

Different types of internet connections

1. Broadband (DSL/Cable)

- DSL (Digital Subscriber Line) uses telephone lines,
- Cable uses coaxial TV cables.

| Pros | Cons |
|---|--|
| Widely available | Slower speeds compared to fiber |
| Always-on connection | Speed may vary with distance (DSL) or network congestion (Cable) |
| Suitable for browsing, streaming, and basic online gaming | Not ideal for heavy uploading or multiple high-usage users |
| More affordable than fiber in many areas | Infrastructure may be outdated in rural areas |

2. Fiber Optic

- Uses light signals through glass fibers for ultra-fast data transmission.

| Pros | Cons |
|--|---|
| Extremely fast upload/download speeds | Limited availability in rural or remote areas |
| Low latency (great for gaming and video conferencing) | Installation can be expensive |
| Reliable and stable connection | Setup may require professional installation |
| Ideal for streaming 4K videos, large downloads/uploads | Monthly plans may be more expensive |

3. Satellite Internet

- Connects via satellites orbiting the Earth (e.g., Starlink, HughesNet).

| Pros | Cons |
|--|--|
| Available almost anywhere, even in remote areas | High latency – not ideal for real-time gaming or video calls |
| Good for basic browsing, emails, and light streaming | Weather can affect signal quality |
| No need for physical cabling infrastructure | Expensive data plans and slower speeds |
| Option for mobile setups (e.g., RVs) | Data caps often apply |

4. Dial-up (Outdated)

→ Uses standard telephone lines for internet access.

| Pros | Cons |
|--|--|
| Extremely cheap | Very slow (max 56 kbps) |
| Still useful in extremely remote areas | Blocks phone line while in use |
| Minimal setup requirements | Can't support modern online activities |

5. Mobile Internet (4G/5G)

→ Uses cellular networks to provide wireless internet through SIM cards, mobile hotspots, or dongles.

| Pros | Cons |
|--|--|
| Portable and wireless | Data limits/caps on most plans |
| Fast speeds with 4G/5G (especially in urban areas) | Speed and signal depend on location and network coverage |
| Easy to set up and use | Can be expensive for unlimited or high-speed plans |
| Good for travellers or temporary setups | Congestion in crowded areas can affect performance |