



A Look Back from 2012

By Steven S. Ross ■ *Editor-in-Chief*

The final, mad scramble to bring fiber to the last 40 million US homes is under way, straining the industry's resources and bringing almost every large network provider to its knees financially. But the crunch could have been foreseen as early as 2007.

By the end of that year, the number of US fiber-to-the-home subscribers reached 3 million, and the number of homes passed with fiber had reached 13 million, in a bad real estate market. FTTH systems were installed in more than 3,000 communities – in a country where only 15,000 communities are large enough to support public school systems. True, many of those fiber networks were in only a small section of a community – an upscale new development here, a refurbished MDU there. But their existence forced those in charge of neighboring developments to take heed and plan for fiber to compete.

There was no question: FTTH by 2007 was too big to ignore. But it wasn't until the end of 2009 or the beginning of 2010 that all the fence-sitters faced the inevitable, and jumped in. By then, Verizon alone had passed more than 18 million homes. Others – smaller incumbents, competitive local exchange carriers, and municipalities – had passed another 8 million or so.

With all of them offering services that could not be matched by any other network technology – services ranging from super-fast multi-player games to remote medical checkups – the network providers who had lagged on fiber began to realize they were really in a different industry than the leaders.

Internet TV

But even Verizon felt some upset in its original business plans. With more than 100,000 commercial TV-quality on-line “channels” in the US alone, Verizon had only managed to fold about 7500 into its

own video service.

Nevertheless, the cash flow from those channels – like NTT in Japan starting around the year 2000, Verizon did the marketing and billing, assured quality of service, and raked in 40 percent off the top – had finally convinced Wall Street to place its bets. Investors flocked to fiber, bidding up Verizon's price to about \$100 a share by early 2009 – more than double its early 2007 level.

“Gasoline at \$7 a gallon finally convinced companies to concentrate on telecommuting, and that really put us over the top,” said Verizon's new CEO. “There was no point locating any new business in areas without the fiber that allowed easy use of modern collaboration tools like telepresence. Remember, even in 2007 Microsoft had to give away its Groove collaboration tool for Microsoft Office, and not one CEO in 100 recognized the product. But Cisco, always ahead of the curve, had already bought WebEx for \$3.2 billion.”

Riding its high stock price, and with its traditional service territory secure, Verizon had already become the CLEC from Hell, cherry picking communities throughout the Qwest and AT&T service areas. Verizon had explored buying Qwest, but with its stock still lingering below \$45 a share it could not quite get the deal done before the merger-friendly Republicans lost control of the White House in 2008.

AT&T, which had been riding high on Wall Street as it skimmed on its network, certainly is paying the piper now of course. Its FTTH build choked on HDTV and froze completely as telepresence took hold. AT&T lost out completely on high-speed gaming, Verizon's most profitable market sector – and a sector far bigger than Hollywood.

But it does look like AT&T will survive. So will Comcast, which gave up on DOCSIS only last year. Google's Time-

Warner division has a chance, too, thanks to its corporate parent's deep pockets.

But all three have been forced to rely more and more on municipal and county networks to reach households. They're paying a huge premium to rent bandwidth, but at least they save on capital expense – at a time when higher energy costs and other dislocations caused by global warming have raised interest rates and produced capital shortages all over the world.

Now, of course, would be a good time to finally pass a rewrite of the 1996 Telecommunications Act. The smaller ILECs and CLECs that got into FTTH early – before 2010 – are throwing around enough campaign contributions to lock in the current situation. The municipal network providers and their friends – like the wounded AT&T – also don't see a need for change, although AT&T would like to regulate open-access network tariffs. The munis are making 20 to 30 percent margins on their own network operations and like things as they are. Verizon, for its part, is also happy with the status quo, watching AT&T and Qwest twist in the wind.

But that still leaves 40 million American households – a third of the population – sinking economically. And now that 3D HDTV has been demonstrated and a worldwide 3D transmission standard is about to be finalized, everyone will be feeling bandwidth-constrained. Those new 3D sets will be expensive luxuries for a few more years, at more than \$10,000 a pop. But they require 2.5 Gbps to the home. Only FTTH can deliver it.

Sound a bit wild? We're not kidding. Find the future at our annual Broadband Summit, September 10-12 in Dallas.

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