

**America Accesible III**  
**Informacion y Comunicacion para Todos**  
**Ciudad de Mexico**  
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Las politicas publicas en las Americas para  
la accesibilidad a los servicios de telecomunicaciones y TIC

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# Disability Advisory Committee

- ▶ Provides advice and recommendations on disability issues to FCC
  - ▶ Established January 2014 - 2 year term ends in December
  - ▶ Will begin with new committee in January 2016
- ▶ 5 subcommittees: Communications, Emergency Communications, Relay and Equipment Distribution Programs, Video Programming, and Technology Transitions.
- ▶ Ad hoc working groups -e.g., Cognitive Disabilities
- ▶ Many recommendations to date: closed captioning, telecommunications relay services, phone amplification, high definition telephone service, and accessible wireless emergency alerts.
- ▶ Webpage: <https://www.fcc.gov/general/disability-advisory-committee>.



# 1960s-1990s: Federal Communication Accessibility Laws

- Architectural Barriers Act of 1968:
  - Requires access to facilities designed, built, altered, or leased with Federal funds
- Rehabilitation Act of 1973
  - Section 508 - Requires federal government to acquire and provide accessible electronic, information and telecommunications technologies to federal employees and members of the public using government services
- Telecommunications Act of 1982 and Hearing Aid Compatibility Act of 1988
  - Require telephones to be com with hearing aids and cochlear implants (inductive, acoustic coupling)
- Telecommunications Accessibility Enhancement Act of 1988
  - Requires Federal Relay System
- Americans with Disabilities Act of 1990
  - Requires nationwide telecommunications relay services
  - Requires telephone access to telephone emergency services
- Television Decoder Circuitry Act of 1990
  - Requires closed captioning capability on TVs with screens larger than 13 inches (superseded)
- Telecommunications Act of 1996
  - Requires access to telecommunications products and services
  - Requires closed captioning on TV



# Twenty-First Century Communications and Video Accessibility Act (CVAA)

- Ensures that people with disabilities are not left behind as digital, Internet and mobile innovations develop
- Fills in gaps not addressed by prior disability laws (e.g., video description, deaf-blind protections, captioning on television programs shown on the Internet)
- 2010 - 2016: Multiple FCC rules adopted to implement CVAA requirements

**CVAA addresses accessibility challenges of 21st century technologies**



# Closed Captioning

- ▶ Captioning is required on TV for English, Spanish and bilingual programs
  - ▶ 100% of new programming
  - ▶ 75% of older programming (first shown before January 1998)
- ▶ Exemptions for: overnight programming (2:00-6:00 a.m.), commercials under 5 minutes, channels producing annual revenues under \$3 million, music without lyrics
- ▶ No provider must spend more than 2% of its annual revenues on captioning
- ▶ Closed captioning quality rules: must be accurate, synchronous (correspond with dialogue and sounds), complete from beginning to end, placed appropriately on the screen
- ▶ TV programs with captions must be shown with captions when delivered on the Internet
- ▶ Consumer devices of all sizes must display captions if “technically feasible” and “achievable” – includes TV sets, laptops, cell phones, etc. (supersedes Telephone Decoder Circuitry Act)
- ▶ Captions must be easy to access, through a captioning button, key, or icon



# Video Description

- ▶ Narratives for people who are blind or visually impaired during natural pauses in a television program
- ▶ Provided through the secondary audio channel
- ▶ Requires 4 hours of prime time or children's programming per week. CVAA authorizes expansion to 7 hours of video description per week (FCC has proposed to expand this - still pending).
- ▶ Covers 4 national broadcast networks in cities with largest populations (top markets) in the United States. CVAA authorizes expansion to all markets over several years.
- ▶ Covers top 5 cable channels (based on ratings every 3 years) - currently the following are covered: USA, Disney Channel, TNT, TBS and History Channel
- ▶ Video devices must be able to pass through video description.



# Access to Televised Emergency Information

- FCC rules require visual access to emergency information on television for people who are deaf and hard of hearing (generally achieved with closed captions).
- FCC rules require aural access for people who are blind or visually impaired - information to be provided through the secondary audio stream, after an aural tone on the main audio.
- ▶ Examples of emergencies covered: hurricanes, floods, earthquakes, tornadoes, heavy snows, widespread fires; power failures, explosions, civil disorders and school closings.
- ▶ Must include critical details regarding the emergency and how to respond
- ▶ Video devices must be able to pass through this information.

# Advanced Communications Services

- ▶ Covers Internet-based communications, including electronic messaging (SMS, email, instant messaging), and other forms of communication between people - must be accessible to people with disabilities, if achievable
- ▶ Internet browsers built into mobile phones must be accessible to and usable by persons who are blind or have a visual impairment - e.g., entering URL address; activating home, back, forward, refresh, zooming
- ▶ Industry expected to consider access at design stages, and consult with consumers
- ▶ May build in access or use third party applications ("apps"), software to achieve access
- ▶ Requires recordkeeping by industry





# Telephone Emergency Access

- ▶ Americans with Disabilities Act of 1990 requires 911 centers to accept calls from TTY users (implemented by U.S. Department of Justice)
- ▶ New FCC rules: Require service providers to transmit “text-to-911” calls to 911 emergency centers. Requirements are on telephone companies, not on 911 centers.
  - ▶ As of November 2016, approximately 750 emergency call centers can respond to calls received in text in the U.S. (typically receive SMS: short messaging service)
- ▶ Next generation 911 (NG 911): Will have ability to send text, video, voice, and data
- ▶ FCC considering requirements for real-time text
  - ▶ Can improve communications in an emergency
  - ▶ Real-time text allows text to be received as it is typed
  - ▶ No overlapping messages, no need to press send

# Real Time Text Proceeding

- ▶ On April 28, 2016, the FCC proposed to update its rules to require support for real-time text to ensure that people with disabilities who rely on text to communicate have effective telephone access when we transition to Internet Protocol (IP) technologies.
- ▶ TTYs - only means of text for people who are deaf and hard of hearing to communicate by phone in U.S. since late 1960s
  - ▶ Slow; has limited characters (e.g., no @ sign); not reliable for communications over IP; requires specialized equipment that is bulky and outdated
- ▶ Real time text: superior accessibility solution
  - ▶ No need to press send or take turns. Text is received as it is generated.
  - ▶ Simultaneous voice and text is possible
  - ▶ Better for emergencies
  - ▶ Use with off-the shelf devices (no specialized equipment needed)
  - ▶ More character options - multiple alphabets, symbols, emojis

# Telecommunications Relay Services



# Telecommunications Relay Services

- ❖ Allows people who are deaf, hard of hearing, deaf-blind or have speech disabilities to communicate by phone with other people
- ❖ Video Relay Service (sign language to voice over broadband)
- ❖ Text-to-Voice (TTY or IP text) - in future, via real-time text-to-voice will be possible (711 access from anywhere in US)
- ❖ Speech-to-Speech (711 access from anywhere in US)
- ❖ Captioned Telephone Relay Service
- ❖ All services must have:
  - 24/7 service
  - No limits on length, number, or time of calls
  - Emergency services to 911
  - Confidentiality

# Direct Video Communication

- ▶ Enables people who use sign language to communicate directly with staff in call centers over broadband
- ▶ Good for government agencies and businesses: Available at FCC, Small Business Administration, Equal Employment Opportunity Commission. Microsoft, Verizon
- ▶ Eliminates need for relay services for these calls
- ▶ Improves communication - more accurate, reduces risk of errors that occur when going through a third party
- ▶ More efficient - reduces staff time: calls can be completed faster without an intermediary
- ▶ More privacy
- ▶ Provides employment opportunities for people with disabilities - can hire people fluent in sign language

# Hearing Aid Compatibility

- ▶ Telephones manufactured or imported into the United States must be hearing aid compatible:
  - ▶ Inductive coupling
  - ▶ Acoustic Coupling: volume control (wireline only); FCC has pending proposal for wireless volume control
  - ▶ Reduced radio frequency (RF) interference
- ▶ 1988 HAC Act requires 100% wireline phones manufactured or imported into the U.S.
- ▶ Phase in for wireless phones: 66% in 2 years; 85% in 5 years; goal of 100% on 8 years (recent FCC action - order adopted in August 2016)

## National Deaf-Blind Equipment Distribution Program (NDBEDP) - FCC made permanent in August 2016

- Authorizes \$10 million annually to distribute communications equipment to low income people who are deaf-blind
- Covers phones, tablets, computers, Braille devices, light signalers, specialized keyboards, vibrating communication alerts and other devices
- Over 4,000 people have received equipment since 2012
- Pays for individual assessments, training, outreach, warranties
- Improves opportunities for employment, education, communication with friends and relatives, access to government and marketplace
- <http://iCanConnect.org> (outreach webpage)
- <http://www.fcc.gov/ndbedp> (FCC webpage)

# Telecommunication Needs of People with Cognitive Disabilities

- ▶ **Best Practices** - released October 6, 2016
  - ▶ Commitment by service providers and manufacturers to make information and communications technologies more accessible to people with cognitive disabilities
- ▶ **White Paper** - released October 6, 2016
  - ▶ Benefits of ICT access for independent living, employment, education, transportation
  - ▶ Provides examples of accessible solutions: substitutes for passwords (e.g., fingerprints); simplification of screen layouts, commands and prompts; alerting functions; remote guidance (for caretakers); information storing features; choice of formats for receiving information (text or graphics)
- ▶ **Chairman's 2016 AAA Awards** included awards for technology solutions for people with cognitive disabilities.
  - ▶ Awards awarded annually at M-Enabling Summit in Washington DC



## Contact Information

- FCC – Disabilities Rights Office Webpage:  
<https://www.fcc.gov/disability>
- FCC – CVAA Webpage:  
<http://www.fcc.gov/encyclopedia/twenty-first-century-communications-and-video-accessibility-act-0>
- **Subscribe to [AccessInfo@fcc.gov](mailto:AccessInfo@fcc.gov).** (get updated information about FCC accessibility actions)
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