



Fiber Cost Control, Network Control

By Steven S. Ross ■ *Editor-in-Chief*

What does the rest of the world know that we don't about fiber to the home? Quite a bit about controlling costs, it turns out, and quite a bit about forming financial alliances. Taken together, those things can make FTTH projects a better economic bet. Thus, more projects are initiated.

Let's start with financial issues. As has been the case for several years in the United States, public agencies and private corporations have generally walked separate paths when it comes to building FTTH networks. It seems hard to believe that this always makes the best sense.

On the corporate side, what does one hear when talking about this with giants like AT&T and small independent telcos alike? Until recently, the line was "Partnering with a municipality does not fit our business plan."

American municipal officials we've talked to say they are not interested in public-private partnerships, either. They say they worry about "loss of control." Of course, one would expect that issues of control would be settled contractually before money changes hands. But the two camps don't even sit down together to discuss the issues.

The European Model

Now there are a few cracks in the wall. The official corporate line is that the lack of fit exists now but may not necessarily exist in the future. Technology, the changing regulatory environment, and the consolidating corporate environment are all in flux. In Europe, the biggest fiber projects of all – Amsterdam (more than 400,000 premises passed) and Vienna (more than 900,000) – are public-private partnerships. Paris (ultimately, more than 3 million) appears to be headed in the same direction.

These deals are complex. Amsterdam, for instance, is finalizing the deal, among eight partners, only after more than a year of ne-

gotiations. But taken together, these three deals alone are worth billions – approaching what Verizon has spent on FTTH in the past three years. What kinds of companies partner with municipalities? Some are content providers, even though the networks will be open-access and carry competitors. Some are telecommunications companies, companies that want to gain access or upgrade services to urban customers, but that find the task too expensive to handle on their own. Some are municipal utilities that want to leverage their rights-of-way, billing systems, and customer contacts.

But some are passive investors, looking for a financial "play" in fiber. That's new money, investment that otherwise might have gone to other types of businesses. The municipal participation lowers the perceived risk. Why, for instance, would a municipal partner delay permits needed for the network's construction?

Think about the United States in, say, five years. Company X, the incumbent, has been supplying broadband services. Now Company Y, a large telco with no local presence, wants a chance to gain access to Company X's customers. Perhaps there's a municipal network already serving the customers as well, or one nearby that could be extended into Company X's territory to spread startup costs over a larger customer base. Time for a new business plan.

Bountiful Technologies

Now for the technology. One drawback for fiber deployments, a big one, has been that most of the fiber network investment has historically had to be made before the first customer is signed up. And once the network is operating, initial low take rates can hurt. If 95 percent of the costs are incurred and only 20 percent of the customers sign up, the cost per customer served is enormous.

New technologies not only reduce final network cost, as we have been reporting for

years. They reduce that early cost even more. There are two broad ways this is happening. First, there have been many advances in indoor networking – the first few meters to the customers' desks and TV sets. Wireless networks are better than ever for that, and new flexible, tough fiber is also coming in. In Asia, ONTs the size of cigarette packs and costing less than \$100 dangle on the end of untethered fiber – looking and costing much like cable and DSL modems do now.

Second, in an MDU network systems can be engineered so that tiny fibers can be brought from an on-the-floor cabinet to the customer's premises within a day of customer sign-up. Or, the fiber is laid ahead of time, but ONTs are not provided until the customer signs on the dotted line.

The technology is here, now. The business planning and mutual suspicion will linger awhile longer in this country, unfortunately. That's bad for American consumers.

It is also bad for the American economy. Technology innovation follows demand. According to data released by the Organization for Economic Cooperation and Development in December, China overtook the United States in 2004 to become the world's leading exporter of information and communications technology (ICT) goods such as mobile phones, laptop computers and digital cameras.

China's share of total world trade in ICT goods, including both imports and exports, rose to \$329 billion in 2004, up from \$234 billion in 2003 and \$35 billion in 1996. By comparison, the U.S. share of total ICT world trade stood at \$375 billion in 2004, \$301 billion in 2003 and \$230 billion in 1996. **BBP**

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