

Fiber Valuations: Secular Tailwinds to Support Current Multiples

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Key Points:

- Consolidation in the fiber industry, coupled with the numerous underlying demand drivers for fiber networks, has increased valuations significantly over the last 12 months.
- The U.S. needs an estimated \$130B-\$150B in fiber infrastructure investment over the next 5-7 years to support broadband competition, rural coverage, and wireless densification, based on a report from Deloitte.
- New network architectures and emerging applications are expected to increase U.S. data traffic by 65 percent over the next three years.
- The pricing power fiber-rich operators enjoy, in addition to the operational expenditure benefits from deep fiber, make fiber networks an attractive investment.
- Given the scarcity of potential takeout candidates and the underlying demand drivers, fiber valuations should remain elevated for the foreseeable future with further consolidation among regional fiber-rich cable operators and RLECs expected.

Introduction

Investments in U.S. fiber networks have become an area of focus for infrastructure funds looking to take advantage of the industry’s secular tailwinds and strategic buyers who want to diversify their business and/or gain operating leverage. As a result, fiber valuations have increased approximately 30 percent over the last 12 months, with some buyers paying EBITDA multiples in the high teens to low 20s.

According to a 2017 report from consulting and advisory firm Deloitte, the U.S. needs an estimated “\$130B-\$150B of fiber infrastructure investment over the next 5-7 years to adequately support broadband competition, rural coverage and wireless densification.”

In this report we look at the forces driving the market demand, asset valuations, and some of the risk factors that could impact the fiber service provider market.

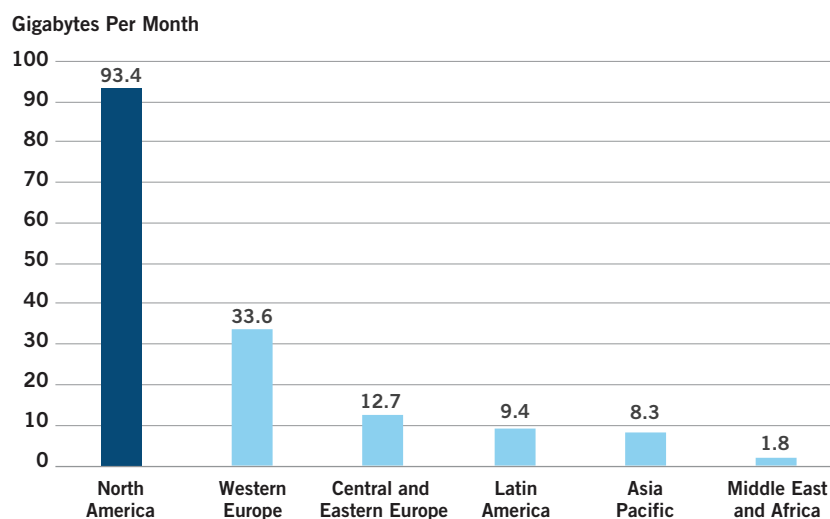
Recent Acquisitions

There have been a number of high profile acquisitions over the last few years from both strategic buyers and foreign infrastructure funds. For example, Macquarie Infrastructure Partners, in conjunction with Uniti Group, announced plans to acquire Bluebird Network. European-based EQT recently took a majority stake in Spirit Communications and will combine it with Lumos making the company a major player in the fiber market between Pittsburgh and Atlanta. And Antin Infrastructure Partners, based in Paris and London, purchased FirstLight Fiber, a provider of fiber-optic data, internet, data center, and cloud services to enterprise and carrier customers in the Northeast. This influx of foreign capital is not surprising given the data consumption trends in the U.S. versus other countries. (See Exhibit 1.)

Outside of the infrastructure funds, both Crown Castle and Verizon have been actively acquiring fiber networks. Crown Castle is investing in small cells and acquiring fiber companies (e.g., Lightower and Wilcon Holdings in 2017, and Fibernet Holdings in 2016) as a hedge to their core macro tower business. And Verizon purchased XO Communications, and a portion of WOW's Chicago fiber network as it looks to realize a greater degree of network ownership economics.

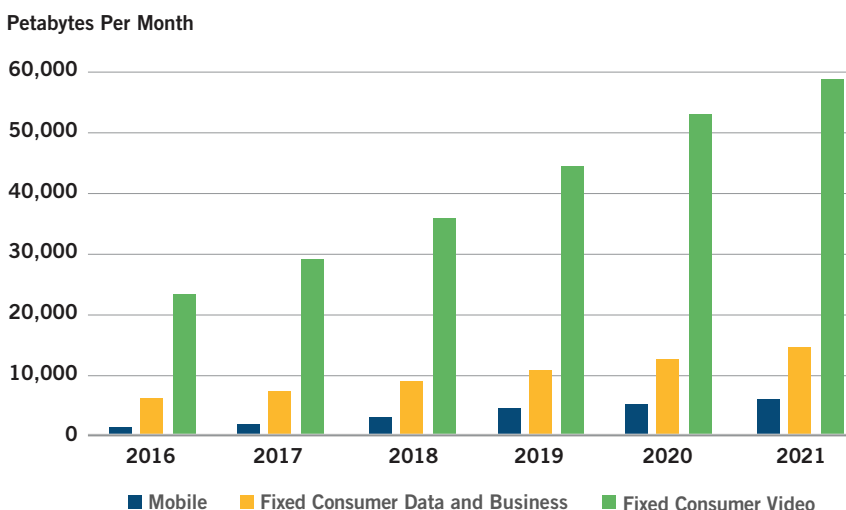
The demand for these assets stems from the expected surge in data traffic driven by 5G networks, IoT, cloud computing, next generation applications, and fiber being deployed deeper into networks. (See Exhibit 2.)

EXHIBIT 1: North America Leads in IP Traffic per Capita



Source: Cisco Visual Networking Index and USTelecom

EXHIBIT 2: U.S. Internet Protocol Traffic, 2016-2021

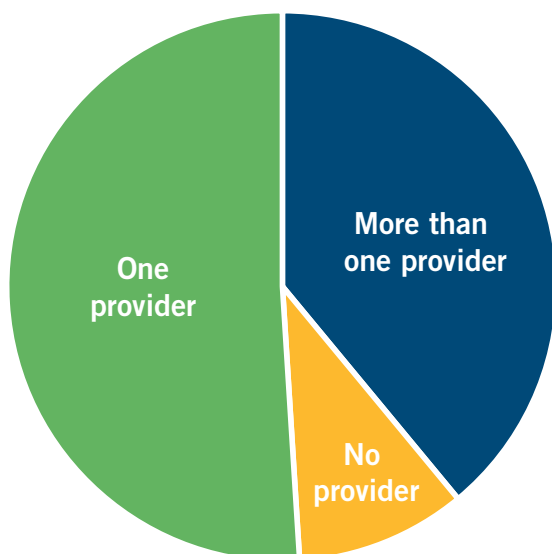


Source: Cisco Visual Networking Index and USTelecom

Attractive Economics

The fiber service provider market enjoys a favorable competitive environment with attractive EBITDA margins. According to Deloitte, over 50 percent of consumers have access to only one provider that offers 25/3 Mbps.

EXHIBIT 3: Consumer Choice for 25/3 Mbps Service



Source: Deloitte and FCC

(See *Exhibit 3*.) Additionally, thanks to cable operators' broadband business, they have been able to grow corporate EBITDA margins despite their shrinking video subscriber base. It's these kinds of market conditions that are piquing the interest of institutional investors and strategic buyers.

Network Architectures

5G

The advent of 5G is beginning to blur the lines between fixed and mobile networks. With 5G, wireless operators are deploying high-band spectrum that can support a significant increase in data traffic. High-band spectrum – such as millimeter wave – offers significantly more capacity as compared to spectrum bands in current 4G networks, but it has poor propagation characteristics. As a result, using this spectrum will require tens of thousands of new small cells to densify wireless networks. Also, given that many small cells require dedicated fiber pairs, not all the existing fiber networks will meet the carriers' densification needs, thus necessitating greenfield builds.

Fiber deep

According to network strategy and technology company Ciena Corporation, deploying fiber deeper into the network simplifies operations “by driving digital technologies closer to subscribers, with the goal of providing near-instant, high-quality access to content.” It also allows operators to re-architect their network to drive down costs and improve network efficiencies.

Fiber deep enables operators to support OTT applications such as Netflix, HULU, and DIRECTV NOW which are putting considerable bandwidth demands on broadband networks. In order to reduce latency and respond to spikes in data traffic, fiber deep is being used to store video content closer to where it's being consumed.

The opex benefits of fiber are shown in exhibit four. The ratio of operational expenditures to capital expenditures for telcos is higher than that of cable operators who have deployed HFC networks (hybrid fiber/coax). For telcos, they are using legacy copper plant to offer broadband to some of their customers, which negatively impacts the ratio.

Edge Computing

The need to analyze and process data in near real-time is growing across many industries. Edge computing, which is defined by IDC as a “mesh network of micro data centers that process or store critical data locally and push all received data to a central data center or cloud storage repository, in a footprint of less than 100 square feet” will enable this. Edge computing is still in its infancy, but according to industry experts, it's expected to become a major computing platform and growth driver for fiber as all new computing facilities will need to be connected via fiber.

Applications

Virtual Reality/Augmented Reality (AR/VR)

The nascent AR/VR industry is poised to be one of the primary applications fueling the demand for fiber. According to Ciena, VR headsets will require 60 frames of video per second to avoid nauseating users. Delivering

VR at 4K resolution will require 8X the bandwidth of a single HD TV. Today, AR/VR applications are limited to gaming, but as they evolve to education, travel, and various enterprise applications, networks with lower latency will be required.

Internet of Things (IoT)

Smart home, autonomous driving, smart grids, connected health are some of the emerging applications that will drive IoT adoption. (See *Exhibit 5*.) And while the individual bandwidth demands for many of these applications are relatively small, collectively, they will add incremental stress to existing wired and wireless networks. This will increase the demand for fiber.

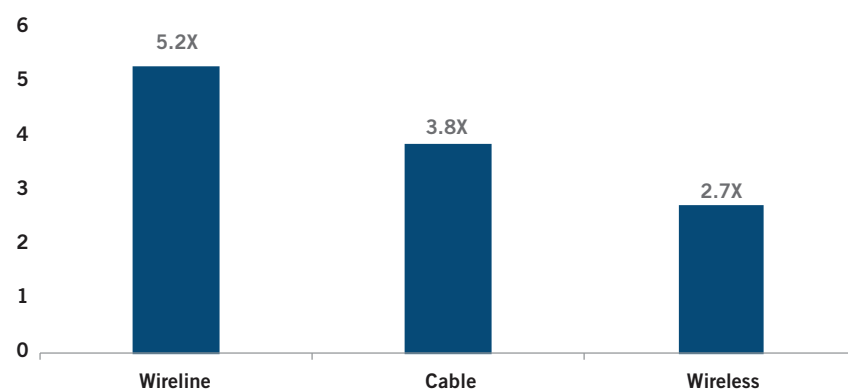
Fixed Wireless 5G

Verizon is the leader in this emerging market with their recently launched Verizon Home service. Using millimeter wave spectrum and 5G, Verizon believes it can take 20-30 percent share of the broadband market via a fixed wireless service. And given how poorly the spectrum propagates, the carrier will need to deploy thousands of new cell sites, most of which will be connected via fiber.

Fiber Valuations

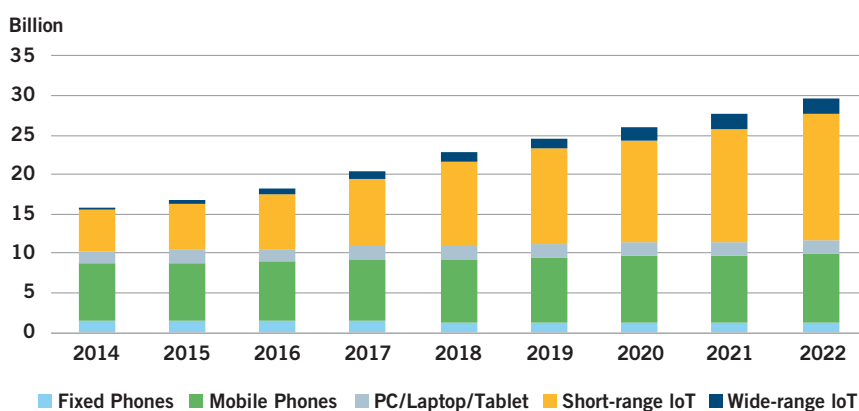
Where do valuations go from here? First, there is clearly a disconnect between public (e.g., fiber operator Zayo) and private fiber valuations. Volatility in equity markets and waning investor confidence have resulted in public valuations coming in much lower than private valuations. To us, this disconnect will have minimal impact on private valuations as infrastructure funds have a much longer time horizon, and strategic buyers enjoy synergies that will allow them to pay a higher multiple versus myopically focused public equity investors.

EXHIBIT 4: 2016 Average OPEX to CAPEX Ratios



Source: Deloitte

EXHIBIT 5: Connected Devices



Source: Ericsson

Additionally, the U.S. fiber industry has gone through a considerable amount of consolidation over the last several years and there are few takeout candidates left to acquire. For example, FiberLight, with its 14,000 route miles of fiber, is one of the few remaining privately held fiber companies that has yet to be acquired.

Given the scarcity of potential acquisition targets, it stands to reason that investors may look for fiber-rich cable properties and/or large diversified RLECs with developed fiber networks to gain exposure to the market. Regional cable operators are making investments in fiber as they look to exploit the growth in residential and commercial broadband services, and progressive RLECs have been investing in fiber to offset their declining regulated revenues.

All of these factors should put a floor under fiber valuations for the foreseeable future.

Risks to valuations

Given the relatively high entry barriers in the fiber market and consumers' insatiable demand for data, there do not appear to be many glaring risks. Oversupply is the most obvious one, but this is more region specific than any kind of systemic risk, particularly given the proliferation of data usage.

One company that could disrupt the market is Verizon. The operator is in the midst of a multi-year fiber network build which will serve as the backbone to its 5G network. In 2017 it announced a \$1.05B three-year minimum purchase agreement with Corning for next-generation optical solutions. Unlike AT&T, which is placing a greater emphasis on content, Verizon is doubling down on its network. The company believes the right strategy is to have the best network footprint with low latency to support next-generation applications. Therefore, as Verizon continues to build out its fiber network, they will likely begin exiting some of its fiber wholesale agreements which could impact the market dynamics in some regions.

The other unknown is the Sprint–T-Mobile merger. Both carriers have (largely) taken the dark/lit fiber route versus owning their own networks, but that could change if the merger is approved. NewCo, the combined Sprint–T-Mobile has pledged to invest \$45B in the three years following the merger with plans to significantly disrupt the fixed broadband market. This strategy will require a lot of fiber, and their decision to build versus lease could impact fiber valuations.

Conclusion

Building fiber networks takes a long time and as operators race to meet the expected surge in demand, a build/lease hybrid model will likely continue to play out over the next several years. Institutional investor interest in the fiber market should continue given the underlying demand drivers and predictable revenue streams these networks offer.

Given the amount of industry consolidation and scarcity of acquisition candidates, fiber-rich cable operators could become attractive assets for both institutional investors and/or strategic buyers. All of these factors paint a positive picture for future fiber valuations. ■

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