

Pipeline's Q&A with Optimum Lightpath

By Tim Young

In preparing an issue on Carrier Ethernet, we wanted to take some time to talk, one-on-one, to one of the more interesting companies working in the space. Optimum Lightpath, a subsidiary of Cablevision, has been blazing trails in the Ethernet world for quite some time now, chipping away at deeply entrenched telco business markets with a focus on blazing fast fiber lines and a soft spot for Carrier Ethernet. We spoke to Chris Rabii, SVP of technical operations for Optimum Lightpath, about how Carrier Ethernet fits into the larger strategy of the company.

We wanted to take some time to talk, one-on-one, to a leader in the Carrier Ethernet space.



Pipeline's Tim Young: Thanks for taking time to speak to us. Optimum Lightpath is clearly a leader in the Carrier Ethernet space. To start with, can you tell us a little about your company's path into the Ethernet market?

Chris Rabii: I've often said that when Lightpath started doing Ethernet, we were probably one of the earliest companies to embark on that in any serious way in a metro environment, in 2005, or a little earlier than that. Just playing in the Carrier Ethernet space was unique. Making the jump from what goes on inside a building or in a data center to what I'll call the real world, working between locations, there are many different factors that come into play. I think

SMART BUSINESS. SMART SOLUTIONS.

Customer, Product & Order Lifecycle Solutions

Catalog-Driven Order Fulfillment
with ConceptWave Order Care®

Customer-Driven Order Monetization
with ConceptWave Rapid CRM



www.conceptwave.com

Not for distribution or reproduction.

carriers, in general, have gradually figured out what that means. Where Carrier Ethernet means resiliency, statistics supporting how your service is performing, the ability to provision and maintain services as the SONET world had gotten everyone used to doing in the years before the early and mid-2000s. Lightpath, through some wise technology choices, had a strong showing from 2005 to today.

A lot of smart people at different carriers have become at least thought-followers, if not thought-leaders at other companies, and now Carrier Ethernet is table stakes. Everyone can do many of the things that no one could do in 2005. I remember back when Ethernet in the Metro used to be a couple of LAN switches on the end of a piece of fiber. That didn't give you any of the richness of features and robustness that you get with an MPLS network today, which has a fast-reroute capability and a bunch of other OA&M tools baked into the hardware and into the systems that manage it. We had a pretty good head start over a lot of others, and certainly that's true in the New York metro area, where we pretty much exclusively operate, but now we're looking at our next generation products, which will hopefully build on the success we've had in the past, and keep our growth humming along well into the future.

“Lightpath, through some wise technology choices, had a strong showing from 2005 to today.”

Tim Young: *You mentioned that Carrier Ethernet has become much more pervasive, and is pretty widespread now. Why has that occurred? What are the direct advantages of Ethernet on the metro scale?*

Rabii: I think that's a fair question. The pervasiveness of Ethernet in general, in people's corporate networks, is unquestionable. I think the economic question around cost per Ethernet port, versus things like T1s on PBNs... I mean anyone anyone who has gone through the process of buying a Cisco or Juniper or any other hardware manufacturer's router, and then buying interface cards knows that there is a significant price difference between buying hardware that's packet over SONET versus buying something that's pure Ethernet. The cost savings is significant on the customer end, and when that happens, it essentially drags the service provider, willingly or unwillingly, into the next



“The equipment manufacturers are, quite honestly, disincensed” to implement standards.

generation of transport technology. For them to pass those benefits onto the customer, they have to be delivering service with at least an interface that makes it more economical for their customers, or the customers will shop around for a provider that can do that. I think that’s part of the thing that has people thinking about it.

But leaving aside the customer demand piece of it, as a service provider, you look at the level of complexity and interfaces and line-speed types involved in running a SONET network (DS3s, OC3s, OC12s, all the way up to your C192s now), and to go from one speed to the next, you have to switch out hardware, put in a different interface, maybe upgrade the line side of your network... With Carrier Ethernet, to go from 10meg to 50meg, there’s no need for any dramatic changes. I can change something

software-provisioning-wise. It’s a much more flexible technology.

I’m not saying anything new, of course, but you’re not locked into the legacy SONET increments of bandwidth, which is one of the significant differences in building your service offerings and allowing customers to grow with the services you have.

TY: What are the tradeoffs for that? That flexibility comes at what cost?

Rabii: I think, at least early on, the cost was that Ethernet in the metro wasn’t a wide-area technology, so it took some time for the operations elements to mature to the level of SONET. Back when we first started, there weren’t many people who understood how to manage that technology. It was a lot of telco guys looking at each other saying “I don’t know Ethernet. I’m not a packet guy. I’m a SONET/TDM guy.” That’s changed with the amount of investment with the amount of money that manufacturers have put into the hardware and the software, the overarching management platforms. Like I said, Lightpath made some fortuitous technology decisions back in the day, and those included going with Atrica products (now a part of Nokia-Siemens Networks)

Pipeline
Your OSS/BSS Information Source

KnowledgeCast Webinar

Will Your Network Survive the New Mobile Broadband Culture?

During this live webinar you’ll learn:

- How to turn network data into actionable information
- Optimize your service mix for profitability
- Ensure accessibility, performance, and service quality

Featuring
Tektronix
Communications
and
FORRESTER

VIEW NOW!

“We look forward to continuing to be in a position to pass on interesting features to our customers.”

that had an advanced management system, that had something resembling a level of sophistication that rivaled many of the TDM platforms of the time, including point-and-click provisioning and so-forth. That made it an easier jump to make.

TY: To what extent do you feel that OSS/BSS plays are responding to those provisioning needs? Is it becoming easier to find the specific needs of Carrier Ethernet providers addressed by support software vendors?

Rabli: You know, that’s a pet peeve of mine, and I don’t want to take us too far down that track, but since you asked, I do think that the companies that have invested in this have not done as good a job as they could to make provisioning easy and simple, the way the carriers want it. I think in some ways, they’ve done an acceptable job of making their own platforms manageable within their own OSS, like if we’re talking about a Cisco selling a management

platform to manage Cisco devices. I think that the big issue is that I, for one, am a big believer in standards. Then you have power over your vendor choices and you’re not locked in to any one thing. You can do your best to insure against one vendor falling down. Once you get into the multi-vendor environment, especially in the Ethernet space, I think your provisioning and support platform options dwindle rapidly, and the features of the platforms go way down. I’d love to have a platform that I could tie into my OSS that I could do what I’ll call my network design in and have, essentially flow-through provisioning. I’d want my circuit designers to be able to do their work, and then to have a system that’s able to talk to a Juniper box, a Cisco box, an Alcatel-Lucent box or a Ciena Ethernet platform. I’d want to be able to talk to all of those and have the same richness of features, and I don’t feel like there’s any platform out there that can do that. The equipment manufacturers are, quite honestly, disincanted to do that because they want you to marry yourself to their platform, and they don’t want to make any room for you to bring in other vendors, because it hurts them on the pricing side, or at least cuts into your spend. I get it.

TY: This is really good feedback, because a portion of our readership is made up of those very vendors, and it should be incumbent upon them to develop those very solutions. Do you feel like the issue is on



the hardware side more than the software side?

Rabii: It's hard for me to know. I'd like to understand what the hang-ups are, and it varies. The interface between hardware and software varies, and not everyone is on the same page, which is part of the problem. But also, there's such a diversity of hardware options out there that for a third-party to come in and pitch to me to spend some large sum of money on their system, and have them tell me that they'll come in and not only build what I want, but also stay up to date with all of the hardware and software types that come out from hardware manufacturers who may or may not be cooperative with this vendor is difficult. I understand that there are all sorts of real-world complexities in developing a perfect system. I just haven't seen anything particularly great .

The third party software providers have done a great job in doing cross-platform alarm management and correlation for faults, but in terms of the additional features required to provision and actively manage devices, that's where they fall off a little bit.

TY: In terms of standards, do you see a real leader among standards bodies?

Rabii: There's a lot of effort involved in standardization of Ethernet OAMP. I'm not a close standards follower, but I do know that things have gotten better, but I don't know that they've gotten better to the point where the vendors themselves can take the standards given to them by standards bodies and build a product around that and not feel like they've wasted investment, yet. I know I'm not the only one with this problem. I think lots of service providers are dealing with this right now.

TY: Optimum Lightpath is mostly active in the New York Tri-State area. Do you think Carrier Ethernet is as viable in parts of the country and the world where there aren't such dense collections of businesses and organizations?

Rabii: I do, personally. I think in some markets, it may be a matter of time before they catch up. Before my time at Lightpath, I worked for a company that had a national and international presence. At the time, New York and its high concentration of sophisticated customers, fueled by the financial industry, was and had been ahead of many other places. The Bay Area was quick to adopt, and other NFL cities were quick to adopt. Anyplace there is a need to communicate between datacenters, corporate offices, and branch offices, metro Ethernet is going to be there. I don't see another viable option. Of course, I can also see that for certain carriers, there will be that analysis that says don't buy new network, make the network you have last a little longer.

TY: Any other thoughts?

Rabii: We are just happy that we were early into the Ethernet game, and are now investing in next generation networks. We're committed to keeping our edge by doing new things with metrics and provisioning, and we look forward to continuing to be in a position to pass on interesting features to our customers.