



Beyond Broadband: Further Understanding FTTH

By Jason Marcheck ■ *Confluence Research Group*

With Fiber-To-The-Home (FTTH) deployments starting to spring up all over the country, it is looking more and more like the move to end run fiber is underway (As opposed to the several false starts that have occurred since as far back as the late 1970's). If this is true, and we are witnessing the beginnings of an infrastructure revolution, then all those involved with providing telecommunications services should be educating themselves on the topic.

So, taking for granted knowledge of the awesome bandwidth capabilities of fiber vs. copper, let us delve deeper into this subject, and look at the central issues as they pertain to property owners and developers.

The Issues

When examining the case for FTTH, two main issues are certain to dominate. The first issue is cost, and the second is the current regulatory environment. Equipment vendors will talk the cost of equipment in terms of a threshold number, in which service providers will feel confident in FTTH as a viable investment option. This "magic number" has fallen from roughly \$1,250 per household (meaning, total cost for the equipment and labor to install a fiber optic connection as the last mile access medium) in 2000 to between \$750 and \$1,000 today. Carriers, on the other hand, lecture about the ambiguity of the regulatory environment, as the chief obstacle to making last mile fiber a viable option. Both are valid concerns, and must be dealt with before FTTH will truly take hold.

Addressing The Issues

When looking at the costs to deploy an FTTH network, the important factor to consider is not necessarily the actual dollar figure attached to each home on the blueprint. Instead, any meaningful valuation of an invest-

equipment vendors can cite quotes by RBOC executives specifying a range that they would like to see the cost of equipment fall into, the reality is that any such range is subject to change according to the level of revenue that the services delivered over the network

"When examining the case for FTTH, two main issues are certain to dominate."

ment into FTTH should be approached from the perspective of what marketable services can be delivered over the infrastructure. Although,

can be expected to generate. Simply put, although carriers might publicly state price ranges for equipment, they are arbitrary unless a clear expectation



of demand for high bandwidth services can be ascertained.

As Thomas Reiman, President of The Broadband Group, a Sacramento, CA-based consulting firm stated, "It is extremely difficult to get to the metric needed to justify a fiber deployment, without placing bandwidth consuming services." However, he went on to point out that if those services, such as video, home security/access control, or simply a high penetration of broadband data subscribers can be placed/achieved, then "the price myth is exploded."

From the regulatory perspective, the chief culprit has not necessarily been the FCC, as Verizon and SBC, et al. is fond of stating, but rather from inconsistencies in policy interpretation among various policymaking and enforcement

in effect, stated that incumbent service providers can install last mile fiber without having to resell access to that fiber to competitive carriers. However, in the order, the FCC also states that the individual states are responsible for finding "the most effective way to implement the statutory goals for certain network elements". Thus, the challenge becomes for states to find the most appropriate manner in which to apply the FCC's ruling, given the unique requirements of their situation.

The Effect on Property Owners

With the last mile fiber situation as clear as mud, in terms of both costs and regulations, the need for building owners and developers to be active and informed consumers has scarcely been

owners or developers is not to simply pick up the phone and ask the local provider for fiber. They need to be active and knowledgeable participants in the process," Reiman said.

By merely picking up the phone and asking the local service provider for fiber, owners/developers are doing themselves a disservice. Although its true that greenfield deployments, especially to master planned communities (MPCs), have a distinct advantage over overbuilds at the moment because of the cost structure, it is not enough for a developer to simply point out that they have an MPC laying in wait. While ILECs and municipalities are actively looking into FTTH, they are doing so with an eye toward which areas make the most sense for initial deployments. In other words, in order to be willing to consider a fiber deployment, they need to be convinced of the attractiveness of the project.

This is where being an active participant can pay dividends. If the property owner or developer can make a strong case for fiber in their development, they greatly increase the chances of swaying the opinion of the service provider. Being an active participant involves several steps.

1. Have a structured wiring plan for all homes and buildings to be included in the fiber deployment
2. Present data as to exactly what services would be demanded, and provide forecasts of the revenues that could be generated from those services
3. Work with schools, hospitals, and other civic organizations in the area to integrate their needs into the plan
4. Know the easements and rights of way that affect the area in which the fiber will be deployed
5. Know the regulations

Structured Wiring Plan

Such a plan entails presenting a detailed account of how much fiber will be needed to wire the community, along with the estimated equipment

"...any meaningful valuation of an investment into FTTH should be approached from the perspective of what marketable services can be delivered over the infrastructure."

bodies. Allison K. Hift, Chair of the Telecommunications Law Group at the Florida law firm Becker & Poliakoff said that, "the problem is that case law is not always on the same page."

This means that while the FCC and Congress make rulings, or pass legislation dealing with the deployment of broadband facilities, much discretion on the interpretation of these policies is left up to the various state PUCs and other local regulatory agencies. This results in varying applications of federal directives on a state-by-state, and sometimes community-by-community basis. Faced with such uncertainty, many carriers are hesitant to invest heavily in access network upgrades.

The FCC, in its triennial review is taking steps to clear up some of the ambiguity. By allowing ILECs to retain the sole right to use fiber loops installed for providing broadband services, it has,

greater. The draw that a fiber-enabled community has over a non-fiber community is becoming increasingly stronger among consumers. As bandwidth addiction grows, a sure way to position your building or development as "high-end" is to advertise the availability of a fiber-enabled broadband connection. Unfortunately, at this time, while many building owners and developers know that fiber is a drawing card, they do not take the time to truly understand what needs to be done to entice a service provider to deploy fiber in their properties.

Mr. Reiman, whose firm consults with property owners looking at last mile fiber, pointed out two cardinal rules for property owners looking to get fiber installed.

1. Don't just pick up the phone
 2. Create a technology master plan
- "The number one rule for property

and labor costs associated with the deployment. The service provider will want to know before hand what kind of capital investment will be required to make this project work.

Forecast Service Revenues

While it is likely that a service provider will have its own internal valuation system for projecting future revenues (i.e. returns), presenting such information in your proposal can pique

"If the property owner or developer can make a strong case for fiber in their development, they greatly increase the chances of swaying the opinion of the service provider."

the interest of the company. Again, one of the key determinants in evaluating an FTTH project is the viability of the services that will be offered over the infrastructure. If you take the time to give the service provider an idea of what type of return your community will generate, it can help distinguish your proposal from others.

Work with Community Organizations

Broadband for schools, hospitals and other civic organizations is at the top of any service provider's priority list when it comes to rolling out next generation infrastructure. If you have the opportunity to help meet the needs of these organizations in your community, you will dramatically increase the attractiveness of your proposal.

Know Rights of Way

This is for your own protection as much as it is for helping the service provider. Not knowing this information beforehand can dramatically alter the projected costs of a network build-out by forcing the altering of the network plan, or by making it necessary to obtain additional rights. Furthermore, you will want to know going into such

a project what is under your control (with respect to the property), and what is at the discretion of others.

Know the Regulations

As mentioned above, the regulatory environment can vary greatly from community to community. Knowing the regulations is vitally important as you try to convince a service provider to deliver fiber to your development. In familiarizing yourself with exactly what

a service provider's options are with respect to a last mile fiber deployment, you will A) be in position to address the concerns that the company has regarding regulations (that they themselves might not be completely clear on), and B) safeguard yourself from becoming

involved in a project that is not in compliance with local regulations.

Final Thoughts

Following these simple guidelines will give the service provider an idea of what it is getting itself into, and help it compare the initiative against other projects it might be considering. Remember, FTTH deployments by any service provider or municipality will be limited in number in the short-run. Because of this, it is very likely that your development will be only one of a number of options that the communications provider has at its disposal. By presenting a clear roadmap, as defined above, you will come across as being the serious, and committed partner that a service provider or municipality is looking for. ■

About the Author

Jason Marcheck is the Principal Analyst of The Confluence Research Group. The author may be reached by phone at 301-498-2661 or e-mail at jmarcheck@conflouneresearch.net.



THE CONFLUENCE RESEARCH GROUP

Continuity. Insight. Integrity.

Located in the Baltimore-Washington Corridor, CRG publishes market research reports and offers consulting services that specialize in the following areas:

- Economic and Financial Analysis
- Competitive and Market Share Analysis
- Technological Trends
- Market valuations
- Demand Forecasting and Analysis
- Primary Market Research
- Identification of Addressable Market Opportunities

301.498.2661 E-mail: jmarcheck@conflouneresearch.net Web: www.conflouneresearch.net