

SpaceX Satellite Internet: What You Need to Know about Starlink

By Kristin Cooke | May 8, 2020

Imagine a world where everyone has access to broadband internet at affordable prices via a low-Earth orbit (LEO) satellite internet service. According to rocket development company SpaceX and its ubiquitous founder, Elon Musk that world is just around the corner.

In fact, the SpaceX LEO satellite internet service, dubbed Starlink, is set to launch a private beta sometime in July. If the private beta goes off without a hitch, a public beta could start as soon as November 2020.

What are Starlink and SpaceX?

SpaceX (the brainchild of Elon Musk) is an aerospace company that is currently developing a constellation of satellites to deliver internet worldwide under the name Starlink. Thanks to [reusable launch rockets](#), these low-orbit satellites cost a fraction of the price of typical satellite launches, making it easier and more affordable to launch satellites at scale.

Isn't satellite internet super slow, you say? Not anymore. SpaceX's satellite internet system is designed to offer blazing fast speeds up to [1 gigabit per second](#).

Within the next year, Starlink expects to offer satellite internet to the entire planet, including remote locations where internet isn't currently available. The plan involves launching a vast constellation of mass-produced satellites into low-altitude orbit. The satellites will transmit internet signals to earth-based hubs, delivering superfast connection speeds.

The plan for delivering SpaceX satellite internet seemed far-fetched until the [Federal Communications Commission \(FCC\) gave SpaceX the thumbs-up](#) to start launching the satellites. Once SpaceX got FCC approval, SpaceX pushed forward to testing and deployment. As of this month, [422 Starlink satellites have been launched](#).

Starlink might help bridge the digital divide

The United Nations reports that [internet access helps reduce poverty](#), improves economic opportunity and access to healthcare in the least developed countries. The problem is getting it to people at a price they can afford.

As of 2018, only [51.2% of the world's population](#) was using the internet, according to the latest report from the International Telecommunications Union. Availability differs by country, with the most underdeveloped countries often having the worst access. The World Bank reports that

in populations of developing countries, only [35% have internet access](#). And as the rest of the world moves ahead technologically, the wealth gap between those with and without internet is expected to widen. Starlink plans to bridge that gap.

Solving availability issues

Building out traditional internet infrastructure is costly because it involves installing thousands of miles of buried cables. But that's not the only thing keeping people around the world from connecting online.

Sometimes internet is available, but it's just too expensive. In some places, an internet connection is so expensive that only the wealthiest can afford it. For instance, in Zimbabwe, the average price for 1 GB of mobile internet data is more than five times as much as it is in the US.

The United Nations has set an [affordability standard for internet service](#). In order to be considered affordable, 1 GB of mobile internet data needs to be priced at less than 2% of the average monthly salary. SpaceX plans to offer affordable satellite internet to underserved countries at a price that's easier to pay. Rural areas around the world would also benefit with access to faster internet speeds at lower prices, making availability much less of an issue. [International gaming competitions and and video conferencing](#) would also benefit from Starlink's high-speed, low latency connection.

When is Starlink internet coming?

SpaceX CEO Elon Musk said that [at least 400 satellites](#) need to be in place and operational before "minor" internet coverage can begin. The first 60 test satellites were [successfully launched in May 2019](#). Additional launches over the next months fine tuned the equipment, with a steady launch plan settling into place by the end of 2019.

January 29, 2020 marked the [fourth successful satellite launch](#), bringing Starlink's running total of launched satellites to 240 (although the satellites launched in May 2019 were tests and may not be fully operational).

Additional launches are expected every month this year, with the full constellation projected to be in place within a few years. Customers in the northern half of the US and Canada may be able to [sign up for Starlink by late 2020](#). Starlink will be poised to offer internet service to most of the world by sometime in 2021.

So how close are we to getting satellite internet service from Starlink? SpaceX CEO Elon Musk has indicated that [at least 400 satellites](#) will need to be in place before partial internet coverage can be expected. Currently, SpaceX has rocket launches scheduled regularly from now into [January 2023](#), but near-global service is expected to begin [sometime during 2021](#).

SpaceX Starlink satellite internet service could affect billions of people around the world who are currently without access to affordable internet. It will also affect travel, as it'll be available on airplanes and ships.

Starlink isn't the only company building out a satellite network in the sky: [OneWeb will also be launching satellite internet service](#) within the next year. Amazon-funded satellite provider [Project Kuiper](#) and [Telesat's LEO satellite constellation](#) are also in the works, but both are several years behind offering service.

For more information go to: <https://www.starlink.com/>