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Editor's Notes

Despite Court Ruling, The Great Net Neutrality Debate Rages On

by Paula Bernier

The Federal Communications Commission in mid-March delivered to Congress a comprehensive document outlining how it and other regulatory bodies and industry players might work together to make broadband services more accessible, affordable and useful to the nation. Ironically, just a few weeks later the U.S. Court of Appeals for the District of Columbia Circuit ruled in Comcast's favor in a lawsuit the cable company filed against the FCC saying the agency lacks the authority to stop it from bandwidth throttling select applications (in this case, BitTorrent P2P traffic).

Indeed, this lawsuit was the 800-pound gorilla in the room as the FCC went about its business of drawing up and presenting Congress with The National Broadband Plan.

Then, in mid-April, the news came. Comcast had prevailed.

As reported by TMCnet's Patrick Barnard, Judge David Tatel of the U.S. Court of Appeals for the D.C. Circuit in his ruling said the FCC in ordering Comcast to stop "has failed to tie its assertion" of regulatory authority to any actual law enacted by Congress. As a result, Tatel reportedly opined, the agency does not have the authority to regulate an Internet provider's network management practices.

So, the court has made its ruling. What now?

We'll have to wait to see. But it's clear that the FCC, which has repeatedly emphasized its interest in net neutrality and open networks, whatever all that may mean, is not ready to give up the fight.

In the wake of the court's decision, FCC spokeswoman Jen Howard issued this statement: "The FCC is firmly committed to promoting an open Internet and to policies that will bring the enormous benefits of broadband to all Americans. It will rest these policies – all of which will be designed to foster innovation and investment while protecting and empowering consumers – on a solid legal foundation.

"Today's court decision invalidated the prior commission's approach to preserving an open Internet. But the court in no way disagreed with the importance of preserving a free and open Internet; nor did it close the door to other methods for achieving this important end."

Meanwhile, Austin Schlick, general counsel of the FCC, blogged that the Comcast/BitTorrent opinion "may affect a significant number of important [National Broadband] Plan recommendations."

Schlick indicates that might include "recommendations aimed at accelerating broadband access and adoption in rural America; connecting low-income Americans, Native American communities, and Americans with disabilities; supporting robust use of broadband by small businesses to drive productivity, growth and ongoing innovation; lowering barriers that hinder broadband deployment; strengthening public safety communications; cybersecurity; consumer protection, including transparency and disclosure; and consumer privacy."

That said, Schlick writes, the FCC needs to do some further investigation as to exactly what will be impacted how and what to do about it.

However, as TMCnet blogger Gary Kim writes, the FCC likely either will ask Congress to give it the authority to regulate broadband services or try to regulate broadband under common carrier rules.

Markham Erickson, executive director of the Open Internet Coalition, a group that counts Google among its members, meanwhile, was quoted in a TMCnet story as saying that the "legal challenge to Title I authority by Comcast has created an outcome where the FCC has no option but to immediately open a proceeding to clarify its authority over broadband network providers under Title II." **NGN**

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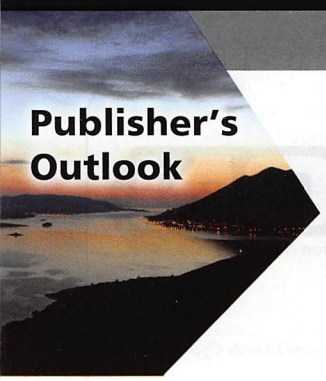
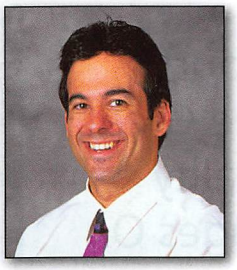


Publisher's Outlook

Allied Fiber Addresses Wireless Backhaul Requirements



by Rich Tehrani

As the economy bottomed out more than a year ago, the thought of investing millions of dollars and digging up the ground and laying down dark fiber in the name of new networks seemed frivolous, even premature.

Call it a case of bad timing. The demand was certainly there, but the funds to build simply were not. Fast forward to the fall of 2009: As companies began to pull themselves out of the doldrums, we eventually began hearing of capital outlays being made, particularly investments in fiber to the tower to support fiber-based Ethernet backhaul transport service for the exploding wireless data usage. We also heard about their LTE rollouts in 2010 and the so-called wireless tsunami to come.

I recently spoke with Hunter Newby in our TMC Newsroom. Newby is the CEO of Allied Fiber, a company that is putting a very large amount of dark fiber in the ground, and that is the subject of this issue's cover story.

Newby first had the idea to launch Allied Fiber in May 2004, but actual implementation started in early 2008. Newby managed to get investments based on a proven track record of success in knowing where the market was heading and essentially building the future the right way for the customers.

Over the last couple of years, Newby and I have had numerous discussions at shows such as Interop, CTIA, and of course our own ITEXPO. It's phenomenal to see that in just two years major network operators have announced massive amounts of investment in LTE technology. And those operators are going to need a tremendous amount of fiber.

When we sat down most recently, Newby explained that wireless carriers are in "desperate need" of fiber not only in metro markets but also the places in between. The underpinnings of mobile broadband – LTE and WiMAX – present a situation on the backhaul side, where you need fiber, and a copper infrastructure will no longer suffice. Allied Fiber is building a new long-haul route that will ultimately lease fiber to service providers that want to bring Ethernet right to the tower.

As Newby explained, we have arrived at a place where those that have a need or something to gain from Allied Fiber's existence are beginning to educate the others. There is still a lot of educating to do, Newby said, but it is getting easier as more understand it and fiber to the tower becomes the buzz phrase of 2010.

As more 4G announcements begin to unfold, it is becoming clear that wireless carriers are not going to build all of the fiber themselves. As such, they look to transport providers to do a lot of that for them. The announcements that AT&T, Verizon and others have made regarding the amount of capital they will spend on fiber infrastructure to towers is a strong message in support of new fiber builds that necessarily have to happen for their transport needs to be met.

Fiber to the tower is a big dimension of what Allied Fiber is doing, as it is incremental to the core long-haul business needed in the United States as an upgrade as a result of the 10-year-old-plus legacy systems that are being replaced.

Most of the carriers out there today operating networks on leased fiber are finding it challenging to renew current leases, and are looking for new fiber to lease that they can match with the new equipment coming out, particularly the 100gbps wavelengths. That level of transport capacity is required to support things like wireless backhaul. Allied Fiber is currently leasing dark fiber to customers – offering neutral, open, active and vibrant meet points.

As Newby explained, we simply can't get 4G across the country without significantly upgrading the backbone transport systems, and that's going to require new fiber in many places for efficiency and economies of scale.

You can't support new wireless devices like the iPad without the backhaul network. And that bandwidth that they need is a big challenge indeed – from a physical standpoint alone considering the size of the United States.

That said, this is an area that has plenty of room for players such as Allied Fiber. **NGN**

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By Paula Bernier

Dark Might

Allied Fiber to Launch Nationwide Fiber Network to Fill Market Void

Hunter Newby, co-founder of Telx, is building a nationwide dark fiber network that promises to bring more affordable and efficient transport to a wide variety of customers. The new venture, called Allied Fiber, and Telx (which Newby and the team sold in October 2006), are two very different businesses. But Newby indicates that both have moved to address important needs in the market.

Prior to "meet me" rooms, which Newby established while at Telx, it took months to interconnect, and carrier hotel tenants frequently had to pull ceiling tiles and break through brick walls to interface with one another. Creating a single process and location within a carrier hotel through which tenants could easily interconnect was an innovation that has saved many carriers a lot of time, money and hassle.

"We brought order to the chaos," he explains.

That's exactly what CEO Newby – along with Allied Fiber's President and COO Jason Cohen and Vice President of Engineering and Construction Patrick Opelt – plan to do again with Allied Fiber.

The New York-based company will sell dark fiber – as well as space in collocation buildings and on towers along the route – starting in late summer or early fall. That's welcome news to many network operators that have come up dry when searching for dark fiber within the U.S., says Newby.

The Void

The wholesale operations of incumbent LECs, as well as competitive providers like Level 3 Communications, offer lit fiber, he explains, but these carriers aren't interested in selling dark fiber either because it is in limited supply within their networks, they don't want to cannibalize their lit fiber business, or both.

"Level 3 went off to acquire Progress and Broadwing and WilTel, who were all competitive transport networks, and they are what kept balance in the country in terms of access and transport. Well, guess what? They're gone. And now what do we have?" asks Newby.

"I know of dozens of carriers that ... are in desperate need of their own fiber so they can control the underlying economics, and they can be viable," he adds.

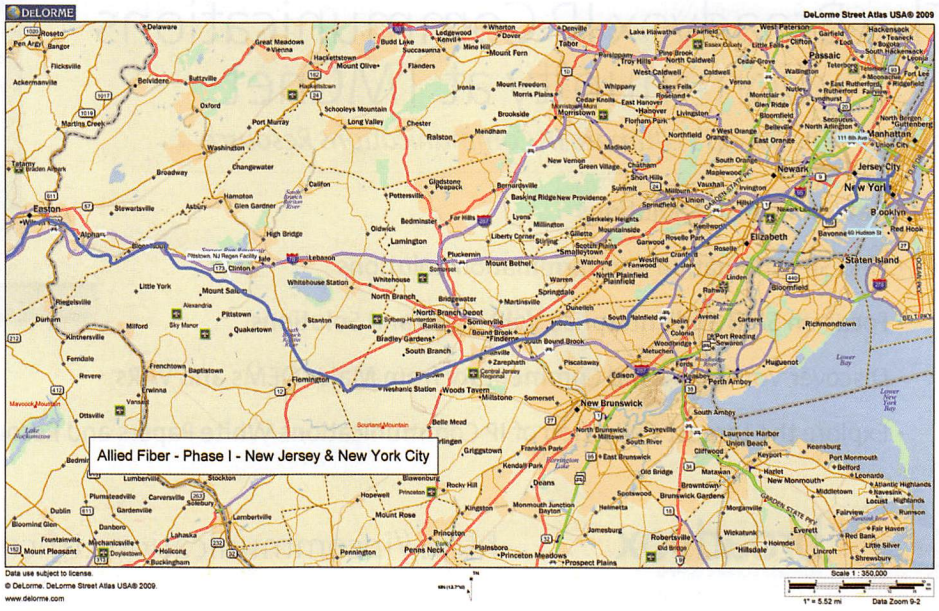
As a result, Allied Fiber has set out to blow fiber through ducts along various railroad rights-of-way across the country.

The Network

The first phase of the build will involve the installation of parallel short- and long-haul fiber networks from New York to Chicago and then down to Ashburn, Va., through Harrisburg, Pa.

This initial 1,300-mile network will follow the railroad tracks owned by Norfolk Southern Corp., with which Allied Fiber has dirt rights-of-way leases for 25 years, with two five-year renewal options. However, Norfolk Southern already has duct installed along about 80 percent of the route involved in Allied Fiber's first-phase build; in those cases, Newby's company has duct lease agreements, under the same terms, with T-Cubed, Thoroughbred Technology and Telecommunications, a Norfolk Southern subsidiary.

Between what was already in place and the new duct Allied Fiber installed along this route, the duct part of the first phase was



97 percent complete as of April 5, when Newby last spoke with INTERNET TELEPHONY for this article. Allied Fiber had yet to jet any fiber as of that date, but the dark fiber will be installed in these ducts and ready for use starting in late summer or early fall of this year. Exactly when that happens will depend upon when Allied Fiber is able to close on its senior debt, Newby explains.

The second phase of the network, also along Norfolk Southern rights-of-way, will run from Ashburn to Roanoke, Va.; to Knoxville and Chattanooga, Tenn.; to Atlanta; and then from Jacksonville to Miami, Fla. Newby in early April said more than half of that build was ducted, but that Allied Fiber still had to build new duct in Southwest Virginia and throughout Tennessee, and to fill the duct with fiber.

"We have a ton of interest for that," he says. "I have three different groups that want to participate in a co-build in Tennessee, which is fantastic."

Beyond that, Allied Fiber has forged relationships with a couple of railroads in expectation of a Western build. Newby has a Chicago-to-Seattle route selected and he says there's some major demand for fiber along that path. The company also aims to put fiber on a route running from Seattle to Los Angeles and coming through Phoenix and Dallas to intercept its phase-two route.

"Most of my contacts come from the international world – undersea cable systems and international carriers," says Newby. "Those folks just look at the U.S. as something that they need to get through; they don't have any business here per se. They're just looking for the shortest path, the newest glass, and the best rates and terms."

The Rate Sheet

Allied Fiber is offering 20-year IRUs on its planned Chicago-to-New York fiber route for a low, low up-front cost of just $1.2 million.

"$1.2 million is dirt cheap," says Allied Fiber CEO Hunter Newby, who adds that he hopes this introductory rate will incent customers to sign up for dark fiber before the system goes live and pricing on the New York-to-Chicago route increases.

In addition to this up-front fee, Allied Fiber will charge customers on the New York-to-Chicago route $55,000 a year for operations and maintenance, and $1,500 a month per rack, plus power.

That's pretty attractive, says Newby, considering it's not easy to find new fiber connecting these cities, and that even if you could it would probably cost twice as much.

The pricing will be the same on the Ashburn, Va.-to-Chicago route, he says.

Meanwhile, the up-front cost for a 20-year IRU on the New York-to-Ashburn route will be $475,000, with $25,000 for operations and maintenance.

Allied Fiber expects to charge $45 per pair per mile per month for short-haul dark fiber.

It has yet to decide on pricing for tower leasing. **NGN**

The Spark

In fact, Newby says he decided to establish Allied Fiber after a major international carrier (likely Telefonica) told him about the company's need for a more affordable way to transport its traffic across the U.S. to interconnect its operations in Spain and South America.

"Because the way that networks work, Asia to Europe and Latin America largely connect to each other through the United States," notes Newby. "That's the way it's been for several decades, particularly with the growth of the Internet in the '90s and the launch of new subsea systems in the late '90s and early 2000s, which all landed in the U.S. somewhere. They landed in Long Island or New Jersey or up in Washington state – the Seattle area, or California. And then those systems connected into the major carrier hotels – 60 Hudson, the NAP down in Florida and 1 Wilshire. And then, through the U.S., you have major long-haul routes that connect those buildings."

Anyway, this major carrier, which Newby declined to name, in November of 2007 told him it needed to double its backbone capacity in one year. But to do so using lit fiber leased from a carrier in the U.S. would've been cost prohibitive, so the company was trying to get its hands on some dark fiber and was hoping Newby could assist it in doing so.

The Demand

"I knew this first request was what I considered to be the tip of the iceberg – if this particular carrier was having this issue in '07 that by the same time in late '08, or even 2009, there would be dozens of networks that were having this issue with Internet capacity issues, backbone growth and what not," says Newby. "And I was right."

Indeed, as of April 5, Newby says Allied Fiber had 20 customers signed on for the first phase of its build, more than 30 additional deals in process, and a handful of contracts for the phase-two effort.

Felipe J. Alvarez, president of RCN Metro Optical Networks, in March told NGN magazine that his company is interested in what Allied Fiber is doing.

"He's likely to have the lowest latency route for financial services," says Alvarez of Newby, adding that the price of low-latency lit bandwidth has tripled in the last 10 months.

The Allied Fiber network will consist of a primary long-haul 432-count fiber network. A second duct on the route will contain 214-count fiber for short-haul applications. And a third duct will be dedicated to maintenance and additional space should Allied Fiber need to deploy more or different kinds of fiber in the future.

Newby says these kinds of fiber counts were unheard of when the last big fiber systems were put in place a decade ago. He adds that although people in the industry talk about advancements such as 40 and 100G waves as though they're simply a matter of adding new network elements, the installed fiber is often 15 to 20 years old and has degraded due to weather or glass impurities, so makes performance of these new technologies less than optimal.

More About Hunter

Hunter Newby, the CEO of Allied Fiber LLC, is a member of Standard & Poor's Society of Industry Leaders and was vice chairman of the Pacific Telecommunications Council's Advisory Council 2004-2008.

Prior to his current work, Newby served as chief strategy officer of The Telx Group since 2000, and its predecessor, telx Communications Corp., since 1998. While at Telx, he was responsible for identifying the trends in the industry and formulating the strategies that shaped the company's direction, vision and leadership position in the marketplace.

During his tenure at Telx, Newby participated in management meetings with investors continually assisting in the capital raising process to fund the business as it grew. Through his role at Telx as chief strategy officer and ultimately a member of the board, Newby was directly involved in more than $500 million in transactions between 2003 and 2007. He built and trained an outstanding sales team that produced consistent positive monthly, quarterly and annual revenue growth even through the telecom industry's downturn in the early 2000s.

Prior to joining telx, Newby was with WorldCom, the United States Treasury Department, the Southeastern Pennsylvania Transportation Authority and the Philadelphia Electric Company. **NGN**

The Rest

Allied Fiber also will have collocation structures about every 60 miles along its fiber routes. These huts and other buildings, at which it will lease space and offer power to its customers, will range in size from around 650 square feet to several thousand square feet, says Newby, and can be expanded as needed. These sites also will act as "meet me" rooms at which various service providers –as well as hospitals, schools, universities and anybody else with a need for interconnection – can tie in to the fiber network.

The third tenet of Allied Fiber's plan is to offer wireless network operators and their wholesale backhaul suppliers (including Ethernet service providers and microwave outfits) space on radio towers along its fiber routes. Newby says Norfolk Southern has 4,400 towers along its rights-of-way. For phase one of its build, Allied Fiber will work to make space on 300 of those towers, which it has leased from the railroad, available to its customers.

"I'm optimistic I will be his customer," a CEO of an Ethernet-based wireless backhaul services provider recently told NGN magazine.

Allied Fiber's strategy around wireless is completely different from how fiber-to-the-tower typically works today. In the Allied Fiber architecture the fiber is never more than a few feet away from the tower.

Newby says Allied Fiber's strategy around wireless is completely different from how fiber-to-the-tower typically works today. Usually, he says, companies have to build laterals from fiber rings to towers – and those laterals can be several miles away. In the Allied Fiber architecture, he continues, the fiber is never more than a few feet away from the tower.

"We can intercept the short-haul duct at that tower so we can bring fiber to the tower, but it is at an incremental cost to us," he says, adding: "This is the 'meet me' room model, but stretched out and incorporating cell towers."

Allied Fiber put this overall network plan together after consulting with customers, he adds, noting that for the past several months it has been working on getting interested parties to sign letters of intent, so it has a good idea of what types of fiber they want, how much of it they want where, and what their collocation and tower requirements are.

Newby sees Allied Fiber as being analogous to the interstate highway system championed by President Dwight D. Eisenhower. This network, he says, will offer a standard way for carriers and other network operators to get their traffic from one end of the country to another, or anywhere along the way, and to be able to get traffic on and off that network easily as needed.

The Money

Allied Fiber initially had hoped to get some broadband stimulus funds from the federal government to assist it with this effort. But Newby says the company's request for federal funds was rejected via a curt letter during the first round of the national government's program. Participating in the program, he adds, was so frustrating and time consuming that he opted not to try again in the second and final round.

Instead, Allied Fiber is relying on a variety of other sources for funding.

Newby says the company has received $2.5 million from the principals of private equity firm Corinthian Capital, at which Rory Cutaia is executive director. Cutaia co-founded Telx with Newby, and is executive chairman at Allied Fiber. Corinthian also is supporting Allied Fiber by providing legal and other assistance.

Allied Fiber has raised additional equity from high net worth individuals and family trusts, including the Turner (as in CNN founder Ted Turner) family trust, which was an investor in Telx. Allied Fiber also has a strategic equity investor which Newby declined to name.

Norfolk Southern is providing Allied Fiber with $47 million of subordinated debt. Newby's company has some vendor debt. And, as of early April, Allied Fiber was working to close on senior secured debt, which Newby says will be in the $70-80 million range – about equal to the up-front revenues it expects to get from its first 20 customers.

Newby says that he hopes to accelerate things following the first two phases of the Allied Fiber build, when he expects new funding sources to open up to the company.

"It's very difficult to cost-justify this kind of construction, which is exactly why no one else has done it," says Newby. "People who only need a pair of fibers are never going to build a whole duct system; it wouldn't make any sense. [That's] why we're doing it.

"We're building this duct system for everyone," he adds. "We're putting this fiber in the ground for everyone. We put in a high enough count cable so everybody can get a pair or two pair of fiber and they can run their business.

"But none of those people independently would be able to pull that off. Imagine them getting together and trying to form a consortium to do that," he concludes. "Forget it. It would be like herding cats." NGN