



Consolidation Wave Hits FTTH: What Should Customers Do?

By Steven S. Ross ■ *Editor-in-Chief*

Companies that build in the First Mile have been consolidating. The latest big merger occurred just a few weeks before we went to press. Optical Solutions, Inc., a company that has probably built more fiber systems than any other in North America, was bought by Calix, the national leader in improving broadband carrier loops (a key result: telco DSL speeds have been going up). In August, ADC purchased FONS, one of Verizon's leading FiOS suppliers.

These were the two biggest deals, but certainly not the only ones. Major networking vendors such as Cisco and Motorola also continued their pattern of acquisitions. Another major Fiber-to-the-Home vendor has apparently wrapped up new venture capital funding – in effect it will be selling part of itself to a new round of investors.

If Fiber to the Home has such a bright future, why are some of its brightest lights compelled to sell now?

Telcos on a Tear

The answer lies mainly in the speed at which the industry has grown in 2005, after an agonizingly slow start. As we describe in this month's cover story, there's been a tripling of FTTH systems in the United States in just one year, with roughly 100 new systems being finished each month now, and higher build rates due. Verizon alone is budgeting for 3 million new homes passed in 2006 – equaling its combined builds of the past two years. The independent telcos are also on a tear.

But in the slow fiber start, from about 1998 to late 2003, many great companies with great vision and great technologies ran low on capital. They started in the dot.com boom, and suffered with

the rest of the "technology" sector when the boom cratered in 2000. Wall Street didn't understand or trust FTTH. But stock market analysts saw plenty of inter-city fiber unused – "dark" in the jargon of the trade. These investors have been slow to return, despite the recent rise in technology stock prices generally. They've also been attracted by bright investment prospects in biotechnology.

Their angst comes just as the industry's emerging rapid growth has spiked a need for outside capital.

What's more, the technology is evolving particularly fast this year. The latest vendor technology push, to GPON and GePON gigabit networks combined with "First Mile" innovations such as Multi-System Access Points and lower equipment prices across the board, have stretched R&D budgets throughout the communications industry. And when 250 or more engineers show up at an IEEE standards-setting meeting in Australia, Europe or San Francisco, someone has to pay.

Chip manufacturers unable to ramp up production of gigabit silicon in time to meet demand caught vendors short this fall, in fact. All fall, vendors have been quoting early 2006 delivery dates, for products already designed and – in many cases – almost entirely assembled.

What Customers Should Look For

In this fast-changing environment, where Ethernet standards do not and cannot cover all the service needs, telcos, municipalities, cable operators and other customers want end-to-end expertise from their contractors. The vendors' consolidations accomplish that goal. FONS and Optical Solutions, for instance, have special expertise in First Mile technology.

ADC overlapped that, and Calix, with expertise almost entirely in networking from the telco Central Office to a near-customer point of presence, picks up where Optical Solutions often leaves off.

Major companies like Cisco, Hitachi, Alcatel and Nortel are also seen by potential customers as "safe havens," but they generally have to work with the innovative young companies to bridge at least part of the First Mile gap.

As suppliers consolidate, what *should* these customers be doing? Most obviously, consolidation, followed by rationalization of product lines, helps assure customers that their systems will work as advertised and that their chosen suppliers have the financial heft to finish what they start.

Second, customers should examine "non-IEEE-standard" solutions with care, but certainly not reject them out of hand. The key is to look at the "solution extensions" being offered. If they truly add needed functionality on top of existing standards, they should be acceptable. If they *substitute* for standard solutions, they should be approached with far more caution.

Third, be on the lookout for new startups. Consolidation inevitably leaves some bright engineers adrift in companies too big for their liking, wealthy from sale of their stock, and hungry to start fresh.

Rest assured that we will continue to cover all of these issues, on your behalf.

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