

Appendix E

Acronyms and Terminology

5G Wireless – Fifth Generation - refers to fifth generation of wireless technology.

Bandwidth – The amount of data transmitted in a given amount of time; usually measured in bits per second, kilobits per second, and megabits per second.

Bit – A single unit of data, either a one or a zero. In the world of broadband, bits are used to refer to the amount of transmitted data. A megabit (Mb) is approximately 1,000,000 bits.

Broadband – a descriptive term for evolving digital technologies that provide consumers with integrated access to voice, high-speed data service, streaming services, gaming, and interactive delivery services (e.g. DSL, cable Internet).

CBRS – Citizens Broadband Radio Service

CRRSAA - Coronavirus Response and Relief Supplemental Appropriations Act, 2021

Downstream – Data flowing from the Internet to a computer such as in surfing the net, receiving e-mail, streaming, and downloading a file.

DSL – Digital Subscriber Line – The use of a copper telephone line to deliver “always on” broadband Internet service.

E-rate – A federal program that provides subsidy for voice and data lines to qualified schools, hospitals, Community-Based Organizations (CBOs), and other qualified institutions.

ESEA - Elementary and Secondary Education Act of 1965

ESSA - Every Student Succeeds Act (it amended the ESEA)

ETC - Eligible Telecommunications Carrier

Fixed Wireless Broadband – The operation of wireless devices or systems for broadband use at fixed locations such as homes or offices.

Gbps – Gigabits per second – 1,000,000,000 bits per second or 1,000 Mbps. A measure of speed for data transmission.

HEERF II - Higher Education Emergency Relief Fund II (in CRRSAA)

LEA - local education agency

LTE – Long-term Evolution (associated with 4G technology)

NTIA – National Telecommunications and Information Administration

TIA – National Telecommunications and Information Administration, which is housed within the United States Department of Commerce.

REAP - Rural Education Achievement Program

RHC – Rural Health Care

RLIS - Rural, Low-income School Program

SEA- state education agency

SRSA – Small, Rural School Achievement (program)

Upstream – Data flowing from computer to the Internet (sending e-mail, uploading a file, responding to a query).

USAC - Universal Service Administrative Company

WISP – Wireless Internet Service Providers (fixed wireless)

WISPA – Wireless Internet Service Providers Association

Internet Carrier & Capacity Options

- **DSL:** DSL internet in Austin is the one of the available connection types offering speeds ideal for light internet users and small households.
- **Cable:** Cable is a form of broadband internet that uses coaxial cables to deliver internet access to your home or office.
- **Fiber-Optic:** Fiber-optic cables are made up of bundles of small strands of glass. These strands send and receive data in the form of light. Light can carry a signal extremely quickly and effectively over long distances making fiber internet the fastest internet type available.
- **Satellite:** This type of internet relies on satellites in space to send and receive data. Satellite internet tends to be slower than its counterparts, but it is the only internet type that offers 100 percent availability in Austin.
- **Fixed Wireless:** Similar to satellite, fixed wireless provides internet access through radio waves to a specific location. In Austin, fixed wireless offers similar speeds to satellite internet.

RECOMMENDED SPEEDS	TYPE OF INTERNET ACTIVITIES
25+ Mbps	<ul style="list-style-type: none">• Basic web browsing• Stream video on one device• Low lag online gaming• Ideal for 1-2 person household of light internet users
100+ Mbps	<ul style="list-style-type: none">• Competitive gaming• Heavy streaming• High-resolution video chat• No lag online gaming• Appropriate for smart homes• Ideal for 4+ household
1000+ Mbps	<ul style="list-style-type: none">• Stream 4K video on multiple devices (i.e. Load Netflix show in HD in 5 seconds or download a 30 GB game in less than 5 minutes)• Gigabit performance• Ideal for home offices• Ideal for 4+ household of power internet users