



FTTP Alive And Well Despite Market Hiccups

Utah FTTP Project Draws Battle Lines for PON vs. Active Architecture

By Jason Marcheck ■ *Confluence Research Group*

Where were you when the fun stopped? After nearly three quarters of unbridled enthusiasm regarding the future of FTTP in North America, word has come that Verizon is probably not going to hit its stated target for homes passed in 2004. Thus, dampening the spirits of those looking for telecom's Next Big Thing.

Approximately two weeks after Verizon claimed to analysts at its annual investor conference that it intended to pass 1 million homes with last mile fiber in 2004, I went on record as stating that I did not believe the RBOC would come close to that number. In fact, I commented that I thought the number would not exceed 250,000 homes passed. With the recent reports that AFC has not delivered the required FTTP products specified in its contract with Verizon, and with Verizon Avenues' departure from its plans to roll out FTTP to MDU's and MTU's until "further notice", it appears that things are not as rosy as once thought in the world of 100 Mbps To Your Front Door.

Although, I can hear the air being let out of the proverbial balloon, my advice is, Do not focus on the Verizon



the form of buy-in from large service providers, this market has an ace in the hole that technologies such as Wi-Fi and VoIP do not possess. Despite the fact that FTTP did not receive

scores of rural and municipal deployments have begun.

I have full faith when I tell you that the time for last mile fiber has arrived. It is close to being on par with the cost of refurbishment of copper networks, and WILL provide the delivery medium that will enable the development of a plethora of broadband applications over the next decade. Despite the Verizon hiccup, 2004 has proven to be the year that last mile fiber hit the Big Time.

Need proof? Okay, consider the Utopia project that is now underway

"Do not focus on the Verizon project as a barometer for the state of the market just yet."

project as a barometer for the state of the market just yet. Although it is true that, right or wrong, the market seeks validation of a technology in

widespread attention until the June 2003 Request for Proposals pertaining to FTTP network elements issued by the RBOCs, the fact is that since 2002

throughout Utah. Utopia is the initiative of several local governments in the state that have joined forces to engage in an FTTP rollout that is slated to pass about 250,000 homes and 35,000

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businesses over an area populated by roughly 725,000 people. This is clear evidence that FTTP has moved beyond the trial deployment stage, and has been accepted as the preferred method of network installation and upgrade. However, the scope of this project is only half the picture. The story within the story, which should be of much greater consequence to building and property owners, is the technology being used in Utopia.

Challenging the PON Infrastructure

Until now, passive optical networking (PON) has enjoyed distinction as the “generally accepted” means of enabling FTTP. Beginning with the large FTT-Business deployments by NTT in Japan, and continuing with the majority of rural and municipal deployments in North America, PON and Fiber-To-The-X are nearly synonymous. However, with the success of active point-to-point rollouts in Sweden, U.S. companies such

Customer Premise Equipment (CPE) required by these solutions generally runs several hundred dollars less than similar PON-based equipment on a per unit basis.

The reasons for this are several. However, in a nutshell, the lower cost is enabled by the fact that the solutions offered by Allied Telesyn, World Wide Packets, PacketFront, and others use the base Ethernet standard outlined by the IEEE’s 802.3 recommendation. Most PON-based solutions, even if using Ethernet, are proprietary and require some modifications that drive up cost. Thus, as a building owner, any solution that can minimize the cost of the equipment that resides at your location (which is most likely to be passed on, in some degree, to the subscriber) is worth exploring.

Now, before you go calling me a PON-hater, let me point out that there are other costs associated with an active solution that passive architectures tend to minimize. PON-based architectures do not require temperature controlled huts for field electronics, and can require a comparatively less amount of fiber to pass the same number of homes (although Network

passed on to the subscribers.

So, with Verizon’s PON rollout temporarily on the shelf, Utopia’s point-to-point rollout has become the largest project on record in the U.S. This will certainly cause the competition between the makers active and passive FTTP equipment to intensify. Jeff Fishburn, a network-engineering consultant that has designed last-mile fiber networks in Sacramento, CA, and is now the CTO of Dynamic City, stated that “although PONs gained favor in the mid-1990’s through the turn of the century, active solutions are now quite comparable in terms of overall cost.”



The battle lines are being drawn. However, unlike the contest between the various PON flavors, the difference between active and passive solutions can have a direct impact on the costs that the tenants in your buildings will have to absorb to be connected via last-mile fiber. FTTP is here to stay. Verizon Avenue will be back in the saddle before long, and looking for MDU’s to connect. The question you need to be asking yourself is, “Should I care whether an active or passive system is used to connect my property?” ■

About the Author

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as World Wide Packets and Allied Telesyn have begun selling active gear to customers in this part of the world. Getting down to brass tacks, the reason why point-to-point FTTP is something that building owners should take notice of is because the

City, the network design firm for the Utopia project, cites its own experiences which indicate that this is not necessarily the case). Again, though, these costs are most likely borne by the deploying service provider or municipality, and not likely to be directly