Dark fiber vs. lit fiber

The benefits of choosing dark fiber over a traditional lit carrier
Dark fiber is fiber optic infrastructure that’s not yet in use by a service carrier or a provider. It is an installation of cables currently lying dormant, ready to be connected at some time in the future. Because they literally lack the lasers that send light through the cables, we call it “dark” fiber.

Because large swaths of fiber optic cables already run beneath the nation’s major metropolitan areas, dark fiber cables are capable of providing tremendous benefits to the buildings situated above. Companies familiar with the benefits of dark fiber are increasingly choosing to light up the infrastructure that’s already in place.

In this guide, we will discuss some of the benefits of choosing dark fiber over lit services from a traditional carrier. For a more in-depth explanation of the components of dark fiber, check out our Dark Fiber 101 guide.
Security

The realities of fiber optic layouts ensure a high level of physical security. Unlike public access telecomm networks, with multiple public access points at various terminal and intermediate nodes throughout the network, dark fiber routes are accessible only at each of the two endpoints of the fiber run. Cutting back on the number of network access points limits the potential for malicious interference with the network, reducing the need for additional firewalls and other security measures.

Leasing or owning a dark fiber route also ensures that an organization retains control over its network. Instead of outsourcing bandwidth needs to a third party, this option allows for total control of the capacity and equipment over a private network. Tight security makes dark fiber an ideal option for those who regularly deal with sensitive information, such as healthcare organizations and financial institutions.

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Reliability

Private Internet users know how their provider’s performance can sometimes be disappointing to say the least. The same is often true for business Internet. Carriers have a tendency to oversubscribe their networks. Many engage in the practice of selling more bandwidth than they’re actually capable of providing. The result is a sluggish connection for everyone on the network. At home this may be a mere inconvenience. At work, it could mean lost revenue.

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When a company leases dark fiber, it is the sole user of the network. Using an in-house IT department to manage a network eliminates dependency on a provider. This means no more inconveniently scheduled maintenance, costly service upgrades or long waits for capacity increases. You’re not just another customer. You’re in control.

CIOs and heads of IT departments are also increasingly seeing dark fiber networks as viable redundancy options for their primary networks. Due to the tendency of wireless networks to experience performance issues, many technology professionals prefer not to trust their entire network to run on them, even in backup situations. Dark fiber is capable of providing cost-effective network redundancy in the case of a primary network failure.
Scalability

Dark fiber allows you to grow your bandwidth right alongside your business. Scaling up is quick and easy, and the available bandwidth is virtually unlimited. When increasing bandwidth is even an option with many carriers, it can be a lengthy process. Requests to ramp up bandwidth can take weeks.

And then there's the cost. With a carrier, bandwidth increases will more than likely result in an increased monthly fee. Bandwidth upgrades with some dark fiber providers won’t be reflected in your monthly bill.

Since leasing fiber allows companies to purchase their own equipment, customers aren’t tied to whatever devices their carrier decides to deliver. This ensures your business can be as cutting-edge as it needs to be to remain competitive.

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Cost

In addition to superior performance, dark fiber often results in substantial cost savings over lit services. But installation is something organizations need to seriously consider before choosing dark fiber. Construction is sometimes required to reach certain locations. Knowing the location of the fiber providers existing network will provide a better understanding of the size of the undertaking. While laterals and last mile connections may represent significant investments upfront, dark fiber offers the promise of strong ROI for companies that use a substantial amount of bandwidth.

For more on dark fiber accounting options, download Dark Fiber 101, or contact us directly.
The benefits of dark fiber from Arch Fiber Networks

Arch Fiber Networks is St. Louis's only purpose-built dark fiber network. Our experience in the city allows us to provide quick, full-service laterals and last-mile connections for our customers. Once connected, we remain committed to providing the type of responsive customer service long known to be lacking from our larger competitors. From installation to performance and maintenance, we are striving to bring a better Internet experience to St. Louis.

We can deliver:

• Simple buying terms that are cost-efficient for enterprise organizations

• Fiber optic assets encased in concrete conduit for optimum safety and reliability

• Around-the-clock, seven-day-a-week access to dedicated sales and support staff

• More than 30 years of experience in telecommunications construction, engineering and network infrastructure development

• A St. Louis-based company that's dedicated to the growth and improvement of the city and its business community

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Set up a free consultation

Contact one of our St. Louis dark fiber experts to learn more about our network, and to see if dark fiber is the right solution for your business. If you have questions about dark fiber, we can answer them.

Download “Dark Fiber 101”

Our introduction to dark fiber, Dark Fiber 101, provides a look at the various components of fiber optic infrastructure, how it works and what your business should consider before making the switch to dark fiber from Arch Fiber Networks. You can download the dark fiber guide here.

View our fiber map

View our interactive dark fiber map to see our existing fiber routes. Don’t see a route near your building? Get in touch with us. We specialize in the quick and cost-effective installation of laterals and last-mile fiber connections.

Contact

210 N. Tucker Blvd. Ste 275
St. Louis, MO 63101
Phone: 888.894.3741
Email: info@archfibernetworks.com