VPN providers told to block sites 'leaking' Indians' data.

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What is a VPN?

- A **VPN is a technology** that creates a **secure, encrypted connection** over the internet between a device (computer, smartphone) and a network (e.g., corporate network, the internet).
- It allows users to **send and receive data securely** as if they were directly connected to the private network.

Key Features

1. **Encryption:** Protects data from being intercepted by hackers or third parties.
2. **IP Masking / Anonymity:** Hides the user's real IP address; assigns a virtual IP from another region.
3. **Secure Access:** Enables access to restricted networks (e.g., corporate intranet) remotely.
4. **Data Integrity:** Ensures data is not altered in transit.

How VPN Works

1. Device connects to **VPN server**.
2. VPN **encrypts outgoing data**.
3. Data passes through the **public internet** securely.
4. VPN server decrypts the data and forwards it to the **destination server**.

Essentially, VPN creates a **"private tunnel"** within the public internet.

Types of VPN

1. **Remote Access VPN:** Connects individual users to a private network (e.g., employees working from home).
2. **Site-to-Site VPN:** Connects multiple networks over the internet (e.g., branch offices).
3. **Client-based VPN:** Requires software installed on the user's device.
4. **Browser-based VPN:** Works via browser extensions.

Uses / Importance

- **Cybersecurity:** Prevents data theft and snooping.
- **Bypassing Geo-restrictions:** Access region-restricted websites.
- **Corporate Connectivity:** Secure remote working.
- **Privacy Protection:** Masks location and browsing habits.