

5 BUSINESS NEEDS WHERE FIBER IS A MUST-HAVE

By Kevin Casey



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IT'S EASY TO PAINT THE BENEFITS OF FIBER INTERNET CONNECTIVITY IN BROAD STROKES: FASTER SPEEDS,

greater reliability, improved security and so on. But your customers survive and thrive on bottom-line results, not nice sound bites. How does fiber really help? In delivering the applications and services businesses and their employees rely on to achieve those bottom-line results. And that means a significant opportunity for the partners that service their IT needs, too.

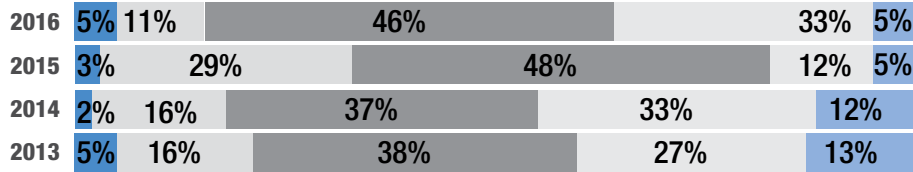
“One of the key advantages of fiber circuits is the ability to scale based on network demand,” says Evan M. Gilman, founder and principal at [Transit Brokers](#) and vice president of the [Technology Channel Association](#). “Today’s business applications require scalable bandwidth to support the increasing demands of software-as-a-service, disaster recovery, software updates, et cetera, and all of this translates to higher bandwidth utilization.”

“Scale” is indeed the operative word here, especially in our increasingly data-intensive digital age. A “small” company with 20 employees might be generating — and subsequently transmitting, storing and analyzing — enormous amounts of data. And no matter the size of a company’s data store or bandwidth consumption today, it’s almost inevitably going to be larger tomorrow. According to market research firm IDC, the amount of data we’re producing globally is [doubling every two years](#) and will hit 44 zettabytes — or 44 trillion gigabytes — in 2020.

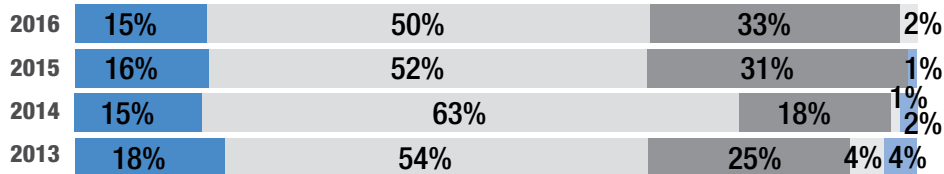
Channel Partners' Perceptions of Cablecos as Primary vs. Secondary Providers

■ Strongly Agree ■ Agree ■ Neutral ■ Disagree ■ Strongly Disagree

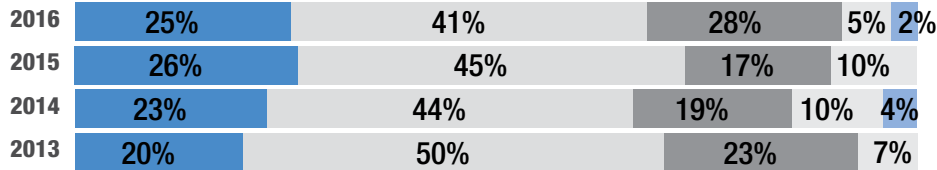
They are best as a primary provider



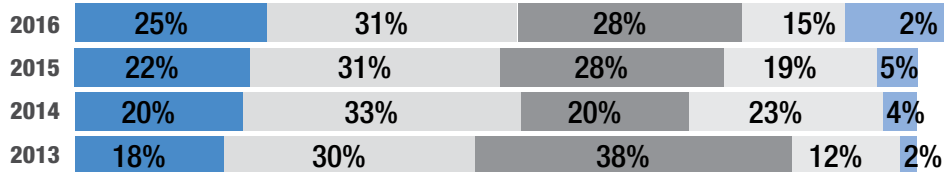
They are best as a secondary/backup provider



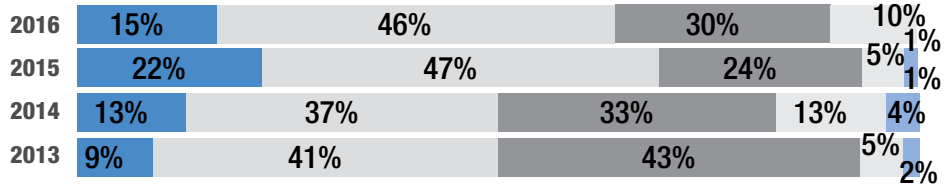
I would recommend cablecos as a primary provider for fiber-based services, such as Ethernet



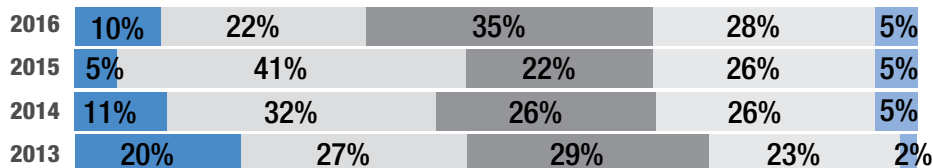
Lack of SLAs on coax services prevents me from recommending them as primary providers



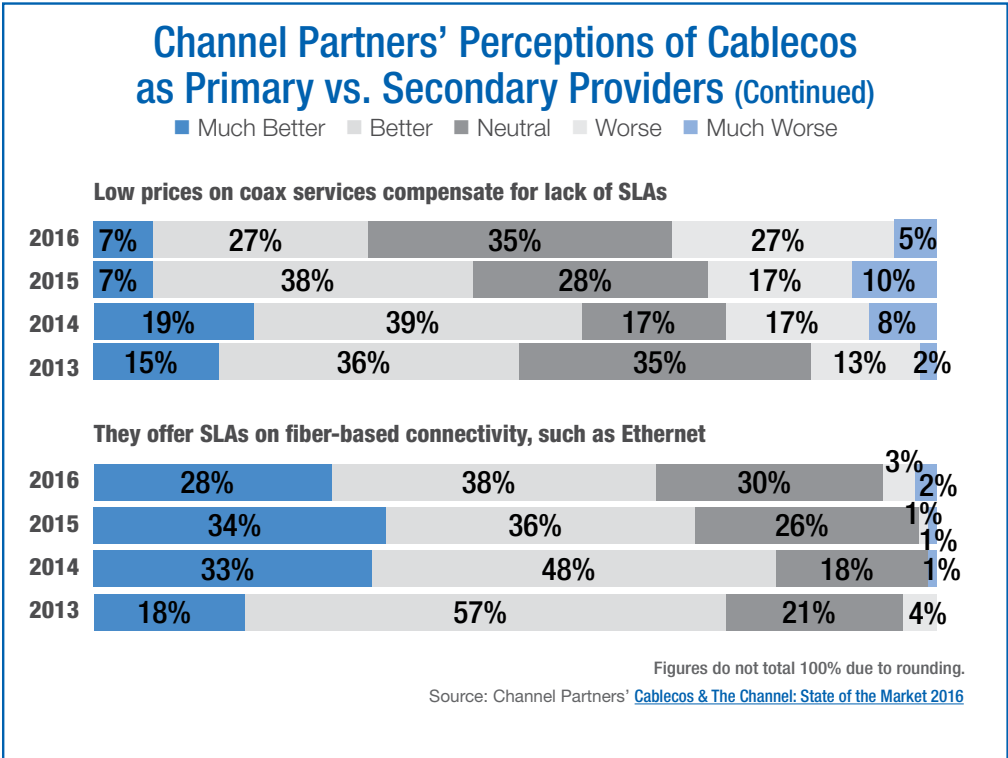
If there were SLAs on coax services, I would be more likely to recommend them as primary providers



High speeds on coax services compensate for lack of SLAs



(continued on next page)



In other words, fiber connectivity for businesses isn't just about optimizing application performance and employee productivity right now, but for the long haul. Does every business or employee need gigabit internet all of the time? No. But the ability to scale up to gigabit speeds with fiber is a boon for a vast number of companies as they grow or their network demands change over time.

For partners, this means considering the ideal applications and services to run over fiber — and there are plenty of them. [Techaisle](#) analyst Anurag Agrawal, who closely tracks the small and midsize business IT market as well as the channel, notes that while availability remains a challenge in some areas, fiber internet is rapidly moving into the mainstream. As a result, “its high-bandwidth capacity and reliability is ideally suited” for a slew of business needs, such as HD videoconferencing, says Agrawal.

Let's take a closer look at five application categories where fiber is fast becoming table stakes for speed, performance and reliability — and, as a result, where it offers a significant growth market for partners that can deliver these applications on top of a fiber deployment.

1. DISASTER RECOVERY & BUSINESS CONTINUITY

A notable drawback of many lower-end broadband connections is that uploads run at a snail's pace relative to downloads. That's a killer for organizations that back up their data in the cloud or elsewhere off-site. With fiber, upload time can match robust download rates.

“A backup is only useful if it's complete and it's not corrupted,” says Michael Bremmer, CEO of [Telecomquotes.com](#). “The only way to get that is to have good upload speeds.”

Beyond the fundamental of backing up your data, fiber also better enables robust business continuity and disaster recovery (BC/DR) planning. This is another area where fiber's scalability becomes crucial, according to Gilman of Transit Brokers and TCA.

"This requirement is very often seen in a data center environment, when a data center is deployed as either the main node to support business applications or in a BC/DR design," Gilman says. "In today's world, [businesses] must have a disaster recovery strategy in place — which typically requires a data center with a robust connection to support these DR instances. When a disaster occurs, the expectation is that a data center will have a scalable fiber connection to support the BC/DR strategy that has been deployed."

Those strategies quickly fall apart if the bandwidth isn't available to efficiently back up an organization's data — and then rapidly recover data to minimize operational downtime when incidents do occur.

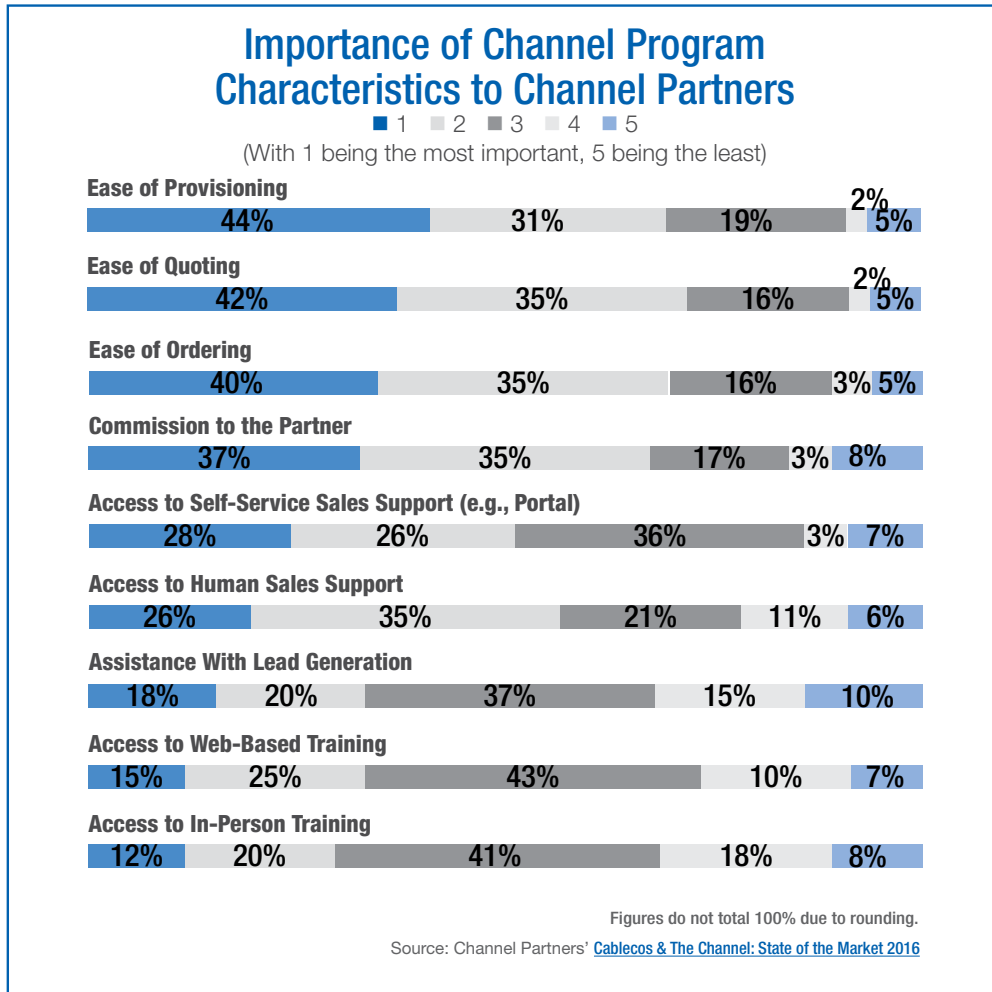
2. HEALTH CARE IT

As a vertical, health care may stand alone in terms of being ideally suited for fiber. Tectonic shifts in how medical providers deliver and manage care come with corresponding technological change and new demands on healthcare IT environments. Three critical application areas exemplify this industry trend.

- **Telemedicine:** Health care industry observers predict massive growth of the telemedicine field, or medical care and services delivered remotely via video and other telecommunications services in lieu of a visit to the doctor's office or other health care facility. One report expects telemedicine to become a [\\$34 billion business](#) by 2020. Given the high-stakes nature of health care, the videoconferencing platforms and other tools required for telemedicine are ideal for high-quality, scalable fiber. Rachel McNeese, founder and president of [Richardson Communications](#), also sees a growing demand for software-defined networking (SDN) in health care contexts to enhance the scalability of a high-quality, high-capacity connection. Telemedicine is currently driving an interest in higher-bandwidth and higher-quality connectivity at one of Richardson's health care clients. "Bandwidth needs vary greatly based on where the doctors are working for that day, so SDN is something we're looking into because you can scale the bandwidth more easily from location to location," McNeese says.
- **Imaging:** McNeese notes the mission-critical importance of medical imaging in health care, another optimal fit for high-quality fiber connections. "Imaging in hospitals and clinics is everything to their business," she says, adding that the ability to be able to reliably and quickly transmit those images digitally is crucial. "Imaging is a huge bandwidth suck, so in that particular scenario fiber would definitely be an advantage for the client to have scalability and elasticity," she said.
- **Electronic Health Records:** Simply put, EHR use places increasing data demands on health care IT. Part of EHR's value is tied to easy accessibility, which makes these environments a great fit for fiber. "We have seen an uptick in fiber deployments related to EHR," Gilman says. "This type of environment needs to have ample bandwidth available to support the immediate need for access to these records during times of disasters, natural or otherwise, new epidemics, outbreaks, [and other scenarios]."

3. VIDEOCONFERENCING & COLLABORATION

Video is a well-known bandwidth hog not restricted to health care settings, as are heavy images and other large file types. Videoconferencing and other video-on-demand applications, such as training content, are prevalent across a wide range of industries and poised for continued growth. These are ideal for fiber connections that can support optimal quality and minimal interruptions or downtime, especially for high-definition setups.



“If you’re going to spend the money to have a HD videoconference setup in your office, and you’re going to have, say, five or six people [using it] to accomplish something — and you’re paying them \$100,000 a year — you don’t want to have quality problems,” says Bremmer of Telecomquotes.com.

File sharing and other data-intensive collaboration tools are also a great fit for fiber. As with medical imaging, any industry that relies on sharing and collaborating on large file types, such as computer-assisted design (CAD) files, will benefit from

a fiber connection, especially in organizations that might manage thousands of these files across distributed workforces, geographically dispersed customers and partners, and so forth.

4. CUSTOMER CARE

Both McNeese and Techaisle's Agrawal point to customer contact centers as another context where scalable, high-quality fiber is a must. McNeese notes these contact centers often require uncompressed, hosted voice at a 1-to-1 ratio for simultaneous calls, an ideal fit for high-quality fiber. "That would definitely be one where you need higher bandwidth availability," she says.

Customer contact centers can be very bandwidth-intensive, especially with hosted voice solutions and VoIP environments. Contact centers often rely on the [711 protocol](#), according to McNeese, meaning the data is uncompressed.

"Typically in a contact center, because it's so crucial that they have quality of service on all of those calls, they don't use compression as often," McNeese says. "That one call could be 98K." Meanwhile, the 1-to-1 ratio means that a contact center's bandwidth needs to be able to support every single support rep handling a call simultaneously without degrading service quality. In a typical office setting, a 2-to-1 ratio — which assumes no more than half the office will be on calls at the same time — is more common.

5. DATA-INTENSIVE CLOUD/SAAS/WEB APPS

Cloud, SaaS, web — no matter what you call it, these apps and services are increasingly prevalent.

"We all use multiple cloud products daily," Bremmer says. While apps such as Gmail are designed to be lightweight and usable from, say, a smartphone on a mobile network, the use of multiple services by multiple users in an office environment, often in always-on fashion, quickly adds up to require more and more bandwidth. And that's without even taking into account any personal use adding to consumption. "Anything that is media-intensive [is] going to take up bandwidth — it's really that simple," Bremmer says. Demand multiplies as the company grows, too.

"Most people in their daily business, especially if they're doing any [content] creation — art, marketing collateral — they're going to need bandwidth," Bremmer says. "And bandwidth is cheap — a lot cheaper than what you're paying those people to work."

Related Reports

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[Private Direct Connects: Fast Lane to Cloud](#)

[Remote Site Slowdowns? 3 Last-Mile Fiber Fixes](#)

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As more and more mission-critical applications move to the cloud, some industry verticals are especially well-suited for fiber because they rely on heavy-duty, data-intensive apps or other high-frequency database connections. We've already covered the health care sector as Exhibit A. Agrawal mentions design, architecture, financial services and gaming as other vertical examples.

CONVINCING CUSTOMERS TO INVEST IN FIBER

For partners, selling applications and services on top of fiber, whether as a bundle or separately, comes with both good news and challenges.

On a positive note, the benefits of fiber are, again, easy to explain: faster speeds in both directions, higher reliability and greater scalability for future business needs. Moreover, marketplace awareness of these upsides is already strong, according to Techaisle's Agrawal: "The customer is already educated."

That doesn't make the sale a slam dunk, however. Commercial fiber is, of course, going to be more expensive than lower-end options. Some customer sites may also involve additional upfront costs associated with installation. That can cause skepticism, perhaps especially among smaller business clients. Higher costs can also be exacerbated by the "good enough" approach to technology in some organizations. How do you solve that challenge?

"Channels have to demonstrate the ROI associated with fiber: high productivity, high reliability and long-term costs savings," Agrawal says.

Bremmer similarly advises selling business outcomes instead of technical specs or other factors, in order to convince customers the difference in sticker price is worth it over time. He returns to payroll and infrastructure costs as a basis for making an ROI case: If you're paying 20 employees an average of \$50,000 annually, that's a \$1 million yearly investment before you've spent a dime on hardware, software, office space or other needs. So what are slow network speeds, downtime and other performance issues costing you? Hint: It's probably a lot. It's sort of like buying an expensive high-performance car, but refusing to spend any money maintaining it.

Bremmer offers some other no-nonsense advice: When it comes to fiber, sell on results, not on price. Customers that prioritize the lowest possible price over everything else, including service quality, become an ongoing pain — let someone else sign up that problem, he advises.

"If the product doesn't work, the price doesn't matter," Bremmer says.

The approach isn't about squeezing every possible dollar out of a client. Rather, it's about ensuring you can deliver on the promise of fiber and the high-quality applications and services it enables.

"My job is not to convince every customer they need to spend more," Bremmer says. "My job is to create business outcomes for the customer."