

How the Internet Works

1. What is the Internet?

The Internet is a network that connects millions of computers and devices worldwide. It lets us share information, chat, and browse websites.

2. Servers and Clients

- **Servers:** Computers that store websites and data.
- **Clients:** Devices like your phone or computer that ask for data from servers.

3. IP Addresses

- Every device on the Internet has a unique IP address, like a home address, so it can be found.

4. Domain Name System (DNS)

- Converts easy-to-remember website names (like google.com) into IP addresses.

5. Packets

- Data is broken into small pieces called packets before being sent over the Internet.

6. How Data Travels

- Packets travel through devices called routers, which help them find the fastest path to their destination.

7. Internet Service Providers (ISPs)

- Companies that provide you with Internet access, like Airtel or Jio.

8. Protocols

- Rules for how data is sent and received. Common ones include:
 - **TCP/IP:** Makes sure data gets to the right place.
 - **HTTP/HTTPS:** Used for loading websites.

9. Sending and Receiving Data

1. You type a website address into your browser.
2. Your device sends a request to the server hosting the website.

3. The server sends the website data back to your device.
4. Your browser displays the website.

10. Why It's Important

- The Internet connects people, supports businesses, and allows access to endless information!