to its other services and thus do not need franchising. Verizon, in general, is willing to pay what MSOs already pay in franchise fees and to live under the same local access and anti-cherry-picking rules. Good enough.

- Nothing that favors RBOCs over other

ILECs. As our cover story makes clear, ILEC-deployed systems (even by tiny telcos) tend to be more technically sophisticated than RBOC systems – GPON, EPON and active, rather than RBOC BPON.

- Preservation of regional differences. Our analysis of Michael Render’s data, in the cover story, clearly shows large regional differences in FTTH deployment technology and in who is doing the investing. RBOCs are strong in the Northeast and in California, for instance, CLECs and developers in the South, and municipal entities in the Midwest and Northwest. Favoring one corporate form over another would be shortsighted.

- It’s all data. Even TV will soon be data. VoIP already is. Other services, yet to be imagined, will be digital, not analog. Bits are bits and should all be regulated the same way.

- Net Neutrality. Users already pay a fee for their broadband service. Why should content providers pay as well? AT&T complains openly about “free riders” such as Vonage that provide a service (competing with network owners) without owning a network. But Vonage already pays access fees to network owners. Some network owners seem to want to snare the Googles of the world as well. Legislation would not be necessary to regulate non-neutral net schemes, if there were enough bandwidth to avoid rationing it by price in the first place. That should be the legislative goal.

- Anyone, including municipalities, should be able to build a fiber network. Anyone. That’s what the 1996 Telecommunications Act says anyway, but the Supreme Court decided Congress was wrong. As a result, 17 states restrict public networks one way or another. Congress should find a way to do what’s right by crafting a provision on this issue, carefully. **BBP**

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