Home Internet Service That Works For You

A what-you-need-to-know guide for Chicagoans by Chicagoans

A project of Chicago Digital Equity Coalition
November 2023
Table of Contents

Introduction 3

Internet Speed Basics 5

Choosing Internet Speeds 6

Types of Internet Connections 8

Finding Internet Service 9

Signing Up For Internet Services 11

Getting A Modem and Router 13

Other Services 14

Changing My Internet Service 16

Checking Your Internet Speed 16

Dealing With Slow Internet 18

Learning More About Community Resources 20

Recap: Questions To Ask When Getting Internet 21
Introduction

Maybe you’ve thought about home internet service, but you aren’t sure where to start. Or you have internet service, but you aren’t sure if your current plan is best for you. This guide is for you!

This guide...

• **Introduces you to all things home internet, including devices you may need, what internet speed is right for you, and more**

• **Shares common questions to ask internet service providers to get the services that match your needs**

• **Includes local resources such as affordable internet programs and places to get help if you would like more support**

Who made this guide?
Chicagoans like you! This is how we got here:

In 2022, the Chicago Digital Equity Council met with hundreds of community members to learn about their technology needs.

Thousands more took part in surveys to share what they think.

These shared ideas grew into the Chicago Digital Equity Plan. (Ideas like making a community internet guide!)

The plan is now guiding these efforts in the City of Chicago with help from organizations and community members across the city.
Why did community members want this guide?

Chicagoans need reliable internet service for many reasons:

- Searching for a job
- Working from home
- Doing homework
- Taking online classes
- Managing health
- Connecting with friends and family

But getting home internet isn’t always a clear process. And the choices aren’t the same from neighborhood to neighborhood.

We needed a guide to understand the ins and outs of home internet service. That way, we all have the information we need to make the decisions that are right for us.

More about bandwidth

Bandwidth is how your internet connection handles activities like emailing, streaming movies, or video chatting at any time.

Usually, you also want tasks like these to be quick, too:

- Downloading - getting something from the internet onto your device (I need to download the job application).
- Uploading - sending information from your device to another place (I want to upload a new image to my social media account).

let’s get started!
You want internet service that works well for your household. That means having the right speed for what you need.

How much internet speed does my household need?

Here are 3 things to think about:

1. How much bandwidth do I need?
2. How do we use the internet in my home?
3. What internet speed meets my needs and budget?

How my household uses the internet

Take a minute to think about who uses the internet in your home. What do they use it for? You may need to ask some questions!

Do you and others in your household use the internet for light tasks or heavy tasks?

**Light Use Tasks**
- Emailing
- Browsing the internet or social media apps
- Watching short videos or listening to music

**Heavy Use Tasks**
- Working online from home or video meetings
- Playing video games
- Watching movies
- Doing several things online at the same time or using multiple devices
Choosing the internet speed you need

We measure internet speed by how fast data passes through an internet connection in one second. This measurement is called megabits per second or, more commonly, Mbps.

Internet speeds can range from 0-1,000+ Mbps. Fast internet is usually a speed of 100 Mbps and higher. The higher the internet speed, the higher the cost, usually.

**Why is this important?** If we need more speed than we have, our internet usually won’t work too well. If we have a higher speed service than we use, we might be paying for a service we don’t need.

Use the chart below to find the internet speed for your household size and need:

<table>
<thead>
<tr>
<th># of People or Devices Online at the Same Time</th>
<th>Speed You Need for Light Use Tasks</th>
<th>Speed You Need for Heavy Use Tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2</td>
<td>50 Mbps download speed 5 Mbps upload speed</td>
<td>100 Mbps download speed 10 Mbps upload speed</td>
</tr>
<tr>
<td>2-4</td>
<td>100 Mbps download speed 10 Mbps upload speed</td>
<td>200 Mbps download speed 15 Mbps upload speed</td>
</tr>
<tr>
<td>4-6</td>
<td>200 Mbps download speed 10 Mbps upload speed</td>
<td>500 Mbps download speed 20 Mbps upload speed</td>
</tr>
<tr>
<td>6+</td>
<td>300 Mbps download speed 15 Mbps upload speed</td>
<td>1000 Mbps download speed 30 Mbps upload speed</td>
</tr>
</tbody>
</table>

Most internet service providers offer 50 Mbps download speeds in basic-level plans.
Shauna’s story: Thinking about internet speed

I have two teenagers who LIVE on their phones, use internet to do homework, and play a LOT of video games on the weekends. I sometimes work from home and need to be able to take video calls.

Since there are 3 people in her home that use the internet a lot, Shauna might think of her family as heavy internet users.

She could choose an internet speed of 200 Mbps download speeds/15 Mbps upload speeds or higher if they are all using the internet at the same time. (Think scrolling on social media + playing video games online + streaming a movie.)

If Shauna is mostly using the internet when her kids are at school, she might find that 100 Mbps download speed/10 Mbps upload speed is enough for her family.
You might notice that there are different ways to connect your home to the internet. Different companies offer different types of connections. Broadband is an umbrella term for different types of fast internet.

Often, options depend on where you live. In fact, some people may only have one type of broadband available in their neighborhood.

### Types of Internet Connections

<table>
<thead>
<tr>
<th>Internet Type</th>
<th>How It Works</th>
<th>Good to Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital Subscriber Line (DSL) Internet</td>
<td>Uses phone lines to bring internet to your home</td>
<td>Usually slower than cable and fiber but popular when other options aren’t available. Doesn’t tie up phone line.</td>
</tr>
<tr>
<td>Cable Internet</td>
<td>Uses wiring installed by cable TV companies, sometimes in combination with fiber, to bring internet to your home</td>
<td>Very common choice, especially where fiber is not available. May be slower or less reliable than fiber. Often comes with cable TV deals.</td>
</tr>
<tr>
<td>Fiber Internet</td>
<td>Uses fiber optic cables to bring internet to your home</td>
<td>Fastest and most reliable type of wired internet and considered “best” type when available. Only in some neighborhoods.</td>
</tr>
<tr>
<td>Wireless Internet</td>
<td>Uses radio signals instead of wiring to bring internet to you, similar to internet through your phone</td>
<td>Provides wi-fi to homes in similar way as cell phone service. Signal quality can depend on how close you live to a cell tower. Affordable but may not be everywhere yet.</td>
</tr>
</tbody>
</table>
Satellite cable is an option, too, but it is more common in rural areas and often much slower than these other types of internet services.

**Finding internet service options in your area**

Not sure where to start? If there are internet service providers you are already familiar with, you can go on their website and find out whether they serve your address.

Check out the City’s Internet and Computer Resource Hub at [chi.gov/digitalresourcehub](http://chi.gov/digitalresourcehub). Check out computer classes and other resources in your neighborhood. You can also find organizations that can help you sign up for internet services.
Kelvin’s story:
Thinking about internet companies

We just moved and want internet service for our kids so they can do their homework. At our old place, we just used the library across the street or the hotspot on my wife’s phone.

But the kids are getting older, and we need more stable service.

Where should Kelvin start?

It’s probably a good idea for Kelvin to think about how often the kids will be online and if he and his wife plan to use the internet a lot, too.

He might want to think about if they have devices like a voice assistant or streaming device they use. Here are some things he can do:

• Go to the website of internet service providers to see if they serve his new address.
• Check out neighborhood organizations that offer support in finding these services through the Internet and Computer Resource Hub at chi.gov/digitalresourcehub.

Once Kelvin’s family knows their choices, they can see how they line up with their needs in terms of speed and budget.
Signing Up for Internet Service

Let’s talk about what you need to think about when signing up for service, including contracts and costs.

Understanding what you are agreeing to

For any internet plan, look for:

- Internet speed that’s fast enough to meet your needs
- A reliable type of connection
- A monthly bill that fits your budget (and no hidden fees!)

There are a few more things to think about before making your final decision.
Types of plans

You need to know if you are signing up for an internet service that includes a contract for a certain amount of time or is month-to-month.

<table>
<thead>
<tr>
<th>Benefits of Contract Plans</th>
<th>Benefits of No-Contract Plans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monthly rate might be lower with a contract plan</td>
<td>Flexible and easy to change plan at any time</td>
</tr>
<tr>
<td></td>
<td>Can cancel plan at any time with no fee</td>
</tr>
</tbody>
</table>

The monthly rate for a no-contract plan might be higher than contract plans. With contract plans, it might be harder to cancel your service before the end of the contract if your needs change.

If your apartment building has an exclusive agreement with one internet provider, you don't have options to choose from.

Getting a deal

Sometimes, a deal is good for a certain amount of time. For example, you might have a faster speed for several months or the cost might go up after a certain number of months. Or there might be times that your internet works faster than other times.

Data limits

You want to know if your plan limits how much data you can use over a time (like monthly or over a billing cycle). This is also called a data cap. If you have a data cap and go beyond it, a few things could happen:
• Your internet speed could slow down
• You might get charged big fees if you use more data than your plan allows

Make sure you know how to check your data usage if this is the case.

Getting a modem and router

Depending on your budget and needs, you can either rent or buy the devices you need for home internet. A modem connects the internet to your home, and a router connects the internet within your home. You might get a separate modem and router or a combination modem/router.

Some plans build in the cost of the modem and router, and you can keep the equipment. Some plans build in a fee to rent the equipment.

If use your own equipment, you will have to manage any security software updates on your own. Make sure they will work with the internet provider’s system and plan you choose.

Bundling services

You may see ads about bundling services. Bundling is a discount for buying more than one service from an internet provider. An example is getting internet from the company that you also get cable tv or cell phone service from.
You also might find out other helpful services come with your plan:

- Additional cybersecurity features to make your devices safer
- Access to wi-fi hotspots that allow you to connect to wi-fi outside of your home

### Bundling Internet and Cable TV

<table>
<thead>
<tr>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Deals on home services</td>
<td>✗ Contract requirements</td>
</tr>
<tr>
<td>✓ One bill to keep track of</td>
<td>✗ Price increases or deals that only last for part of your contract</td>
</tr>
<tr>
<td>✓ Maybe extra tv channels or faster internet speeds</td>
<td></td>
</tr>
</tbody>
</table>

### Bundling Internet and Phone Service

<table>
<thead>
<tr>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Special deals</td>
<td>✗ Less flexibility to upgrade/contract requirements</td>
</tr>
<tr>
<td>✓ Lower monthly fees</td>
<td>✗ Weaker cell service when network is very busy</td>
</tr>
<tr>
<td>✓ Only one bill to keep track of</td>
<td></td>
</tr>
<tr>
<td>✓ Access to 5G internet</td>
<td></td>
</tr>
</tbody>
</table>
Mai’s story: Thinking about deals

I have cable and phone services. Both companies offered me a cheaper rate for those other services if I got my internet through them.

I would need to commit to a contract for the next 2 years.

Where should Mai start?

Mai thinks about...

- If she plans any big life changes any time soon
- If she is happy enough with both services to keep them for 2 more years
- The deals both companies offer for bundling

Once she answers these questions, she can compare the offers and decide if she wants to go with one of the companies for her internet services, too.
Changing My Internet Service

Maybe you already have home internet, but you aren’t happy with your service. Maybe...

• You are paying for more internet than you need
• You need a higher internet speed than you have

Here are some things to think about to match your internet service to your needs and budget.

Checking your internet speed

Internet speed tests can help you make sure that you’re getting the service you’re paying for through your internet service provider.

If you already have internet service, your download and upload speeds should be close to the number of Mbps you’re paying for through your internet service provider. The upload speed is almost always lower than the download speed. You can find this information in your account if you aren’t sure.

If your internet speed does not match the speed you are paying for, contact your internet company to let them know or follow the tips below to improve your service. If you aren’t happy with your plan, see if they can help you fix it, or think about switching plans.
Finding your internet speed is free and easy. An internet speed test measures how fast you can download and upload content. It tells you how fast the connection to your device is at that very moment.

You can take a speed test online. It only takes about a minute to get your results. You could do the test more than once to see if you get different results. Here is how it works:

1. Go to Measurement Lab’s free internet speed test at https://speed.measurementlab.net/
2. Click on the button, Begin Test
3. Wait about a minute for the website to measure your speed
4. Review the download and upload speeds in Megabits per second (Mbps) and see if they match what service you need or are getting

To get the most accurate speed test results, connect your device directly to your modem using an Ethernet cable, and then run the speed test.
**Tiffany’s story:**

**Thinking about switching plans**

After talking to my friends, I realized that I am paying much more for internet than them even though I use it a lot less. I want to figure out if I can switch to a cheaper option.

**Where should Tiffany start?**

Tiffany does an internet speed test and realizes she is paying for an internet speed that a large family might use even though she lives alone!

She calls her internet company and switches to a plan with a lower internet speed – and lower cost!

**Dealing with slow internet at home**

First, let’s talk about why home internet is often slow:

- Your plan speed is too low for your needs
- Your devices are old or outdated
- You have too many tabs or apps open
- Your router signal is blocked or too far from your devices
- A lot of people are online at once in your home
- Viruses or malware on your computer are slowing it down
What to try if your internet service is slow

Here are some things to try if your internet is slow:

**Restart devices:** Restart your device in case the system needs to be updated, or you have too many apps or programs open.

**Reboot modem/router:** Pull the plug, wait, and plug it back in. For separate modem and routers, unplug each device for ten seconds before plugging them back in. It may take a few minutes for your modem to reconnect to your internet service and get back online.

**Move the router:** Put the router in a central location on a coffee table or TV stand. Avoid the floor and keep it away from metal and other electronics such as a microwave or radiator.

**Try using a cable instead of Wi-Fi:** Connect your computer to the internet using an Ethernet cable, a cord you directly plug in to the router or modem that can provide a more stable connection.

**Check for outages:** Go to your provider’s website or app on your cell phone to find out if there are internet issues in your area.

**Still having trouble?** Call your internet service provider to report your issue.
Learning More About Community Resources

There are many supports available in the Chicago area to help you get online! Here are some to get you started:

Need help with your technology? You can call the YMCA of Metropolitan Chicago’s IT Help Desk at 312-440-2416. Service is available in English and Spanish from 8:30 am – 4:30 pm, Monday – Friday.

Need help enrolling in the Affordable Connectivity Program (ACP)? The Affordable Connectivity Program (ACP) is a government program that provides up to a $30 per month discount towards the cost of internet services to eligible families.

Many internet providers have high-speed plans specifically for ACP recipients, so be sure to ask a provider about plan options that are fully covered by the $30 monthly ACP benefit.

You can go directly to getinternet.gov to see if you are eligible and sign up. Visit chicago.gov/ACP for a list of community partners who can help.

Contact one of them today to see if you can start saving!

Looking to build your computer skills or find an affordable computer? Visit Chicago’s Internet and Computer Resource Hub at chi.gov/digitalresourcehub and find support in your neighborhood.

Do you need internet at home right now? You can borrow a hotspot from many different branches across the city with a Chicago Public Library card. Contact your local Chicago Public Library branch to learn more.

To learn more about Chicago’s efforts to close the digital divide, visit chicago.gov/digitalequity.
Recap: Questions to Ask When Getting Internet

Internet Use

- How many people in my home will be online at the same time? Or use multiple devices at once?
- What other devices in my home use the internet?
- What type of tasks are we doing online in my home? (Scrolling the internet? Or watching movies and playing video games?)
- Is my household a heavy internet user or light internet user?

Broadband Connections

- What services are available in my area?
- What type of broadband matches my budget and speed needs?

Signing Up and Cost

- Am I eligible for a monthly discount through the Affordable Connectivity Program?
- How much can I afford to pay per month?
- What plan balances my internet speed needs and budget?
- Do I want to commit to a contract, or do I want a month-to-month plan?
- Am I interested in bundling my internet with phone or cable services?
- Do I prefer to buy a modem and router or rent a modem and router from my internet provider? Or is a modem and router built into the plan?
- Where will I keep track of important information like account information and passwords?