

Submission by the South African Communications Forum ("SACF") to the Independent Communications Authority of South Africa ("ICASA") on the Draft Code for Persons With Disabilities Regulations aimed at ensuring that persons with Disabilities have access to Electronic Communication and Broadcasting Services.

14 August 2020

1. The South African Communications Forum ("SACF") is an industry association that enjoys the most diverse membership in the ICT sector. Our membership allows us to advance views that are balanced and seeks to promote a sector that is inclusive, competitive, able to sustain growth and attract investment.
2. The SACF welcomes the publication of the Draft Code for Persons with Disabilities Regulations to create a compliance code for Electronics Communications Services (ECS) and Broadcasting licensees in order to ensure that persons with disabilities have access to these services. In this document, we focus on the provisions in the Code that deal directly with ECS licensees. We provide context where necessary, discuss in detail the proposed compliance requirements contained in the Draft Code and we advance proposals for the Draft Code that will enable simpler compliance and wider access of services for persons with disabilities.
3. The proposals advanced in this document are divided into broad themes that are referenced in the Draft Code in order to provide balanced views that will enable both licensee compliance and broader access to ECS for persons with disabilities.
4. The SACF would like to participate in any future processes in relation to the Draft Code including public hearings and workshops.

Summary

5. This submission addresses three main sections aimed at aiding the Authority in formulating Codes for Persons with Disabilities that are implementable towards availing accessible and usable products and services that will ensure accessibility to electronic communications services for Persons with Disabilities.
6. **The Context** sets out the model code or regulations that allow for innovation from the operators in order to create equity between disabled and able bodied customers by ensuring the inclusion of accessibility services in a broad spectrum of products and services. This section also highlights the prevalence of disabilities in South Africa taking into account the type of disability, ages of the

population and types of disabilities in order to highlight how operators already voluntarily offer products and services to Persons with Disabilities as a market segment.

7. **The Comments on the Draft Code** sets out the SACF's key issues in the Draft Code, focusing on the challenges around the provision of universally designed devices to the market, implementing the National Relay System (NRS) and the Video Relay System (VRS), the provision of general requirements and compliance obligation. While we highlight challenges in this section, the SACF also provides alternative mechanisms of addressing the requirements in the Draft Code that also ensure that operators are able to innovate in the provision of the functionalities required the Code. This section also provides our desktop research aimed at benchmarking countries that have had success in implementing the NRS, focusing on population, economic, ICT penetration to highlight the circumstances and process of implementing such a system in other jurisdictions.
8. **The Recommendations** summarises the SACFs recommendations in implementing the requirements of the Code.
 - 8.1 **Universal design:** We recommend that operators provide, on a commercial basis, a choice of products and services with accessible features for different kinds of disabilities, while encouraging suppliers in their value chain to avail such features for all market segments. We also recommend that the Authority utilise Type Approval data and Regulations, in consultation with suitable standard bodies, to ensure accessibility of devices for all market segments. Finally, we recommend that the Authority be mindful of the cost of devices as a contributory factor to the overall cost to communicate for vulnerable groups. This cost element can be addressed through the Universal Service and Access Fund (USAF), which is authorise to subsidise communication costs for vulnerable groups. Additionally, we need nation-wide effort to exclude the luxury tax imposed on feature or smart phones that provide accessibility options for Persons with Disabilities.
 - 8.2 **National Relay System:** Our desktop benchmark shows that countries that implement NRS have had a history of high fixed-line penetration, internet usage and existing relay systems that allow for voice-to-text (and vice versa) relay through teletypewriters. These indicators have made the implementation of IP based relay systems relatively easier, as the market already existed. In the case of Video Relay Systems, some of the benchmarked countries have opted for conducting Regulatory Impact Assessment (RIA) while all the countries have implemented trial versions of the VRS prior to implementation. All the benchmarked countries have removed the implementation of the NRS from the operators onto independent providers who are funded through government grants, universal access and service funds or user fees for the implementation

of the VRS. Based on these outcomes, we recommend that the Authority conduct a RIA, which can be formulated in terms of the Department of Planning, Monitoring and Evaluation's Socio Economic Impact Assessment System (SEIAS)¹. This will assist the Authority in evaluating the viability of the NRS (including VRS) in South Africa, while exploring implementation and funding options to meet the requirements of the system.

- 8.3 General requirements:** All operators provide directory inquiries in accordance with the Promotion of Access to Information Act, guided by Section 75 of the Electronics Communication Act. These services are provided in voice and text formats. The increased availability of mobile devices (the prominent environment in South Africa) and applications that include speech-to-text (and vice versa) functionality negates the necessity for free directory services to Persons with Disabilities. We recommend that disability functionality be added to existing centres that operate the 112 emergency number to ensure greater accessibility to Persons with Disabilities. With regards to customer services, we recommend that operators training of customer services staff with regards to addressing and demonstrating accessibility requirements for Persons with Disabilities. Additionally, it is recommended that information for such accessibility functionality is provided by operators through at least one medium, including websites and other marketing avenues available to them.

Context

Model Code of Conduct and Regulations

9. The SACF supports the purpose of the Draft Codes, which prescribe a Code for Persons with Disabilities and are aimed at ensuring that Persons With Disabilities have access to of the Codes are to broadcasting and electronic communication services.
10. The Model ICT Accessibility Policy Report², published by the ITU in 2014, sets out a model code of conduct on mobile communications accessibility for Persons with Disabilities and highlights the voluntary nature of the codes. The adoption of codes of conduct is seen largely as a method of self-regulation, that sets out minimum requirements for accessibility while allowing operators enough latitude to use their resources to best meet (or exceed) those requirements. This is aligned with the ITUs framework on the evolution of regulations³, which sets out five (5) generations of regulations and explores how advances in technologies are resulting in G5 regulations which characterised by their collaborative, inclusive and harmonised approach across all sectors.

¹ <https://www.dpme.gov.za/keyfocusareas/Socio%20Economic%20Impact%20Assessment%20System/Pages/default.aspx>

² <https://www.itu.int/en/ITU-D/Digital-Inclusion/Persons-with-Disabilities/Documents/ICT%20Accessibility%20Policy%20Report.pdf>

³ https://www.itu.int/en/ITU-D/Regulatory-Market/Documents/Publications/Document-Summary_English.pdf

11. The Model code of conduct advanced by the ITU's Accessibility Report urges operators to hold consultations with organisations that represent Persons with Disabilities, sets out minimum functional requirements for products and services that are accessible, usable and available to Persons with Disabilities on a commercial basis and encourages operators to offer customers a choice of handsets with accessible feature for different kinds of disabilities. The model code also sets out minimum accessibility requirements for retail outlets, including signage usage (to the extent possible), customer training on accessibility features of products and services and availability of real-time information regarding usage, fees, etc. The Model code also includes minimum requirements for text-based emergency services; customer care that caters for Persons with Disabilities and the requirements for operators to raise awareness and advertising on products and services that cater for Persons with Disabilities.
12. The ITU's Accessibility Report further provides Model Regulations that may be adopted for jurisdictions that have developed a founding Accessibility Policy and Legislation. The main difference between the model code of conduct and the model regulations is the obligatory nature of the model regulations – as opposed to the voluntary approach of the model code. While this is an important difference, the model regulations adopt a similar approach to that of the code, in that the operators are allowed latitude in terms of using their resources to best meet the requirements of the regulations.
13. The model regulations, such as the code, prescribe minimum services and functional requirements that ensure that operators make available and promote to their customer base a selection of handsets with accessibility features. The model regulations aim to prescribe the minimum requirements on features, awareness, emergency services and customer care, without being so strict as to limit innovation and accessibility. Rather, the model regulations ensure that while minimum requirements are met, that operators innovate and provide a range of products and services that meet the functionality required.
14. The SACF supports the adoption of a Code of Conduct for Persons with Disabilities that combines the features of both the Model ITU Code and Model ITU Regulations. We propose the adoption of a Code for Persons with Disabilities that both sets out minimum requirements while encouraging innovation from the operators in order to create equity between disabled and able bodied customers by ensuring the inclusion of accessibility services in a broad spectrum of products and services.

Providing products and services for Persons with Disabilities in South Africa

15. Our members strive to better serve Persons with Disabilities, as they do all other market segments with a culture of inclusion based on understanding the

challenges and barriers faced by our consumers towards improving the consumer experience. We believe that innovation is key to achieving this.

16. Based on the latest South African statistics as analysed from the Census 2011, and again from the Community Survey 2016⁴, the national disability prevalence rate in South Africa rose slightly from 7.5% in 2011 to 7,7% in 2016. Disability is more prevalent in older age groups as shown in the table below.

Table 1: Disability prevalence by age, Community Survey 2016

Age	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	44-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
Census 2011	10,8	4,1	2,6	2,4	2,5	3	3,8	5,5	8,7	12,2	15,6	18,7	22,7	29,4	36,6	44,5	53,2
Community survey 2016	4,2	3,0	2,6	2,4	2,7	3,4	3,9	5,7	9,0	13,7	18,3	24,2	31,5	40,9	49,9	61,1	73,1

17. Disability is also more prevalent amongst women than men – at 8.9% and 6.5% respectively in 2016.
18. Stats SA further disaggregates the data on Persons with Disabilities into ranges of difficulty. The percentage of the population that has severe difficulties is a smaller subset of the overall category. The table below sets out the data on Persons with Disabilities.

Table 2: Breakdown of South African statistics on Persons with Disabilities.

Disability type	Degree Of difficulty	Census 2011		CS 2016	
		N	%	N	%
Seeing	No difficulty	39 064 837	89,0	44 515 133	89,7
	Some difficulty	4 085 901	9,3	4 214 162	8,5
	A lot of difficulty	660 874	1,5	827 550	1,7
	Cannot do at all	77 205	0,2	69 603	0,1
	Do not know	23 372	0,1	17 485	0,0
	Total	43 912 188	100,0	49 643 933	100,0
Hearing	No difficulty	42 257 810	96,4	47 740 157	96,2
	Some difficulty	1 251 909	2,9	1 515 214	3,1
	A lot of difficulty	229 919	0,5	307 786	0,6
	Cannot do at all	58 451	0,1	62 653	0,1
	Do not know	20 791	0,0	17 781	0,0
	Total	43 818 881	100,0	49 643 590	100,0
Communication	No difficulty	43 014 947	98,4	48 726 836	98,2
	Some difficulty	473 453	1,1	650 214	1,3
	A lot of difficulty	115 700	0,3	164 303	0,3

⁴ <http://cs2016.statssa.gov.za/wp-content/uploads/2016/07/NT-30-06-2016-RELEASE-for-CS-2016- Statistical-releas 1-July-2016.pdf>

	Cannot do at all	75 583	0,2	87 165	0,2
	Do not know	21 864	0,1	13 401	0,0
	Total	43 701 548	100,0	49 641 921	100,0
Walking or climbing stairs	No difficulty	42 318 506	96,5	46 949 307	94,6
	Some difficulty	1 100 136	2,5	1 774 060	3,6
	A lot of difficulty	317 216	0,7	727 528	1,5
	Cannot do at all	105 964	0,2	172 647	0,3
	Do not know	16 340	0,0	19 057	0,0
	Total	43 858 161	100,0	49 642 600	100,0
Remembering	No difficulty	41 866 602	95,7	47 480 688	95,6
	Some difficulty	1 405 102	3,2	1 632 356	3,3
	A lot of difficulty	365 019	0,8	42 065	0,9
	Cannot do at all	91 163	0,2	61 519	0,1
	Do not know	35 694	0,1	24 853	0,1
	Total	43 763 580	100,0	49 641 481	100,0
Self-Care	No difficulty	41 204 360	96,5	48 275 530	97,2
	Some difficulty	837 368	2,0	932 437	1,9
	A lot of difficulty	266 762	0,6	280 251	0,6
	Cannot do at all	322 104	0,8	142 114	0,3
	Do not know	63 164	0,1	12 302	0,0
	Total	42 693 758	100,0	49 642 635	100,0

19. While, it would be difficult and almost impossible for licensees to ensure that every device in the market is based on the principles of universal design they can endeavour to ensure that devices are available to different market segments and augment initiatives to educate Persons with Disabilities on the accessibility features of products and services.

20. South African operators already provide some services that cater for the requirements of Persons with Disabilities on a voluntary service. The table below highlights some of these products and services for the sight, communication and hearing categories of disabilities as outlined in the Draft Code.

Table 3: Examples of functionalities available in the South African market.

Disability type	Required function as per Draft Code	Model Regulation Required function (as per ITU)	Example of available product and service
ALL	Universal design of all devices	Licensees shall make available and promote to their customers a selection of handsets with embedded or pre-loaded accessibility features and applications supporting users with various types of disability and which are generally available among leading handset manufactures, through their own or third party distribution channels.	Listed below
Seeing	Customised displays	Mobile operators will strive to provide on a commercial basis, mobile devices which have the option of adjustable font size, the ability to adjust brightness and contrast controls for display, the changeable size of the main display and backlit display.	Apple iPhone SE, Nokia 1.3, Nokia 5310
	Alternative fonts		Samsung Galaxy Note 3 and S4 ⁵
	Braille	Licensees must ensure the availability of mobile devices with audible or tactile feedback for keyboards and setting features and voice synthesizer feedback for touch screen to allow interactive description of icons and application through voice output and compatibility with Braille devices where feasible.	Apple iPhone SE, Sony Xperia XZ3, LG Q60
	Screen reader	Licensees must ensure the availability of screen readers in official languages, built-in and/or compatible with mobile devices or software and installed with assistance if needed.	Nokia C1, Apple iPhone SE, Motorola Mobility Moto E4
	Voice recognition	The option for voice recognition for basic functions including dialling numbers, writing text messages, opening and closing application and surfing the web, amongst others – should be made available.	Nokia C1, Apple iPhone 11, Sony Xperia X
	Automatic responses	N/A	Sony Xperia XZ3, Motorola Mobility Moto Z3, LG K61
Hearing	Built-in hearing aid coupler	Licensees must ensure that consumers are aware of the availability of devices that are hearing-aid compatible and do not cause user or bystander interference.	Sony Xperia XZ, Apple iPhone 7+, Nokia 2.3
	Amplifier	N/A	Amplifiers are used mostly with fixed line phones as opposed to mobile devices

⁵ <https://www.samsung.com/za/mobileaccessibility/#vision>

Disability type	Required function as per Draft Code	Model Regulation Required function (as per ITU)	Example of available product and service
	Hands-free	N/A	Supported by headphones and/or Bluetooth
	Ancillary Adjustable volume	N/A	Nokia 5310, Apple iPhone SE, Nokia C1
	Ancillary (visual) connection	Licensees must ensure availability of broadband enabled mobile devices that can offer interactive video conferencing and face-to-face calling as an alternative to texting	All smartphones with a camera have a video calling feature
	Adapting device for cochlear implant	Licensee must ensure that at least 20% of their public access devices enable use by persons using hearing aids or cochlear implants, in a manner that does not cause interference with the hearing aids.	Apple iPhone SE, 5, 6, 7 ,8 and X Compatible with an App ⁶ Samsung S8 and S7 Huawei P8lite LG G6
	National Relay System (voice-to-text)	Mobile operators will strive to provide on a commercial basis phone support services available through alternative modes such as relay service or peer to per video communication for sign language communication with trained personnel.	Nokia 5.1, Sony Xperia X, Apple iPhone XS
	Video Relay System (Annexure A)	To provide emergency services: via text, which should be available from all phones that enable texting, via video relay services, and accessible public safety alerts such as visual alerts for the deaf and vibration alerts for the blind.	N/A
General	Directory services	Where a mobile operator provides directory services, it shall ensure that all end users of its services including Persons with Disabilities can access directory information and that the enquiries facilities are in a form that appropriately meets their needs. This should be free of charge and in a case where there is a fee charges, Persons with Disabilities should not be charged.	Addressed in sub-sections 39 - 42

⁶ <https://www.audiologyonline.com/ask-the-experts/can-android-used-with-cochlear-23797>

Disability type	Required function as per Draft Code	Model Regulation Required function (as per ITU)	Example of available product and service
	Emergency services	To provide emergency services: via text, which should be available from all phones that enable texting, via video relay services, and accessible public safety alerts such as visual alerts for the deaf and vibration alerts for the blind.	One way in which we provide this service is through a USSD Code that Person with Disabilities can save to their mobile devices, in case of emergency the customer sends a free SMS to the Contact Centre which then prompts an agent to call and attend to the customer
	Priority fault repairs	N/A	Persons with disabilities' devices receive priority when being booked in for repairs – the person has to mention to the consultant that s/he has a disability to ensure that the repair is prioritized
	Customer service staff	Mobile operators and service providers must provide dedicated customer care with trained personnel to customers with disabilities including at call centres and designated stores.	In-store consultants have been well trained to assist with services such as VoiceOver and TalkBack activation[3] while all other consultant, including call centre agents, have been trained on sensitivity service delivery to be better equipped to cater to any customer's needs including Persons with Disabilities ⁷
	Demonstration of equipment	Licensees should provide a means for consumers to test hearing aid-compatible handsets in licensee owned or operated retail stores	
	Access to information	Licensees are required to make Persons with Disabilities aware of accessibility features and to provide information and services such as special tariff plans, billing options and accessible websites	We offer our customers that are Person with Disabilities an opportunity to register their disabilities so they can effectively access information on our platforms that are customised to assist them with their communication barriers. This also allows our members to effectively channel communication on any new products and services with customers that are Persons with Disabilities.

⁷ <https://www.vodacom.co.za/vodacom/services/specific-needs-persons-with-visual-impairments>

21. Evidently, our members have made a remarkable progress in striving for inclusion of Persons with Disabilities, at all market levels, by providing the large array of products and services as noted in the table above. While there are many more mobile devices offered by our members for purchase, those mentioned above were selected on the degree (mostly 100%) to which the feature of the device matches the disability and/or need in question.
22. As it stands our members have made progress in making Android and iOS devices available that are tailored to Persons with Disabilities. To support this point, we reference Apple as a brand whose devices are widely available for purchase from all our members stores, including online, and cater for most of the disabilities and/or needs identified above. Apple has a dedicated page⁸ on their website that outlines all the built-in features across their products, such as Voice Over, Speak Screen and many more. Therefore, in a case where a person with disability needs further information on accessibility features on a device, he/she can be referred to this website.
23. We believe that this forward-looking initiative has formed the precedence for all other Original Equipment Manufacturers (OEMs), and the Authority should ascertain that such initiatives and services are put in place.
24. We do concede with the Authority that the awareness of the availability of these products and services is still inadequate and therefore needs to be attended to by the industry at large. However, we find the approach that the Authority proposed to be prescriptive and we are wary that it might result in ineffectiveness and poor results.
25. The SACF members would prefer to drive this awareness at their own discretion, taking into consideration the cost of advertising, the effectiveness of their advertising mechanisms and the accessibility of these mechanisms to the targeted market which is People with Disabilities.
26. The Authority can therefore impose an obligation on the members to report on their awareness initiatives and the success thereof. Notwithstanding the need for further consultations with the members before such an obligation can be finalised.
27. The SACF recommends that the Authority should encourage the take-up of these products and services with accessibility features through raising awareness from their end too. The Authority could make reference to the Global Accessibility Reporting Initiative⁹ (GARI), which is run by the Mobile & Wireless Forum¹⁰ as an initiative aimed to help consumers learn more about the accessibility features of mobile devices and apps, in order to help them identify

⁸ <https://www.apple.com/accessibility/>

⁹ <https://www.gari.info/index.cfm>

¹⁰ <https://www.mwfai.org/>

devices that are best equipped to assist them with their particular needs before making a purchase or sign up onto an app. We suggest that the Authority establishes a system for assessing and benchmarking accessibility features such as the GARI, which could also be used as a yardstick to measure if operators have met their awareness obligation.

28. Furthermore, this system will render a two-way benefit stream for both consumers and the licensees as it will provide a regulated central database for feature devices and apps. This initiative provides profiles of all devices, from all manufacturers in a certain country, and allows the user of the website to align these profile with their needs including Dexterity, Vision, Hearing and Speech, and Cognition.
29. While accessibility for persons with disabilities is important to licensees, current regulatory trends (see NRS section) suggest that these are provided for through independent actors (not licensees) and funded through universal services funds, government grants or on a fee-based structure outside of licenced services.
30. It is our understanding that utilising these funds to subsidize the cost of accessibility features mobile devices, is a more immediate solution as these funds are in place already and available as prescribed by the ECA.

COMMENTS ON THE DRAFT CODE

Universal Design of Devices

Practical application of requirements

31. The Draft Code seek to ensure that all devices are universally designed. We are of the view that this is not possible, as devices once type approved are approved on a permanent basis, as a result older devices remain in the market and continue to be brought in by a variety of retailers.
32. Regulation 5.2 provides hearing aid compatibility for fixed lines and Regulation 5.3 provides for visual aid compatibility. This appears to be an error as we understand the purpose of the regulations to promote equity in accessibility, hence the inclusion of devices based on universal design. These provisions (that separate hearing aid for fixed-line handsets and visual aid for mobile handsets) appear to contradict the concept of universal design.
33. We support the concept of universal design as it promotes equity and independent usage, dignity and privacy. We are of the view that it is important that devices with accessibility features are available to all market segments, rather than requiring that all devices have such features.

34. The ITU's Model ICT Accessibility Report sets out a model accessibility regulation and code, which recommends that the National Regulator requires that "licensees make available to their customer base a selection of handsets with embedded or pre-loaded accessibility features and applications supporting users with various types of disability and which are generally available among leading handset manufacturers." The model regulation further notes that operators should not be prevented from continuing to offer handsets with no embedded accessible features at a cheaper price, but rather that they ensure that accessible handsets are available as part of their sales offering. We propose that instead of a requirement that all devices be universally designed, the Code adopts the recommendations of the ITU's Accessibility report that requires that accessibility features be available for all of the licensee's customer base.
35. The United Nations (UN) produced a Toolkit on Disability for Africa¹¹, with the objective to highlight the role of information and communication technologies (ICT) in fostering the social inclusion of Persons with Disabilities in all aspects of life. The Toolkit provides an example of how ICT accessibility can be implemented across all market segments, without affecting the quality and affordability of the ICT goods and services.
36. For instance, the Toolkit states that a project to customise the open source text-to-speech synthesiser e-Speak¹² into any African language is a project which should take about 8-10 months and would render indigenous voices available free of cost for bundling with screen readers with mobile phones. Not only would this open up communication for those who cannot afford commercial screen readers or do not know English, but would also benefit non-disabled rural and illiterate mobile users.
37. Mid-range and high end devices are typically based on universal design. The focus should be on ensuring that devices are also available for consumers with less available disposable income
38. While licensees support and endeavour to provide devices that are based on universal design at all market segments, it is important that the Authority notes that licensees do not manufacture devices and have limited control over the functionality of devices. Device design falls within the realm of Original Equipment Manufacturer (OEMs), who are therefore responsible for and have control over ensuring the inclusion of accessibility features in devices. Accordingly, this in our view would be best addressed through South Africa's participation in the ITU's standardisation process.

¹¹ <https://www.un.org/esa/socdev/documents/disability/Toolkit/ICTandDisability.pdf>

¹² <http://espeak.sourceforge.net/>

Universal Design and Type Approval

39. As noted above, once devices are type approved, they are approved on a permanent basis. As a result, older devices remain in the market and continue to be brought in by a variety of retailers. It would be useful to understand the trend of equipment submitted to ICASA for type approval and if more devices with accessibility features are entering the market.
40. The ITU's Accessibility Report recommends that National Regulators draft Type Approval regulations that take into account measures to promote accessibility in devices and equipment that are made available in the market. The Accessibility Report further recommends that the National Regulators issue minimum accessibility performance standards for specific categories of goods and services to be made available in their jurisdictions.
41. The ITU together with the International Organization for Standardization (ISO) and International Electrotechnical Commission (IEC) released a Policy¹³ on Standardization and accessibility. The policy underpins our view that introduction of accessibility features that address Universal Design should be from the onset. Furthermore, this mitigates need for expensive retrofitting later on in a device's lifespan. These three partner organisation prepared an updated ISO/IEC Guide 71:2014¹⁴ that provides practical advice to standards developers, whom work closely with OEMs, so that from the start the issue of accessibility is addressed and adhered to.
42. In 2016 the Authority signed a Memorandum of Understanding¹⁵ with the South African Bureau of Standards (SABS) in a quest to collaborate on ensuring that electronic equipment entering the South African market meets the required quality-performance standards. We believe that it would be beneficial and efficient that the Authority updates what falls under their mandate and is governed by these quality-performance standards to include accessibility features on the identified mobile devices.
43. We recommend that the Authority assess the available type approval databases to ascertain the number or percentage of devices with accessibility features in South Africa. We also recommend that the Authority liaise, through international and national understandings, with relevant standard bodies for minimum standards for accessibility for devices.

Universal design and cost to communicate

44. In The State of the ICT Sector Report in South Africa, 2020, the Authority reported that in 2018 Smartphone penetration stood at 81.7% and increased to 91.2% in

¹³ https://www.iso.org/files/live/sites/isoorg/files/archive/pdf/en/iec_iso_itu_joint_policy_statement.pdf

¹⁴ <https://www.iec.ch/newslog/2014/nr2514.htm>

¹⁵ https://www.icasa.org.za/uploads/files/SABSmou_170406_053551.pdf

2019¹⁶. However, the slowed industrialization within South Africa and the members of SACU alike, has left the consumer to rely on international brands in order to meet this demand. Samsung, Huawei and Apple iPhone are the leading brands¹⁷ within the South Africans mobile market, with origins from South Korea and China for the two latter, respectively. This gap in mobile device supply within the country leaves the licensees with no option but to be exposed to the excessive taxes and duties when importing mobile devices.

45. Access to devices are key to all aspects of life and meaningful participation in the 4th Industrial Revolution, which has the potential of reducing geographic and physical barriers.
46. The COVID 19 pandemic has also thrust everyone into the middle of the 4th industrial revolution highlighting the opportunities that it offers greater inclusion of vulnerable groups including Persons with Disabilities. Now more than ever, ICT technology has the potential of being an equalizer.
47. In the effort of greater ICT inclusion, Industry has made significant inroads to make services more affordable. These include the implementation of significant decreases in voice and data pricing over the years and further reductions following industry agreements with the Competition Commission.
48. Despite these reductions in the cost to communicate, the cost of devices remains high. A key element of this cost structure is that the South African Revenue Services has classified Electronic Equipment (including devices) as Ad Valorem products which are subject to the payment of Ad Valorem Excise Duty if used within the South African Customs Union (SACU)¹⁸. In addition, any products that are imported from outside of SACU are subjected to a further 10% mark-up.
49. The example below was provided by the courier service company FedEx¹⁹ in 2014. It highlights how the excessive tax and duty imposed on mobile devices can unreasonably inflate the price of these products.

¹⁶ <https://www.icasa.org.za/uploads/files/State-of-the-ICT-Sector-Report-March-2020.pdf>

¹⁷ <https://www.geopoll.com/resources/south-africa-smartphone-internet-usage/>

¹⁸ <https://www.sars.gov.za/ClientSegments/Customs-Excise/Excise/Ad-Valorem-Products/Pages/default.aspx>

¹⁹ <https://mybroadband.co.za/news/gadgets/98022-smartphone-imports-in-sa-what-you-should-know.html#:~:text=The%207%25%20duty%20and%2014,then%20calculates%20the%20relevant%20taxes.>

Item price	R10,000
SARS 15% luxury item mark-up	R1,500
Taxable value	R11,500
7% Duty	R805
14% VAT	R1,610
Total tax	R2,415

We would like to implore the Authority to be mindful of such constraints that our members have to operate within, and not stifle the advancement of the sector by driving prices of devices up and rendering such a primary need inaccessible.

50. Persons with Disabilities have varied economic circumstances, with a significant percentage falling into low income groups (as the general population statistics in South Africa indicate), making access to devices a challenge based on affordability.
51. We would draw the Authority's attention to Chapter 14, section 88 of the Electronic Communications Act (ECA) which provides for the Application of money in Universal Service and Access Fund. The USAF expressly provides for the subsidisation of needy groups for devices and usage, with the ECA stating that "(1) The money in the Universal Service and Access Fund must be utilised exclusively for the payment of subsidies-
 - (a) for the assistance of needy persons towards the cost of the provision to, or the use by, them of broadcasting and electronic communications services"
52. We recommend that the Authority seriously consider the use of this fund as it might prove difficult for our members to afford to implement these obligations.

National Relay System

Introductory comments

53. Regulation 6 of the Draft Code requires that all ECS licensees provide for a National Relay System ("NRS") which translates voice to text and vice versa, on calls made by persons who are deaf or have hearing or speech impairment (6(1)). Additionally, the Regulations require that ECS - in addition to the relay services outlined in 6(2) - comply with the video relay system requirements annexed in the Draft Code. This section details out the SACF's response to these requirements, with a particular focus on Canada as a case study. Furthermore, we provide cursory benchmarking of jurisdictions that specifically use a video relay system to assess the appropriateness of this system to South Africa and to explore funding mechanisms should this system be adopted.

54. On the outset, the SACF would like to note its concern regarding (1) the inclusion of the NRS in the Code, and (2) the obligation of its provision on ECS licensees.
55. The 2017 Draft Code did not include provisions for such a system and we thus did not respond on it. Earlier Drafts (2014) included this provision and it was the view of both the SACF membership and broader ICT industry that a Regulatory Impact Assessment ("RIA") be conducted to assess the feasibility of such a system. Such RIA would consider the population, socioeconomic landscape of the country, possible funding mechanisms, technical and national network considerations and general affordability of any NRS to be employed. This is important, in order to provide evidence-based regulations and to provide the best delivery mechanism for such a system.
56. We note with concern that ICASA either did not conduct such a RIA or that it was not included as part of this Draft Code to enable ECS licensees to best respond to its provisions. We request the results of this RIA or its implementation as soon as possible.
57. The Presidency's Department of Planning, Monitoring and Evaluation has developed a Socio Economic Impact Assessment System (SEIAS) in order for departments to understand the full costs of regulations and their impact on the economy. This is in line with our call for the Authority to conduct a RIA or use the SIEAS guidelines to develop a socio-economic assessment of the implementation of a NRS that includes video relay as proposed in the Draft Code.
58. The Case below outlines how Canada conducted a RIA (and what elements were considered) to inform the introduction of a video relay system.

CASE: Canada

In 2014, the Canada Radio-television and Telecommunications Commission ("the Canadian Commission") called for proposals²⁰ on the structure and mandate of an independent video relay service (VRS) administrator following its determination in a Regulatory Policy that VRS be offered in Canada through such an independent administrator. This call for proposals followed a 2006 decision by the Canadian Commission²¹ for local exchange carriers to use funds in their deferral accounts to improve telecommunications services for persons with disabilities and to expand broadband access to rural areas. The deferral account was created as a result of a 2002 pricing decision by the Canadian Commission. One of the operators used some of its deferral account funds to conduct a 15-month feasibility study for the implementation of VRS in Canada, which concluded in 2012, the year Canada initiated a trial of the VRS in the country²².

²⁰ <https://crtc.gc.ca/eng/archive/2014/2014-187.htm>

²¹ <https://crtc.gc.ca/eng/archive/2008/dt2008-1.htm>

²² <http://cad.ca/wp-content/uploads/2015/02/120229-Mission-Consulting-ENGLISH.pdf>

The feasibility study, conducted in 12 phases, included:

- Project and scope confirmation
- Legal background of VRS in Canada
- Consumer perspectives on VRS, in consultation with deaf and hard of hearing communities in the country
- Benchmark of VRS in other countries
- Interpreter considerations
- Quality of Service
- Other related services
- Forecasts of user demand
- Cost variables and forecasts
- Potential VRS models and
- A final report

Another operator conducted an 18 month trial (the TCC trial) in the same period, the report of which was made available to the Canadian Commission.

This feasibility study was followed by a technical feasibility study²³ in late 2012, to assess the specific technical requirements of the country to implement the system.

59. We strongly urge that ICASA conduct a RIA of a similar nature to that conducted for the Canadian ICT sector or use the existing SEIAS to assess the impact in order to foster evidence based regulations and to ensure feasible outcomes for the National Relay System (whether voice-to-text or video based).

Benchmarking NRS with VRS capabilities

60. The SACF is of the view that the NRS obligation should not lie with the ECS providers, as this goes against the practice we have seen in other countries as discussed in this section.

61. Table 2 provides a summary of our desktop benchmark with key information regarding the deaf or hard of hearing population, translators, VRS funding and implementation and key emergency and implementation issues in relation to National Relay Systems. The following section highlights salient factors related to the implementation of such a system as seen from the table. The countries selected are those that have successfully implemented some national relay system in the country.

62. **Population:** The percentage of deaf or hard of hearing individuals in the countries surveyed range widely, with Canada, Finland, Germany and France not providing their hard-of hearing data. It is important to note that VRS, in these countries, have been implemented as a requirement for regional integration (e.g. EU laws) or as a result of legislative requirements. All countries had a

²³ <https://crtc.gc.ca/eng/publications/reports/rp130307.pdf>

shortage of sign language interpreters, with New Zealand reporting the greatest difficulties as a result of a limited number trilingual interpreters in the country. All of the countries, had to thus invest in outreach and training initiatives in order to fulfil the requirements of the VRS. The availability of multilingual sign language interpreters is a key concern in the South African environment, with 11 constitutionally recognised official languages and the commitments to add the South African Sign Language as a twelfth. An impact assessment will be able to assess the training, outreach and educational requirements of implementing such a system to ensure accessibility to all income groups of Persons with Disabilities.

63. **Economy:** All the countries that have data available are regarded as developed and high income countries, with per capita incomes above 40 000 USD according to the World Bank. South Africa, in contrast, is considered a middle income country with per capita incomes of about 13 000 USD in 2019 (prior to the Covid-19 pandemic and further ratings downgrading). This comparison highlights potential difficulties in implementing a VRS (or text based NRS), which can only be assessed following a detailed impact assessment by the Authority.

64. **ICT indicators:** Apart from Finland, all the surveyed countries had fixed-line penetration rates above 30%, and had thus implemented some type of text-based relay system some time ago (in the 1980s for most of the countries). The VRS implemented in those countries formed an extension of existing TTY (teletypewriter) based services, with familiar implementation and funding structures. This is not the case for South Africa (and Finland), which currently does not have such a wide-ranging relay system, and would thus need to conduct both feasibility studies and trials to ensure sustainability. Furthermore, although South Africa's mobile penetration is on par with the surveyed countries, its internet usage remains just above 50%, compared to the rest of the countries with upwards of 80% of the population using the internet. The cost and availability of internet services will be a key consideration as part of the technical feasibility that we request should form part of the socio-economic assessment.

65. **Cost and funding of VRS:** In the countries surveyed, VRS (and text based NRS) are provided by independent entities and funded through a combination of the universal service fund, government funding (or subsidies) or user contributions. We propose that, should the RIA recommend any NRS, that independent structuring (a third party) and existing funding mechanisms (government grants, USAF, fee-based) be explored in South Africa as these have been shown successful in other jurisdictions. VRS have been shown to be expensive as shown in Table 2, thus a costing and funding study needs to be conducted for the South African market.

66. **Introduction and trial:** All the countries conducted trials that lasted at least 18 months period to the introduction of the system on a national basis. We propose

that in addition to the RIA and the technical feasibility study, that the Authority conduct a trial in at least 3 locations (such as in Canada) to test out the usability and potential volumes.

67. **Availability of emergency services:** The majority of the countries surveyed provide text-based emergency services either through the national emergency numbers or the international 112 number. This is in line with our recommendation, to build up the SMS capabilities of emergency centres and provide training to handle calls from Persons with Disabilities.

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Table 4: National Relay System Trends - Desktop benchmark^{24,25}

Country	% of deaf including hard of hearing population	% of deaf and hard of hearing who use sign language	Number of sign language interpreters	Cost of relay system (in local currency)	Funding mechanism of relay system	Year of introduction of relay system	GDP per Capita (PPP, Current, international \$)	Fixed line penetration (%)	Mobile penetration (%)	Individuals using the internet (%)	Comments on national relay system and emergency services
South Africa	3,70 ^a	50,00 ^b	100 ^c	N/A	N/A	N/A	12 999	6	162	56	<ul style="list-style-type: none"> No traditional relay systems. In the past, TISSA was launched in all official languages including sign language. Sign language was removed following the pilot programme* First SMS based 112 launched in 2018
Canada	1,00 ^d		647	3,9 M in 2019 FY*	From national contribution fund (similar to USAF)	2014/15 Trial Permanent in 2016	51 352	40	86	93	<ul style="list-style-type: none"> Introduced system in 2016 following extensive technical and feasibility studies conducted between 2014 and 2015. 911 services offered on the VRS and existing teletypewriter services
Australia	16,10	0,50	300	13,4 M for relay, 3M for outreach M in first year after trial (2019)	Telecoms levy for carriers with annual gross revenue of 10 M or greater based on share of total revenues by all carriers. First trial in 2008 on limited schedule funded by government and renewed annually	As of 2019, permanent system employed	53 320	35	113	86	<ul style="list-style-type: none"> Traditional relay systems such as text-to-speech (and vice versa) and IP relay, have been provided in Australia prior to VRS pilot Limited ability to connect with local emergency, operates a dedicated 106 text based emergency service
Finland	0,15	62,50	820	1,3 M for trial, state provided 76% of budget	General taxation from the population funding the Social Insurance Institution and contributions from local municipalities	2008-2010 VRS trial, no decision on permanent system	51 234	7	132	88	<ul style="list-style-type: none"> Text relay provided through associations for Persons with Disabilities. Although VRS trial was successful, no deployment of permanent solution. SMS based 112 available since 2005
France	0,15	3,20	300	Not available	Employees pay for relay services as they are mandated as employment rights, relay services for government offices are free, all other uses are paid for by users	2008	49 435	60	106	81	<ul style="list-style-type: none"> Text relay available since 1980s. Three companies provide VRS, with research funded partly from the levy paid for by employers for persons with disabilities in their employ. The companies also self-fund and service companies and individuals SMS emergency through 114 number**
Germany	0,12		460	Not available	95% is paid for through a telecom service provider fund similar to USAF, 5% by consumers with reimbursement through a government fund	2005 – 2008 trial, permanent following trial	56 052	54	129	84	<ul style="list-style-type: none"> Commercial operation - VRS, IP/Text Relay available, individual use is subsidised by the government, business use is not. 110 can be accessed through fax, 112 through sms
New Zealand	4,70	13,50	90	2-2,5 M per year for message relay systems, 5 M per year required for VRS	Universal service fund (called Kiwi Share obligations), government subsidies, limited user fees for free landline calls. Cell-phone and international calls charged	2009 trial, 2010 permanent	43 953	29	136	91	<ul style="list-style-type: none"> VRS restricted to business hours. Servicing the Maori population is challenging as there are only 2 trilingual sign language interpreters (as of 2011) FAX and TTY (teletypewriter) available for emergencies. Registered 111 text service is available in some areas
United Kingdom	3,80	1,30	511	Not available	VRS for Government offices available through a universal service fund. Trial funded by same fund	2004 trial, no current system	48 710	50	120	95	<ul style="list-style-type: none"> Text relay available since 1980s. Commissioned studies for video relay Registered users can use SMS delivered on their text relay service to emergency operators. Total Conversation Terminals considered in some centres.
United States	0,77	8,30	15 000	Not available	Part of universal service levy and carriers are reimbursed (by states) to provide the service at minimum profit. Funding shared between state and FCC for traditional (non-VRS) relay systems	1995-2002 Trials, 2002 permanent	65 281	37	123	75	<ul style="list-style-type: none"> Early adopters of relays systems, 9 vendors certified by the Regulator, 20 others. The service is mostly free, with reimbursements from a fund (managed for the FCC by a third party) or from the states. VRS providers have emergency requirements for 911

a. STATSSA Community Survey, 2016

b. <https://www.org.za/committees-meshw/7724/>, about half of people who are deaf or hard of hearing use the South African Sign Language

c. Registered on the DeafSA database as around 2010, http://wasil.org/wp-content/uploads/2013/06/254_south-africa-country-report.pdf

d. Canada adopts a "one in ten percent" approach because it does not have reliable statistics on the deaf or hard of hearing. This approach is based on the population estimate in relation to the US population. Ratios over the years have varied between 1 in 25 to 1 in 8.

e. Annual report - https://es-usa.s3.amazonaws.com/2025/media/193835ede8fa-1453067-27961143980/190114_CAV_2019_AR_EN.pdf

*The Telephone Interpreting Service for South Africa (TISSA) was launched by the Minister of Communications in 2007, following a trial that led to the exclusion of sign language. The project failed due to a lack of funding.

<http://www.satnac.org.za/proceedings/2007/papers/innovation/Paper%2037%20-%20Me.pdf>

** <https://eena.org/document/sms-access-to-112/>

²⁴Based on benchmark and feasibility conducted by Canada in 2015, prior to implementation of VRS <http://cad.ca/wp-content/uploads/2015/02/120229-Mission-Consulting-ENGLISH.pdf>

²⁵ <https://www.itu.int/en/ITU-D/Statistics/Documents/publications/misr2018/MISR-2018-Vol-2-E.pdf>

Free Directory Services

68. Directory Inquiry services were provided when fixed lines were more pervasive. The shift towards mobile services has therefore reduced the necessity for printed directories. Free access to directory inquiries were meant to equalise access to directory inquiries between Persons with Disabilities and able bodied people.
69. In a predominantly mobile environment, all operators provide directory inquiries to subscribers in accordance with the Promotion of Access to Information Act 2 of 2000²⁶ further guided by the ECA section 75.
70. Services are provided in voice and text services and most devices include speech-to-text and text-to-speech functionality with an increased number of applications that provide the same functionality.
71. This in our view negates the need for free directory inquiries for Persons with Disabilities as there is no inequity in access of services.

Special Number for Emergency Services

72. Number allocations are done in accordance the national numbering plan and the national numbering regulations.
73. The 112 Emergency Service number is legislated and sets out the duties of an emergency centre. This is a highly publicized number known to all.
74. As such we don't believe that a separate number is appropriate, instead we are of the view that the disability functionality should be added to existing centres operating the 112 emergency number, rather than creating additional numbers. This in our view will ensure greater accessibility for Persons with Disabilities, given the availability of devices that already cater for accessibility.
75. In light of our desktop analysis of the NRS trends in other jurisdictions, and based on the requirements in Annexure A of the Draft Code, it is unclear why a separate number for emergencies would be required in conjunction with a National Relay System. Although our analysis of NRS in developed countries indicates that such a system would require a thorough socio-impact analysis, should the system be adopted in South Africa, it would include the routing of calls through a Communication Assistant to the emergency number that is utilised by all South Africans. This would negate the need for a separate emergency number for Persons with Disabilities.

Customer Service Staff and Demonstration of Equipment

²⁶ <https://www.justice.gov.za/legislation/acts/2000-002.pdf>

76. Based on the percentage of customers calls from Persons with Disabilities, it would be more efficient for all call centre staff to be trained to assist customers with disabilities rather than create a parallel process.

77. It is common cause that staff at retail outlets demonstrate the features available on devices. This combined with staff training to enable staff to support Persons with Disabilities would ensure that Persons with Disabilities are aware of the accessibility features on devices.

Compliance

78. The compliance manual is meant to include a compliance obligations from all regulations but have not been updated. The result is that creates two parallel reporting obligations. Changes to the compliance manual regulations would accordingly require a further review process to amend the compliance requirements to match updates to the regulations.

79. Therefore, we propose that the Authority repeal the compliance manual and publish the compliance obligations for the Code in the applicable regulations.

80. The Draft Code requires the submission of annual reports at the end of the licensee's financial year. This is different from the other requirements of the compliance manual, basing requirements on the Authority's financial year. This results in licensees having to report at a different time to the other compliance reporting. It is important that all reporting be aligned with the provisions of the compliance manual to ensure ease of compliance from the licensees.

Penalties

81. The Draft Code provides for penalties for non-compliance from a maximum fixed amount to a percentage which is intended to introduce a proportionate approach. We support the Authority's intention of introducing a proportionate approach to penalties.

82. While, we understand the fines will be imposed after due process including after an appearance before the Complaints and Compliance Committee (CCC). As a result the CCC may not implement the maximum penalty of 10% and could elect to impose a lower fine.

83. Despite this, the penalty regime introduced in the draft regulations is extraordinarily high and tends toward being exceedingly punitive rather than encouraging compliance.

84. It is imperative that licensees have regulatory certainty with a single regulatory framework for conventions and penalties.

85. Section 17H of the ICASA Act sets out a framework for offences and penalties, the provisions in the draft regulations on contraventions and penalties do not appear to be aligned to the Act.

86. This misalignment creates regulatory uncertainty, which is undesirable.

87. Accordingly, the SACF proposes that the section on the penalties should be aligned to Section 17H of the ICASA Act. There is no need to restate the provisions of the Act, instead we believe that this provision will be adequately addressed by the following provision:

“A contravention of these regulations will trigger sanctions in accordance with 17H of the ICASA Act.”

Recommendations

88. The SACF would like to make the following recommendations for the Draft Codes:

88.1 **Universal design:** We recommend that the Authority adopt the approach of the Model Accessibility Report for universal design that requires that “licensees make available to their customer base a selection of handsets with embedded or pre-loaded accessibility features and applications supporting users with various types of disability and which are generally available among leading handset manufacturers.” We also recommend that the Authority assess its Type Approval database to ascertain the number of devices with accessibility features in the country while also liaising with relevant standard bodies to ensure that accessibility features are included in future type approvals. While, licensees endeavour to include more and affordable devices with accessibility features, it is important to note that device costs remain high and a significant contributing factor to devices costs is the categorisation of smart phones as a luxury goods. We are of the view that smart phones are not luxury devices and associated tax that it attracts, but are essential to meaningful participation in the 4th Industrial Revolution.

88.2 **National Relay System:** We recommend that the Authority conduct a socio-economic assessment followed by a trial for the NRS. Should the assessment prove the NRS to be viable, we recommend that it be implemented by third-party providers and be funded through a USAF funds, government grants and/or user fees as is currently employed in jurisdictions that have employed such systems.

88.3 **Directory services:** Directory services are currently available at a fee basis for all users. The availability of speech-to-text (and vice versa) devices and

applications negates the need for free directory services for Persons with Disabilities.

88.4 **Emergency services:** We recommend that disability functionality be added to existing centres that operate the 112 emergency number to ensure greater accessibility to Persons with Disabilities.

88.5 **Customer service:** We propose that operators ensure that all call-centre staff be trained to assist Persons with Disabilities and to demonstrate features that cater to them.

88.6 **Compliance:** We propose that the Authority repeal the compliance manual and publish the compliance obligations for the Code in the applicable regulations.

88.7 **Penalties:** We propose that the section on the penalties should be aligned to Section 17H of the ICASA Act.

Conclusion

89. The SACF welcomes the publication of the Draft Code for Persons with Disabilities and its main object to enable access to communication services for persons with disabilities and would like to participate in further processes in this regard, including the requested Regulatory Impact Assessment and any public consultations related to the Code.

90. In preparing this submission we have consulted with our members and there a variety of products, services and applications that provide much of what the draft Code seeks to achieve, we are of the view that there should be better awareness of the products and services available.

91. The Code should therefore promote accessibility which may include accessibility being included in advertising. While, we think this a useful approach, it should not be prescriptive but rather foster innovation.