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October 15, 2005 | www.fatpipeonline.com

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No Strings Attached

Enterprises increasingly demand raw Ethernet feeds, whatever way they can get them

By Jim Barthold

For an increasing number of enterprises, it's all about the Ethernet. They use it in their corporate wide area and local area networks; they're starting to use it for IP telephony. And, quite frankly, a lot of them would rather get it from a service provider without any strings attached.

While those strings now consist of add-on managed services that carriers provide, in the future they could more directly relate to the way enterprises receive Ethernet, especially when wires are not available.

Service providers, whose business model has involved feeding that raw bandwidth to carriers that then deliver services to enterprises, are modifying their business plans to more directly approach enterprises with raw bandwidth. The move is reflected in the way the carriers measure their business.

"The basic breakdown today is 55 percent enterprise, 45 percent carrier," says Brad Cheadle, vice president of sales and marketing at OnFiber. "That's a fundamental shift from three years ago, when we were 80 percent carrier."

It all comes down to Ethernet. Enterprises, says Cheadle, are "comfortable with Ethernet."

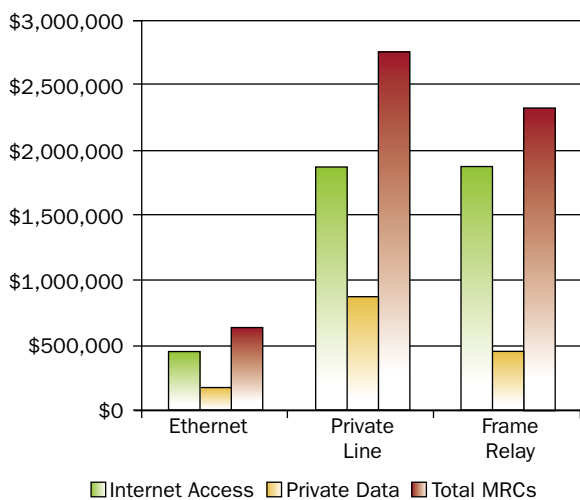
While that seems to be the case with more businesses, there's noticeable stratification between the big "shiny glass buildings" and the smaller, more remote business campuses in terms of the acumen needed to convert the raw bandwidth into services and, in some cases, even the ability to take a giant bandwidth feed.

"We're seeing a lot more customers looking for data solutions from us that really complement what they're doing within the four walls of the enterprise," says Michael Rouleau, senior vice president of business development and strategy for Time Warner Telecom. "They're building out VPNs (virtual private networks) between sites, but they're looking for solutions on the network over Ethernet that they can integrate in a plug-and-play kind of way."

Enterprise customers make up about 55 percent of Time Warner Telecom's business, but it's not necessarily growing. The "carrier business is relatively stable for us," says Rouleau.

That's at least partly because Time Warner has – and wants – limited access to the big shiny buildings and greater access to what Rouleau calls the "Unfortunate 5,000," the group of cus-

Ethernet Saves Money Over Three Years



Source: Metro Ethernet Forum

tomers "just below large enterprise customers, that are more regionally focused, multi-city and maybe multi-locations within the city," he says. That can include firms that "don't have quite the staff in place to manage it and integrate some of these applications on their own."

A New Digital Divide

This sort of schism between big and small, have and have-not might be a sign of a new digital divide, this time in the commercial rather than the residential space when it comes to bandwidth access. Another sign might be the fact that there's just not enough fiber to feed all these Ethernet customers, and fiber, almost everyone agrees, is essential to bringing in huge 100 megabit to gigabit chunks of bandwidth.

"It's not that I'm a technology bigot, but fiber has so much more throughput than any of these other technologies," says Dave Schaeffer, CEO of Cogent. "Our model, for better or worse, is one of working only in a defined concentrated market where buildings are clustered and are large and have very high-bandwidth demand."

Cogent, says Schaeffer, gets about 56 percent of its business from corporate customers and 44 percent from selling to carriers, and it's not capable of reaching an expanded customer base of enterprise users.

"Unfortunately, we can't build fiber everywhere," Schaeffer says. "The reality is there is a 'have and have-not' scenario."

Wireless to the Rescue?

There's an old way with a new twist to maybe change that from such a pessimistic reality. Wireless, after being trashed and ostracized, is making a cautious return into the enterprise space, and the service providers, with enterprise customers dangling just out of their fiber reach, are taking notice.

"Not just fixed wireless; our vision is to be a carrier-neutral provider of wide area network solutions for the enterprise," says Andrew Goldsmith, vice president of marketing and strategic planning at Global Internetworking. "We want to be able to – and in some cases we have been able to – provide solutions that integrate fiber with some form of wireless technology. We think that's what customers want; they simply want to have networks that can meet their requirements."

Of course, they also want quality of service and reliability to go with high bandwidth, and no matter how improved the wireless plays, it will never match fiber's capabilities. Still, many providers agree, wireless is a viable last mile way to feed Ethernet to enterprise customers.

Even someone like Cheedle, working for a company with a name that implies it wouldn't go near a wireless offer – OnFiber, for goodness sake – says, "We have used it in a couple applications" where the provider combined lasers and microwave for a last mile feed. "I think (wireless) works OK. It hits its availability requirements, but it is subject to climate. There's nothing better than that fiber optic cable under the ground."

Wireless is getting better, says Rick Battle, director of marketing at AboveNet.

While fiber remains AboveNet's "bread and butter," Battle, similar to other providers, realizes it costs a lot of money to build fiber to more remote customers. AboveNet, further, is unwilling to acquire type 2 circuits from the incumbent local exchange carriers. So if a business opportunity presents itself – and the resurgence of interest from enterprises is certainly such an opportu-

nity – it's "one of the reasons why we have our eye on WiMAX," Battle says.

"We've been watching that wireless market and looking at companies like First Avenue Networks and Clearwire, among others. We talk to them; we see what they're doing," he said.

What AboveNet is waiting for – better yet, what just about everybody is waiting for – is "a little bit of maturity in that market and some assurances that if you install a service like that the customer is going to know that there's some level of security, either physical or some encoding process," Battle says. "I'm not an RF expert at that level, but I know there have been concerns in the past."

Wireless has a flip side that comes from the opposite direction. While some fiber-based providers see fixed wireless as an alternative delivery route, there are wireless players pushing into the market that see it as the primary feed with fiber as an alternative for access and backhaul. One such company is First Avenue Networks, a provider that's been reborn along with the resurgence of the wireless business.

First Avenue embodies both the old and new of wireless. It's built on the bones of spectacular early-century wireless flame-outs, such as ART and Teligent, but it's taken the time to build a business model that it believes will make wireless viable once again in the enterprise space.

"We look at our service as an Ethernet extension cord," says Lou Olsen, First Avenue Networks senior vice president of engineering. "There are so many things companies want to do: put bandwidth out to a branch office, layer voice over IP PBX (private branch exchange) with traditional TDM (time division multiplex) PBX and a lot of businesses are simply looking for an Ethernet extension cord."

An interesting analogy for a company that comes literally with no strings attached. Olsen, though, admits there are strings attached to that Ethernet extension cord.

"We have the ability to get them from wherever their buildings are to some point of presence, whether that's a fiber carrier or an Internet POP (point of presence), what-

ever their desired end point is," he says. "We get tremendous support from the fiber carriers because we allow them to go off their fiber net and add several miles of coverage in all areas."

Of course, if there's already fiber in place, all bets are off.

"While wireless is something you could use, fiber's extremely competitive," Olsen admits.

The Shifting Model

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“They’ve gotten to the point where they realize it’s cost effective and easier to manage and scalable and they’re moving wholeheartedly into migrating off legacy services,” says Keao Caindec, vice president of marketing for Yipes Enterprise Networks. “Many of the larger companies are focused on acquiring carriers’ services and building their markets.”

That’s a good model for Yipes, since 70-80 percent of the company’s business comes from enterprise customers.

“It’s something that has happened over the last three years,” Caindec says. “We see Ethernet as the value proposition, regardless of the last-mile access over which it’s provisioned. Whether it’s

fiber, TDM circuit, wireless; the value is in the Ethernet service.”

And, while size matters when it comes to bandwidth, it’s not necessarily the make-or-break piece of an enterprise service offering, says Elizabeth Vanneste, senior vice president of sales and marketing at Progress Telecom.

To her way of thinking, the best way to help the “have-nots” become “haves” is to give them enough bandwidth to improve their lot over the limited and expensive services their getting from the traditional carriers.

“The enterprise doesn’t need to be on our fiber, doesn’t need to be a multi-zillion telecom user in order to have an economical

Ethernet solution,” says Vanneste, who notes the company’s business model still leans about 60-40 in favor of carrier customers, but that Progress is “in the process right now of beefing up the marketing approach to enterprise.”

Progress, while eager to feed customers with fiber, is even less averse to using wireless. It acquired Pure Connection, an Orlando, Fla.-based point-to-multipoint wireless provider to fill that goal and to give customers at least some form of Ethernet connectivity.

“If an enterprise customer isn’t directly on a fiber route we can provide a wireless link and then bring them into our network and offer Ethernet over that,” Vanneste said. “We now make 1 Meg, 3 Meg, 5 Meg connections available to a smaller business.”

In the end, it obviously comes down to Ethernet and how it’s provisioned. While more large enterprise customers, filled with smart IT staffs looking to preserve their jobs, are taking raw bandwidth feeds and doing their own thing, smaller ones continue to require the handholding that carriers and, increasingly, other service providers bring to the party.

“For us, the strategic question is not whether wholesale service providers are no longer an attractive market, it’s an attractive market,” says Global Internetworking’s Goldsmith. “It’s an aggressive market, and we have aspirations to grow our company aggressively.”

It’s more so about the way the market is changing, he concludes. “The enterprise space is significantly larger, and we think there is a lot of room there for us to grow.” **FAT**

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