

## Telecommunications and Individuals Who are Deaf or Hard of Hearing: Devices and Software



### **Overview**

Telecommunication technology has significantly changed the communication landscape for persons who are deaf or hard of hearing. For more than 40 years, text telephones (TTY) and amplified phones were their only options. Today, videophones, Smartphones, and instant messaging most often replace the TTY as preferred communication tools.

The term "telecommunications for individuals who are deaf or hard of hearing" most often refers to the telephone devices, platforms, and services used when a standard phone is not an effective telecommunication tool. Topics often fall into three broad categories: 1) equipment and devices; 2) FCC -supported relay services (VRS); and 3) fee-based video remote interpreting services (VRI). VRS and VRI are described more fully in the Fast Fact titled Telecommunications for Individuals Who Are Deaf or Hard of Hearing: VRS, VRI, TRS Alphabet Soup.

# What are the Most Commonly Used Devices and Software?

Videophone: In its most basic form, a videophone is a device that houses a video display that allows two individuals to see each other on a screen and communicate in real time.

However, as it applies to individuals who are deaf or hard of hearing, a videophone has a different context. It refers to a subscriber-based proprietary system available only to individuals who are deaf or hard of hearing. Subscribers are assigned a 10-digit number that conforms to a standard telephone number; however, it is assigned by an FCC-approved relay service provider rather than a traditional telephone service provider.

Using proprietary equipment, or service provider-specific software downloaded to a computer or mobile device, subscribers are able to: 1) call another videophone user directly or 2) call a hearing person through a video relay service provider. A hearing person wishing to speak to a videophone user simply dials the 10-digit number and is automatically routed to a relay service provider who then connects the two parties through the use of an interpreter.

Open Market Video Calling Software: Due to the user restrictions placed on videophones, deaf or hard of hearing and hearing individuals often utilize Skype, FaceTime, Fuze and the myriad other video calling software applications available on today's market to converse in real time.

Open Market Texting Software: In addition to taking advantage of current mobile phone texting capabilities, more and more sign language users are video "texting," using such software programs such as YouTube and Glide to "text" a message in sign language.

TTY: TTYs are sometimes referred to as TDDs, or Telecommunication Devices for the Deaf. TTY is the preferred term because individuals with other disabilities may use TTYs as well. A TTY is a device about the size of a small typewriter. It is configured to allow two individuals to type back and forth over a phone line in real time. In order to use a TTY, both parties must either have a TTY or use the relay service to communicate. It is not necessary to maintain a special line solely for TTYs. Just ensure that the TTY is accessible for individuals to use when a call comes in.

Sound-Enhancing Telephone Handset Devices: Often referred to as amplified telephones, these devices provide a volume control switch. Most handsets provide a mechanism that allows the user to receive the sound directly to the hearing aid.



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Even though some technology may seem obsolete, it is important to have an array of options available to individuals who are deaf or hard of hearing. According to the Federal Communications Commission's Report on TTY Transition (March 2013):

- Text IP-Relay usage is still significant, with over one-third of text relay traffic originating from TTY users.
- Although the number of TTY users has significantly declined, there are still approximately 100,000 TTY users in the United States.
- Emergency centers receive over 20,000 emergency calls from TTY users each year.

#### Resources

http://nad.org/issues/telephone-and-relay-services/relay-services/captioned-telephone-service-cts

Telecommunications Relay Service Encyclopedia - <a href="http://www.fcc.gov/encyclopedia/">http://www.fcc.gov/encyclopedia/</a> telecommunications-relay-services-trs

Deafblind telecommunications <a href="http://www.aadb.org/factsheets/">http://www.aadb.org/factsheets/</a> db communications.html

Captioned Telephones www.captel.com/captel

### What does the law say?

The provision of telecommunication devices for individuals who are deaf or hard of hearing is covered by the Americans with Disabilities Act. It stipulates that public entities with pay phones or other telecommunication services must ensure that accommodations (e.g., videophone, TTY, etc.) are offered.

For more information on video relay and video remote interpreting, please read the Fast Fact titled Telecommunications for Individuals Who Are Deaf or Hard of Hearing: VRS, VRI, TRS Alphabet Soup.

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