

# STARLINK

Satellite Internet Service

Starlink is a division of SpaceX. Visit at [spacex.com](https://spacex.com)



# **STARLINK**

Satellite Internet Service

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Starlink is known as a satellite network that is developed by SpaceX. It was announced to the globe in 2015 and from that on its popularity spread throughout the world. It is considered different from other satellites as it offers internet capability and has a high-speed internet access system.



We can see that there are some areas in our universe where internet connection can't reach properly. Starlink has been created to resolve this issue with the vision to provide necessary internet service to every corner of the world. The idea is to place as many satellites as can be placed around the earth's orbit so that internet access can be distributed to the people who are living in remote areas and need internet service. Besides, those who want to get its services can also have access. But people of all kinds can't obtain the service of Starlink. It charges for taking its subscription. The modern world is evolving as well the connection and developments of Starlink are also increasing to cope with the modernized world and to help us.



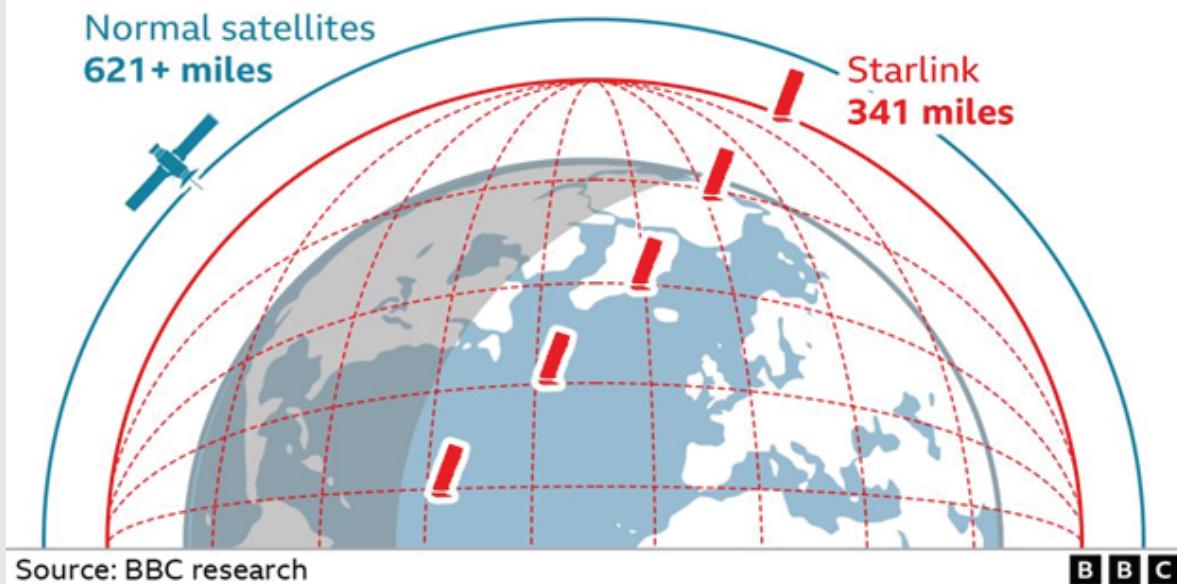
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Elon Musk is the one who developed the idea of creating such a kind of satellite and planned to launch it with the help of SpaceX.

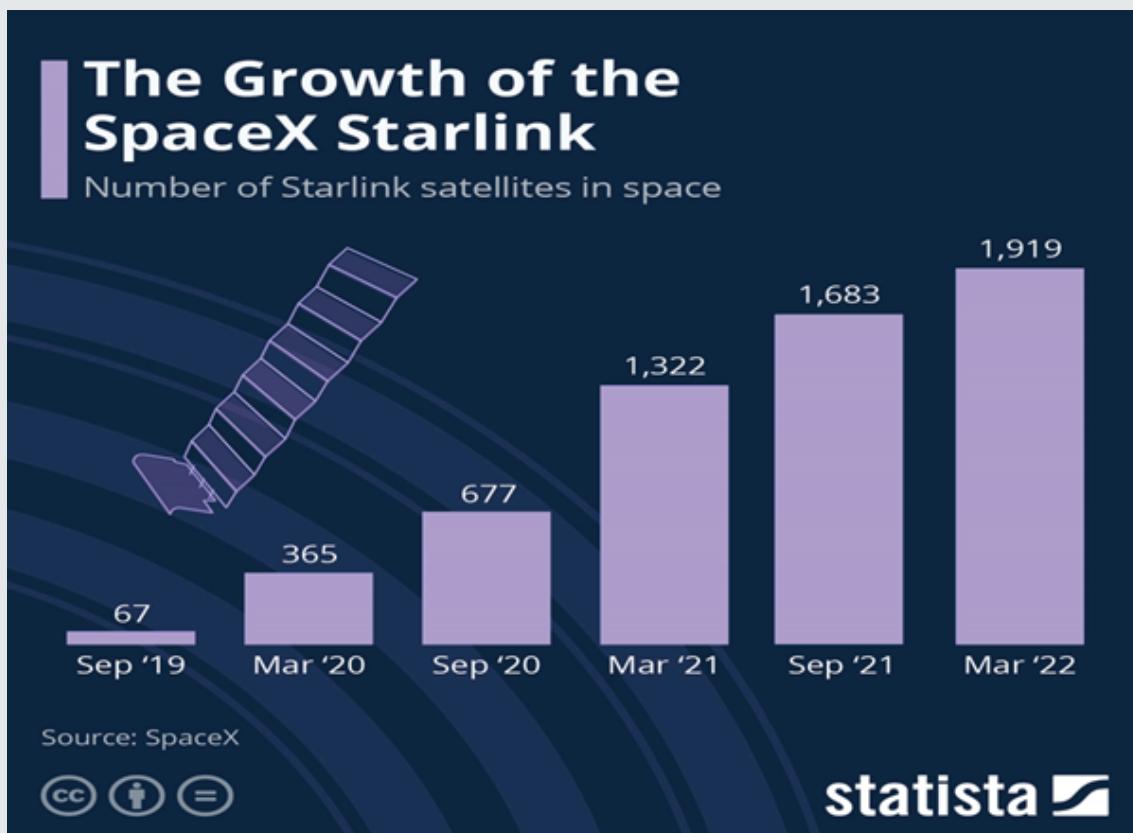
SpaceX is an aerospace company that is founded by Elon Musk himself. The reason to discover Starlink is to provide a proper networking system throughout the globe. Generally, the remote area people are not quite updated enough and can't cope with the world that is evolving every day. In this regard, Starlink has the best interest as it is designed as a satellite that distributes proper internet service. Starlink provides internet service through a number of satellites. They use fiber optics to deliver internet data. Starlink's satellites have been placed in low-level orbit around the earth. The reason is to make the connection between low earth orbit and the ground to get a faster network. The satellite that is sent to the earth's surface weighs about 573 pounds and a single rocket can fill up 60 satellites.

## Starlink operates in low orbit

Low-Earth orbit satellites can link to Earth faster, but more are needed to provide coverage



The Starlink project was discussed in 2014 but at that time it didn't have an official announcement or got a name. But then from 2015 to now on, the modern time Starlink satellite system is developing day by day as a focus to help the subscribers who want to get the service of Starlink.



#### The Rapid Growth of Starlink

The procedure of inventing a satellite that can provide internet service was already discussed in 2014. In 2015, the progression increases rapidly as the founder of the project decided to establish its development facility in Redmond, WA. There is also a second facility station situated in Irvine, CA to provide signal processing of the satellite and in 2016, the company talked as well as discussed a better way to launch satellites in numbers with Federal Communications Commission (FCC).

The goal was to find an agreement with them for six years. At that moment the popularity increased rapidly and 2017 was the year when the Starlink name started becoming famous.

<b>SpaceX Star link Launches</b>			
<b>February 2018 – November 2022</b>			
<b>Booster</b>	<b>Launches</b>	<b>Satellites</b>	<b>Secondary Payloads</b>
Falcon 9 (Dedicated)	65	3,543	14
Falcon 9 (Transporter-1, 2)	2	13	0
Falcon 9 (Secondary)	1	2	0
<b>Total:</b>	<b>68</b>	<b>3,558</b>	<b>14</b>

Source: Wikipedia

With the help of the FCC, Starlink company has got access to deploy about 7000 satellites. The U.S. Air Force tested the whole functioning system of the Starlink satellites to avoid any kind of error. According to the following information, about 3358 satellites have been launched on 68 flights on Falcon 9. Tintin A and Tintin B, two test satellites were launched first. They were basically launched first as secondary payloads on Feb 20, 2018.

65 dedicated launches where 60 satellites were on board. Among them, other companies have 14 payloads from seven of those launches. The information also tells us that SpaceX has launched 13-Starlink spacecraft. It was on a pair of Transporter rideshare missions. The speed of launching satellites accelerated in the past two years. Starlink increased the connection speed in November 2020.

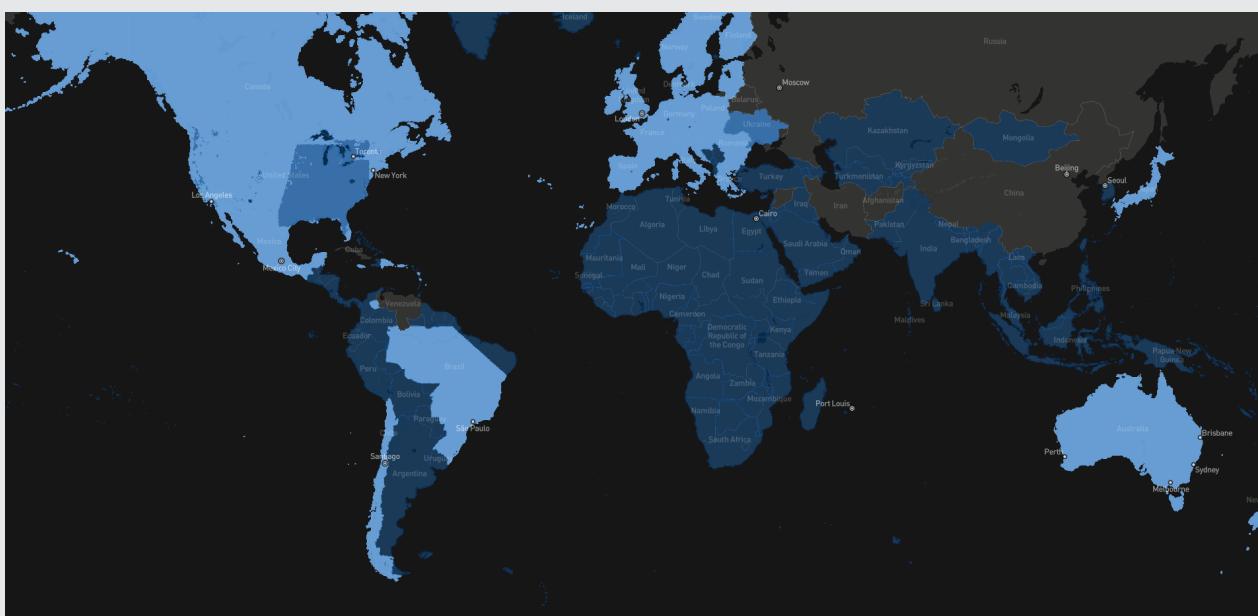
A test has occurred that declares that the speed exceeded their expectation as this rapid change defines a hope that they can do many kinds of tasks. In 2021, the first satellites that were launched entered the polar surface. 51 launches helped to secure the orbit with 2603 satellites since the start of 2021.

Star link Constellation Status		
Nov. 15, 2022		
Star link Satellites	Number	Notes
Launched	3,558	
Still in Orbit	3,273	285 satellites deorbited
Still Working	3,237	Total satellites in orbit minus 36 spacecraft thought to have failed.
Operational	2,850	Satellites in an operational shell. Spacecraft that are not in an operational orbit may still be providing service.

Source: Jonathan's Space Report

About 3273 satellites are still in orbit where 3237 are working and among them 2850 are operational. The FCC has given two separate approvals to SpaceX. To launch 4,425 and 7,518 satellites. Besides, the SpaceX company has also written an application where they will launch an additional 30,000 spacecraft. The reason was to fulfill the goal that they targeted since the start which was to provide 42000 satellites into the low earth orbit.

Starlink initially prioritized high-latitude regions of the world such as Canada and the United States. But now they are thinking of providing coverage in the lower hemisphere of the world. In a tweet, Elon Musk said that Starlink will first reach cities like Seattle and then it will gradually move toward the lower hemisphere. Currently, Starlink has coverage in 40 countries and has more than 500,000 subscribers. Starlink has so far launched 3268 satellites into Low Earth Orbit (LEO) and Starlink has 59 gateways in the United States.



However, Starlink is working to fulfill the 750,000 pre-orders submitted to SpaceX for the Internet by the end of this year. Starlink currently provides coverage in a total of 33 states including New York, Las Vegas, and San Francisco, where the internet download speed is 350mbps. Starlink provides Internet coverage to approximately 62.1 million people, making it the 3rd largest satellite coverage area in the United States. 500,000+ current subscribers

**Approximately 3,268 LEO satellites in orbit**

**65 total licensed launches of Starlink satellites by SpaceX**

**59 gateway stations across the U.S.**

**40 countries served worldwide**

## Infrastructure

We need to buy some equipment to use Sterling Internet. With the help of that equipment, we can exchange data directly with satellites. We can buy the instruments directly from Sterling. We can buy these devices in 3 types of packages.

1. Standard
2. High performance
3. Flat high performance.



**Standard:** The equipment in this package is suitable for domestic use only. This package has Starlinks main dish, base, router, Sterling cable, and power cable.

### WHAT'S IN THE BOX

Your Starlink Kit includes everything you need to connect to the internet including your Starlink, WiFi router, power supply, cables, and base.



Starlink



Base



Router



Starlink Cable



AC Cable

### STANDARD PACKAGE

**High Performance:** This package is suitable for heavy users and Businesses. It gives us good speed even at high temperatures. In this package, we get high-quality devices for power supply along with some additional cables.

**Flat high performance:** The equipment in this package is used for harsh environments. This hardware has to be used permanently. We will get high-quality and top-notch hardware in this package.

## Packages

SpaceX's Starlink has been providing fast internet service between \$110 and \$550 monthly with no cancellation fees. Here it is possible to run the internet at a speed of 50 to 500 Mbps. It works fine everywhere even in the ocean or remote areas. Starlink offers more data in this monthly package, Compared to Viasat and HughesNet. Starlink provides lower latency, and faster and standard internet service.

Although it is a bit expensive it is undoubtedly one of the best satellite internet services for home, business, and harsh environments.

↔ 30ms

↑ 161.35 Mbps  
↓ 23.23 Mbps

Plan	Price/mo	Equipment Fee	Speed
Starlink Internet	\$110.00/mo	\$599.00	50–250 Mbps
Starlink Business	\$500.00/mo	\$2,500.00	150–500 Mbps
Starlink RV	\$135.00/mo	\$599.00	50–250 Mbps

## The Vision of Starlink

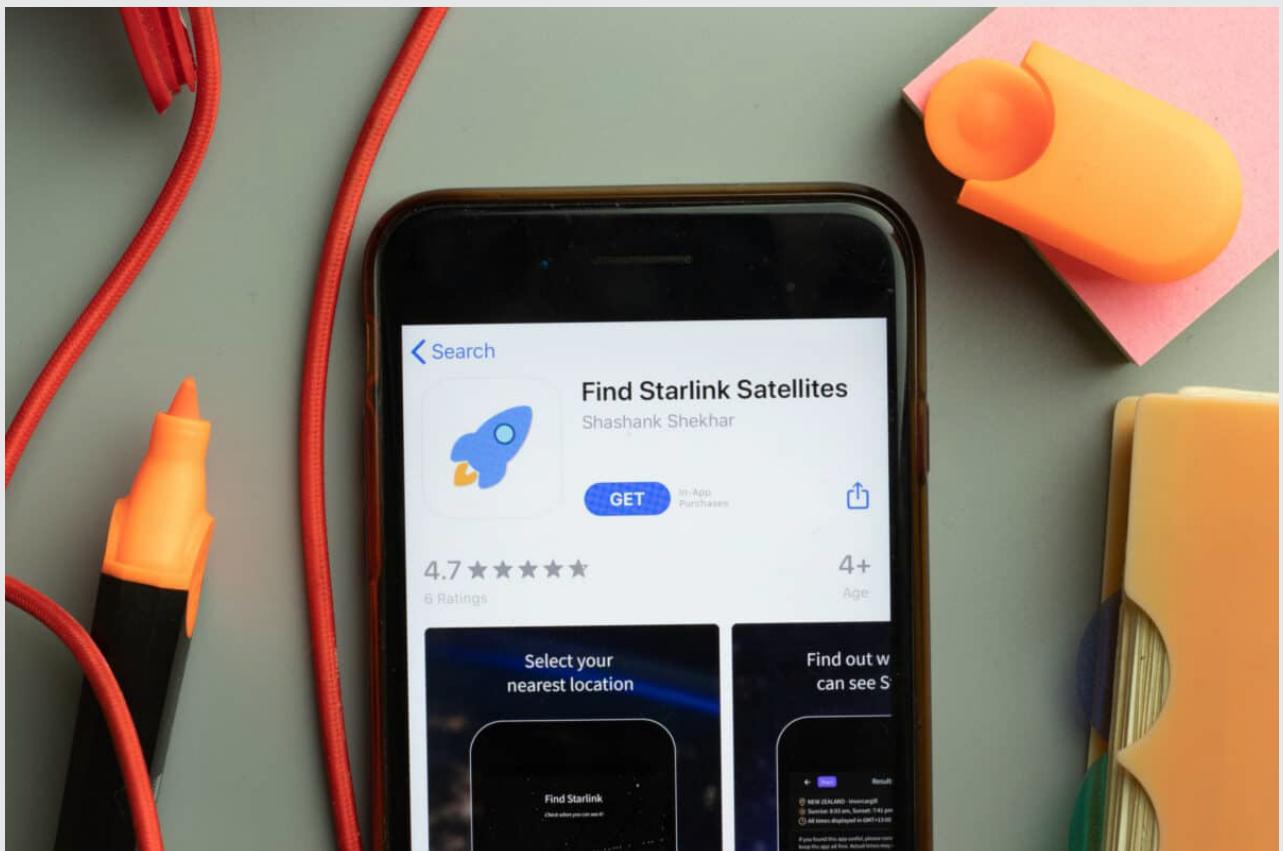
The vision of the Starlink from their point of view is clear. To provide as many facilities as they can through their satellite system. There are some places in the world where internet connection can't pass because of lack of connection system. As a result, they don't get the proper availability of the internet. In this particular regard, Starlink works. The goal is to connect the whole globe to the internet and also the places where an internet connection must need. So that the people can get proper health services, gain educative knowledge, information, and even communications support.

Cellular service where everyone can access Starlink is a huge step forward. Because cellphone has become a vital part of our life and getting access to the service of it becomes quite easier. The low latency network in the space helps to generate the internet service into our phones.

There is a new feature added to Starlink service which is Starlink Enterprise. The system is developed with the help of Google. It is a system that reviews the residential service to businesses and residential customers.



Star link service is interacting with every basic need that can't be done without internet service. Because of its exceptional quality, the military is using this system to get benefitted. In modern times military power is about how one can defeat another technically. Starlink helps to relocate any military area with the help of the satellite. Commercial sites also use the opportunity to take the help of a Starlink. They are used to gain both financial and commercial support.



People can also use Starlink on an emergency basis. Emergency internet is a must when it is a remote area where an internet connection cannot reach. With the help of the star link, the issue can be resolved.

Daily life can also be led with the Starlink internet service. As we use the internet in every aspect. Television, education, medicine, information recollection everything can be done if one is a subscriber of the Starlink system. If this company gets full access or at least half of its targeted goal the new world that we imagine can be revolutionized fully.

So, it is clear that the creation of Starlink is a breakthrough. So far it is working for the benefit of those who need internet service anytime anywhere.

Besides, it is such a kind of satellite that works as a subscription system with a payable amount. This gives a person an opportunity to use this system without a problem

That's why the Starlink invention is one step forward into the upcoming world.

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