



What is fiber Internet?

ting

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Internet for people who love the Internet.



Ting Internet is crazy fast. That means everyone in your house can do it all—stream, upload, download and work, all at the same time, without getting in each other's way.

Find out more at ting.com/internet

Dear reader,

It's great to meet you. We're Ting, a full fiber to the home Internet company. That means every home and business we connect on every Ting network has its own direct fiber optic connection to the Internet.

That's pretty extraordinary when you get down to it. In most places, copper networks are used for Internet communications. Copper networks, as you'll come to discover, were designed for phone calls and later TV signals. When it comes to the Internet, they're simply not up to the task.

We've evolved a fair bit since the days of cable and landlines. Today most of us can't imagine a world without the Internet, yet we struggle everyday with connections that are sluggish and slow, connections that offer limited bandwidth and block our ability to innovate.

At Ting, we believe there's a better way. Not just to make everything we do on the Internet today faster, but with capacity built in for us to use the Internet in new, incredible ways tomorrow.

We believe that fiber is transformative, bringing with it exciting new opportunities for the community at large and for young and old alike.

Ready to find out how? Let's talk about fiber. What it is, how it works and why it's crucial infrastructure for our future.

Thanks for reading,

The Ting Internet Team

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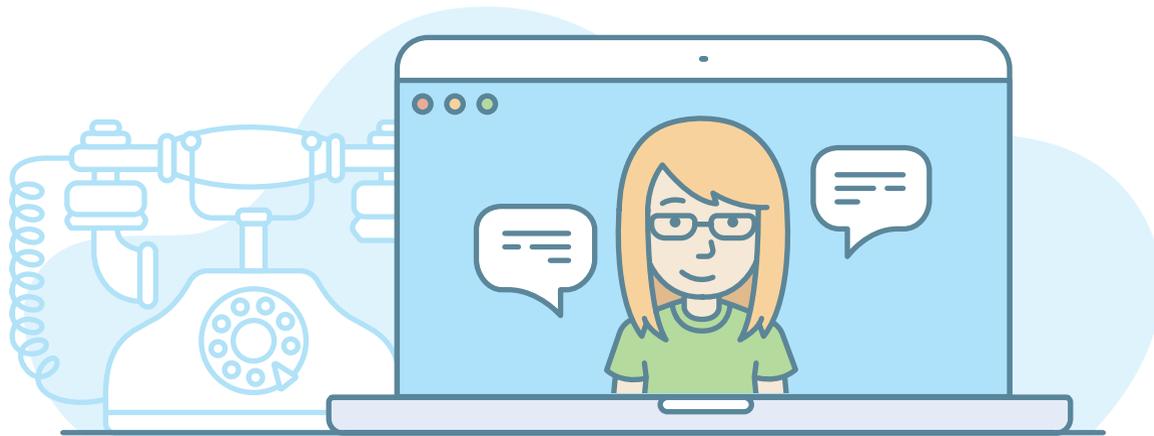
What is fiber?

Fiber is the first infrastructure created specifically for the Internet. It leaves old copper networks in the dust. Fiber is fast, really reliable and has huge capacity for future growth.

Fiber changes everything. It doesn't change the way you, the user, accesses the Internet though. All your connected devices work the same as they ever did. Just faster and with way more bandwidth available to everyone in your home or business.

As technology evolves, we'll need stronger and better Internet. Fiber factors this growth in from the start. In the US, Internet infrastructure lags far behind other parts of the world. Fiber is the great equalizer. The benefits it brings can be transformative for a community.

Think of this guide as your friendly intro to fiber Internet. We're going to talk about what fiber is, how it can make our lives easier today and why it's so important for the future.



History lesson: Copper communications networks were built for the latest innovation of the day, the telephone.

Future lesson: Fiber optic networks are built for the Internet and will support our needs well into the future.



Old, unreliable copper

Historically, copper was used to wire homes to telecommunications networks, mostly for the use of telephones and then cable TV.

However, with the advent of the Internet, copper's time had come.

Most Internet today runs off of copper. Why? Well, because it's there. But just because it's there doesn't mean it's the right infrastructure for the job.

Symptoms of not having enough fiber in your diet.

- 1 Your kids changed the Wi-Fi password on you so they can hog the bandwidth.



- 2 Slow, irregular Internet.

- 3 Feeling sluggish and backed up.

- 4 Your bandwidth is bloated and your browser keeps buffering.

- 5 When your coworkers gab around the water cooler about the latest memes, you're like, what meme?



- 6 You've broken up with multiple Internet Service Providers (ISPs). You're starting to think you're just too picky (you're not).



How fiber optics work

With fiber, communications are delivered along optical glass strands in light pulses. These fiber strands are almost perfectly transparent and each one is only about the width of a human hair.

A coating on each strand ensures “total internal reflection” so the light has nowhere to escape. Light is an extremely efficient method of sending data from point A to point B.

Compared to copper, where electrical signals are carried on bulky copper wiring, fiber makes for faster, clearer transmission.

On a fiber connection, video chats are crystal clear, uploading files to the cloud is a breeze and there’s no risk of anyone hogging the bandwidth. It’s a system made for the Internet.

This is about how much copper is needed to give 144 homes Internet access.

This is about how much fiber is needed to give 144 homes true fiber Internet access.

Types of fiber

Not all fiber is created equal.



Fiber to the press release

Big corporate promises of fiber. Little and often no fiber action. Beware of phrases like “Coming Summer 2025.”



Fiber to the node (FTTN)

Fiber makes it to a street cabinet, often miles from its final destination. Homes are then connected with, you guessed it, existing copper. Eww.



Fiber to the home (FTTH)

The best fiber there is. An end to end fiber from the network to your home or business. This is what Ting does!

With FTTH you can get upload and download speeds up to 1000 Mbps.

With Ting fiber, you can upload as fast as you download. With other providers, you might get a decent download speed, but often upload speeds are subpar at best.

Why is upload important? It lets you push to the Internet as much as you pull from it. That means contributors and innovators can add files to the cloud and work more efficiently than ever before.

Ahem, a word about Wi-Fi.

Not to freak you out or anything but a wireless router, even when it's wired to a fiber connection, is limited by its own, well, limitations.

You're going to get lower Internet speeds on Wi-Fi depending on what your device is capable of. From physical barriers to signal degradation, Wi-Fi is an improving, albeit imperfect tech.

Wireless is great and the trade-offs can be worth it. However, for the fastest connection (and especially if you want to do a speed test), a direct, wired connection is where it's at.



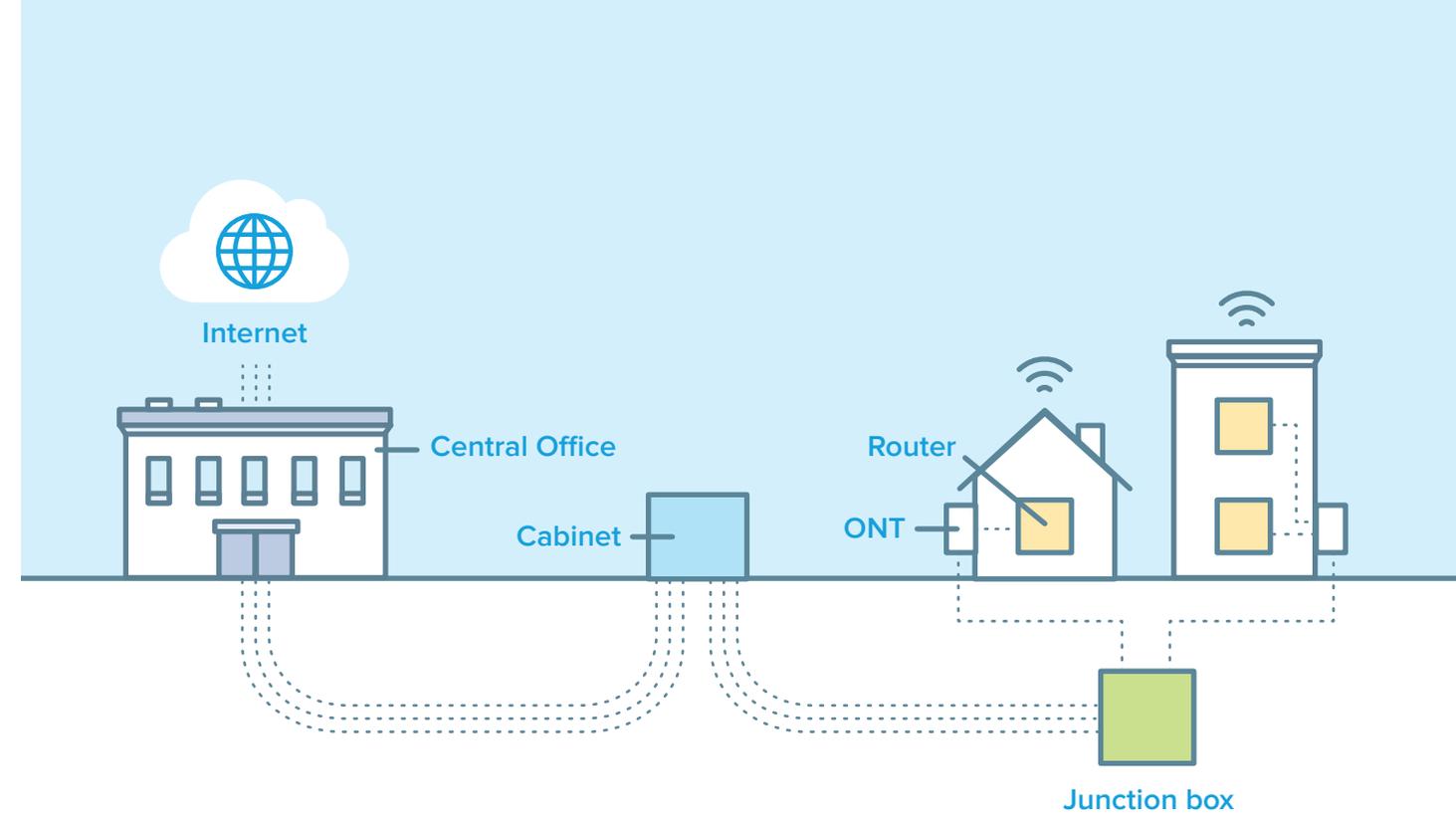
Fiber to the home

Why is fiber to the home (FTTH) the best kind of fiber? It gets you a direct connection to the actual Internet. Fiber is brand new tech for most neighborhoods and requires brand new infrastructure.

It might interest you to know that the main backbone of America's Internet infrastructure is fiber. From the larger

Internet, most towns, cities and metropolises get connected with old copper wiring, limiting our ability to use the Internet to its full potential.

FTTH brings the Internet of the future right to your door and into your home or business. It enables faster communication for a digital age.



Central Office: Where the optical signal gets distributed to a whole area.

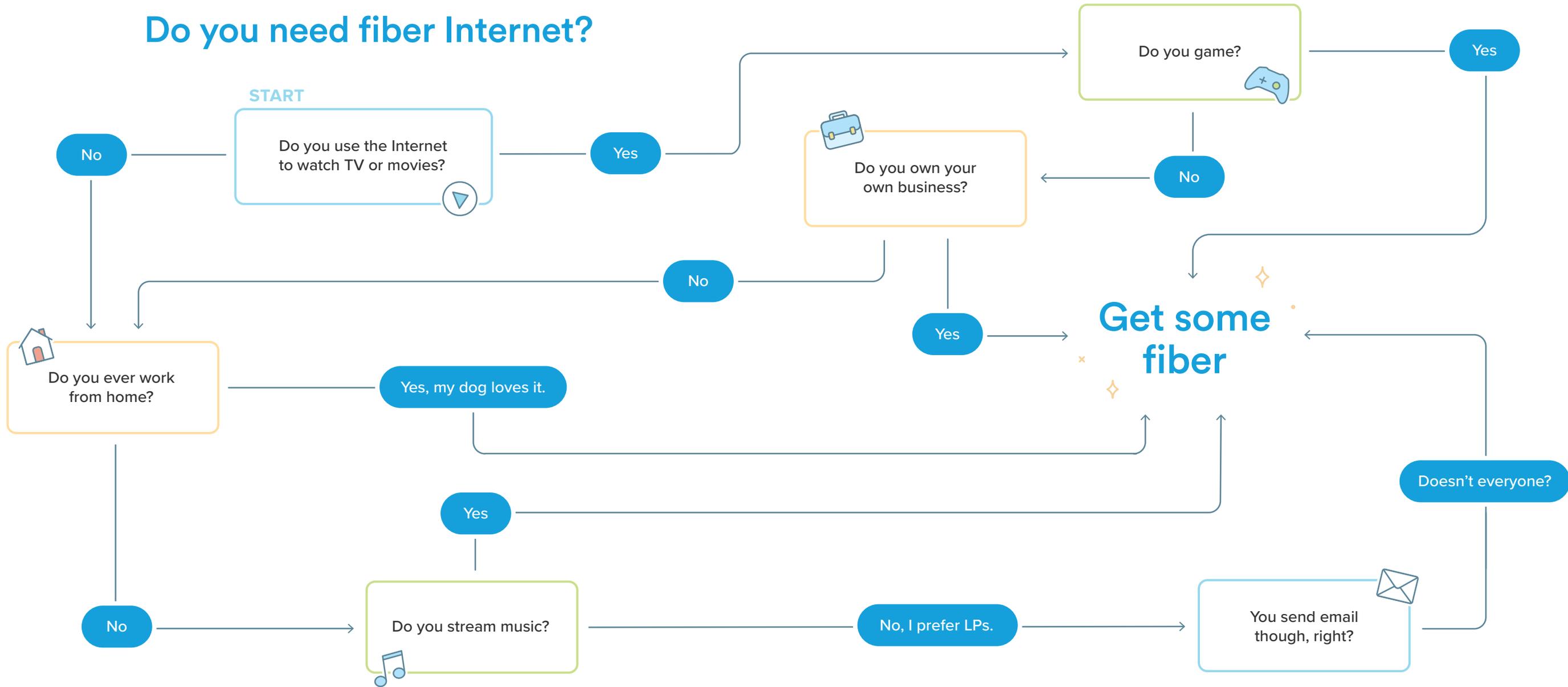
Cabinet: A network terminal that serves a number of homes.

Router: That thing that makes hard wired Internet wireless.

Optical Network Terminal (ONT): Where fiber connects with an Ethernet cable.

Junction Box: An access hatch where fiber splits off to individual homes.

Do you need fiber Internet?





Really reliable Internet

Imagine what it would be like if the Internet ceased to be. It would suck, right? Well, consider the inverse. Imagine what it would be like if the Internet was pervasive and so reliable you didn't even have to think about it anymore. That's what fiber does.

We rely on the Internet to do all the average stuff of life. We use the Internet to connect home security systems, work from home, order groceries, research school projects, video chat with grandma and more.

Gigabit infrastructure is important to America. The Internet has rapidly become a backbone of society. Education, business and healthcare increasingly rely on the Internet for more than just communication.

In the future, we'll use the Internet in new ways. That's why Ting builds in huge capacity right from the start, so you'll never get throttled or have to fight for bandwidth on the network when everyone's home at night.

Internet you can count on

Just ask Ting customers.



MEG W
Charlottesville, VA

"I never want to have to think about my Internet and now I don't. Things just work."



DEVIN G
Holly Springs, NC

"Ting is reliable, fast and they are really committed to customer service. You cannot ask for more."



Fiber is future-proof

True gigabit Internet, of the sort offered by Ting, gives you up to 1000 Mbps upload and download speeds. By any account, that's an insane level of speed. So, why would the average home or business want fiber?

For the future of course. Fiber is purpose-built infrastructure for the Internet. It recognizes our evolving use of the Internet and gives us the freedom, flexibility and choice to continue to grow.

Fiber helps us keep up on a global scale. It helps small businesses stay competitive and innovate for tomorrow. Every year, more Americans are telecommuting and working from home and in need of better Internet.

Better Internet isn't a luxury for home-buyers, it's a must. More and more, the appliances and services in our homes rely on the Internet. Better Internet makes smart homes run more smoothly.



FYI: future-proof your home

A 2015 study conducted by the Fiber Broadband Association showed that access to a fiber Internet connection can increase a home's value by up to 3.1 percent.



Better for businesses

Do more with fiber Internet.

The way businesses use the Internet has changed rapidly in the last 20, 10 and even five years. Today, startups and tech incubators are doing more with the Internet than ever before.

Fiber makes the Internet more useful. Video calls are seamless. Designers can share large files to the cloud in seconds.

Teams can contribute to the Internet and create game changing products and experiences for customers.

The availability of fiber draws new businesses to towns and creates jobs. Entrepreneurs don't want an Internet connection to slow down their vision.



Net neutrality: kind of a big deal

You know what makes innovating with the Internet that much easier for startups? A free and open Internet.

Regardless of what the FCC decides, Ting will continue to follow the principles of net neutrality, which prevent ISPs from blocking or controlling what their customers see online or have access to.

Some of today's biggest, most successful and truly industry-changing companies started off as small endeavors. Fiber has limitless potential for businesses.

That potential can be seriously squashed if ISPs throttle and block connections. We don't do any of that.

What kind of Internet user are you?

Take the quiz.

How can your family and friends reach you?

- A** Discord. Failing that, WhatsApp.
- B** My phone, obviously.
- C** Homing pigeon.

How do you feel about robots surpassing human intelligence?

- A** I have an AI rendered painting hanging on my wall.
- B** Well, we had a good run.
- C** Inconceivable!

Spring, summer or winter?

- A** Spring 🌹
- B** Summer.
- C** Winter! It's the character building season.

What 90s reboot are you hotly anticipating?

- A** Bring back Picard.
- B** The Matrix.
- C** Was Lassie in the 90s?

How many devices do you have connected to the Internet at home?

- A** "Alexa. How many devices are on my network right now?"
- B** Probably five.
- C** My phone and my email machine.

In a word, the Internet is:

- A** Home.
- B** Useful.
- C** Tubes (a series thereof).

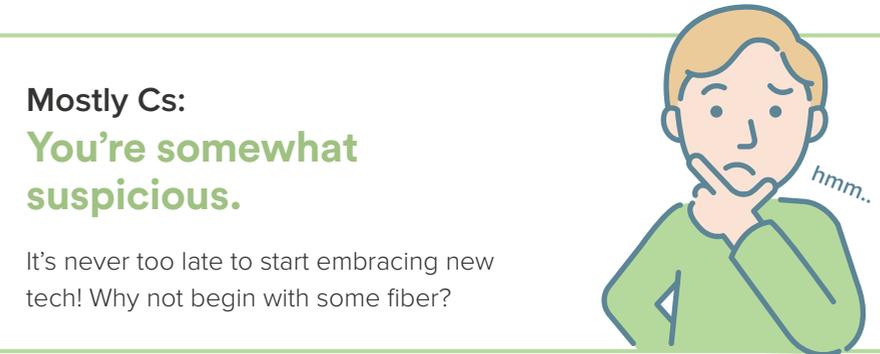
Mostly As: You're totally techy.

You're the first to embrace new and emerging tech. Way to go!



Mostly Bs: You're super savvy.

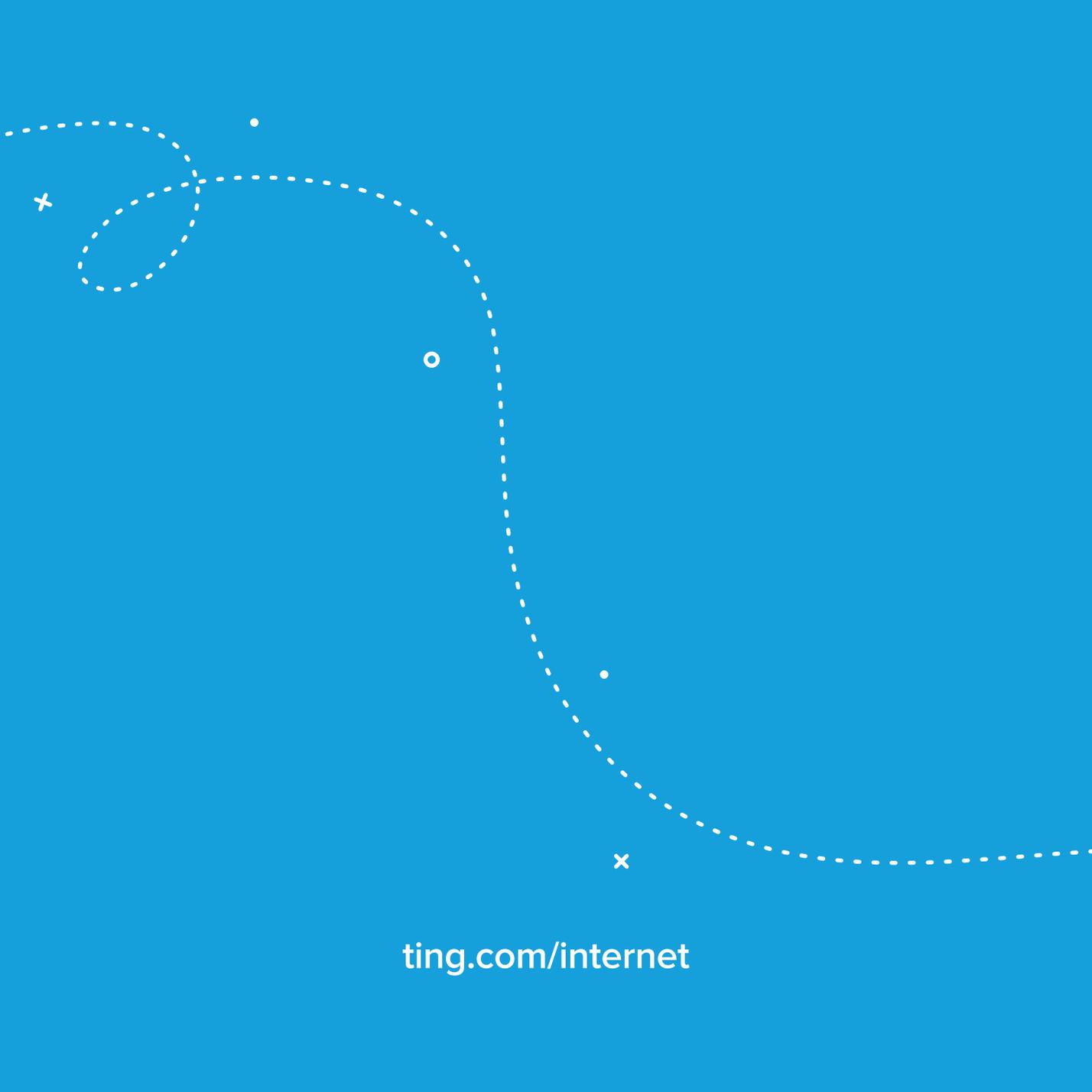
You use technology every day without even thinking about it!



Mostly Cs: You're somewhat suspicious.

It's never too late to start embracing new tech! Why not begin with some fiber?

No matter what type of Internet user you are, you can learn more about fiber.
Get ready for the future at ting.com/internet



ting.com/internet