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TELECOMMUNICATIONS ACCESS:
AN AMERICAN CIVIL RIGHT

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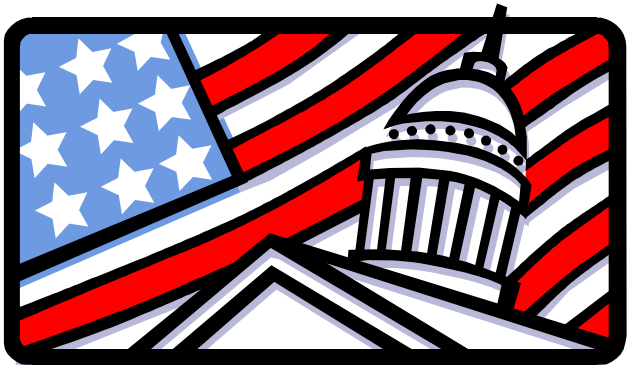
Federal Protections



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Rehabilitation Act of 1973 (federal employment and federally assisted programs)

Telecommunications for the Disabled Act of 1982 (hearing aid compatibility and specialized customer premises equipment)

Hearing Aid Compatibility Act of 1988 (hearing aid compatibility)

Americans with Disabilities Act of 1990 (physical and communications access)

Decoder Circuitry Act of 1990 (captioning chips in televisions)

Telecommunications Act of 1996 (access to telecommunications products and services, closed captioning)

Access to Telecommunications and Technology Means:

- Jobs
- Education
- Information
- Recreation
- Marketplace
- Transportation
- Independence
- Privacy

UNITED STATES TELECOMMUNICATIONS POLICY
PEOPLE WITH DISABILITIES

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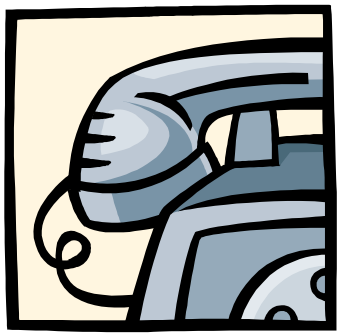
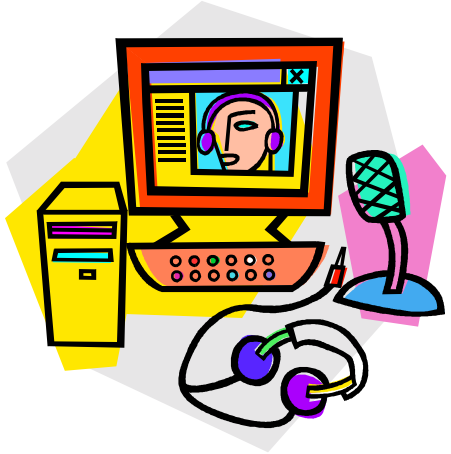


- Initial use of “universal service” obligation to mandate telephone access
- Recognition of limitations of a competitive marketplace for people with disabilities
- Recognition of costs to society of “lost access”
- Reference to “pervasiveness of the telephone” in commercial transactions and personal contacts (parallel to current pervasiveness of the Net and other information technologies)

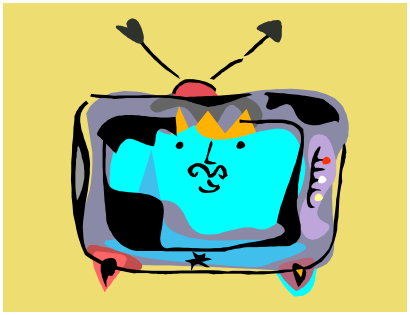
Telecommunications Access is a Civil Right

Telecommunications Issues



- Telecommunications Relay Service
- Captioning of television
- Emergency Access
- Hearing Aid Compatibility/Volume Control - Phones
- Accessibility of Telecommunications Equipment and Services
- Broadband and Internet telephony
- Section 508 – Federal Agencies
- Allocation of Spectrum

TELEVISED CLOSED CAPTIONING



- 100% new programming – captioned by 2006
- 75% older programming – captioned by 2008
- 100% Spanish language programming – captioned by 2010
- 75% older Spanish language programming – captioned by 2012
- Benchmarks for each category – increases captioning over time

Television Decoder Circuitry Act of 1990

All television sets with screens 13 inches or larger must have closed caption decoders built into their circuitry. New television technologies (e.g., DTV) must support closed captioning.

TELEVISED CLOSED CAPTIONING

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Where are we now? Important Benchmarks (all per quarter/year):

New Programming: As of January, 2002, 900 hours (approximately 50%) of new television programming (programming first shown after January 1, 1998) must be captioned (100% by 2006)

Pre-rule Programming: By January 2003, 30% of older programming (programming first shown before January 1, 1998) must be captioned (75% by 2008)

Spanish language programming: As of January, 2001, 450 hours (approximately 25%) of new television Spanish language programming must be captioned (100% by 2010; 75% of older Spanish language programming by 2012)

Digital Television Programming: As of July 1, 2002, DTV receivers must enable consumers to control the print type, color, size, and background of captions. Multiple streams of captioning possible.

CAPTIONING EXEMPTIONS

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- Overnight programming (between 2 a.m. - 6 a.m.)
- Advertisements under 5 minutes
- Public Service Announcement (except federally produced)
- Locally produced programming with limited repeat value
- Non-English programming (except Spanish)
- Primarily textual programming
- New networks (first 4 years of existence)
- Video Program Providers with revenues under $3 million/year

Emergency Access

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Emergency Televised Programming: Must be accessible via closed captions or other visual methods (scrolls on the screen).

- Requires access to information intended to further the protection of life, health, safety, or property.
- Examples: hazardous weather situations, including tornadoes, heavy snows, hurricanes and earthquakes; dangerous community situations including the discharge of toxic gases, criminal activities, widespread power failures, school closings.
- Information must include critical details regarding the emergency and how to respond.

Telephone Emergency Access (911 Access): TTY compatibility with digital wireless phones required in FCC1996 Order on Enhanced 911 Emergency Calling (E911). Effective June 30, 2002.

HEARING AID COMPATIBILITY

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Hearing Aid Compatibility Act of 1988

All telephones manufactured in or imported for use in the United States after 1989 must be hearing aid compatible (HAC).

Temporary exemption for wireless telephones – may be revoked if :

- Revocation is in the public interest
- Continuation of the exemption would have an adverse effect on individuals with hearing disabilities
- Compliance with the HAC requirements is technologically feasible
- Compliance with the HAC requirements would not increase costs so much that the telephones could not be successfully marketed

FCC Open Proceeding on this issue: WT Docket No. 01-309 (November 2001).

Volume Control: FCC rule: All wireline telephones must have volume control – since January 2000.

SECTION 255 OF THE COMMUNICATIONS ACT

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ACCESSIBILITY: Telecommunications manufacturers and service providers must make their products and services accessible to people with disabilities, if readily achievable.

- Companies must evaluate and incorporate access throughout the design, development, and fabrication stages of product and service development: as early and consistently as possible.

- Companies must include people with disabilities in market research, product testing and trials, pilot demonstrations; work cooperatively with disability-related organizations.

COMPATIBILITY: When it is not readily achievable to make equipment and services accessible, manufacturers and service providers must make these compatible with peripheral devices or specialized customer premises equipment commonly used by people with disabilities, where readily achievable. For example, this requires the ability to use TTYs with telephonic equipment.

UNIVERSAL DESIGN

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Definition:

> “A concept or philosophy for designing and delivering products and services that are usable by people with the widest possible range of functional capabilities, which include products and services that are directly usable (without requiring assistive technologies) and products and services that are made usable with assistive technologies.” (Assistive Technology Act of 1998)

Various Applications:

- Architectural Design (Americans with Disabilities Act)
- Telecommunications (Section 255 of the Communications Act)
- Education (IDEA Reauthorization)

Key:

> Consider access during the design and development of what is being built or manufactured, or during natural opportunities when the item is upgraded.

SECTION 255 OF THE COMMUNICATIONS ACT (cont.)

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Telecommunications Services: "Offering of telecommunications for a fee directly to the public" – refers to the transmission of information of the user's choosing, without change in the form or content of the information as sent and received. (Telecommunications Act of 1996)

- basic telephone services, adjunct-to-basic services, including call waiting, speed dialing, call forwarding, call monitoring, caller ID, call tracing and repeat dialing

- interactive voice response systems and voice menus

Telecommunications Equipment:

- Customer Premises Equipment: Equipment used by an individual to originate, route, or terminate telecommunications – includes wireline and wireless telephones, pagers, fax machines, direct-connect TTYs, answering machines.

- Equipment used by a carrier to provide telecommunications services

SECTION 255 OF THE COMMUNICATIONS ACT (cont.)

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Readily Achievable: Case-by-case analysis by FCC:

- Easily accomplishable without much difficulty or expense.
- Balance the costs and nature of the access required with available resources, including the available resources of parent companies.
- No “fundamental alterations” of the product are required.
- Access features that are not technically feasible are not required.

SECTION 255 OF THE COMMUNICATIONS ACT (cont.)

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Usability: Section 255 requires that individuals with disabilities be able to learn about and operate telecommunications products and services effectively. Requires access to information and documentation for the item, including accessible product/service instructions, user guides, and bills; access to technical support services, including call centers, service centers, and repair services

Network: Section 251 of the Communications Act prohibits telephone providers from installing network features, functions, or capabilities that do not comply with the Section 255 guidelines

FCC Notice of Inquiry (still pending): FCC open proceeding initiated in 1999, to consider Section 255 coverage of:

- Internet (IP) telephony services
- Computer-based equipment used for telecommunications that is not connected to the public telephone network

SECTION 255 OF THE COMMUNICATIONS ACT (cont.)

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Implementation of Section 255 since 1996:

- Heightened awareness and expertise by industry
- Collaborative relationships between industry and consumers: Consumer-industry forums; consumer focus groups
  - Telecommunications Access Advisory Committee
  - Electronic and Information Technology Access Advisory Committee
  - IVR Forum
  - TTY Forum
  - Consumer/Disability Telecommunications Advisory Committee

FCC Disabilities Rights Office within the FCC's Consumer and Governmental Affairs Bureau (CGB)

- Maintains points of contact
- CGB receives complaints

SECTION 255 OF THE COMMUNICATIONS ACT (cont.)

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Companies have begun to incorporate accessibility features in their products and services. A few examples are:

- Accessible caller ID
- Accessible intercept messages
- Nibs or capital letters on keypads
- Font change ability
- Background lighting adjustments
- Volume changes
- Vibrating features
- Color contrasts
- Jack for TTY access

Companies have also made changes to their internal processes:

- Efforts to incorporate universal design principles into their design processes
- Creation of offices of accessibility
- Development of accessible websites
- Increase in accessible product information; support services, including technical support hotlines and call centers.

SECTION 255 OF THE COMMUNICATIONS ACT (cont.)

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Still Needs Attention:

- Hearing aid compatible wireless handsets
- Audible controls on wireless phones
- Visual access to adjunct-to-basic features (call waiting, forwarding, etc.)
- Access to interactive voice response systems and voice menus
- Access to network tones and announcements

SECTION 508 OF THE REHABILITATION ACT

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Access to electronic and information technology (EIT): Federal agencies must procure and use accessible electronic and information technology

- Computers – hardware and software, keyboards
- Telecommunications equipment
- Web-based information and applications
- Office equipment – copiers, fax machines, information kiosks
- Multimedia applications: video, audio, animation, graphics, and text delivered via video and audiotape, CD- and DVD-ROM, Internet, broadcast, narrowcast, and satellite

INTERACTIVE VOICE RESPONSE SYSTEMS

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Definition

Telephone systems that provide menu options for callers to select messages and to make communications choices (e.g., Press 1 for a certain person; Press 2 for a reservation, etc.)

Uses

IVR systems and voice menus are used throughout the U.S., by banks, schools, governmental agencies, transportation systems, etc.

Problems with Accessibility

Not generally accessible for TTY users, relay users, persons who are hard of hearing, and persons with other types of disabilities.

Relay Services

No double charges permitted when repeat calls are needed; “hot key” to alert TRS callers that IVR system has been reached; TRS centers permitted to record messages for length of the call.

INTERACTIVE VOICE RESPONSE SYSTEMS (continued)

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Mandates for Accessibility:

Communications Act (Section 255): Requires manufacturers of IVR systems to make their systems accessible

Americans with Disabilities Act (Titles II and III): Requires places of public accommodation and state and local governments to provide effective telephone communication with people with disabilities

Rehabilitation Act (Section 508): Requires federal agencies to have electronic, information and telecommunications technologies that are accessible by people with disabilities

- Voice mail and IVR systems shall be usable by TTY users.
- Voice mail and IVR systems that require a response from a user within a time interval shall give an alert when the time interval is about to run out, and shall provide sufficient time for the user to indicate more time is required.

BROADBAND

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High Speed Internet Access: Cable, DSL – Wireline, Satellite

- “Always on” connection
- Video telephony (sign language over video)
- Two–way text communications; Internet chat
- Simultaneous voice/speech communications
- IP Relay services
- Multiple conferencing
- Streaming video at faster speeds, higher resolutions and greater areas of the screen
- Digital talking books
- Reading services
- Easy access to printed information in alternative formats: simultaneous integration of text, audio, Braille and large print

BROADBAND (continued)

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Accessibility Issues:

- Hardware and software installed to use broadband should not distort or deny accessibility features
- Compatibility needed with TTY text – avoid garbling that could occur through compression, expansion, and Internet transmissions
- Open standards for text messaging needed
- Flashing ring indicators needed to alert existence of calls
- Clarity of speech transmissions needed for people who are hard of hearing or have difficult-to-understand speech
- Broadband in both directions needed for video signing

SPECTRUM

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216-217 MHz – used for auditory assistive devices (FM systems) – requires little battery power, and provides clear, high-quality sound for persons who are hard of hearing. Since 1996, thousands of schools, concert halls, movie theaters, and institutions have relied on the 216-217 band.

Prior spectrum – 72-76 MHz had become congested with use from high power industrial communications sources. The result was substantial interference.

Balanced Budget Act of 1997 – directed the National Telecommunications and Information Administration (a branch of the U.S. Commerce Department) to reallocate certain spectrum, including the 216-217 band.

December 2001: FCC elevated Low Power Radio Services in the 216-217 band from secondary to primary status – This will protect access to this bandwidth and provide a permanent home for auditory assistance devices.

What is on the Horizon?

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New Technologies

- Information Services
- Broadband Access
- IP Telephony
- Convergence of voice, data, graphics, and video
- Digitization
- Multimedia applications
- Wireless and blue-tooth applications

Access needed for all walks of life: Jobs, information, education, entertainment, health and independence.

Access is needed at all phases: Interfaces (visual), content (captioning), basic and advanced features (full functionality needed for programming, searching, storing, etc), customer service and technical support.

What is on the Horizon? (continued)

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Leveling the playing field: The goal is achieving independence and autonomy by having full access to all technologies.

Federal policy: No access charges, taxes or fees on emerging Internet technologies are expected.

Good business sense: Industry benefits when it incorporates access.

Avoid expensive and burdensome retrofits: Access should be incorporated during the design and development phases.

Inclusion, not exclusion: Upgrades should not remove accessible services (example: voice recognition technology – avoid a repeat of the "talkies" effect).

Access benefits everyone: Closed captioning, vibrating pagers, and slower IVR recordings benefit people without hearing disabilities.

COMPLAINTS TO THE FCC

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For the most part, the FCC relies on complaints to enforce many of the above laws. In order to file a complaint with the FCC:

Put together detailed information about your problem (e.g., lack of access to a telecommunications product, failure of a network to provide closed captioning, etc.). Explain what your concern is, when it occurred, and, if you tried to resolve it on your own, provide details of the response from the company or network.

Send your complaint to the FCC:

- By postal mail: Consumer and Governmental Affairs Bureau, 445 12th Street, SW, Washington, DC 20554; or
- By fax: 202-418-0232; or
- By e-mail: fccinfo@fcc.gov. If you send a copy of your complaint to access@fcc.gov, it may also be received by the Disabilities Rights Office.

You may also contact the FCC by phone 1-888-225-5322 (voice) and 1-888-835-5322 (TTY); e-mail audio-cassette recording; and Braille.

Comments: May file electronically: www.fcc.gov/e-file/ecfs.html

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