



FTTP!! What's All The Fuss About?

By Jason Marcheck ■ *Confluence Research Group*

Entering Fiber City

Welcome to the premiere of Fiber City, *Broadband Properties'* newest monthly column. No communications initiative holds a greater promise of changing the communications landscape than that of connecting proper-

ties, communities and municipalities with fiber optic networks.

Tremendous advances in areas such as telemedicine, education, security and entertainment will all be possible due to the unlimited bandwidth potential fiber provides and over the course of the

next year *Broadband Properties* will work closely with columnist Jason Marcheck of Confluence Research Group, one of the nation's most highly regarded fiber industry analysts, to provide you with the latest updates on this dynamic technology.

Being that Fiber-to-Your-Front-Porch has largely overtaken Wi-Fi as the most talked about subject in the telecom universe, the publishers and I have agreed to make it a regular feature of my column. The movement apparently started when a question appeared on www.confluenceresearch.net last February asking, "Is FTTH Telecom's 'Next Big Thing?'" Well, OK, maybe the wheels were already in motion a little bit prior to then. Actually, the first major movement of what I call the modern era of FTTH (post-2002) can be traced to an

band services.

Sure, prior to 2002 companies such as Optical Solutions and Alloptic were selling PON-based FTTH systems in very limited quantity to a few rural telcos and municipalities. But when the RUS loan program went into effect, many more service providers and municipalities began evaluating FTTH alternatives in record numbers. This program has had such a profound effect that it is now big news when a PON/FTTx vendor receives the blessing of the RUS as being suitable for purchase with their loan money. Check

new rural community has become the latest area being ushered into the future. Now, we hear that FTTP is practically ubiquitous in Japan, and is being rolled-out in Australia and Korea faster than a rain tarp at Wimbledon. And, if that isn't enough, the two biggest American phone companies are deep into the throes of revving up their FTTP engines. In an industry that has endured a long and painful withdrawal from its addiction to the "latest and greatest", it only makes sense that many are now looking to FTTP as validation that telecom is back.

"...the first major movement of what I call the modern era of FTTH (post-2002) can be traced to an action taken by the U.S. Department of Agriculture."

action taken by the U.S. Department of Agriculture. Yes indeed, this group, which also contains the Rural Utilities Service (RUS), a division responsible for promoting the development of utilities services in rural areas, announced early in 2002 that it was beginning a program of offering subsidized loans for rural communities to deploy infrastructure leading to the delivery of broad-

the press wires and you will see evidence that network consultants and vendors are popping out of the woodwork to aid rural communities in finding the best way in which to deploy FTTP (the latest FTTx buzz-acronym, which refers to deploying fiber-to-the-premise).

Very simply put, FTTP is a big deal now because there is money to be made in it. Word rolls in almost daily that a

Points of Interest

Thanking you for your kind indulgence, I'll shed the sarcasm and get down to brass tacks. To make sense of what is happening with FTTP let's break the discussion down into digestible parts.

Part I. The Rurals

It is only fair that we start with the true engines of FTTP growth in the U.S. Without the success stories coming from rural America, there is no way any RBOC would even be considering access network fiber today. Yet, there is still the popular myth surrounding rural FTTP deployments that they are inordinately expensive, and that the only reason they are being done is be-

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fiber for several years. In Europe, it is becoming clear that Ethernet-based VDSL, enabled by a form of FTTx architecture is rapidly becoming the technologie du jour. Established companies such as Marconi (which has actually had a FTTP solution for years) and start-ups such as PacketFront are mak-

cause rural telcos and munis are so heavily subsidized that they can afford to throw money down a fiber trail. While it is true that FTTP deployments in rural areas are actually much more expensive, on a per home basis, than an RBOC would swallow, it is not true that they are frivolous. You see, many rural communities incur excessive costs every time they have to repair or rehab network facilities. Therefore, the view of many in this situation is that "if we are already laying out the cash to rehab copper and deploy DSL, why not spend a little more and ensure that our communities are positioned to take advantage of the next wave of technology for several waves into the future." Armed with this attitude, and a lot of hard work on the part of vendors over the past 24 months to drive the equipment costs down to a manageable level, FTTP has rightly become a preferred option.

As stated above, this sequence of events has proven invaluable to validating the viability of FTTP, and arousing the interest of the RBOCs. Imagine the PR nightmare if customers in places such as San Antonio begin asking the likes of Grande Communications to supply them with service because the DSL offered by their RBOC cannot compete with the fiber-enriched services offered by the independent. Furthermore, it has allowed equipment vendors needed opportunity to road test and refine their products, to reach a state of maturity in which costs can be minimized.

Part II. The World

All the attention FTTP has garnered in America has opened our eyes to the fact that companies such as NTT have been aggressively deploying last mile

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ing waves and arousing the curiosity of American carriers which are anxiously looking for market intelligence on European deployments in hopes of gaining some insight as to how the econom-

the interest of the telecom community by following up their unanimous thrashing of the FCC's Triennial Review (which said, among other things, that facilities deployed for the purpose

es. Since then, Verizon has re-ignited confidence by announcing that it signed a deal with AFC to purchase an as yet unspecified amount of FTTP equipment. Questions now abound as to the timing and scope of Verizon's intended deployment plans. Estimates have the RBOC deploying enough equipment to pass anywhere from 50,000 to over a half million homes by the end of 2004. As someone who has followed this market segment closely for several years, it is my feeling that Verizon will complete a rollout of no more than 50,000 homes by the end of 2004. This is not to say that the rollout to many more homes will not begin by this time next year, it is just that for Verizon to justify FTTP, it must be confident that it is well on its way to being able to deliver the "triple-play" of services (voice, video and data) that make the economics of a mass deployment defensible.

This last statement opens a can of questions almost too numerous to quantify. Questions such as: How can the uncertainties surrounding deployment costs be justified? Why would the RBOCs risk the massive investment in DSL by installing an infrastructure that could make it obsolete? Can they ever hope to deliver CATV services? Will FTTP be able to trump the advantage that HFC has afforded the cable companies? Where does VOIP fit into this equation? Without a doubt, the answers to these questions will hold the key to the near-term willingness of large carriers to deploy FTTP.

As I close, allow me to invite you all back over the coming months, as I will delve into the questions raised in this piece, and many more. ■

About the Author

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"Questions now abound as to the timing and scope of Verizon's intended deployment plans."

ics look. While certainly worth a look, it is my opinion that, the applicability of applying cost of deployment metrics found in either Asia-Pacific or Europe to North America will turn out to be like comparing berets to ballcaps. Nevertheless, there are other lessons to be learned from these overseas initiatives, and we should all be interested to study what is going on beyond our beaches.

Part III. The RBOCs

BellSouth, SBC, and Verizon peaked

of delivering broadband services—meaning FTTP—would be excluded from an unbundling order requiring incumbents to sell access to their facilities at wholesale rates), by issuing a joint request for proposal (RFP) pertaining to the equipment required to enable FTTP deployment. Optimism soon turned to skepticism however, when SBC's chairman made remarks casting doubts on the carrier's intention to deploy end-run fiber, saying that the RFP was more or less for evaluative purposes.

