



TRAI

Consultation Paper

on

Making ICT Accessible for Persons with Disabilities

Comments from:

Chhattisgarh Infotech Promotion Society
Department of Electronics & Information Technology
Government of Chhattisgarh



The comments shared by us in this document are based on our understanding of TRAI's consultation paper **on *Making ICT Accessible for Persons with Disabilities*** and secondary research. The concerned authority may exercise their judgement in evaluating/accepting these inputs.



We have categorized our comments on the consultation paper under a few categories. Below table captures each of these categories and a brief description on the kind of comments we have provided. The details comments are provided in subsequent slides.

Agenda	Description
Telecommunication – Hardware and Services	This section covers our comments on the hardware/devices and services in the telecom sector. It includes what Government may do to make mobile devices and telecom services more accessible to PwDs.
Broadcasting – Hardware and Services	This section covers our comments on the hardware/devices and services in the broadcasting sector. It includes what Government may do to make Set top box/DTH/other broadcasting devices and content more accessible to PwDs.
Access to Emergency Services	This section covers how accessibility of emergency services can be improved
Other Areas	This section covers our comments on some of other focus areas such as R&D, definition of standards and compliance to the same, awareness campaigns, areas where Government needs to invest and possible funding sources
Case Example of procurement that ensures digital accessibility	We have presented a case example of how Government of Chhattisgarh in one it large procurement tender has ensure that the application being development for use by citizens is digitally accessible to PwDs as well.



Telecommunication -- Hardware and Service Delivery

Hard Ware/Devices	Services
<p>Mobile</p> <ul style="list-style-type: none"> ▪ Mandate that every device/handset manufacturer will make at least one model of handsets for PwDs which has accessibility features and which is compatible with assistive technology features such as hearing and visual aids including emergency buttons <p>Key Features of this accessible handset</p> <ul style="list-style-type: none"> ▪ Accessibility features compatible with assistive technologies such as hearing and visual aids ▪ Hearing aid compatible ▪ Audio & visual controls both for feeding and retrieving information ▪ One-touch dial memory ▪ Handsfree capability ▪ Built-in hearing aid coupler ▪ Cochlear implant ▪ Telephone adaptor ▪ Volume control – to amplify incoming or outgoing caller’s voice <p>Information in format accessible by PwDs</p> <ul style="list-style-type: none"> ▪ Mandate sharing of information and user guides of all types of devices in formats accessible by PwDs 	<p>TSPs should be mandated to provide following services.</p> <ol style="list-style-type: none"> 1. Information pertaining to billing, usage, pricing, contracts and policies to be provided in <ul style="list-style-type: none"> ▪ Bill format which is accessible to PwDs ▪ Hardcopy bills in braille and/or large font ▪ MMS 2. Relay Services <ul style="list-style-type: none"> ▪ Enable PwDs to communicate with others and access emergency services through an operator service via an assistive device ▪ Enable persons with hearing or speech disability to place and receive telephone calls ▪ Different kinds of live relay services that can be offered are: text-to-speech, speech-to-text, speech to speech, Video relay ▪ Services should be compatible with mobile phones, braille readers ▪ Discounted tariff for relay services could be offered. Government may subsidize the same. 3. Applications for assisting PwDs <ul style="list-style-type: none"> ▪ Mandate device manufacturers to allow set-up of applications meant to assist PwDs in their device operating system ▪ Encourage development of applications where the emergency button of the mobile phone, made accessible to a part of the body, can be pressed to access mobile phone wirelessly to send out emergency information and location information to acquaintance 4. Other services <ul style="list-style-type: none"> ▪ Quick dial and speed dial keys for easy access ▪ Custom plans for PwDs at a subsidized rate. E.g. subsidized text-only mobile communications package for deaf or hearing-impaired users may be offered by TSPs ▪ Customer Services - Redesign delivery of customer services to also cater to PwDs. Mandate customer care centers to have a few operators to cater to communication from PwDs. Input time for IVRS for PwDs should be increased.



Broadcasting -- Hardware and Service Delivery

Hard Ware/Devices	Services
<p>1. Set Top Box/Devices used for watching TV</p> <ul style="list-style-type: none"> ▪ Must be made compatible for visually impaired viewers by providing audibly accessible options ▪ Remote controls which can be used by PwDs ▪ Option of setting up wireless connection between TV and viewers hearing aid <p>2. TV/DTH functions to be audibly accessible to blind people or people with visual impairment (FCC Accessibility Rules under Section 255 of the Communications Act)</p>	<p>1. Content in accessible format</p> <p>Encourage publishing of content available in audio, print and electronic media in format accessible to PwDs. The same can be achieved by use of:</p> <ul style="list-style-type: none"> ▪ Audio description ▪ Sign language interpretation ▪ Close Captioning ▪ Audio captioning (Audio subtitles/spoken subtitles) <p>2. Mandate that at least 25% of the television programmes aired on Government channels meet accessibility standards (Accessible India Campaign)</p>



Emergency Communication services need to be tailored to suit the specific requirements of PwDs

Area	Recommendations
<p>Access to Emergency Services through variety of media</p>	<p>Mandate that Emergency Communication Services be offered to PwD in a variety of media:</p> <ul style="list-style-type: none"> ▪ Relay Services ▪ SMS/App based access to Emergency Response Systems ▪ Video message/voicemail based access
<p>Mechanism in PSAP (Public Safety Answering Points) to handle communication from PwDs</p>	<p>Mandate that Emergency Communication Services</p> <ul style="list-style-type: none"> ▪ Devise a system where PSAP identifies that a call is being made by a person with disabilities and the concerned PSAP personnel equipped to handle PwDs guides and supports such a call
<p>Emergency Information</p>	<p>Mandate that Emergency Communication Services</p> <ul style="list-style-type: none"> ▪ Make available emergency information in formats accessible to PwDs



Area	Recommended Action
<p>Research & Development</p>	<ul style="list-style-type: none"> ▪ Promote design, production and distribution of Universal design consumer products
<p>Define standards and ensure compliance to the same</p>	<ol style="list-style-type: none"> 1. Compliance of all Government websites to accessibility standards <ul style="list-style-type: none"> ▪ All government websites to comply with the accessibility standards set out under Web Content Accessibility Guidelines 2.0 (WCAG 2.0) ▪ Undertake accessibility audit of Government websites, convert the same into accessible formats, and publish the state wise results. 2. Procurement guidelines to ensure IT platforms to be made accessible by PwD <ul style="list-style-type: none"> ▪ Develop procurement guidelines for electronics and ICTs for accessibility and assistive needs 3. National standards on Captioning and sign-language interpretation <ul style="list-style-type: none"> ▪ Develop and adopt national standards on captioning and sign-language interpretation in consultation with national media authorities 4. Make adoption of ‘National Policy on Universal Electronic Accessibility’ mandatory
<p>Awareness Campaigns</p>	<p>Awareness campaigns which are accessible by PwDs</p> <ul style="list-style-type: none"> ▪ To encourage use of ICT tools, devices, applications ▪ To provide information about accessible ICT devices/services and aids to PwDs
<p>Funding Sources</p>	<p>Areas where Government may have to invest</p> <ul style="list-style-type: none"> ▪ R&D ▪ Subsidize a) development of devices that provide accessibility to PwDs; b) Tariffs for relay services; c) Cost incurred by TSP to offer custom customer services to PwDs; ▪ Monitoring compliance to standards ▪ Awareness campaigns <p>The funding sources that may be explored are:</p> <ul style="list-style-type: none"> ▪ USOF ▪ CSR – Spread awareness that provision for aids and appliances to PwDs is covered under CSR rules of Companies Act

An example of procurement that ensures digital accessibility

Project	Chhattisgarh Sanchar Kranti Yojna (CG SKY)
Brief Overview	<p>Through this project, Chhattisgarh Government plans to:</p> <ol style="list-style-type: none"> 1) Improve telecom connectivity in the state by incentivizing telecom operators to install cell sites (Mobile network coverage in all villages up to 500 population) 2) Distribute ~50 lakh smartphones to all rural households, urban poor households and college students
Tender Overview	<p>An implementation partner (consortium of Telecomm Service Provider and Handset Manufacturer) to install cell sites and distribute smartphones is being selected through a tendering process.</p>
Digitally accessible platform	<p>An app store on the lines of Apple App store and Google Play Store would be pre-installed in these mobile phones, through which citizens can download various G2C services applications. Government of Chhattisgarh has ensured that this application is digitally accessible to PwDs by inserted following clause in the tender document (available at www.chips.gov.in):</p> <p><i>“The Successful Bidder is required to provide the Smartphones with a separate, pre-installed (custom) platform (on the lines of an Apple App Store or Google Play Store) for eGov /other applications to be provided by CHiPS which will also need to be pre-installed on each Smartphone by the Bidder. In order to ensure digital accessibility inclusion in the platform, the Contractor shall set up the platform as per the Good Industry Practices which shall include inter alia Guidelines for Indian Government Websites and the latest Web Content Accessibility Guidelines (WCAG) developed by the World Wide Web Consortium; other guidelines/standards prescribed by the World Wide Web Consortium as may be relevant and guidelines as well as The Rights of Persons with Disability Acts, 2016 (all, as may be amended from time to time). The Successful Bidder shall reserve at-least 01 GB storage for the use by this platform and proposed applications. The platform will carry custom branding to be approved by CHiPS. Through these apps, the citizens would be able to avail government services/ benefits on their Smartphone and will also get notifications about the concerned services/ benefits. The platform will also be available for download through public platforms like Google store/ Apple store by other citizens who are not beneficiaries of CG-SKY</i></p>

Thank you