

Aerial Fiber: Fiber strung above ground, usually up on utility poles.

Asymmetrical Connections: Internet connections with different download and upload speeds.

Backbone of the Internet: A major high-speed transmission line that strategically links smaller high-speed Internet networks across the globe.

Bandwidth: The capability of telecommunications and Internet networks to transmit data and signals.

Bits: The individual ones and zeros that make up binary code. Represented as a lower case "b", used to measure Internet speeds. As in Kbps, Mbps, and Gbps.

Broadband: The term broadband commonly refers to high-speed Internet access that is always on and faster than traditional dial-up access. Broadband includes several high-speed transmission technologies, such as fiber, wireless, satellite, digital subscriber line and cable.

Conduit: A tube or trough made of metal, plastic, fiber, or fired clay, that works as a protection for electrical wiring.

Dark Fiber: Optical fiber in a fiber internet cable that is not being "lit" or used by an ISP. Often an ISP builds in the dark fiber so they can light it up when needed, or lease it out to other ISPs or interested parties at wholesale cost.

Digital Divide: The gap between those of a populace that have access to the Internet and other communications technologies and those that have limited or no access.

Download Speed: how quickly your internet connection can retrieve data from the internet (web pages, video, cat photos, etc.)

DSL (Digital Subscriber Line): A form of technology that utilizes a two-wire copper telephone line to allow users to simultaneously connect to and operate the Internet and the telephone network without disrupting either connection.¹

Fiber Optic Technology: Technology that transmits data using light and optical fibers (glass or plastic threads).

Fiber: A flexible hair-thin glass or plastic strand that is capable of transmitting large amounts of data at high transfer rates as pulses or waves of light.

Fixed Wireless Broadband Access: The use of wireless devices/systems in connecting two fixed locations, such as offices or homes. The connections occur through the air, rather than through fiber, resulting in a less expensive alternative to a fiber connection.

FTTH or FTTP (Fiber to the Home or Fiber to the Premise): The delivery and connection of fiber optics directly to a home or building.

Gbps: Gigabits a second, or a billion bits per second.

Internet Service Provider (ISP): A company that provides users (individuals or businesses) with access (a connection) to the Internet and related services.

Last Mile: The last stretch of fiber that connects the consumer to the backbone of the Internet.

LTE (Long Term Evolution): A 4G wireless broadband technology that provides speeds up to 100 Mbps download and 30 Mbps upload.

Middle Mile: The connection between a local network, also called a “last mile” connection, and the backbone Internet network

Mbps: Megabits per second, or a million bits per second.

Network Infrastructure: The hardware and software components of a network that provide network connectivity and allow the network to function.

Symmetrical Connections: Broadband connections that have the same download and upload speeds, for example, 25/25 Mbps.

Upload Speed: how quickly your internet connection can send data from your devices up to the internet (uploading video to YouTube, sending documents via email, etc.)

WISP: An ISP that provides service through a wireless network.

Figure 1: Table of Speed Units

The following units are associated with broadband:	
Bit	Smallest unit of digital information
Byte	Equal to 8 bits
Bps	Bits per second
Kbps	Kilobits per second (1000 bits per second)
Mbps	Megabits per second (1 million bits per second)
Gbps	Gigabits per second (1 billion bits per second)
Tbps	Terabits per second (1 trillion bits per second)