

Building a Fiber network

Google Fiber's ultra high-speed Internet and TV service is coming to the Raleigh-Durham area. Gigabit Internet will make it easier for you to do the things you love online. A gig can also help local small businesses grow and innovate; in fact the next generation of online apps could be created right here in the Triangle!

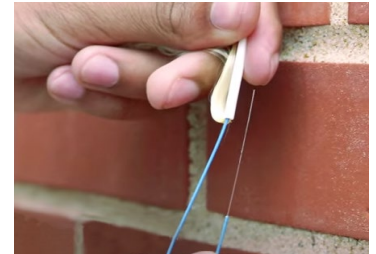
But before any of this can happen, we have to build a fiber network in your area. Over the past few months, our team of engineers has been hard at work designing this network for the Triangle, creating a detailed map of where we can put our thousands of miles of fiber. Now that our initial design is complete, we're ready to start construction.

Why build a new network?

Many homes in the U.S. connect to the Internet via a coaxial cable. Coax, which is made of copper, is fine for carrying small amounts of data at a time like one TV channel or phone conversation. But since coax was invented close to a hundred years ago, it just wasn't built for the kinds of things we use the web for today.

Fiber-optic cables, on the other hand, are much better suited to 21st century communications demands. We bring these fiber cables directly into our customers' homes to give them ultra high-speed gigabit Internet connections.

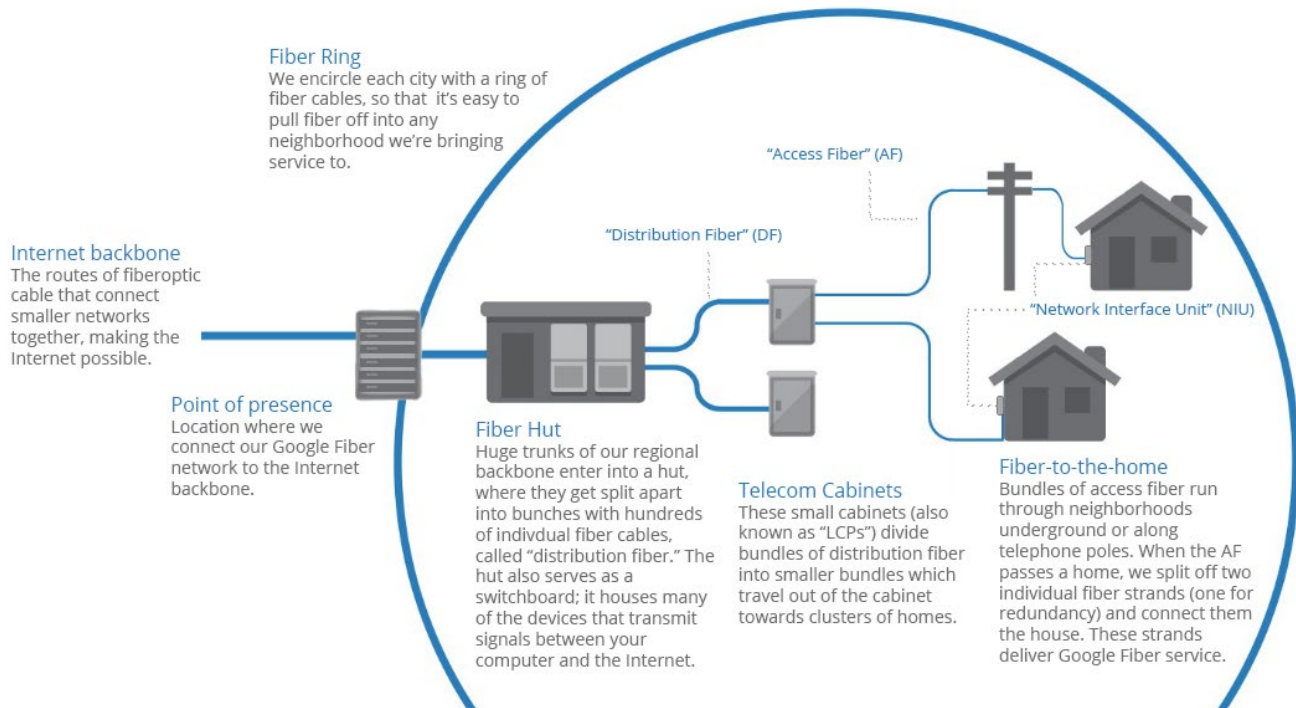
Installing fiber is a long-term investment in the Raleigh-Durham area — we're constructing thousands of miles of infrastructure that will enable the metro to be a leader in innovation and tech advances for years to come. Early research also shows that high-speed Internet services can drive billions of dollars in economic growth. According to Fiber to the Home Council, gigabit cities report a 1.1 percent higher per-capita GDP.



Coax is older than space exploration, jet engines and the ballpoint pen — yet it's still the technology many Americans use to get Internet service to their homes today. We use glass fiber cables in our network, instead. Fibers are about the width of a human hair, and they use lasers to transmit information at close to the speed of light.

What we build

Throughout the Triangle, we'll be installing enough fiber to stretch from here to California and back. We'll work with our contractor, Bechtel, to install this fiber either underground by digging trenches and burying conduit or aerially by hanging it along utility poles. This fiber will connect different components of our network across the metro:



To build Google Fiber in the Triangle, we'll

Constructing
~5,700
miles of fiber
(enough to stretch from
here to California & back!)

Installing
26
fiber huts

Attaching fiber on
more than
50,000
utility poles

...and all of this will take
hundreds
of construction workers.

What does construction look like?



1

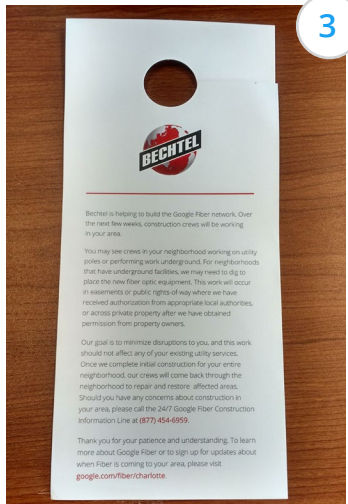


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1. This bright orange roll of conduit covers our fiber to protect it from the elements as we lay it underground.

2. We use a lot of different types of equipment to lay fiber. Here we're preparing the horizontal directional drill to bury conduit.

3. We'll give you a heads-up before we do construction on your street. Look out for these doorhangers, which will give you information about when and where we'll be working near you. We'll also provide a hotline you can call in case you have questions or concerns about the work we'll be doing.



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4. We have three priorities on the jobsite: safety, efficiency and respect. We'll work with utility companies and the local 811 team to locate existing infrastructure. Once we know where we can dig, we'll work quickly so that we don't block roads or sidewalks for too long. When we're finished, we'll clean up our equipment and dirt and leave your neighborhood as we found it.

Frequently Asked Questions

It looks like you're starting construction in my area. Does that mean we'll be the first to get Fiber?

Not necessarily. We'll be doing construction all across the metro area in the coming months, but we don't yet have a schedule for when and where we'll be able to offer service first.

When will you start signups for Google Fiber?

It's still too early to say. We have a lot of construction work to do first! We'll make an announcement as soon as we have an update about timing. The best way to stay in-the-loop is to signup for more information on our website, google.com/fiber.

Are you hiring?

We have a handful of Google jobs, which you can find on our website: google.com/jobs. We also rely on many contractors to bring Google Fiber to a city, and some of those companies may be hiring. You can find some of those partners listed on our website, at fiber.google.com/careers/

What happens if there are construction issues in my area?

We're going to work hard to keep disruption to a minimum. Our crews will work quickly, and when they're done, they'll return the construction area to the condition they found it in, whether that means patching any holes we had to dig, repaving streets or even planting new grass seeds when needed. If any issues come up, we'll also have a hotline available so you can get in touch with us 24/7.

How long will you be constructing in my neighborhood/city?

The amount of time it takes to bring fiber to a particular area varies greatly based on the size of the area, whether we're doing aerial or underground work, the local soil type, and even the weather conditions. We don't have a specific timeframe to share just yet, but we'll try to build as quickly and efficiently as we can, and will keep residents updated along the way.