



## Satellite internet

### Description

#### What is satellite internet:

- Satellite internet is a type of internet connection that uses satellites in space to send and receive data. The internet we are using at present is terrestrial internet, which operates through cables, wires, and cellular networks.

#### Benefits of satellite internet:

- Satellite internet can provide access to the internet almost anywhere on the planet, making it especially beneficial for remote or rural areas where other types of internet are unavailable. This helps bridge the digital divide, ensuring access to the internet for more people, regardless of their location.
- Satellite internet can be beneficial in areas affected by disasters, where ground-based infrastructure, like cables, phone lines, or cell towers, is damaged or destroyed. This makes it crucial for providing emergency communication, coordinating relief efforts, and allowing affected communities to stay connected with the outside world during and after natural disasters like earthquakes, hurricanes, or floods.

#### Limitations of satellite internet:

- At present, satellite internet has higher latency compared to terrestrial internet, which can cause delays in real-time activities like gaming or video calls.
- Bad weather conditions, such as heavy rain, storms, or snow, can affect the performance of satellite internet, resulting in slower speeds or service interruptions.
- When a large number of users connect to the internet in the same region, satellite capacity can become strained, leading to significantly slower speeds.
- A satellite dish, which must be set up to access satellite internet, requires a clear view of the sky to work well. This can be challenging in areas with tall buildings, trees, or mountains.



### Controversy over satellite spectrum in India:

- Terrestrial spectrum, such as 4G and 5G, is allocated to telecom companies through auctions, with companies spending significant amounts of money to acquire these rights. Now, the Indian government is in favor of administratively allocating satellite spectrum, rather than holding an auction, in line with international practices. Telecom companies fear this could enable companies like Starlink to offer satellite internet at cheaper prices, creating unfair competition.

- The satellite spectrum is often seen as a global resource. Unlike the terrestrial spectrum, which is confined to national boundaries, the satellite spectrum is not limited by geography. As a result, it is not practical for any one country to auction it.

**Conclusion:**

Satellite internet is a great solution for providing internet access in remote areas where other types of connections are not available. While it has some challenges, such as slower speeds and weather-related issues, it offers a reliable option for those in hard-to-reach locations. As technology improves, satellite internet will continue to help connect more people around the world.

*Image: [Canva.com](https://www.canva.com)*

**References:**

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