Is Satellite Internet Fast Enough to Be Useful?

Meta description: Considering getting satellite internet service? Speeds are always a concern, but there are also other variables to consider. Explore all you need to know.

The United States has one of the best internet penetration figures in the world. The vast majority of American citizens have access to residential internet options. Some may have the option to choose between several providers at the same time. Meaning they're able to switch to a better offering like Cox customer service from a less reliable provider. However, cable internet or fiber are not the only forms of delivering internet access. If you live in an urban area, or a suburb located closer to a major city, you probably use fiber or cable. But for sparsely populated or more remote areas, this doesn't hold true. Satellite internet is often the only option. Is it any good? Let's find out.

Is Satellite Internet Fast?

As digital needs grow, so do the demands for internet speed. Businesses and residences alike prefer access to the fastest possible plan available. This is one big reason why so many internet providers have been busy reinvesting profits. Specifically in upgrading and expanding their infrastructure in the 2010s. The result is more extensive internet penetration and better services. However, this is typically limited to major populations centers and residential internet markets.

Realistically, this infrastructure and subsequent upgrades are typically governed by cost. After all, expanding a cable or fiber infrastructure is a massive capital expenditure. Most internet providers will only undertake it in areas with enough potential subscribers. This way they have a better chance to recoup their costs and turn a profit. This may not always be the case in a rural setting or inhospitable terrain like Alaska. The good news is, satellite internet can still reach where others cannot. Therefore, users in such areas can still gain reliable internet access. However, the bad news is satellite internet subscriptions are slower. Not painfully so, but they usually have slower speeds compared to other internet services. But before you discard it as an option completely, check out the information below:

How Satellite Internet Works

Satellite internet may be a bit slower than other types of internet services. But that is because of the way the service operates. A typical cable service carries digital signals along a coaxial cable. The signals travel through this cable from your device to the nearest Network Operations Center. From there it moves onto the requested server. The server then returns the request along the same route. These digital signals can travel faster and deliver better speeds. And thanks to extensive network expansion, they're able to serve higher volumes of users and traffic.

However, a satellite internet system usually works differently. The request travels from your device to the satellite transmitter fixed to your home. The transmitter then broadcasts it to a satellite in geosynchronous orbit above Earth. The satellite then broadcasts this signal to a network center located on earth. The network center will forward the request to the destination server. This server will return the request to the NOC. In turn, NOC will broadcast this request back to the satellite. The satellite will beam it back to the satellite receiver and through to your device. As you can see, this adds additional steps along the route of an information request. This is why the speeds can seem relatively slower.

Why Satellite Internet Is Not Obsolete

Satellite internet isn't always everyone's first choice. But there are solid reasons why it is still in use in many parts of the country. The biggest advantage is in its unique service delivery. The terrain does not matter. You don't need to lay down cables or a network. This allows it to offer internet access to areas that other internet providers may not be able to reach. Remote locations, rough terrain, and low population often form barriers to internet providers. They prevent larger companies from investing in cable or fiber infrastructure. The costs are not proportionate to the profits they can expect. However, satellite internet can do one better. It can offer areas that don't have these infrastructures relatively stable internet access.

Limitations with Satellite Internet

Of course, the paragraphs above shouldn't distract you from some very real limitations. Satellite internet, by virtue of its service delivery structure, is inherently slow. Therefore, it can cause you some difficulty. Especially when downloading or uploading large files. You may also have occasional trouble hosting video conferences or streaming HD videos. There is also the issue of higher latency. A request through a satellite internet system has a longer route than cable or fiber networks. This often makes life very difficult for online gamers. However, you should still be able to play single-player games just fine. Weather is another concern. Adverse weather conditions like overcast skies may cause some disruption. They can often interfere with the receiver's need for a direct line of sight to the satellite.

When To Choose Satellite Internet Providers

Satellite internet isn't bad. But it is usually not high on the list of priorities for home internet services. If you have the option of a cable or fiber internet provider in your area, that should always be your first choice. But if you are in an area with very few cable internet or fiber internet options, you should choose satellite internet. This is often the case in areas with lower populations or terrain that makes conventional internet infrastructures impossible to deploy.