

Telecommunication Development Bureau (BDT)

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Subject: Report on "Accessibility in Mobile Phones and Services for Persons with Disabilities"

Dear Madam,

I am pleased to inform you that ITU and the Global Initiative for Inclusive ICTs (G3ict) plan to co-publish a report on 'Accessibility in Mobile Phones and Services for Persons with Disabilities" in the second half of this year.

An excerpt of the draft report was submitted to the last Rapporteur's Group Meeting of ITU-D Study Group Question 20-1/1 (Access to telecommunication services and information and communication technologies (ICTs) by persons with disabilities), held at ITU Headquarters in Geneva on 12 May 2011 (available in document RGQ 20-1/1/005 at: http://www.itu.int/md/D10-RGQ20.1.1-C-0005/en). This excerpt includes a description of the accessibility policies, legislation and regulations in 12 ITU Member States, as well as the European Union, based on our desk research. You will find that your country's experience is included in the attached document.

In order to accurately reflect information about your country in the report, and so this information may also be provided as a contribution to the next meeting of ITU-D Study Group 1, Question 20-1/1 in September 2011, you are kindly invited to review and provide comments on the attached document. Should you wish to modify any information provided in the report, kindly submit the modification as a contribution to Study Group Question 20-1/1 meeting by 30 June 2011, through the online form available at: http://www.itu.int/ITU-D/CDS/contributions/sg/index.asp (Select Meeting: Second Meeting of Study Group 1, 5-9 September 2011) or contact the Study Group Secretariat at devsg@itu.int if you need additional information on the procedure to follow.

We look forward to your timely reply to enable your experiences to be shared through ITU-D Study Groups and the forthcoming report.

Yours sincerely,

[Original signed]

Susan Schorr Head, Special Initiatives Division

Annex: Excerpt from the Draft Report

Telecommunication Development Sector

Study Groups

ITU-D Rapporteur's Group Meeting on Question 20-1/1 Geneva, 12 May 2011



Document RGQ 20-1/1/005-E 28 April 2011

Original: English only DELAYED CONTRIBUTION

For action

Question 20-1/1: Access to telecommunication services and information and communication technologies (ICTs) by persons with disabilities

BDT Focal Point for Ouestion 20-1/1

TITLE Draft Report on National Legal and Policy Frameworks to Promote ICT Access

by Persons with Disabilities

Action required: The Rapporteur's Group meeting is asked to consider the material presented

in this document.

Abstract:

SOURCE

This document, an input from BDT, is an excerpt from a draft report on 'Accessibility in Mobile Phones and Services for Persons with Disabilities' that ITU and the Global Initiative for Inclusive ICTs (G3ict) plan to co-publish later this year. The excerpt includes a description of the accessibility policies, legislation and regulations in 12 countries as well as the European Union.

ITU-D Study Group 1 members from the covered countries are invited to review and comment on the reported description of their accessibility policies, legislation and regulations so they may be accurately reflected in the forthcoming report and used in the report of Question 20-1/1.

In addition, all ITU Member States are invited to contribute similar summaries of their policy, legal and regulatory accessibility measures to this Study Group Question.

BACKGROUND

Mobile phones have completely revolutionized life in the 21st century. With the potential to bridge the divide between marginalized groups and mainstream communities of society - by facilitating access — they are increasingly receiving much attention from policy makers around the world. This contribution provides an overview of the measures implemented by different countries to facilitate accessibility in telecommunications for persons with disabilities based on desk-research. The countries covered are invited to review and comment on their measures.

Australia

Australia has made mobile phones accessible for persons with disabilities through a combination of universal service obligations, consumer protection laws and telecommunications standards.

The Australian Communication and Media Authority (ACMA) is the regulator for the communication sector in Australia and is in charge of promoting accessible telecommunications for persons with disabilities.

The Telecommunications (Consumer Protection and Service Standards) Act, 1999 guarantees Standard Telephone Service (STS) as part of the Universal Service Obligation (USO). The USO requires that persons with disabilities have reasonable access to voice telephony including mobile phones or an equivalent form of communication if voice telephony is not practical. This is in consonance with the Disability Discrimination Act, 1992, which makes it unlawful to discriminate against persons with disabilities in the provision of goods and services. Australia also has a Telecommunications (Equipment for the Disabled) Regulation, 1998, which outlines the features and equipment that must be available for use with standard telephone services. They include one-touch dialing memory, hands-free capability (a speaker and/or a handset cradle), built-in hearing aid coupler, cochlear implant, telephone adaptor, volume control—to amplify either the incoming or outgoing caller's voice, alternative alerts to indicate that the telephone is ringing (either an additional ringing device with adjustable volume, tone and pitch, or a visual alert), provision of lightweight handsets and the facility to connect a second piece of equipment in parallel with the existing telephone. Act of the control—to amplify either the incoming or outgoing caller's voice, alternative alerts to indicate that the telephone is ringing (either an additional ringing device with adjustable volume, tone and pitch, or a visual alert), provision of lightweight handsets and the facility to connect a second piece of equipment in parallel with the existing telephone.

The Telecommunications Disability Standard AS/ACIF S040:2001⁵ requires that standard customer equipment used in connection with the STS, including mobile phones, must include:

- A raised 'pip' on the 'five' digit key to assist people who are vision impaired to locate number keys on the keypad;
- A limit on interference between handsets and hearing aids.⁶

Australia also has a National Relay Service⁷ in place, which allows people who are deaf or have a hearing or speech impairment to use the telephone, at no extra cost⁸. Legislative backing is provided to NRS by Part 3 of the Telecommunications (Consumer Protection and Service Standards) Act.⁹ While most of the services and policies are targeted towards fixed line telephony, they are applicable to mobile phones as well.

Argentina

Argentina has enacted a few overarching laws to ensure the accessibility of telecommunication services.

National legislation of relevance to ICT accessibility dates back to the Latin American Convention for the Elimination of all Forms of Discrimination against Persons with Disabilities (2000) that was promulgated by Congress in Ley 25.280. Article 3, Section 1, point (a) stipulates the introduction of "... measures to progressively eliminate discrimination and to promote integration on the part of government bodies and/or private bodies in the provision or offering of goods, services, installations, programs and activities such as

¹ See http://www.austlii.edu.au/au/legis/cth/consol act/tpassa1999620/s6.html Section 6 also makes the STS obligation mandatory for the disabled.

² See Section 24, Disability Discrimination Act, 1992, which reads as: it is unlawful for a person who, whether for payment or not, provides goods or services, or makes facilities available, to discriminate against another person on the ground of the other person's disability: (a) by refusing to provide the other person with those goods or services or to make those facilities available to the other person; or (b) in the terms or conditions on which the first mentioned person provides the other person with those goods or services or makes those facilities available to the other person; or (c) in the manner in which the first mentioned person provides the other person with those goods or services or makes those facilities available to the other person.

 $³_{\underline{\text{http://www.comlaw.gov.au/ComLaw/Legislation/LegislativeInstrument1.nsf/all/search/C56CDFB4F68D0C7ECA256F700080C830}$

⁴ Ibid

⁵ http://www.commsalliance.com.au/ data/assets/pdf file/0017/2429/S040 2001.pdf

⁶ http://www.acma.gov.au/WEB/STANDARD/pc=PC 2175

^{7 &}lt;a href="http://www.relayservice.com.au/about/">http://www.relayservice.com.au/about/

 $^{^{8}}$ The costs of relay service are covered through a levy on eligible telecommunication carriers

⁹ http://www.comlaw.gov.au/Details/C2011C00067

employment, transport, communication, housing..."10.

In the most recent change to the regulation of the public telephone service for the hard of hearing and persons with speech impairments (Ministerial Order S.C. N° 2151/97¹¹), the text mentions that "the current regulations for terminal equipment for the hard of hearing and/or the speech impaired in Argentina is similar to that used in the United States". Section 3 of the 1997 regulations therefore required that "all models of handsets for 'Hard of Hearing and Speech Impaired Category 3', as defined in Article 10 of the Regulations approved by Resolution SC No. 26878/96 - both public and private - duly certified and approved by the communications regulatory body of the United States, the Federal Communications Commission (FCC), are approved in (Argentina), provided they have Spanish keyboard language and (a minimum) speed of 50 baud¹²." On 12 November 12 2010, Congress passed a bill (4521-D-08) featuring additional legislation governing the accessibility of information on websites which refers to Web browsers. Because the legislation does not stipulate the type of device running Web browsers, it would also appear to apply to smart phones.

Brazil

The Brazilian position on mobile accessibility is encapsulated in the following statement: "The Government also develops policies of a structural nature, as opposed to isolated interventions. In this context, the issue of disabilities is seen as a cross-sector phenomenon and benefits from the synergy of the integrated planning and implementation of policies by all federal bodies, in partnerships with states and municipalities, and with the cooperation of human rights councils and civil society organizations." The Brazilian Model of Telecommunications Reform BMTR, features universal service provisions in the BMTR that cover schools, health institutions and the disabled sector.

The original, post-privatization obligations of the operators were defined in their concession contracts and included compliance with the General Plan for Universal Targets (PGMU – Decree 2592 of 15/5/1998) and the General Plan for Quality Targets (PGMQ). There were some initial, short-term targets for the five-year duration of the plans. New PGMUs and PGMQs came into force from 2006, the year of the extension of the original concession contracts.

Among the new objectives established by the regulator in 2008 were:

- Ensuring widespread use of broadband access, with a view to increase the possibilities of social inclusion
- Reducing barriers to access and use of telecommunications services for low income classes
- Higher levels of perceived quality by users in the provision of services in order to ensure that their needs are completely met, and
- Mobile phone accessibility for persons with disabilities would appear to be implicit in these objectives, even if not explicitly identified.

Canada

In Canada, accessibility of telecommunication services is part of the broader regulatory policy governing the sector. The Canadian Radio-television and Telecommunications Commission (CRTC) is the regulatory body overseeing electronic and telecommunications industry practices and legislations.

In 2008, CRTC initiated a Telecom Public Notice (2008-8), where it held a converged telecommunications and broadcasting proceeding to address residual issues related to the accessibility of the same to persons

¹⁰ This is an informal translation.

¹¹ SC Res 2151/97 http://www.atedis.gov.ar/hipo_normativa6.php

¹² This is an informal translation.

¹³ Quotation from: "Government of Brazil – rights of persons with disabilities - response to questionnaire by the OHCHR". www2.ohchr.org/english/issues/disability/docs/study/Brazil.doc

¹⁴ http://www.sis.pitt.edu/~jarauz/docsusfq/sep05/brazil.pdf

with disabilities. Based on the submissions made in the proceeding, CRTC outlined several measures under the Broadcasting and Telecom Regulatory Policy 2009-430.¹⁵

These include extension of relay services to include IP relay service and making it obligatory for service providers to provide at least one type of wireless mobile handset which accommodates the needs of persons with disabilities, provide alternative billing formats and include accessible disability-specific information on websites.

France

In France, accessibility of telecommunications was achieved through the signing of a voluntary charter by service providers and disability organizations, which was facilitated by the French regulator, the Autorité de Régulation des Communications Électroniques et des Postes – ARCEP¹⁶. In 2005, the French government, along with operators and disability organizations signed a voluntary charter for improving access to mobile telephony for disabled end users¹⁷ which laid down priorities such as the introduction of necessary and comfort features, innovation of new features and provision of analysis and market accessibility features for the service providers to work on .

In 2008, changes and improvements to the charter were made which included increasing usability, wider dissemination of information, targeted product development and setting up an information website to aid persons with disabilities to choose handsets. The charter further added objectives such as training for information vendors, eventual adoption of the charter at European level and using innovation to increase accessibility.¹⁸

The charter has had a noticeable impact on the mobile telephony industry. By 2009, every operator in France was offering 10 to 20 accessible handsets, and operators provided bills in Braille or large print for the visually impaired as well as special text and multimedia message packages for the deaf. In addition, new services were launched with accessibility features such as sign language news, accessible information websites, etc.

Japan

Mobile phone accessibility in Japan is ensured through a mix of legislative provisions and accessibility guidelines and standards. The Ministry of Internal Affairs and Communications is responsible for Japan's telecommunication sector.

The Info-communication Access Council (IAC) in Japan plays an active role as a facilitator in promoting easy access to telecommunications equipment and services, or in other words, assuring and improving telecommunications accessibility. ¹⁹ IAC has come out with a guideline for disabled telecom accessibility. The guideline, JIS X8341-4, applies to telecommunication equipment (which includes fixed telephones, facsimiles, mobile telephones and video phones).

Section 19 of the Basic Law for Persons with Disabilities Act, 1970, amended in 2004, deals with accessible communication and states that the (state) government and the local governments shall take necessary measures through disseminating accessible computers and accessible information technology devices, facilitating accessible telecommunications and making adjustments of facilities that provide information for persons with disabilities so that they can make use of accessible communication and express their own will.

¹⁵ http://www.crtc.gc.ca/eng/info sht/t1036.htm

^{16 &}lt;a href="http://www.arcep.fr/index.php?id=1&L=1">http://www.arcep.fr/index.php?id=1&L=1

¹⁷ http://www.afom.fr/eclairages/lacces-des-personnes-handicapees-la-telephonie-mobile

 $^{18 \} _{http://www.gouvernement.fr/gouvernement/l-acces-des-personnes-handicapees-a-la-telephonie-mobile}$

¹⁹ Mitsuji MATSUMOTO, 'Accessibility in Telecommunications - Significance of Global Standardization ' - ITU-T Workshop The impact of the United Nations Convention on the Rights of Persons with Disabilities on the work of the ITU-T" Geneva, 2 November 2009

The Government and the local governments shall especially take into account accessibility for persons with disabilities in providing public information and promoting utilization of information technology.

Service providers for telecommunication, broadcasting, information, computer and other information technology devices are also directed to make efforts to take into account accessibility for persons with disabilities in providing services or manufacturing devices on the basis of social solidarity".²⁰

It is also important to note that the Law for Promoting Businesses that Facilitate the Use of Communications and Broadcast Services by Physically Disabled Persons (1993, Law No. 54), promotes services to make media such as telecommunications and broadcast accessible to persons with disabilities so that they can take advantage of the growing availability of information.²¹

Malaysia

In Malaysia, access for persons with disabilities is part of the universal service obligation. The Malaysian Communications and Multimedia Commission (MCMC) is the regulator for communications and multimedia industry in the country.

Malaysia's Universal Service Provision²² is established through Section 202²³ of the Communication and Multimedia Act, 1998.²⁴ The provision identifies persons with disability as an "underserved community/group" defined by MCMC as "being groups of people in served areas that do not have collective and/or individual access to basic communications services". Section 192 of the Act also states that the Required Application Service²⁵ i.e. specific services that service providers are mandated to offer includes services for disabled consumers.²⁶

South Africa

South Africa has a strong legislative framework for telecommunication accessibility in the form of a code with detailed recommendations on accessible services. The Independent Communication Authority of South Africa²⁷ (ICASA) is the electronic and telecommunications regulator for South Africa.

Section 2(h) of the Telecommunications Act, 1996²⁸ includes ensuring the needs of persons with disabilities in the provision of telecommunication services as one of its objectives.

South Africa has also enacted the Promotion of Equality and Prevention of Unfair Discrimination Act, 2000²⁹ which prohibits unfair discrimination on the grounds of disability. These include;

- Denying or removing from any person with disability, any supporting or enabling facility necessary for their functioning in society
- Failing to eliminate obstacles that unfairly limit or restrict persons with disabilities from enjoying equal opportunities or failing to take steps to reasonably accommodate the needs of such persons.³⁰

²⁰ http://www8.cao.go.jp/shougai/english/law/no84.html#04

²¹ http://www.dinf.ne.jp/doc/english/law/japan/selected38/chapter7.html

²² http://www.skmm.gov.my/index.php?c=public&v=art_view&art_id=98

²³ http://www.skmm.gov.my/index.php?c=public&v=art_view&art_id=251

^{24 &}lt;a href="http://www.msc.com.my/cyberlaws/act_communications.asp">http://www.msc.com.my/cyberlaws/act_communications.asp

²⁵ http://www.skmm.gov.my/link_file/the_law/NewAct/Act%20588/Act%20588/a0588s0193.htm

^{26 &}lt;a href="http://www.msc.com.my/cyberlaws/act_communications.asp">http://www.msc.com.my/cyberlaws/act_communications.asp

^{27 &}lt;a href="http://www.icasa.org.za/tabid/38/Default.aspx">http://www.icasa.org.za/tabid/38/Default.aspx

²⁸ http://www.info.gov.za/acts/1996/a103-96.pdf

²⁹ http://www.iwraw-ap.org/resources/pdf/South%20Africa GE1.pdf

Section 70 of the Electronic Communications Act, 2005³¹ states that ICASA is obligated to prescribe regulations in the form of a code for people with disabilities that will be applicable across all categories of licenses, including telecom."³² Consequently, ICASA established the Code on People with Disabilities³³ in August 2009, which set out guidelines for license holders when they are dealing with or providing services to disabled end-users.

Some of the recommendations of the code include provision of inclusive products and services by manufacturers and operators, design of accessible products and services by service providers, provision of emergency, relay, directory and call progress information services, operator assistance at all call centres, billing in alternative formats, accessible advertisements etc. The Code complements existing provisions in telecommunications, broadcasting and postal services providers licenses which may address the needs of persons with disabilities.

Sweden

Sweden has an overarching disability policy with specific provisions for telecommunications accessibility. The Swedish Post and Telecom Agency (PTS)³⁴ is the country's regulatory authority for electronic communications and postal activity. Programmes and initiatives operational under the PTS for persons with disability are funded from allocations from within the national budget of Sweden for approximately SEK 353 million.

The PTS is one of 14 agencies that are mandated to enforce and realize the objectives of Sweden's <u>Disability Policy</u>³⁵, i.e. to enhance and assure accessibility and usability of electronic communication and postal services for disabled users. As part of this, the PTS funds Textteloni³⁶, Teletal³⁷, Bildtelefoni³⁸, IT Support and home³⁹ and the e-adapt project⁴⁰ for persons with disabilities.

Sweden has also implemented the Total Conversation Standard⁴¹ -- an ITU service description in ITU-T Rec. F.703 that covers videophone with real time text – It is procured by the Swedish Handicap Institute for the accessible communication market in Sweden and by the Swedish Labour Authorities and Social Insurance system.

Thailand

http://www.icasa.org.za/LinkClick.aspx?fileticket=hVMvwf2qmj0%3d&tabid=86&mid=649&forcedownload=true

³⁰ Section 9 of the Promotion of Equality and Prevention of Unfair Discrimination Act, 2000. See: http://www.iwraw-ap.org/resources/pdf/South%20Africa GE1.pdf

³¹ http://www.info.gov.za/view/DownloadFileAction?id=67890

³²Electronic Communications Act,2005 accessible at

³³ http://old.ispa.org.za/regcom/advisories/advisory26.shtml

^{34 &}lt;a href="http://www.pts.se/en-gb/">http://www.pts.se/en-gb/

³⁵ http://www.sweden.gov.se/sb/d/2197/a/15254

³⁶ A phone and text relay service

³⁷ Provision of interpreter for people with speech impairments who is trained to follow speech that others may have trouble comprehending.

 $^{^{38}}$ Interpretation assistance on cell phones for sign language users who have a videophone and 3G service.

 $^{^{39}}$ A call-in service for repairs and assistance for disabled and elderly users of electronic communication and media

 $^{^{40}}$ A pilot project which is looking at ways in which persons with disabilities can independently navigate their way in urban environments through digital maps and GPS.

⁴¹ http://www.e-accessibilitytoolkit.org/toolkit/developing_policy/Step_1: identifying_priorities#Sweden

Thailand has adopted several legislative and policy measures to ensure accessibility in telecommunications for all. The National Broadcasting and Telecommunications Commission (NTBC)⁴² is the telecom regulator in Thailand. The universal service obligation is clearly defined to include special services for the impaired or elderly.⁴³ Section 17 of the Telecommunication Act, 2001 identifies provision of access to public telecommunications for persons with disabilities, children, elderly and disadvantaged persons as part of the universal service obligation.⁴⁴

Further, Section 20 of the Persons with Disabilities Empowerment Act, 2007 (B.E. 2550) deals with the right of persons with disabilities to access facilities, including welfare assistance provided by the state. Section 20(6) of this Act specifically talks about telecommunication and other information and communication accessibility.⁴⁵

The Telecommunication Master Plan (second issue) for 2008-2010 deals with accessibility for all disadvantaged people and introduces the telecommunication relay service. ⁴⁶ In 2009, the then National Telecommunications Commission (NTC) granted 2.5 million baht (approximately USD 70,000) of research and development funds in collaboration with National Electronics and Computer Technology Center (NECTEC) to set up the Telecommunication Relay Service Centre for fixed line and mobile communication, or TRS, to act as a middleman, providing relay or translation services for people with hearing or speech disabilities. ⁴⁷

Apart from these legislative and policy measures, Thailand has also taken practical steps for reaching out to people using innovative ideas such as an outreach exhibition bus that provides information and training in using wired and wireless telecommunication devices for persons with disabilities.⁴⁸

The Thailand Association of the Blind, in collaboration with NECTEC Ratchasuda Foundation under HRH Princess Mahachakri Sirindhorn, has introduced the on-demand 'Digital Talking Book'49 delivery system over fixed and mobile telephones.

United Kingdom

The mandate for accessible telecommunications in UK flows from an overarching disability legislation and specific regulations and policies. The Office of Communications⁵⁰ (Ofcom) is the communications regulator in-charge of overseeing telecommunications and media practices in the United Kingdom. Under Section 3 (4i) of the Communications Act, Ofcom is required to pay heed to the needs of elderly and the disabled and those with low incomes. Further, under Section 21, Ofcom established an advisory committee for matters relating to elderly and disabled persons.

⁴² http://eng.ntc.or.th/

⁴³ http://www.itu.int/ITD/icteye/Reporting/ShowReportFrame.aspx?ReportName=/TREG/UniversalServiceProfile&ReportFormat=HTML4.0&RP int CountryID=229&RP intLanguageID=1

⁴⁴ Supra n.2

⁴⁵ http://thailaws.com/law/t_laws/tlaw0385.pdf

⁴⁶ http://eng.ntc.or.th/images/stories/pdf/masterplanad2008-2010.pdf

^{47 &}lt;a href="http://mis-asia.com/news/articles/thailand-plans-technology-to-help-connect-people-with-disabilities?SQ">http://mis-asia.com/news/articles/thailand-plans-technology-to-help-connect-people-with-disabilities?SQ DESIGN NAME=print

⁴⁸ Supra n.2

⁴⁹ A Digital Talking Book (DTB) is a multimedia representation of a print publication. A collection of digital files that provides an accessible representation of the printed book for individuals who are visually or print-impaired. These files may contain digital audio recordings of human or synthetic speech, marked-up text, and a range of machine-readable files. See: http://www.daisy.org/daisy-technology

⁵⁰ http://www.ofcom.org.uk/about/

Ofcom issued the Telecommunications (Services for Disabled Persons) Regulations 2000 (SI 2000 No. 2410)⁵¹. These rules along with the EU Directive of 98/10/EC⁵² require telephone companies (fixed and mobile) providing voice telephone services to enable a number of services for customers with disabilities.⁵³

These obligations, also covered under General Condition 15⁵⁴ include access to text relay and directory enquiry services, provision of onward connection for blind users with dexterity problems, provision of priority repair services at standard rates and a protected service scheme to reduce disconnections, support for billing in alternative formats and nominated persons to manage billing on behalf of the customer with disability⁵⁵.

Ofcom also has an obligation under the UK Disability Discrimination Act 2005⁵⁶ (DDA) to take measures to ensure that people with disabilities can use the services as easily as everyone else.

Ofcom's <u>Single Equality Scheme</u>⁵⁷ aims at promoting quality and diversity through its functions and policies across sectors.

Ofcom has also developed the Mobile Industry Good Practice Guide for Service Delivery for Disabled and Elderly Customers in the UK available at:

http://consumers.ofcom.org.uk/files/2010/06/gp_guide_eld_dis.pdf.

United States

The United States has a range of general and specific laws mandating telecommunication accessibility for persons with disabilities. The Federal Communications Commission⁵⁸ (FCC) is the regulatory body in charge of media and communication practices in the US.

The Telecommunications Act of 1996⁵⁹ mandated the FCC to establish a Universal Service Fund⁶⁰ in 1997. Section 255⁶¹ and Section 251(a) (2)⁶² of this act mandate manufacturers of telecommunications equipment and service providers to ensure that their products and services are accessible to and usable by persons with disabilities, if such access is readily achievable. This covers telephones, cell phones, pagers, call-waiting, and operator services.

Where access is not readily achievable, Section 255 requires manufacturers and service providers to make their devices and services compatible with peripheral devices and specialized customer premises equipment that are commonly used by people with disabilities, if such compatibility is readily achievable. The "readily achievable" standard requires companies to incorporate access features that can easily be provided without much difficulty or expense. The FCC has also made regulations for the provision of telecommunications

⁵¹ http://www.ofcom.org.uk/static/archive/oftel/publications/consumer/text0801.htm

⁵² http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31998L0010:en:NOT

http://www.legislation.gov.uk/uksi/2000/2410/made

⁵⁴ http://stakeholders.ofcom.org.uk/binaries/telecoms/ga/cvogc300710.pdf

⁵⁵ For further details See http://consumers.ofcom.org.uk/files/2010/06/gp guide eld dis.pdf=

http://www.legislation.gov.uk/ukpga/2005/13

⁵⁷ http://www.ofcom.org.uk/about/policies-and-guidelines/equality-and-diversity/single-equality-scheme-ses/

⁵⁸ http://www.fcc.gov/

⁵⁹ http://en.wikipedia.org/wiki/Telecommunications Act of 1996

^{60 &}lt;a href="http://www.usac.org/default.aspx">http://www.usac.org/default.aspx

⁶¹ http://www.access-board.gov/about/laws/telecomm.htm

⁶² http://www.dleg.state.mi.us/mpsc/comm/broadband/unbundling/section 251.htm

relay services (TRS) pursuant to Title IV of the Americans with Disabilities Act, 1990 (ADA).⁶³ Each common carrier providing telephone voice transmission services is obliged to provide TRS in compliance with the regulations prescribed by the FCC, throughout the area in which it offers services.

As per the Hearing Aid Compatibility Act of 1988 (HAC Act), the FCC ensures that all telephones manufactured or imported for use in the United States and all 'essential telephones' are hearing aid-compatible. FCC also has extended this requirement to wireless/mobile telephones. 65

In October 2010, the US Congress passed the Twenty-First Century Communications and Video Accessibility Act of 2010, 66 the aim of which is to improve access to "advanced communications" (including interconnected and non-interconnected voice over Internet protocol (VoIP), electronic messaging, and interoperable video conferencing services) and "consumer-generated media" for persons with disabilities. Section 10267 of this Act requires that telephones which are used with the Internet need to accommodate hearing aids. Section 104, outlines access to advanced communications services and equipment. The section defines "achievable" as reasonable effort or expense, as determined by the FCC.

Section 508⁶⁸, a provision in the Rehabilitation Act, ⁶⁹ mandates that electronic and information technology purchased, developed or used by the US federal government or US federal agencies should be accessible to persons with disabilities who may be employees or general members of the public, "unless an undue burden would be imposed on the department or agency". ⁷⁰

The provision further requires that levels of access be on par with those for able-bodied people. Section 508 concerns federal agencies, but has created a marketplace incentive for the development of accessible information and communications technology.

European Union

The European Commission Universal Service Directive (Directive 2002/22/EC),⁷¹ lays down rules relating to the needs of disabled end users and people with special needs with regard to telecommunications. These cover fixed, wireless and broadband telephony.

The directive states that National Regulatory Authorities (NRA) of member states can adopt measures depending upon the specific circumstances in their nations to ensure adequate choice of telecommunication services to disabled users.

Some of the measures taken by NRAs in different European member states which build upon the EU Directive are outlined below. Countries may have implemented these measures in a variety of ways. For example, some provide state subsidies for connections facilitating alternative forms of communication for disabled end users while others require service providers to offer such accommodations.

⁶³ See http://www.fcc.gov/cgb/dro/trs.html

^{64 &#}x27;Essential' telephones are defined as "coin-operated telephones, telephones provided for emergency use, and other telephones frequently needed for use by persons using such hearing aids." Essential phones might include workplace phones, phones in confined settings (like hospitals and nursing homes), and phones in hotel and motel rooms.

⁶⁵ See http://www.fcc.gov/cgb/dro/hearing.html

⁶⁶ http://www.govtrack.us/congress/bill.xpd?bill=s111-3304

⁶⁷ http://www.coataccess.org/node/9776

⁶⁸ http://www.section508.gov/

⁶⁹ http://en.wikipedia.org/wiki/Rehabilitation_Act_of_1973

⁷⁰ http://www.afb.org/afbpress/pub.asp?DocID=aw110402

⁷¹ http://ec.europa.eu/information society/policy/ecomm/todays framework/universal service/index en.htm

Billing in accessible formats: Czech Republic, France, Greece, Ireland, Italy, Lithuania, Netherlands, Norway, Poland, Portugal, Slovenia, Sweden, Switzerland, and UK

Information about accessible services covered by the universal service obligation: Czech Republic, France, Greece, Ireland, Italy, Lithuania, Malta, Norway, Portugal, Slovakia, Slovenia, Sweden, Switzerland, and UK.

Special measures of access for emergency situations such as the sms112 project: Czech Republic, France, Greece, Ireland, Italy, Malta, Netherlands, Norway, Portugal, Romania, Slovakia, Slovenia, Sweden, Switzerland, and UK.

Text Relay Services: Czech Republic, Germany, Greece, Hungary, Ireland, Italy, Latvia, Netherlands, Norway, Portugal, Slovakia, Sweden, Switzerland, and UK.

Video Relay Service: Germany

Quick dial and speed dial keys for mobile telephony Czech Republic, France, Germany, Greece, Hungary, Ireland, Italy, Lithuania, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Sweden, Switzerland, and UK.

Volume adjustment for mobile telephony - Czech Republic, France, Germany, Greece, Hungary, Ireland, Italy, Lithuania, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Switzerland, and UK.

CONCLUSION

There are a number of regulatory approaches which have been taken by countries to promote accessibility. While many countries have provisions relating to accessibility in their general telecommunications policies, some have promulgated dedicated legislation as in the case of the US and South Africa. In addition, some countries have used their Universal Service Funds to implement accessibility. Accessibility has also been achieved through industry initiatives, including in Japan, while French mobile operators agreed to a code of conduct facilitated by the regulator.