

THE EVOLUTION OF THE ATEL PROGRAM FOR TELECOMMUNICATIONS

FOR THE DEAF AND HARD OF HEARING

The invention of the telephone in the late **1800's** was heralded by most people. However, people who are deaf or hard of hearing had difficulty or could not use the telephone at all. For generations, deaf and hard of hearing people had to depend on hearing family members, friends, and neighbors to make telephone calls – to their doctors, children's schools, and other necessary contacts.

In 1964, The first TTY was invented by deaf scientist Robert Weitbrecht

In 1974, The first relay service was established by Converse Communications of Connecticut.

In 1975, Clarity built its first amplified telephone handset in 1975. This development led the way for a myriad of other hearing loss solutions including the traditional corded amplified telephone, cordless amplified telephones, portable telephone amplifiers, and telephone accessories like optional ringer amplifiers and bed shakers.

In 1981, Ultratec introduces the world's first low-cost, full keyboard TTY, the MINICOM, making TTYs affordable to tens of thousands of people who are deaf or hard of hearing.

In 1983, the Rhode Island General Assembly passed bill 83-S365 entitled "Relating to Public Utilities and Carriers" which became known as "The TDD Bill" to provide telecommunications devices capable of servicing the needs of deaf, severely hearing impaired, or the severely speech impaired at no charge. In 1986 persons with neuromuscular damage or disease were included in this law.

In 1984, the ATEL Program, was founded following the recommendations of the "Governor's Blue-Ribbon Commission on Telephonic Devices for the Deaf".

In 1988, Ultratec invented, and patented VOICE CARRY OVER and HEARING CARRY OVER (VCO/HCO) for dual party TTY relay systems, whereby a person may use his or her own voice to speak directly to the other party through the relay and have the operator relay text in the other direction.

In 1990, Title IV of the Americans with Disabilities Act (ADA) mandated nationwide relay services, to be available 24/7 in every state and territory. More than 100 years after the invention of the telephone, deaf and hard of hearing people could finally make a telephone call to anyone.



In 2002, videophone services were developed for the Deaf population in the United States. A video relay service (VRS) is a video telecommunication service that allows deaf, hard-of-hearing, and speech-impaired individuals to communicate over video telephones using the internet with hearing people in real-time, via a sign language interpreter.

In 2003, the captioned telephone was introduced. In its original form, CapTel was an analog technology that allowed those with hearing loss to listen to and read captions of the other party's words using a specially designed CapTel phone.



In 2012, The CapTel 840i was released that connects to your telephone service and to your Internet service, to seamlessly bring in a Relay Operator to incoming and outgoing calls.

In early 2000s, Deaf people began carrying pagers, sidekicks, flip phones, and eventually smartphones instead of large bulky tele-typewriters. The advantage with mobile phones was clear; unlike TTYs you could carry them with you anywhere you went.



In 2010, AT&T Introduces Video Relay Service App for Deaf and Hard of Hearing Users on the App Store; also in 2010, Facetime and Skype launched video calling apps, so Deaf individuals could sign with other Deaf individuals was also introduced.

In 2015 legislation was passed in the House and 2016 was passed in the Senate to allow the ATEL Program to provide both landline/home telephones and wireless devices

Today the ATEL Program still provides a few TTYs to RI Deaf individuals but NOW we can also provide Apple and Android smartphone and tablets, that can help the Deaf Community communicate via video chat with each other or communicate with anyone who doesn't use ASL via Video Relay Service (VRS) Apps. In addition, while text messaging developed and spread due to its multifaceted convenience for all people, the deaf community has especially benefited from the shift of the world towards SMS. A more widespread dependence on text messaging means a reduction of phone calls, meaning the deaf community has been more often able to communicate autonomously.

For more information on the ATEL Program, or to apply to get a device, please contact Denise Corson at (401) 486-3325, email denise.corson@ors.ri.gov, or visit our website: <https://ors.ri.gov/programs/adaptive-telephone-equipment-loan-program-atel>