

Chapter Three

Speed Education

Learn about each of Astrea's coax speed packages and view our recommendations for usage with each one. You'll get a breakdown of recommended amount of users combined with activities or devices for each package. You can take a deeper dive into which activities use the most bandwidth and can have the biggest impact on speed. You'll also learn what a VPN is and who usually needs one.

Internet 50

The Ideal Household



1-2
people

When considering a speed package you need to consider how many people have the potential to be using the Internet simultaneously. If you have only two people in your household, even if one of you is streaming and one is just browsing online, 50 mbps should be adequate for you.

However, when you start to add even more aggressive applications, like online gaming, just one person using the Internet could be maxing out your speeds. Remember, we don't ever cap your data usage, but once you hit the threshold of your speed package, your speeds will start to suffer simply because you've maxed out your bandwidth

Internet Activities



Streaming Music
(1-5 mbps)



Online Shopping
(1-5 mbps)



Streaming Video
(5-10 mbps)



Video Calls
(10 mbps)

With Internet 50 and only 1-2 people using the Internet simultaneously, you should be able to perform all of these tasks without issue.

As a reminder, with every speed package, it's all about simultaneous usage. If one of you streams video while online shopping, while another is making a video call and streaming music, you are starting to approach your speed capacity.

Internet 100

The Ideal Household



2-4
people

When you start to have more than 2 people in the household, we typically see more aggressive usage of the Internet and also see a spike in simultaneous usage. **These two factors are very important and may even bump your family out of Internet 100 category into 500.**

It's always important to do the math before you select a speed package. Jump to the end of the guide to review the formula to calculate your ideal speed package.

Internet Activities



4K Video Streaming
(25 mbps)



Streaming Music
(1-5 mbps)



Online Shopping
(1-5 mbps)



Streaming Video
(5-10 mbps)



Video Calls
(10 mbps)

With Internet 100 and only 2-4 people using the Internet simultaneously, you should be able to perform these tasks without issue.

As a reminder, with every speed package, it's all about simultaneous usage. When multiple people are using the Internet for multiple activities, you could run into problems if you reach speed capacity.

Internet 500

The Ideal Household



4+
people

When you start to have more than 4 people in the household, you'll definitely need to consider 500 mbps speed package. Especially if you or someone in your household likes online game frequently. The biggest consideration here is the increased use of aggressive applications with greater simultaneous usage.

Internet Activities



4K Video Streaming
(25 mbps)



Video Calls
(10 mbps)



Gaming
(50-75 mbps)



Streaming Music
(1-5 mbps)



Online Shopping
(1-5 mbps)



Streaming Video
(5-10 mbps)

With Internet 500, get the freedom to stream, game and use the Internet with much more capacity than with the other packages. Spouse streaming the game, while your kids game or do homework, all the while you can stream music shop on Amazon.

Internet 1000

The Ideal Household



4+
people

This is the ultimate do-it-all package. This is ideal for families with multiple gamers, those that need to download large files for work or school, use Skype on a regular basis, stream all of your TV and anything else you can think of. If you need to do it all and won't sacrifice speed, this is the package for you.

Internet Activities



4K Video Streaming
(25 mbps)



Video Calls
(10 mbps)



Gaming
(50-75 mbps)



Streaming Music
(1-5 mbps)



Online Shopping
(1-5 mbps)

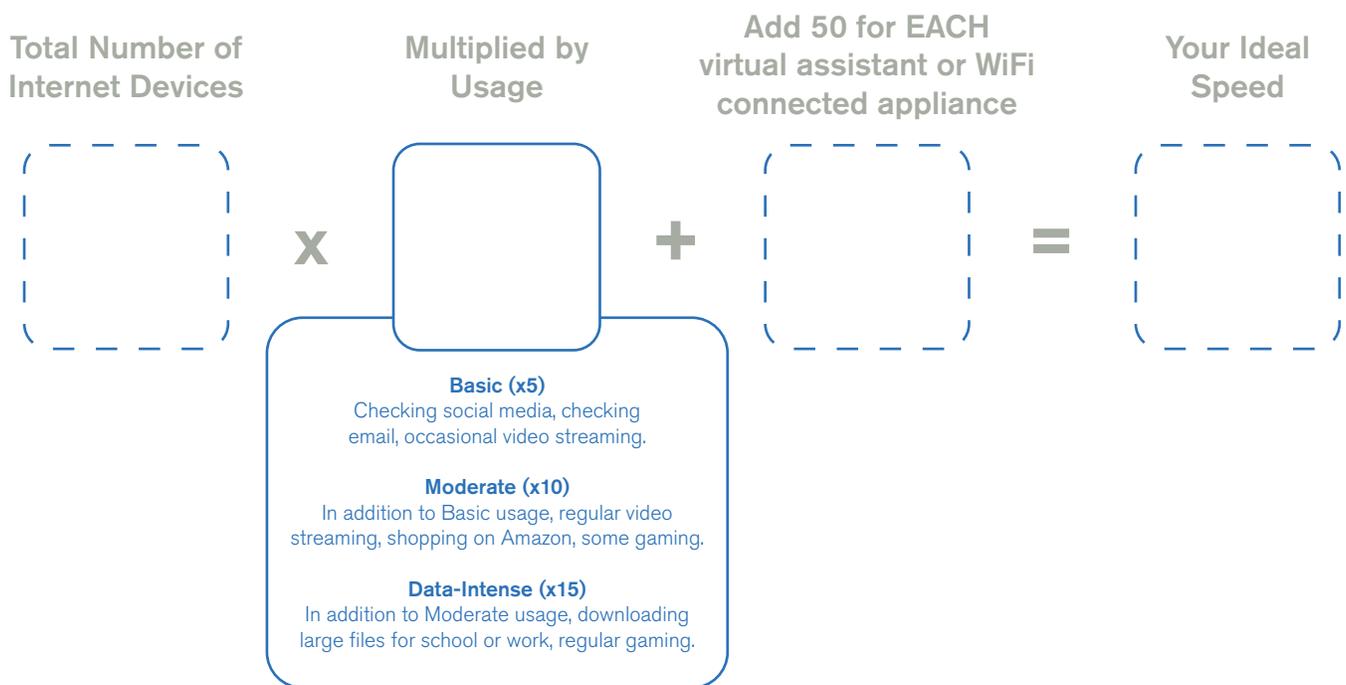


Streaming Video
(5-10 mbps)



Run the Numbers

Use the following equation to run a quick evaluation on your Internet speed needs.



Is your current speed up to the challenge to meet your needs?
Check to see if you qualify to get a faster speed package:



What Impacts My Speed?

More People More Speed

Typically, more people in a household means more connected devices. The more devices that are connected and simultaneously being used, means your eating up more speed. Here are some recommendations based on how many people are in your household:

People in the Household	Recommended Speeds
 1-2 people	→ 25 - 50 mbps
 2-4 people	→ 50 - 100 mbps
 4+ people	→ 250+ mbps

Connected Devices

As mentioned above, the more connected devices, the more speed required. However, even if you're the only person in your house and your streaming a show on Netflix that you forgot to turn off, browsing on Amazon and streaming music in your kitchen, you could be maxing out your speeds.

What You're Using the Internet For

Different activities require different amounts of speeds. Below are the minimum speed requirements for one person to enjoy the activity without interruptions:

 4K Video Streaming (25 mbps)	 Video Calls (10 mbps)	 Gaming (15-25 mbps*)	 Social Media (1-5 mbps per device)	 Email (1-5 mbps)
 Streaming Music (5 mbps)	 Online Shopping (5 mbps)	 Streaming Video (10 mbps)	 Virtual Assistant (1-5 mbps)	 Large File Transfers (50 mbps)

The above are general speeds that are needed for each activity. Actual speed usage will be dependent on a variety of factors. For example, streaming video at standard and HD definition require different amounts of bandwidth. Remember, these are only accounting for one person performing the activity at a time. When you have multiple people in your household, all using multiple devices, you can see you'll need greater speeds.

What You're Using the Internet For (Continued)

A special note on gaming.

With gaming, the most important factor is latency, or the amount of time it takes to request and retrieve information. You'll also want to consider if the game requires any voice connection to talk to other players. Although minimal requirements for gaming aren't usually very high (about 3 mbps - 6 mbps), keep in mind that that is only for one player and doesn't account for any other connections using the speeds in your house. We recommend at least **15 mbps per person** to ensure a consistent gaming experience.

As a reminder, the listed speed requirements don't include other devices running in the background like your phone doing updates, security cameras, smart thermostats, smart watches, smart appliances, smart light bulbs, smart doorbells and anything else running on your Internet connection.

As you can see, just doing one activity alone doesn't require a lot of speed. The biggest impact on your experience is simultaneous Internet usage (several people on multiple devices).



PRO TIP

With more people and devices connected all at once with increased simultaneous activities demanding your bandwidth, your current speed package may not be up to the task anymore.

Visit go.astreaconnect.com/rightspeed for a custom assesment.

What's a VPN and Who Needs One?

A VPN is a Virtual Private Network. Using a VPN adds security and privacy on public networks like hotspots, WiFi connections and more. Usually, if you're working from home and your business wants you on a VPN, it's for security purposes.

There are a few key items to note when using a VPN and how it impacts your connection along with how to troubleshoot on a VPN.

VPN Troubleshooting Tips

Experiencing slow speeds?

First, disconnect from the VPN and ensure you're getting normal speeds. Being on a VPN will generally degrade your service speed and bandwidth by about half.

For example, if you have 100mbps service, on a VPN, you will see speeds around 50mbps. Additionally, if there are two people working on VPNs in the house, this will degrade the service even further.

VPN Connection Issues

First you should check with a co-worker, or several, to see if they are also experiencing issues with the VPN. Generally, when there is increased use of the VPN in your company, the VPN tunnel can get bombarded with users resulting in a poor experience.

Check with your IT department to identify the size of the VPN tunnel to ensure that they have prepped the organization with enough bandwidth for the VPN tunnel.

Simultaneous Connections While on VPN

Ensure other people in your home are conscious of your work. If you are currently using your VPN connection while others in the house are streaming or on their devices, you could experience connectivity issues such as slow speeds or buffering that you typically wouldn't experience while off of a VPN.

Still struggling?

Reach out to your IT department and determine if there are times or situations that you can work off of the VPN or try to determine times that you can work offline.

Astrea is always here to answer any other questions you may have. You can reach us by live chat, email and phone. We also offer a 24/7 extended hours support line so you can always reach someone who can help you.

Live Chat



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Email



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Phone



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