



Fiber to the Home Growth (FTTH) — How and Why Insight

/ Industry, Trends / By Cables Unlimited

The global Fiber to the Home (FTTH) market is currently forecast to end 2023 at \$23.4 billion, increasing at a compound annual growth rate (CAGR) of 15.1%, reaching nearly \$96 billion by 2033.

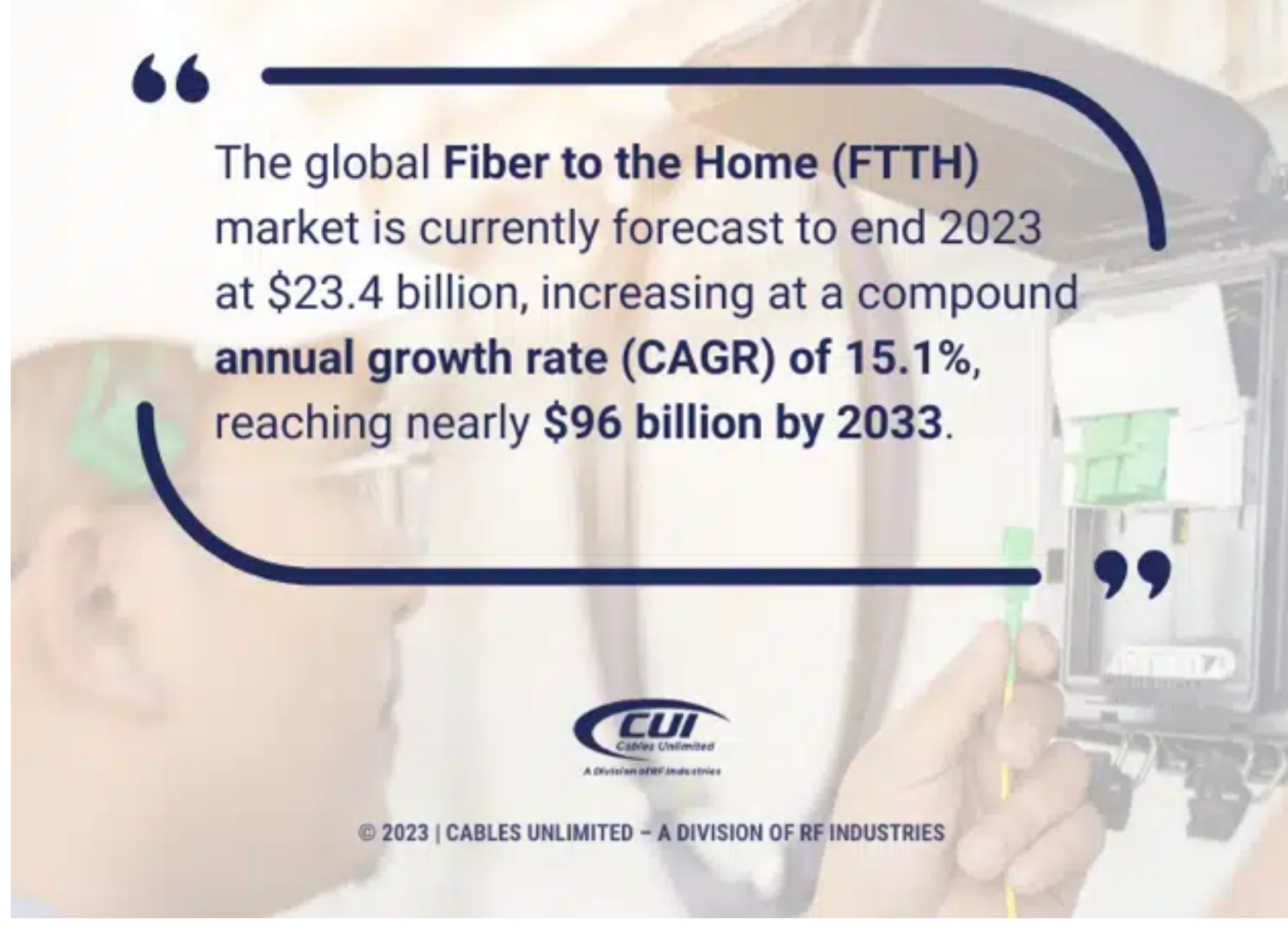
This article defines FTTH, highlights its benefits, digs deeper into the factors behind its growth, and covers how it works.

What Is Fiber to the Home (FTTH)?

Fiber to the Home (FTTH) is a broadband network architecture that employs optical fibers to carry high-speed internet and other communication services directly to homes.

FTTH is often called "all-fiber" because it replaces the traditional copper wiring with optical fibers. The fibers are connected to homes and businesses through a central office switch or head-end, which connects the optical fibers and the home.

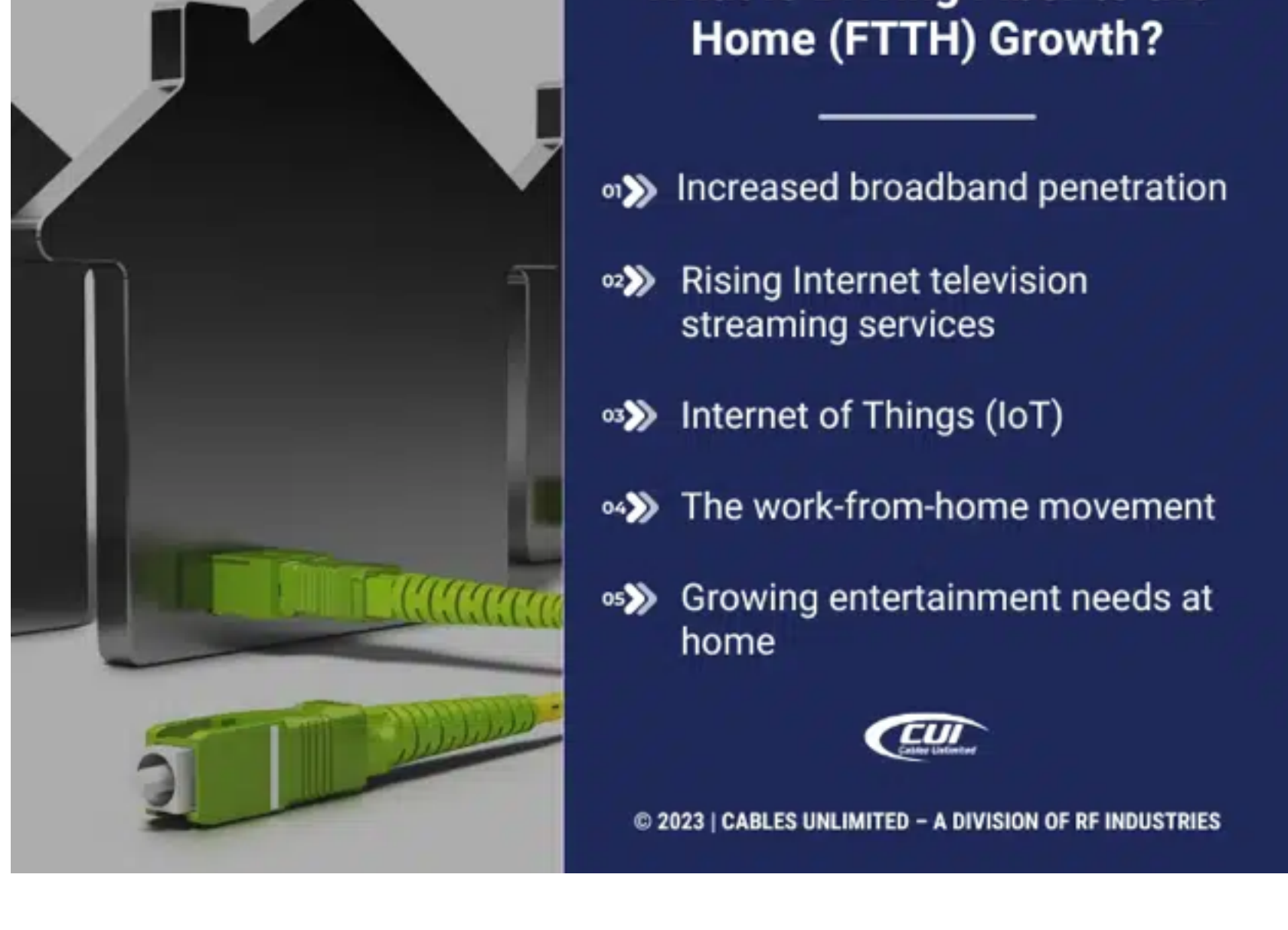
This same approach is also used for fiber to the building (FTTB), curb (FTTC), desk (FTTD), and premises (FTTP). All these locations can take advantage of fiber optic cable's faster speeds of up to 1 Gbps. This is compared to the coaxial cable or twisted pair speeds of up to only 100 Mbps.



What are the Benefits of Fiber to the Home (FTTH)?

As noted above, the transmission speed and broader bandwidth are significant benefits of using fiber optic cable in almost every possible application. With fiber to the home, there are even more benefits.

- Enhanced Security. Fiber optic cables do not radiate signals, as does copper or coax. It's also tough to tap into a fiber optic cable. Those characteristics greatly enhance security and avoid cybersecurity challenges.
Reduced Interference. Those same fiber optic cable characteristics that enhance security also minimize interference from outside signals.
Improved Durability. Optical fiber cables are more durable than copper twisted pair and coaxial cable, requiring less maintenance.
Expanded Flexibility. All too often, a copper-based network will run up against bandwidth challenges as more users are added.
Build for the Future. Even if the number of users remains the same, the number of network devices continues to increase.



What Is Driving Fiber to the Home (FTTH) Growth?

As stated above, the significant growth in FTTH has been from increased broadband penetration, rising Internet television streaming services, and the overall growing telecommunication industry.

Indeed, the Internet of Things (IoT), where everything is connected everywhere and always, is a significant factor driving the need for increased bandwidth and speed.

Working from home was growing before the pandemic made it mandatory. Many are staying with the approach now that everyone has tumbled to the benefits.

The expansion of work from home and growing entertainment needs at home means that high-speed internet is not only expected, but it's also demanded and avoided if it's not there.

How Does Fiber to the Home (FTTH) Work?

As expected, fiber optic cables connect everything to the home from the central office, the transmission source. That involves an optical line terminal (OLT) at the central office.

Connecting Optical Fiber to the Home. Two main methods of connecting optical fiber to the home: Overhead cables, Underground cables.

At home, optical network units or terminals route the signals to the home's Wi-Fi router or use Ethernet to get the signal to computers, televisions, and anything else in the Internet of Things (IoT).

All of that takes fiber optic cable assemblies to patch the signal from one device to another, whether at the central office, the transmission splitters, or the home.

The significant advantages of custom pre-terminated cable assemblies are that they can be pre-tested, manufactured in quantity, and dropped into place in the field.

They can save as much as 50% on installation costs. In addition, since the termination is precision polished and tested at the factory, these procedures are not needed in the field.

That also allows faster installation and cable performance that's already been measured. All that further reduces waste when cutting and trying cables and connectors in the field.



We Can Meet Your Fiber Optic Cable Assembly Needs

We are a Corning Gold House Partner and work with many other suppliers to source materials. We also have extensive in-house capabilities. Plus, we make it a special point to work with USA-based suppliers.

If your requirements are already specified and ready for a quote for your current projects, we are prepared to meet your deadlines and pricing targets.

But Cables Unlimited offers much more than state-of-the-art manufacturing —our dedicated team is also known for going to great lengths to meet the needs of our customers.

Our sales representatives are standing by to assist you with product questions and quotes Monday – Friday, 8:00 am to 5:00 pm Eastern. Of course, you can also email us or complete our contact form, and we'll get right back to you.

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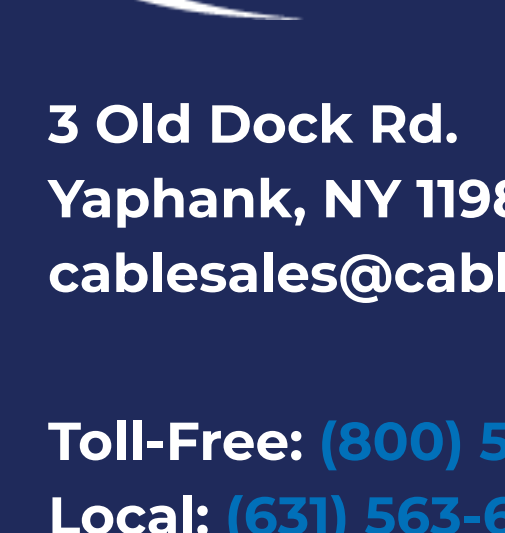
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