

# Glossary: High-speed internet

## INTERNET TECHNOLOGIES

Faster

### WIRED

<b>Fiber</b>	Flexible, transparent fiber (fiber optic) cables use light to transmit large amounts of data. Preferred for broadband, but relatively expensive to build.
<b>Cable</b>	Uses the same coaxial cables that deliver picture and sound to television sets to support broadband.
<b>DSL</b>	Uses traditional copper telephone lines already connected to homes and businesses. Speed varies with distance from the home to the nearest telephone facility.

### WIRELESS

<b>Fixed wireless</b>	Uses radio signals from antennas on towers to connect between residences or businesses and the provider. Useful for remote areas but limited by topography that inhibits line of sight.
<b>Cellular</b>	Cell phones or dedicated cellular routers can serve as “hot spots” for computers to send and receive data. Expensive and limited by topography.
<b>Satellite</b>	Uses telephone and television satellites. Often the only option for remote locations but more expensive and less reliable.

Slower

## INTERNET SPEEDS

Speed is measured in mega-bits per second (Mbps) and sometimes broken into download and upload speeds. The Federal Communications Commission defines anything above 25/3 as broadband.

**0-5 Mbps:** General browsing, email, social media, online radio

**5-40 Mbps:** Video-conferencing, telecommuting, online gaming, streaming video, multiple device usage within a household

**40-100 Mbps:** Streaming ultra-high-definition (Netflix 4K)

**100-500+ Mbps:** Online education delivery (testing services and video streaming), database access, record storage and sharing characteristic of anchor institutions

**1,000 Mbps (1 gigabit):** High use, multiple-users, high-definition streaming, uploading large files