FiberLocator

Three Questions
to Ask When Sourcing Fiber

The demand for fiber consumption is constantly growing. According to a recent Zion Market Report, the global fiber options market was valued at $2.75 billion—but more importantly, the fiber market is expected to reach a value of $3.72 billion by 2022, which is important to note. The market for fiber is still growing at a compound annual rate of over 5.2 percent, continuing the trend that started in 2017 all the way through 2022.

Facts and figures make it clear fiber usage is on the rise. Not only are corporate and enterprise (commercial) fiber demands increasing, but consumer (retail) demands are as well. The increased usage of cable, Internet, and phone services has resulted in an increased need of fiber capacity.

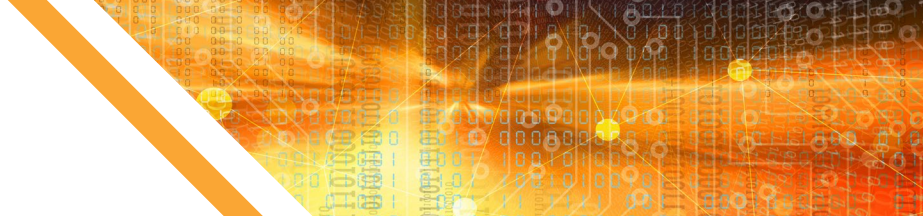
Commercial fiber needs have surged as a result of decentralized footprints of corporations. Technological advances such as software as a service (Saas), virtual communication tools, and cloud-based technologies are becoming more popular every day. These advances in business technologies are providing more opportunities for businesses, including expansion. More and more companies can have an established corporate headquarters, as well as satellite offices, throughout the United States and worldwide, rather than being fully based in one physical location.

Not only are business tools shifting to a virtual nature, but corporate on-premises data centers are becoming a thing of the past. Colocation and cloud infrastructure are taking over, allowing more flexibility in how and where information is stored. Today's network is different from networks previously used by clients, which resulted in a change in the network topology landscape. Increased adaptation of cloud architecture and SaaS are the root causes of network topology changes. A recent statistic shows that 50 percent of all network traffic is routing to a cloud provider such as e-mail (through services like Office 365 and G-suite) and/or a SaaS program such as Salesforce and Workday, among many others. You may be familiar with the term "hybrid cloud," but this architecture will eventually evolve into a "hybrid network" as more pieces of the infrastructure come together.

End-user satisfaction is another vital consideration. Rather than looking at traditional network performance statistics, end-user satisfaction is primarily determined by customer experience. End users now demand access to whatever information they want whenever they want it, from wherever they may be, and they want to access the information safely, securely, and most importantly—quickly. Users also have multiple devices at their disposal, including personal computers, tablets, and cell phones, and they need to be able to access the data they want on whichever device they are using at the time.

The need for fiber connectivity in the workforce is clear. Understanding the methodology behind sourcing fiber and ensuring your connective needs are met is the next step in the process. Whether you are a seasoned professional or new to working with fiber, it can be difficult knowing where to start when faced with either an unfamiliar location or knowing which of the hundreds of carriers will suit your needs.

To ease your fiber sourcing process, we have compiled three vital questions you should ask when sourcing fiber.



What are the organization's connectivity needs, and why is fiber important to it?

Connectivity needs are based on the applications organizations are required to access for business operations, and those needs will vary depending on where the information is being accessed—whether it is in a colocation or cloud environment. To understand connectivity needs, always start with the applications and user experience in mind.

We suggest a "follow the wire" approach, where the focus is on where the applications reside, either on-premises or based off-site. Perhaps these tools reside in a corporate headquarters, or colocation facility, but chances are they live within a hybrid cloud environment. Once you have this detail, you can narrow down the type of connectivity needed to preform critical operations.

Ultimately, the primary goal is to design a flat network that performs like a local area network (LAN) on a wide area network (WAN) infrastructure.

Does the organization plan to lease or build its own network?

Fiber networks can be established in three different ways: via dark fiber, lit services, or a hybrid mechanism. Let's explore each of these network environments in more detail.

Dark fiber networks are used to provide a connection between data centers or two other pre-determined high-volume end points. Typically, dark fiber lines are set by carriers and then leased out to clients who want to control their throughput. Dark fiber networks are ideal for organizations that require high-volume usage at high speeds and the ability to upgrade quickly, but they require that the organization has the expertise required to build, design, monitor, and maintain the networks themselves.

Lit services are commonly used by commercial entities that do not want to undertake the complexity of lighting up a private network infrastructure. This method of connectivity can be thought of as being similar in nature to residential Internet services where a provider is paid monthly for a specified service with predetermined upload and download speeds. An organization will benefit from quicker installation and continuous monitoring of the carrier network, but monthly costs are higher, and upgrades will take longer.

Hybrid network infrastructure suits businesses that are seeing an increased amount of IP consumption, which reduces their multiprotocol label switching (MPLS) footprint. The transformation to a hybrid network infrastructure has driven more clients to use dark fiber for core, fixed locations. Medium-sized clients are more often using lit services and MLPS, a practice that will likely disappear over time. Clients will then switch to software-defined (SD) LAN, which is optimal when using more than one connectivity method.

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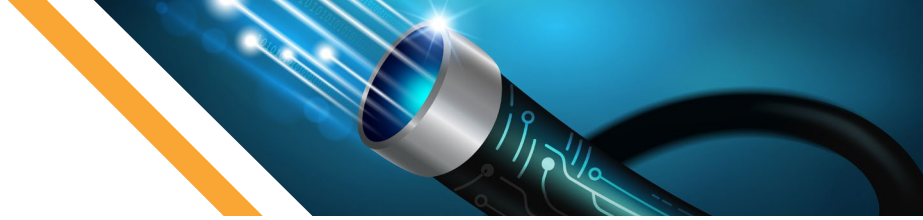

The coming switch to 5G is something to consider as well, as 5G with reduced latency will be an optimal component in SD LAN architecture. With this impending switch, it is best to plan and implement the fiber infrastructure you need now, rather than potentially face interruptions and additional costs later.

How is the organization leveraging technology to grow sales?

This question is not directly related to network topology, but it does show who is driving the decision for change within the organization. By asking a company to consider where it will focus growth efforts in the next 3 to 5 years, it is easier to determine the fiber infrastructure that would best accommodate its needs.

It is also wise to understand how the company's network has the potential to change in 3 to 5 years, including plans for global expansion, any cloud-first strategies it may adapt, and any aging equipment that may need to be replaced or upgraded. Each piece of information plays a part in establishing fiber connectivity needs and helps in planning to future-proof the infrastructure once it is implemented.

Adapting a streamlined process when finding fiber is critical. Some logistical questions may arise, such as knowing the proximity of the fiber lines to physical locations. As there are over 7,000 Internet service providers (ISPs) and over 350 owner/operators in the United States, it can be daunting to figure out the proper point of contact for information. By streamlining your sourcing process, you can reduce time gathering and reporting on information to the project stakeholders and increase sales and overall productivity by knowing the options available.

This is where FiberLocator can help. We have been developing a repository of information over the years that we make available to our customers in the form of FiberLocator Online, Snapshots, application programming interfaces (APIs), and Custom Reports. The quality of our data is unparalleled, as all information housed within our system is provided to us directly from each carrier. We know the industry can change quickly and as such are in constant contact with the carriers, and we ensure all data are regularly updated and represent the current fiber and connectivity landscape.

To learn more about what you can find inside of FiberLocator, or if you would like to request a demo, contact us today!

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FiberLocator is an invaluable resource for developing a custom fiber network, planning data center sites, locating on-net buildings, and more. Whether you're a carrier, enterprise, agent, commercial real estate broker, or other professional, gain access to maps and data to help you maximize your communications ROI.

- On-Net Buildings: FiberLocator's extensive database includes enterprise lit buildings, points of presence (PoPs), carrier hotels, central offices, and data centers. If it is connected to a network, it's probably in FiberLocator.
- Metro Fiber: Metro fiber maps are continually evolving, and as soon as you've requested one, chances are it's outdated. Instead of making an individual request to a carrier, rely on continuously updated FiberLocator.
- Long-Haul Fiber: Use FiberLocator's national long-haul network database to plan connectivity between the coasts or simply between distant offices. The visual map interface displays actual fiber routes, while the lit building layer reveals local PoPs.
- Data Centers: Nearly every network project involves connection to at least one data center. With thousands of data centers in FiberLocator, finding the right ones and learning what carriers are present in each are just a few clicks away.
- Submarine Cables: Need international connectivity? FiberLocator includes undersea cable routes and information including fiber capacities, landing station locations, and available carriers.

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"I wish I had known about this tool 5 years ago. In a few minutes, I am able to see data which would have taken hours to compile. It is one of those tools that makes me wonder how we did business without it."

-John A. Schwarze, Managing Partner, Converged Network Services Group

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