Developers: Start Reaping Fiber's Paybacks And Profit Opportunities

A variety of business models permit developers to earn revenue, offer services, and build asset values — as well as avoid taking on unwanted responsibilities.

by Greg Albrecht

Author Profile

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Mister Real Estate Developer, have I got a deal for you! Here's what we need you to do: Buy a large amount of land for millions of dollars; plan, design and engineer your master plan; invest significant time and money into the approval process; and open up a common trench at your expense. In return, we will place one antiquated, copper network in the trench, as well as a soon to be obsolete coax network infrastructure. We will control the network in all aspects, and we will collect millions of dollars from a subscriber base that you enabled and assembled. Sound fair?

Of course the scenario above is ridiculous, but in fact, it is basically the status quo process for the deployment of communications infrastructure within real estate developments today. Fiber-to-the-home within a new "greenfield" development is a practical, prudent and financially lucrative alternative. Whether a developer intends to be the network owner and retailer of voice, video and data service, or intends to have a service provider build and operate the network, FTTH is a viable option.

Yet while the creation of a new and recurring revenue stream is compelling, it is not necessarily the top priority of a developer interested in an FTTH network. Rather, the top priorities are the benefits and capabilities of FTTH, especially as it relates to other broadband (or commonly perceived as broadband) alternatives. Even more important is the solvency and competency of the prospective service providers.

FTTH A Mature Technology

FTTH may be perceived as an industry in its infancy. However, it is based upon a mature technology. The use of fiber optics is decades old, and has been, by far, the standard for long-haul telecommunications – particularly for use by large businesses. Within the last 10 years, FTTH has been deployed within a significant number of communities, and real estate developments represent nearly 60 percent of the 128 operating FTTH networks as of May 2004. Verizon's commitment to pass one million homes with FTTH is a strong affirmation of this technology.

What's all the hype about? Demand for bandwidth continues to grow at an impressive rate and no leveling off is in sight. The number of Internet users connected to what is currently considered to be broadband is rapidly approaching the 50-percent level. Once an Internet user gets a taste for broadband speed, he inevitably wants more. FTTH provides Internet speeds of 10 to 1,000 megabits per second (Mbps). Using light waves sent through fiber optic cables is, and will be for decades to come, the most effective method for transmitting data. It is the standard by which all other broadband alternatives will be judged.

The trend among progressive developers in the context of master-planned communities and so-called new urbanism communities creates an ideal environment for the deployment of next-generation FTTH networks. The costs of FTTH fit well within the plans for such communities, and the long period over which these communities are built necessitates the consideration of future bandwidth demands during the planning phase. The construction phases of these communities may stretch into decades.

According to Donald Evans, Secretary of the U.S. Department of

Commerce, "What we regard as broadband today – cable-modem service and DSL – are going to be the roadblocks for tomorrow as demand for bandwidth goes beyond the capacity that's available today."

With FTTH, Internet speeds are an order of magnitude greater than with any broadband alternative. The bandwidth provided by FTTH enables a multitude of applications that are available today as well as more that are certain to come in the future. Community "Intra-webs," functional video conferencing, HDTV, Internet-based telephone service (VoIP), security monitoring, video-on-demand, and Internet gaming are a few present-day examples. Smart appliances and energy-efficient systems are available today and will become commonplace in the near future.

A Competitive Advantage

By marketing the capabilities of an FTTH technology infrastructure, the developer gains a competitive advantage. At the very least, the availability of FTTH is a "fence tipper." In other words, a potential home buyer or office tenant will almost always choose a community that offers such technology over a comparable choice without it. This fact leads directly to increased absorption rates, and lower land and construction financing costs. It has been estimated that property valuations and home resale values increase by $4,000 to $7,000 per home when FTTH is offered. Lastly, there most likely will be a recurring, residual income stream to a developer regardless of the business model chosen to implement the network.

Typically, the business models for a real estate developer to explore are one or a combination of the following models:

- **Developer-Owned Infrastructure, Retail Services**. In this model, the developer pays for design, engineering, consulting, construction and operation of the network. The developer becomes a voice communications provider, cable TV operator, and Internet Services Provider.
- **Developer-Owned Infrastructure, Wholesale or Compensated Access Services**. In this model, the developer owns the infrastructure and service providers offer voice, cable-TV and Internet services. The service providers pay a compensated access fee to the developer for lease or use of the FTTH or fiber-to-the-premises (FTTP) network. The service providers are responsible for both billing and customer service as well as for providing the services to customers. The developer maintains and operates the network, billing the service providers for compensated access fees.
- **Developer-Owned Infrastructure, Combination of Wholesale and Retail Services**. In this model, the developer owns the infrastructure and offers one or two services to the community. In many cases, the capital investment is paid off within two-and-a-half to three-and-a-half years, and the revenue stream is very compelling.

• **Service-Provider Owned Infrastructure.** In some cases, a service provider will pay for the construction and operation of the network. The service provider usually requests an exclusive provider status, marketing support from the developer, and the option to offer its services through the home owners association. The service provider will provide billing, customer service, operation and maintenance of the network. A recurring revenue stream typically is created in this scenario via the payment of a royalty from the service provider to the developer. In addition to investing in the infrastructure, the service provider usually will invest in a showroom on site for the developer's marketing arm.

Fees Developers Can Charge

Regardless of the business model chosen, the real estate developer should be prepared to charge a "tap fee," a "homeowner's association fee," or a "telecommunications assessment fee" to recover some of the costs of deployment. This fee usually is $1,000 to $1,500 per home and is nominal in comparison to the value added and benefits received. When rolled into the price of the lot or home or both, the value is very apparent.

The most logical first step in considering a FTTH network is business planning. Some components of business planning will include financial modeling, return-on-investment analysis, and exploration of the local legal and regulatory issues. During business planning, a deeper understanding of the steps needed to implement the network become apparent. A conservative financial projection will provide benchmarks for future performance.

Complementary to business planning is design, or engineering. In fact, these two components rely upon one another. Preliminary design allows capital and operational costs to be explored and incorporated into projected cash flow models and financial statements. At the same time, the type of operating model that is chosen will have a direct impact on design. Via planning and design, a developer will be able to make reliable decisions about how to move ahead with implementation. An appropriate and well-executed design will enable easy transitions into the next phases, allow the network to meet the end-users' increasing needs for bandwidth as time goes by, and incur significantly lower maintenance and operating expenses. The aforementioned attributes are inherent in these networks as compared to the alternatives.

It is understood that most, if not all developers, do not want to participate in the operations of an FTTH network. The nature of these networks and of today's optical equipment lends itself to effective and proficient outsourcing for the management of operations. In hiring a partner to manage the operations of the network, operational responsibilities do not and should not be added to the developer's repertoire. The objective should be to make the operations as transparent as possible to the developer.

Lastly, FTTH provides an excellent hedge against asset value. Feasibility studies and comparable data have conservatively cited acquisition values of at least $4,000 per subscriber.

Take, for example, the community of Eagle Ranch, Colorado, a development by East West Partners. It is operating under a combination retail and wholesale business model. Internet service is offered directly to residents of the community and phone service is provided by an ILEC that pays for access to the network. Cable-TV has been handled by a small local company, although video services will be offered over the FTTH network by the end of this year.

How Eagle Ranch Is Run

Approximately 350 residents are receiving services, with an additional 1,450 subscribers to be added as the development expands. The network was designed, built and is currently operated by an operating partner that has an ownership stake in the network. The deployment has been successful economically and operationally. An on-site technician activates new customers promptly. Once provisioned, service levels can be manipulated, immediately upon request, via Web-based software. Billing and network monitoring are automated, too. Problems are few, and are usually attributable to equipment on the customer's premises that are unrelated to the network.

Traverse Mountain, Utah is an example of a development with a "triple play" (voice, video and data) network built, owned and operated by a third-party service provider. Traverse Mountain is a master-planned community of 8,000 single-family and multi-family residential units and 4.5 million square feet of office and retail space. Currently, about 200 homes are connected to the fiber network, which is growing quickly with the development. The developer receives a percentage of the service provider's revenue as a royalty payment, and the service provider is responsible and accountable for operations.

Traverse Mountain entered an agreement with Broadweave Networks to build a fiber-to-the-premises (FTTP) network that supports the triple-play services to the community. Broadweave built a standards-based, active network that is to be the carrier-of-last-resort VoIP network, as well as the data network. The base residential communications package at Traverse Mountain includes robust telephone, television, and broadband Internet services for a basic fee of $93.00 per month. Long-distance telephone service rates range from three to 3.5 cents per minute (or $19 a month unlimited). All services are delivered over a single fiber-optic connection. The community also has an Intranet that includes a calendar application, file storage, e-mail, and a contact manager, and will soon include community news, events, and resource scheduling.

With FTTH (or FTTP), both Eagle Ranch and Traverse Mountain offer tremendous value to their customers, and effective marketing drives the point home – ultimately leading to faster home sales and higher real estate values.

With the demand for higher Internet speed, new bandwidth-intensive applications, reasonable costs and the potential for a new, recurring income stream, FTTH (or FTTP) is an obvious choice for all new greenfield developments.

The essence of developing real estate is forward thinking, striving to predict and satisfy future needs. FTTH absolutely accomplishes it all. ❖