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Foreword

This draft Harmonised European Standard (EN) has been produced by ETSI Technical Committee Human Factors (HF), and the eAccessibility Joint Working Group (JWG) of CEN/CENELEC/ETSI.

The present document has been prepared under the Commission's standardisation request C(2017) 2585 final [i.27] to provide one voluntary means of conforming to the essential requirements of Directive 2016/2102 on the accessibility of the websites and mobile applications of public sector bodies .

Once the present document is cited in the Official Journal of the European Union under that Directive, compliance with the normative clauses of the present document given in tables A.1 and A.2 confers, within the limits of the scope of the present document, a presumption of conformity with the corresponding essential requirements of that Directive and associated EFTA regulations.

The present document has been developed from EN 301 549 V1.1.2 (2015-02) [i.. The changes are limited to: those necessary to comply with the requirements of a Harmonised Standard, inclusion of requirements for mobile applications, updating to reflect the state of the art in W3C WCAG, updating of 6.1 (Audio bandwidth for speech), and corrections of errors.

National transposition dates	
Date of latest announcement of this EN (doa):	dd month 201n *(3 months after ETSI publication)*
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	dd month 201n *(6 months after doa)*
Date of withdrawal of any conflicting National Standard (dow):	dd month 201n *(18 months after doa)*

Modal verbs terminology

In the present document "**shall**", "**shall not**", "**should**", "**should not**", "**may**", "**may not**", "**need**", "**need not**", "**will**", "**will not**", "**can**" and "**cannot**" are to be interpreted as described in clause 3.2 of the ETSI Drafting Rules (Verbal forms for the expression of provisions).

"**must**" and "**must not**" are **NOT** allowed in ETSI deliverables except when used in direct citation.

Introduction

The present document is developed in response to standardisation request M 554 from the European Commission to CEN, CENELEC and ETSI. It is based on the European Standard (EN) that was one of several deliverables prepared in response to Phase 2 of Mandate M 376 [i.3].

The primary objective of Mandate M 376 was to produce a European Standard that sets out in a single source, detailed, practical and quantifiable functional accessibility requirements that take note of global initiatives in that field and which are applicable to all Information and Communication Technology (ICT) products and services identified in Phase I of the Mandate (ETSI TR 102 612 [i.9) and usable in public procurement.

The European Standard prepared in response to Mandate M 376 is supported by three Technical Reports. The first (ETSI TR 101 550 [i.7]) lists the standards and technical specifications used in the creation of the compliance requirements for accessibility set out in the European Standard. The second Technical Report (ETSI TR 101 551 [i.8]) gives guidance to procurers on the award criteria relevant to each of the accessibility-related needs of ICT users in the products and services under consideration. The third Technical Report (ETSI TR 101 552) incorporates all information and documentation needed in the framework of the procurement process in order to allow conveying the assessment of accessibility via conformity with the functional accessibility requirements contained in EN 301 549 and with award criteria.

1 Scope

The relationship between the present document and the essential requirements of Directive 2016/2102 on the accessibility of the websites and mobile applications of public sector bodies is given in Annex A.

The present document specifies the functional accessibility requirements applicable to ICT products and services, together with a description of the test procedures and evaluation methodology for each accessibility requirement in a form that is suitable for use in public procurement within Europe. The present document might be useful for other purposes such as procurement in the private sector.

The present document contains the necessary functional requirements and provides a reference document such that if procedures are followed by different actors, the results of testing are similar and the interpretation of those results is clear. The test descriptions and evaluation methodology included in the present document are elaborated to a level of detail compliant with ISO/IEC 17007:2009 [i.14], so that conformance testing can give conclusive results.

All clauses except those in clause 12, related to documentation and support services, are self-scoping. This means they are introduced with the phrase 'Where ICT <pre-condition>'. Compliance is achieved either when the pre-condition is true and the corresponding test (in Annex C) is passed, or when the pre-condition is false (i.e. the pre-condition is not met or not valid).

NOTE 1: Compliance issues are covered in normative clause C.1.

The inherent nature of certain situations makes it impossible to make reliable and definitive statements that accessibility requirements have been met. In those situations therefore, the requirements in the present document are not applicable:

- when the product is in a failure, repair or maintenance state where the ordinary set of input or output functions are not available;
- during those parts of start-up, shutdown, and other state transitions that can be completed without user interaction.

NOTE 2: Even in the above situations, it is best practice to apply requirements in the present document wherever it is feasible and safe to do so.

2 References

2.1 Normative references

References are specific, identified by date of publication and/or edition number or version number. Only the cited version applies.

Referenced documents which are not found to be publicly available in the expected location might be found at ETSI References in docbox.

NOTE: While any hyperlinks included in this clause were valid at the time of publication, ETSI cannot guarantee their long term validity.

The following referenced documents are necessary for the application of the present document.

[1] ETSI ETS 300 381 (December 1994): "Telephony for hearing impaired people; Inductive coupling of telephone earphones to hearing aids".

[2] ETSI ES 200 381-1 (V1.2.1) (August 2012): "Telephony for hearing impaired people; Inductive coupling of telephone earphones to hearing aids Part 1: Fixed-line speech terminals".

[3] ETSI ES 200 381-2 (V1.1.1) (August 2012): "Telephony for hearing impaired people; Inductive coupling of telephone earphones to hearing aids; Part 2: Cellular speech terminals".

[4] W3C Recommendation (December 2008)/ISO/IEC 40500:2012: "Web Content Accessibility Guidelines (WCAG) 2.0".

NOTE: Available at WCAG 2.0.

[5] W3C Candidate Recommendation (January 2018) “Web Content Accessibility Guidelines (WCAG) 2.1”

NOTE: Available at WCAG 2.1 CR.

2.2 Informative references

References are either specific (identified by date of publication and/or edition number or version number) or non-specific. For specific references, only the cited version applies. For non-specific references, the latest version of the reference document (including any amendments) applies.

NOTE: While any hyperlinks included in this clause were valid at the time of publication, ETSI cannot guarantee their long term validity.

The following referenced documents are not necessary for the application of the present document but they assist the user with regard to a particular subject area.

[i.1] ANSI/IEEE C63.19 (2011): "American National Standard Method of Measurement of Compatibility between Wireless Communication Devices and Hearing Aids".

[i.2] ANSI/TIA-4965: "Receive volume control requirements for digital and analogue wireline terminals".

[i.3] European Commission: M376-EN "Standardization Mandate to CEN, CENELEC and ETSI in support of European accessibility requirements for public procurement of products and services in the ICT domain".

[i.4] ETSI EG 201 013: "Human Factors (HF); Definitions, abbreviations and symbols".

[i.5] ETSI ES 202 975: "Human Factors (HF); Harmonized relay services".

[i.6] ETSI ETS 300 767: "Human Factors (HF); Telephone Prepayment Cards; Tactile Identifier".

[i.7] CEN/CENELEC/ETSI TR 101 550: "Documents relevant to EN 301 549 "Accessibility requirements suitable for public procurement of ICT products and services in Europe".

[i.8] CEN/CENELEC/ETSI TR 101 551: "Guidelines on the use of accessibility award criteria suitable for publicly procured ICT products and services in Europe".

[i.9] ETSI TR 102 612: "Human Factors (HF); European accessibility requirements for public procurement of products and services in the ICT domain (European Commission Mandate M 376, Phase 1)".

[i.10] ETSI TS 126 114: "Universal Mobile Telecommunications System (UMTS); LTE; IP Multimedia Subsystem (IMS); Multimedia telephony; Media handling and interaction (3GPP TS 26.114)".

[i.11] ETSI TS 122 173: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); LTE; IP Multimedia Core Network Subsystem (IMS) Multimedia Telephony Service and supplementary services; Stage 1 (3GPP TS 22.173)".

[i.12] ETSI TS 134 229: "Universal Mobile Telecommunications System (UMTS); LTE; Internet Protocol (IP) multimedia call control protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP); User Equipment (UE) conformance specification (3GPP TS 34.229)".

[i.13] IETF RFC 4103 (2005): "RTP Payload for Text Conversation".

[i.14] ISO/IEC 17007:2009: "Conformity assessment - Guidance for drafting normative documents suitable for use for conformity assessment".

[i.15] ISO 9241-11:1998: "Ergonomic requirements for office work with visual display terminals (VDTs) -- Part 11: Guidance on usability".

[i.16] ISO 9241-110:2006: "Ergonomics of human-system interaction -- Part 110: Dialogue principles".

[i.17] ISO 9241-171:2008: "Ergonomics of human-system interaction-Part 171: Guidance on software accessibility".

[i.18] ISO 26800:2011: "Ergonomics - General approach, principles and concepts".

[i.19] ISO/IEC 13066-1:2011: "Information technology - Interoperability with assistive technology (AT) - Part 1: Requirements and recommendations for interoperability".

[i.20] Recommendation ITU-T E.161 (2001): "Arrangement of digits, letters and symbols on telephones and other devices that can be used for gaining access to a telephone network".

[i.21] Recommendation ITU-T G.722 (1988): "7 kHz audio-coding within 64 kbit/s".

[i.22] Recommendation ITU-T G.722.2 (2003): "Wideband coding of speech at around 16 kbit/s using Adaptive Multi-Rate Wideband (AMR-WB)".

[i.23] Recommendation ITU-T V.18 (2000): "Operational and interworking requirements for DCEs operating in the text telephone mode".

[i.24] TIA-1083-A (2010): "Telecommunications; Telephone Terminal equipment; Handset magnetic measurement procedures and performance requirements".

[i.25] US Department of Justice: "2010 ADA Standards for Accessible Design".

[i.26] W3C Working Group Note 5 September 2013: "Guidance on Applying WCAG 2.0 to Non-Web Information and Communications Technologies (WCAG2ICT)".
NOTE: Available at http://www.w3.org/TR/wcag2ict/.

[i.27] COMMISSION IMPLEMENTING DECISION of 27.4.2017 on a standardisation request to the European standardisation organisations in support of Directive (EU) 2016/2102 of the European Parliament and of the Council on the accessibility of the websites and mobile applications of public sector bodies.

[i.28] DIRECTIVE (EU) 2016/2102 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 26 October 2016 on the accessibility of the websites and mobile applications of public sector bodies.

[i.29] Accessibility requirements suitable for public procurement of ICT products and services in Europe EN 301 549 V1.1.2 (2015-04).

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in ETSI EG 201 013 [i.4] and the following apply:

accessibility: extent to which products, systems, services, environments and facilities can be used by people from a population with the widest range of characteristics and capabilities, to achieve a specified goal in a specified context of use (from ISO 26800 [i.18])

NOTE 1: Context of use includes direct use or use supported by assistive technologies.

NOTE 2: The context in which the ICT is used may affect its overall accessibility. This context could include other products and services with which the ICT may interact.

assistive technology: hardware or software added to or connected to a system that increases accessibility for an individual

NOTE 1: Examples are Braille displays, screen readers, screen magnification software and eye tracking devices that are added to the ICT.

NOTE 2: Where ICT does not support directly connected assistive technology, but which can be operated by a system connected over a network or other remote connection, such a separate system (with any included assistive technology) can also be considered assistive technology.

audio description: additional audible narrative, interleaved with the dialogue, which describes the significant aspects of the visual content of audio-visual media that cannot be understood from the main soundtrack alone

NOTE: This is also variously described using terms such as "video description" or variants such as "descriptive narration".

authoring tool: software that can be used to create or modify content

NOTE 1: An authoring tool may be used by a single user or multiple users working collaboratively.

NOTE 2: An authoring tool may be a single stand-alone application or be comprised of collections of applications.

NOTE 3: An authoring tool may produce content that is intended for further modification or for use by end-users.

caption: synchronized visual and/or text alternative for both speech and non-speech audio information needed to understand the media content (after WCAG 2.0 [4])

NOTE: This is also variously described using terms such as "subtitles" or variants such as "subtitles for the deaf and hard-of-hearing".

closed functionality: functionality that is limited by characteristics that prevent a user from attaching, installing or using assistive technology

content: information and sensory experience to be communicated to the user by means of software, including code or markup that defines the content's structure, presentation, and interactions (after WCAG2ICT [i.26])

NOTE: Content occurs in three places: web pages, documents and software. When content occurs in a web page or a document, a user agent is needed in order to communicate the content's information and sensory experience to the user. When content occurs in software, a separate user agent is not needed in order to communicate the content's information and sensory experience to the user - the software itself performs that function.

context of use: users, tasks, equipment (hardware, software and materials), and the physical and social environments in which a product is used (from ISO 9241-11 [i.15])

document: logically distinct assembly of content (such as a file, set of files, or streamed media) that functions as a single entity rather than a collection, that is not part of software and that does not include its own user agent. (after WCAG2ICT [i.26])

NOTE 1: A document always requires a user agent to present its content to the user.

NOTE 2: Letters, e-mail messages, spreadsheets, books, pictures, presentations, and movies are examples of documents.

NOTE 3: Software configuration and storage files such as databases and virus definitions, as well as computer instruction files such as source code, batch/script files, and firmware, are examples of files that function as part of software and thus are not examples of documents. If and where software retrieves "information and sensory experience to be communicated to the user" from such files, it is just another part of the content that occurs in software and is covered by WCAG2ICT like any other parts of the software. Where such files contain one or more embedded documents, the embedded documents remain documents under this definition.

NOTE 4: A collection of files zipped together into an archive, stored within a single virtual hard drive file, or stored in a single encrypted file system file, do not constitute a single document when so collected together. The software that archives/encrypts those files or manages the contents of the virtual hard drive does not function as a user agent for the individually collected files in that collection because that software is not providing a fully functioning presentation of that content.

NOTE 5: Anything that can present its own content without involving a user agent, such as a self-playing book, is not a document but is software.

NOTE 6: A single document may be composed of multiple files such as the video content, closed caption text etc. This fact is not usually apparent to the end-user consuming the document/content.

NOTE 7: An assembly of files that represented the video, audio, captions and timing files for a movie is an example of a document.

NOTE 8: A binder file used to bind together the various exhibits for a legal case would not be a document.

ICT network: technology and resources supporting the connection and operation of interconnected ICT

Information and Communication Technology (ICT): technology, equipment, or interconnected system or subsystem of equipment for which the principal function is the creation, conversion, duplication, automatic acquisition, storage, analysis, evaluation, manipulation, management, movement, control, display, switching, interchange, transmission, reception, or broadcast of data or information

NOTE: Examples of ICT are electronic content, telecommunications products, computers and ancillary equipment, software, information kiosks and transaction machines, videos, IT services, and multifunction office machines which copy, scan, and fax documents.

mechanically operable part: operable part that has a mechanical interface to activate, deactivate, or adjust the ICT

NOTE: Examples of mechanically operable parts include scanner covers, notebook docking stations and lids as well as physical switches and latches.

mechanism for private listening: auditory output designed so that only the current user can receive the sound

NOTE: Personal headsets, directional speakers and audio hoods are examples of mechanisms for private listening.

non-text content: content that is not a sequence of characters that can be programmatically determined or where the sequence is not expressing something in human language (after WCAG 2.0 [4])

non-web document: document that is not a web page, not embedded in web pages nor used in the rendering or functioning of the page

non-web software: software that is not a web page, not embedded in web pages nor used in the rendering or functioning of the page

open functionality: functionality that supports access by assistive technology

NOTE: This is the opposite of Closed Functionality.

operable part: component of ICT used to activate, deactivate, or adjust the ICT

NOTE: Operable parts can be provided in either hardware (see mechanically operable parts, above) or software. An on-screen button is an example of an operable part provided by software.

platform software: collection of software components that runs on an underlying software or hardware layer, and that provides a set of software services to other software components that allows those applications to be isolated from the underlying software or hardware layer (after ISO/IEC 13066-1 [i.19]).

NOTE: A particular software component might play the role of a platform in some situations and a client in others.

programmatically determinable: able to be read by software from developer-supplied data in a way that other software, including assistive technologies, can extract and present this information to users in different modalities

NOTE: WCAG 2.0 uses "determined" where this definition uses "able to be read" (to avoid ambiguity with the word "determined").

real-time text: form of a text conversation in point to point situations or in multipoint conferencing where the text being entered is sent in such a way that the communication is perceived by the user as being continuous

satisfies a success criterion: the success criterion does not evaluate to "false" when applied to the ICT (after WCAG 2.0 [4])

terminal: combination of hardware and/or software with which the end user directly interacts and that provides the user interface

NOTE 1: The hardware may consist of more than one device working together e.g. a mobile device and a computer.

NOTE 2: For some systems, the software that provides the user interface may reside on more than one device such as a telephone and a server.

user agent: software that retrieves and presents content for users (after WCAG 2.0 [4])

NOTE 1: Software that only displays the content contained within it is treated as software and not considered to be a user agent.

NOTE 2: An example of software that is not a user agent is a calculator application that does not retrieve the calculations from outside the software to present it to a user. In this case, the calculator software is not a user agent, it is simply software with a user interface.

NOTE 3: Software that only shows a preview of content such as a thumbnail or other non-fully functioning presentation is not providing user agent functionality.

user interface: all components of an interactive system (software or hardware) that provide information and/or controls for the user to accomplish specific tasks with the interactive system (from ISO 9241-110 [i.16])

user interface element: entity of the user interface that is presented to the user by the software (after ISO 9241-171 [i.17])

NOTE 1: This term is also known as "user interface component".

NOTE 2: User-interface elements can be interactive or not.

web content: content that belongs to a web page, and that is used in the rendering or that is intended to be used in the rendering of the web page

web page: non-embedded resource obtained from a single URI using HTTP plus any other resources that are used in the rendering or intended to be rendered together with it by a user agent (after WCAG 2.0 [4])

3.2 Abbreviations

For the purposes of the present document, the following abbreviations apply:

ADA	Americans with Disabilities Act
ANSI	American National Standards Institute
AT	Assistive Technology
CIF	Common Intermediate Format
DOM	Document Object Model
ERCIM	European Research Consortium for Informatics and Mathematics
FAQ	Frequently Asked Questions
FPS	Frames Per Second
HTML	HyperText Markup Language
HTTP	HyperText Transfer Protocol
ICT	Information and Communication Technology
IETF	Internet Engineering Task Force
IMS	IP Multimedia System
IP	Internet Protocol
JWG	Joint Working Group (of CEN/CENELEC/ETSI)
MIT	Massachusetts Institute of Technology
ODF	Open Document Format
OOXML	Office Open eXtensible Markup Language
PSTN	Public Switched Telephone Network
QCIF	Quarter Common Intermediate Format
RFC	Request For Comment
RTT	Real-Time Text
SIP	Session Initiation Protocol
URI	Uniform Resource Identifier
USB	Universal Serial Bus
VoIP	Voice over IP
W3C	World Wide Web Consortium
WAI	Web Accessibility Initiative
WCAG	Web Content Accessibility Guidelines (of W3C)
XML	eXtensible Markup Language
XUL	XML User interface Language

4 Functional performance

4.1 Meeting functional performance statements

The statements set out in clause 4.2 are intended to describe the functional performance of ICT enabling people to locate, identify, and operate ICT functions, and to access the information provided, regardless of physical, cognitive or sensory abilities. Any ability impairments may be permanent, temporary or situational.

ICT meeting the applicable requirements of clauses 5 to 13 is deemed to have met a level of accessibility conformant with the present document and consistent with the user accessibility needs identified in clause 4.2 (Functional performance statements).

NOTE 1: The relationship between the requirements from clauses 5 to 13 and the accessibility-related user needs is set out in Annex B.

NOTE 2: The intent of clause 4.2 is to describe the users' accessibility needs in accessing the full functionality and documentation of the product or the service with or without the use of assistive technologies.

NOTE 3: The methods of meeting the accessibility needs of users with multiple impairments will depend on the specific combination of impairments. Meeting these user accessibility needs may be addressed by considering multiple clauses in 4.2.

NOTE 4: Several users' accessibility needs rely on ICT providing specific modes of operation. If a user is to activate, engage or switch to the mode that complies with his or her user accessibility needs, the method for activating, engaging or switching to that mode is also expected to comply with the same user accessibility needs.

4.2 Functional performance statements

4.2.1 Usage without vision

Where ICT provides visual modes of operation, some users need ICT to provide at least one mode of operation that does not require vision.

NOTE 1: A web page or application with a well formed semantic structure can allow users without vision to identify, navigate and interact with a visual user interface.

NOTE 2: Audio and tactile user interfaces may contribute towards meeting this clause.

4.2.2 Usage with limited vision

Where ICT provides visual modes of operation, some users will need the ICT to provide features that enable users to make better use of their limited vision.

NOTE 1: Magnification, reduction of required field of vision and control of contrast, brightness and intensity can contribute towards meeting this clause.

NOTE 2: Where significant features of the user interface are dependent on depth perception, the provision of additional methods of distinguishing between the features may contribute towards meeting this clause.

NOTE 3: Users with limited vision may also benefit from non-visual access (see clause 4.2.1).

4.2.3 Usage without perception of colour

Where ICT provides visual modes of operation, some users will need the ICT to provide a visual mode of operation that does not require user perception of colour.

NOTE: Where significant features of the user interface are colour-coded, the provision of additional methods of distinguishing between the features may contribute towards meeting this clause.

4.2.4 Usage without hearing

Where ICT provides auditory modes of operation, some users need ICT to provide at least one mode of operation that does not require hearing.

NOTE: Visual and tactile user interfaces may contribute towards meeting this clause.

4.2.5 Usage with limited hearing

Where ICT provides auditory modes of operation, some users will need the ICT to provide enhanced audio features.

NOTE 1: Enhancement of the audio clarity, reduction of background noise, increased range of volume and greater volume in the higher frequency range can contribute towards meeting this clause.

NOTE 2: Users with limited hearing may also benefit from non-hearing access (see clause 4.2.4).

4.2.6 Usage without vocal capability

Where ICT requires vocal input from users, some users will need the ICT to provide at least one mode of operation that does not require them to generate vocal output.

NOTE 1: This clause covers the alternatives to the use of orally-generated sounds, including speech, whistles, clicks, etc.

NOTE 2: Keyboard, pen or touch user interfaces may contribute towards meeting this clause.

4.2.7 Usage with limited manipulation or strength

Where ICT requires manual actions, some users will need the ICT to provide features that enable users to make use of the ICT through alternative actions not requiring manipulation or hand strength.

NOTE 1: Examples of operations that users may not be able to perform include those that require fine motor control, path dependant gestures, pinching, twisting of the wrist, tight grasping, or simultaneous manual actions.

NOTE 2: One-handed operation, sequential key entry and speech user interfaces may contribute towards meeting this clause.

NOTE 3: Some users have limited hand strength and may not be able to achieve the level of strength to perform an operation. Alternative user interface solutions that do not require hand strength may contribute towards meeting this clause.

4.2.8 Usage with limited reach

Where ICT products are free-standing or installed, the operational elements will need to be within reach of all users.

NOTE: Considering the needs of wheelchair users and the range of user statures in the placing of operational elements of the user interface may contribute towards meeting this clause.

4.2.9 Minimize photosensitive seizure triggers

Where ICT provides visual modes of operation, some users need ICT to provide at least one mode of operation that minimizes the potential for triggering photosensitive seizures.

NOTE: Limiting the area and number of flashes per second may contribute towards meeting this clause.

4.2.10 Usage with limited cognition

Some users will need the ICT to provide features that make it simpler and easier to use.

NOTE 1: This clause is intended to include the needs of persons with limited cognitive, language and learning abilities.

NOTE 2: Adjustable timings, error indication and suggestion, and a logical focus order are examples of design features that may contribute towards meeting this clause.

4.2.11 Privacy

Where ICT provides features that are provided for accessibility, some users will need their privacy to be maintained when using those ICT features that are provided for accessibility.

NOTE: Enabling the connection of personal headsets for private listening, not providing a spoken version of characters being masked and enabling user control of legal, financial and personal data are examples of design features that may contribute towards meeting this clause.

5 Generic requirements

5.1 Closed functionality

5.1.1 Introduction (Informative)

ICT has closed functionality for many reasons, including design or policy. Some of the functionality of products can be closed because the product is self-contained and users are precluded from adding peripherals or software in order to access that functionality.

ICT may have closed functionality in practice even though the ICT was not designed, developed or supplied to be closed.

Computers that do not allow end-users to adjust settings or install software are functionally closed.

5.1.2 General

5.1.2.1 Closed functionality

Where ICT has closed functionality, it shall meet the requirements set out in clauses 5.2 to 13, as applicable.

NOTE 1: ICT may close some, but not all, of its functionalities. Only the closed functionalities have to conform to the requirements of clause 5.1.

NOTE 2: The provisions within this clause are requirements for the closed functionality of ICT that replace those requirements in clauses 5.2 to 13 that specifically state that they do not apply to closed functionality. This may be because they relate to compatibility with assistive technology or to the ability for the user to adjust system accessibility settings in products with closed functionality (e.g. products that prevent access to the system settings control panel).

5.1.2.2 Assistive technology

Where ICT has closed functionality, that closed functionality shall be operable without requiring the user to attach, connect or install assistive technology and shall conform to the generic requirements of clauses 5.1.3 to 5.1.6 as applicable. Personal headsets and induction loops shall not be classed as assistive technology for the purpose of this clause.

5.1.3 Non-visual access

5.1.3.1 General

Where visual information is needed to enable the use of those functions of ICT that are closed to assistive technologies for screen reading, ICT shall provide at least one mode of operation using non-visual access to enable the use of those functions.

NOTE 1: Non-visual access may be in an audio form, including speech, or a tactile form.

NOTE 2: The visual information needed to enable use of some functions may include operating instructions and orientation, transaction prompts, user input verification, error messages and non-text content.

5.1.3.2 Auditory output delivery including speech

Where auditory output is provided as non-visual access to closed functionality, the auditory output shall be delivered:

a) either directly by a mechanism included in or provided with the ICT;

b) or by a personal headset that can be connected through a 3,5 mm audio jack, or an industry standard connection, without requiring the use of vision.

NOTE 1: Mechanisms included in or provided with ICT may be, but are not limited to, a loudspeaker, a built-in handset/headset, or other industry standard coupled peripheral.

NOTE 2: An industry standard connection could be a wireless connection.

NOTE 3: Some users may benefit from the provision of an inductive loop.

5.1.3.3 Auditory output correlation

Where auditory output is provided as non-visual access to closed functionality, and where information is displayed on the screen, the ICT should provide auditory information that allows the user to correlate the audio with the information displayed on the screen.

NOTE 1: Many people who are legally blind still have visual ability, and use aspects of the visual display even if it cannot be fully comprehended. An audio alternative that is both complete and complementary includes all visual information such as focus or highlighting, so that the audio can be correlated with information that is visible on the screen at any point in time.

NOTE 2: Examples of auditory information that allows the user to correlate the audio with the information displayed on the screen include structure and relationships conveyed through presentation.

5.1.3.4 Speech output user control

Where speech output is provided as non-visual access to closed functionality, the speech output shall be capable of being interrupted and repeated when requested by the user, where permitted by security requirements.

NOTE 1: It is best practice to allow the user to pause speech output rather than just allowing them to interrupt it.

NOTE 2: It is best practice to allow the user to repeat only the most recent portion rather than requiring play to start from the beginning.

5.1.3.5 Speech output automatic interruption

Where speech output is provided as non-visual access to closed functionality, the ICT shall interrupt current speech output when a user action occurs and when new speech output begins.

NOTE: Where it is essential that the user hears the entire message, e.g. a safety instruction or warning, the ICT may need to block all user action so that speech is not interrupted.

5.1.3.6 Speech output for non-text content

Where ICT presents non-text content, the alternative for non-text content shall be presented to users via speech output unless the non-text content is pure decoration or is used only for visual formatting. The speech output for non-text content shall follow the guidance for "text alternative" described in WCAG 2.0 [4] Success Criterion 1.1.1.

5.1.3.7 Speech output for video information

Where pre-recorded video content is needed to enable the use of closed functions of ICT and where speech output is provided as non-visual access to closed functionality, the speech output shall present equivalent information for the pre-recorded video content.

NOTE: This speech output can take the form of an audio description or an auditory transcript of the video content.

5.1.3.8 Masked entry

Where auditory output is provided as non-visual access to closed functionality, and the characters displayed are masking characters, the auditory output shall not be a spoken version of the characters entered unless the auditory output is known to be delivered only to a mechanism for private listening, or the user explicitly chooses to allow non-private auditory output.

NOTE 1: Masking characters are usually displayed for security purposes and include, but are not limited to asterisks representing personal identification numbers.

NOTE 2: Unmasked character output might be preferred when closed functionality is used, for example, in the privacy of the user's home. A warning highlighting privacy concerns might be appropriate to ensure that the user has made an informed choice.

5.1.3.9 Private access to personal data

Where auditory output is provided as non-visual access to closed functionality, and the output contains data that is considered to be private according to the applicable privacy policy, the corresponding auditory output shall only be delivered through a mechanism for private listening that can be connected without requiring the use of vision, or through any other mechanism explicitly chosen by the user.

NOTE 1: This requirement does not apply in cases where data is not defined as being private according to the applicable privacy policy or where there is no applicable privacy policy.

NOTE 2: Non-private output might be preferred when closed functionality is used, for example, in the privacy of the user's home. A warning highlighting privacy concerns might be appropriate to ensure that the user has made an informed choice.

5.1.3.10 Non-interfering audio output

Where auditory output is provided as non-visual access to closed functionality, the ICT shall not automatically play, at the same time, any interfering audible output that lasts longer than three seconds.

5.1.3.11 Private listening volume

Where auditory output is provided as non-visual access to closed functionality and is delivered through a mechanism for private listening, ICT shall provide at least one non-visual mode of operation for controlling the volume.

5.1.3.12 Speaker volume

Where auditory output is provided as non-visual access to closed functionality and is delivered through speakers on ICT, a non-visual incremental volume control shall be provided with output amplification up to a level of at least 65 dBA (-29 dBPaA).

NOTE: For noisy environments, 65dBA may not be sufficient.

5.1.3.13 Volume reset

Where auditory output is provided as non-visual access to closed functionality, a function that resets the volume to be at a level of 65 dBA or less after every use, shall be provided, unless the ICT is dedicated to a single user.

NOTE: A feature to disable the volume reset function may be provided in order to enable the single-user exception to be met.

5.1.3.14 Spoken languages

Where speech output is provided as non-visual access to closed functionality, speech output shall be in the same human language as the displayed content provided, except:

a) for proper names, technical terms, words of indeterminate language, and words or phrases that have become part of the vernacular of the immediately surrounding text;

b) where the content is generated externally and not under the control of the ICT vendor, clause 5.1.3.14 shall not be required to apply for languages not supported by the ICT's speech synthesizer;

c) for displayed languages that cannot be selected using non-visual access;

d) where the user explicitly selects a speech language that is different from the language of the displayed content.

5.1.3.15 Non-visual error identification

Where speech output is provided as non-visual access to closed functionality and an input error is automatically detected, speech output shall identify and describe the item that is in error.

5.1.3.16 Receipts, tickets, and transactional outputs

Where ICT is closed to visual access and provides receipts, tickets or other outputs as a result of a self-service transaction, speech output shall be provided which shall include all information necessary to complete or verify the transaction. In the case of ticketing machines, printed copies of itineraries and maps shall not be required to be audible.

NOTE: The speech output may be provided by any element of the total ICT system.

5.1.4 Functionality closed to text enlargement

Where any functionality of ICT is closed to the text enlargement features of platform or assistive technology, the ICT shall provide a mode of operation where the text and images of text necessary for all functionality is displayed in such a way that a non-accented capital "H" subtends an angle of at least 0,7 degrees at a viewing distance specified by the supplier.

The subtended angle, in degrees, may be calculated from:

$$\Psi = (180 \times H) / (\pi \times D)$$

Where:

- ψ is the subtended angle in degrees
- H is the height of the text
- D is the viewing distance
- D and H are expressed in the same units

NOTE 1: The intent is to provide a mode of operation where text is large enough to be used by most users with low vision.

NOTE 2: Table 5.1 and Figure 1 illustrate the relationship between the maximum viewing distance and minimum character height at the specified minimum subtended angle

Table 5.1: Relationship between maximum design viewing distance and minimum character height at the limit of subtended angle

Minimum subtended angle	Maximum design viewing distance	Minimum character height
0,7 degrees	100 mm	1,2 mm
	200 mm	2,4 mm
	250 mm	3,1 mm
	300 mm	3,7 mm
	350 mm	4,3 mm
	400 mm	4,9 mm
	450 mm	5,5 mm
	500 mm	6,1 mm
	550 mm	6,7 mm
	600 mm	7,3 mm

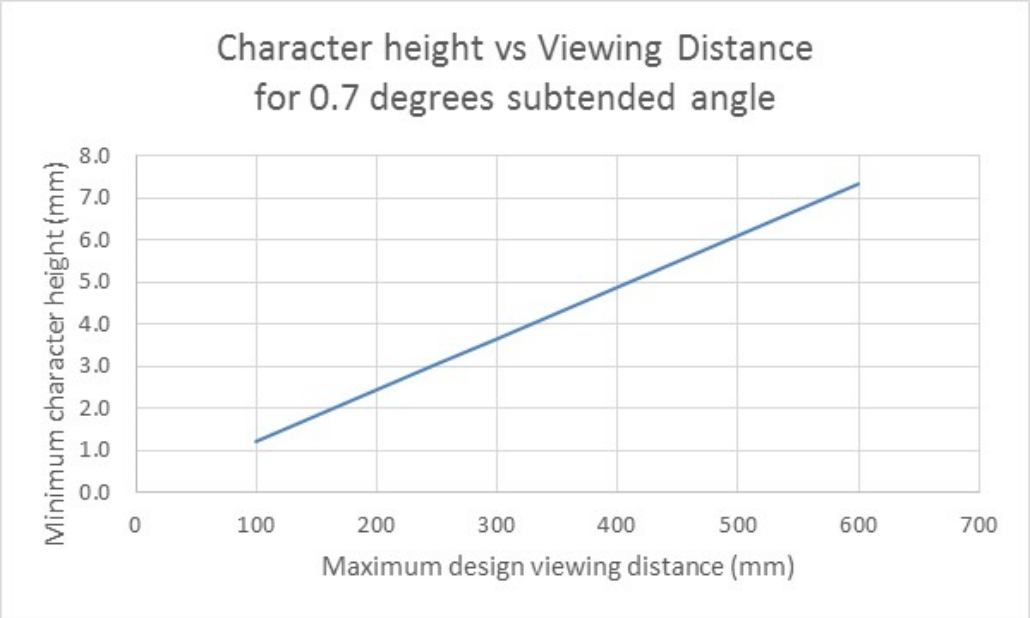

Figure 1: Relationship between minimum character height and maximum design viewing distance

5.1.5 Visual output for auditory information

Where pre-recorded auditory information is needed to enable the use of closed functions of ICT, the ICT shall provide visual information that is equivalent to the pre-recorded auditory output.

NOTE: This visual information can take the form of captions or text transcripts.

5.1.6 Operation without keyboard interface

5.1.6.1 Closed functionality

Where ICT functionality is closed to keyboards or keyboard interfaces, all functionality shall be operable without vision as required by clause 5.1.3.

5.1.6.2 Input focus

Where ICT functionality is closed to keyboards or keyboard interfaces and where input focus can be moved to a user interface element, it shall be possible to move the input focus away from that element using the same mechanism, in order to avoid trapping the input focus.

5.2 Activation of accessibility features

Where ICT has documented accessibility features, it shall be possible to activate those documented accessibility features that are required to meet a specific need without relying on a method that does not support that need.

5.3 Biometrics

Where ICT uses biological characteristics, it shall not rely on the use of a particular biological characteristic as the only means of user identification or for control of ICT.

NOTE 1: Alternative means of user identification or for control of ICT could be non-biometric or biometric.

NOTE 2: Biometric methods based on dissimilar biological characteristics increase the likelihood that individuals with disabilities possess at least one of the specified biological characteristics. Examples of dissimilar biological characteristics are fingerprints, eye retinal patterns, voice, and face.

5.4 Preservation of accessibility information during conversion

Where ICT converts information or communication it shall preserve all documented non-proprietary information that is provided for accessibility, to the extent that such information can be contained in or supported by the destination format.

5.5 Operable parts

5.5.1 Means of operation

Where ICT has operable parts that require grasping, pinching, or twisting of the wrist to operate, an accessible alternative means of operation that does not require these actions shall be provided.

5.5.2 Operable parts discernibility

Where ICT has operable parts, it shall provide a means to discern each operable part, without requiring vision and without performing the action associated with the operable part.

NOTE: One way of meeting this requirement is by making the operable parts tactilely discernible.

5.6 Locking or toggle controls

5.6.1 Tactile or auditory status

Where ICT has a locking or toggle control and that control is visually presented to the user, the ICT shall provide at least one mode of operation where the status of the control can be determined either through touch or sound without operating the control.

NOTE 1: Locking or toggle controls are those controls that can only have two or three states and that keep their state while being used.

NOTE 2: An example of a locking or toggle control is the "Caps Lock" key found on most keyboards. Another example is the volume button on a pay telephone, which can be set at normal, loud, or extra loud volume.

5.6.2 Visual status

Where ICT has a locking or toggle control and the control is non-visually presented to the user, the ICT shall provide at least one mode of operation where the status of the control can be visually determined when the control is presented.

NOTE 1: Locking or toggle controls are those controls that can only have two or three states and that keep their state while being used.

NOTE 2: An example of a locking or toggle control is the "Caps Lock" key found on most keyboards. An example of making the status of a control determinable is a visual status indicator on a keyboard.

5.7 Key repeat

Where ICT has a key repeat function that cannot be turned off:

a) the delay before the key repeat shall be adjustable to at least 2 seconds; and

b) the key repeat rate shall be adjustable down to one character per 2 seconds.

5.8 Double-strike key acceptance

Where ICT has a keyboard or keypad, the delay after any keystroke, during which an additional key-press will not be accepted if it is identical to the previous keystroke, shall be adjustable up to at least 0,5 seconds.

5.9 Simultaneous user actions

Where ICT uses simultaneous user actions for its operation, such ICT shall provide at least one mode of operation that does not require simultaneous user actions to operate the ICT.

NOTE: Having to use both hands to open the lid of a laptop, having to press two or more keys at the same time or having to touch a surface with more than one finger are examples of simultaneous user actions.

6 ICT with two-way voice communication

6.1 Audio bandwidth for speech

Where ICT provides two-way voice communication, in order to provide good audio quality, that ICT shall be able to encode and decode two-way voice communication with a frequency range with an upper limit of at least 7 000 Hz.

NOTE 1: For the purposes of interoperability, support of Recommendation ITU-T G.722 [i.21] is widely used.

NOTE 2: Where codec negotiation is implemented, other standardized codecs such as Recommendation ITU-T G.722.2 [i.22] are sometimes used so as to avoid transcoding.

6.2 Real-time text (RTT) functionality

6.2.1 RTT provision

6.2.1.1 RTT communication

Where ICT supports two-way voice communication in a specified context of use, the ICT shall allow a user to communicate with another user by RTT.

NOTE 1: The RTT capability can be provided as a factory default or added later.

NOTE 2: Provision of RTT may require additional service provision, additional hardware and/or software which may be provided separately or together.

6.2.1.2 Concurrent voice and text

Where ICT supports two-way voice communication in a specified context of use, and enables a user to communicate with another user by RTT, it shall provide a mechanism to select a mode of operation which allows concurrent voice and text.

NOTE: The availability of voice and RTT running concurrently can allow the RTT to replace or support voice and transfer additional information such as numbers, currency amounts and spelling of names.

6.2.2 Display of Real-time Text

6.2.2.1 Visually distinguishable display

Where ICT has RTT send and receive capabilities, displayed sent text shall be visually differentiated from and separated from received text.

6.2.2.2 Programmatically determinable send and receive direction

Where ICT has RTT send and receive capabilities, the send/receive direction of transmitted text shall be programmatically determinable, unless the RTT has closed functionality.

NOTE: The intent of clause 6.2.2.2 is to enable screen readers to be able to distinguish between incoming text and outgoing text when used with RTT functionality.

6.2.3 Interoperability

Where ICT with RTT functionality interoperates with other ICT with RTT functionality (as required by 6.2.1.1) they shall support at least one of the four RTT interoperability mechanisms described below:

a) ICT interoperating over the Public Switched Telephone Network (PSTN), with other ICT that directly connects to the PSTN as described in Recommendation ITU-T V.18 [i.23] or any of its annexes for text telephony signals at the PSTN interface;

b) ICT interoperating with other ICT using VOIP with Session Initiation Protocol (SIP) and using real-time text that conforms to IETF RFC 4103 [i.13];

c) ICT interoperating with other ICT using RTT that conforms with the IP Multimedia Sub-System (IMS) set of protocols specified in ETSI TS 126 114 [i.10], ETSI TS 122 173 [i.11] and ETSI TS 134 229 [i.12];

d) ICT interoperating with other ICT using a relevant and applicable common specification for RTT exchange that is published and available. This common specification shall include a method for indicating loss or corruption of characters.

6.2.4 Real-time text responsiveness

Where ICT utilises RTT input, that RTT input shall be transmitted to the ICT network supporting RTT within 1 second of the input entry.

NOTE 1: Input entry is considered to have occurred when sufficient user input has occurred for the ICT to establish which character(s) to send.

NOTE 2: Input entry will differ between systems where text is entered on a word-by-word basis (e.g. speech-to-text and predictive-text based systems) and systems where each character is separately generated.

6.3 Caller ID

Where ICT provides caller identification or similar telecommunications functions are provided, the caller identification and similar telecommunications functions shall be available in text form and in at least one other modality.

6.4 Alternatives to voice-based services

Where ICT provides real-time voice-based communication and also provides voice mail, auto-attendant, or interactive voice response facilities, the ICT should offer users a means to access the information and carry out the tasks provided by the ICT without the use of hearing or speech.

NOTE: Solutions capable of handling audio, real-time text and video media could satisfy the above requirement.

6.5 Video communication

6.5.1 General (informative)

Clause 6.5 (Video communications) provides performance requirements that support users who communicate using sign language and lip-reading. For these users, good usability is achieved with Common Intermediate Format (CIF) resolution, a frame rate of 20 frames per second and over, with a time difference between speech audio and video that does not exceed 100 ms.

When the resolution is reduced to Quarter Common Intermediate Format (QCIF) and the frame rate drops to 12 frames per second the communication is still usable with some restrictions.

A lower resolution causes less disturbance to the perception of sign language and lip-reading than that caused by a lower frame rate.

Delay can be a problem in video communication. Overall delay values below 0,4 s are preferred, with an increase in preference down to 0,1 s. Values over 0,8 s are felt to hinder a good sign conversation. Overall delay depends on multiple factors, including e.g. network delay and video processing. For this reason a testable requirement on minimum values for overall delay cannot be produced.

6.5.2 Resolution

Where ICT that provides two-way voice communication includes real-time video functionality, the ICT:

a) shall support at least QCIF resolution;

b) should preferably support at least CIF resolution.

6.5.3 Frame rate

Where ICT that provides two-way voice communication includes real-time video functionality, the ICT:

a) shall support a frame rate of at least 12 frames per second (FPS);

b) should preferably support a frame rate of at least 20 frames per second (FPS) with or without sign language in the video stream.

6.5.4 Synchronization between audio and video

Where ICT that provides two-way voice communication includes real-time video functionality, the ICT should ensure a maximum time difference of 100 ms between the speech and video presented to the user.

6.6 Alternatives to video-based services

Where ICT provides real-time video-based communication and also provides answering machine, auto attendant or interactive response facilities, the ICT should offer users a means to access the information and carry out the tasks related to these facilities:

a) for audible information, without the use of hearing;

b) for spoken commands, without the use of speech;

c) for visual information, without the use of vision.

NOTE: Solutions capable of generating real-time captions or handling real-time text could satisfy the above requirement.

7 ICT with video capabilities

7.1 Caption processing technology

7.1.1 Captioning playback

Where ICT displays video with synchronized audio, it shall have a mode of operation to display the available captions. Where closed captions are provided as part of the content, the ICT shall allow the user to choose to display the captions.

NOTE: Captions may contain information about timing, colour and positioning. This caption data is important for caption users. Timing is used for caption synchronization. Colour can be used for speaker identification. Position can be used to avoid obscuring important information.

7.1.2 Captioning synchronization

Where ICT displays captions, the mechanism to display captions shall preserve synchronization between the audio and the corresponding captions.

7.1.3 Preservation of captioning

Where ICT transmits, converts or records video with synchronized audio, it shall preserve caption data such that it can be displayed in a manner consistent with clauses 7.1.1 and 7.1.2.

Additional presentational aspects of the text such as screen position, text colours, text style and text fonts may convey meaning, based on regional conventions. Altering these presentational aspects could change the meaning and should be avoided wherever possible.

7.2 Audio description technology

7.2.1 Audio description playback

Where ICT displays video with synchronized audio, it shall provide a mechanism to select and play available audio description to the default audio channel.

Where video technologies do not have explicit and separate mechanisms for audio description, an ICT is deemed to satisfy this requirement if the ICT enables the user to select and play several audio tracks.

NOTE 1: In such cases, the video content can include the audio description as one of the available audio tracks.

NOTE 2: Audio descriptions in digital media sometimes include information to allow descriptions that are longer than the gaps between dialogue. Support in digital media players for this "extended audio description" feature is useful, especially for digital media that is viewed personally.

7.2.2 Audio description synchronization

Where ICT has a mechanism to play audio description, it shall preserve the synchronization between the audio/visual content and the corresponding audio description.

7.2.3 Preservation of audio description

Where ICT transmits, converts, or records video with synchronized audio, it shall preserve audio description data such that it can be played in a manner consistent with clauses 7.2.1 and 7.2.2.

7.3 User controls for captions and audio description

Where ICT primarily displays materials containing video with associated audio content, user controls to activate subtitling and audio description shall be provided to the user at the same level of interaction (i.e. the number of steps to complete the task) as the primary media controls.

NOTE 1: Primary media controls are the set of controls that the user most commonly uses to control media.

NOTE 2: Products that have a general hardware volume control, such as a telephone, or a laptop which can be configured to display video through software but which is not its primary purpose, would not need dedicated hardware controls for captions and descriptions; however software controls, or hardware controls mapped through software, would need to be at the same level of interaction.

NOTE 3: It is best practice for ICT to include additional controls enabling the user to select whether captions and audio description are turned on or off by default.

8 Hardware

8.1 General

8.1.1 Generic requirements

The "generic requirements" of clause 5 also apply to ICT that is hardware.

8.1.2 Standard connections

Where an ICT provides user input or output device connection points, the ICT shall provide at least one input and/or output connection that conforms to an industry standard non-proprietary format, directly or through the use of commercially available adapters.

NOTE 1: The intent of this requirement is to ensure compatibility with assistive technologies by requiring the use of standard connections on ICT.

NOTE 2: The word connection applies to both physical and wireless connections.

NOTE 3: Current examples of industry standard non-proprietary formats are USB and Bluetooth.

8.1.3 Colour

Where the ICT has hardware aspects that use colour, colour shall not be used as the only visual means of conveying information, indicating an action, prompting a response, or distinguishing a visual element.

8.2 Hardware products with speech output

8.2.1 Speech volume gain

8.2.1.1 Speech volume range

Where ICT hardware has speech output, it shall provide a means to adjust the speech output volume level over a range of at least 18 dB.

NOTE: Fixed-line handsets and headsets fulfilling the requirements of ANSI/TIA-4965 [i.2] are deemed to comply with this requirement.

8.2.1.2 Incremental volume control

Where ICT hardware has speech output and its volume control is incremental, it shall provide at least one intermediate step of 12 dB gain above the lowest volume setting.

8.2.2 Magnetic coupling

8.2.2.1 Fixed-line devices

Where ICT hardware is a fixed-line communication device with speech output and which is normally held to the ear and which carries the "T" symbol specified in ETSI ETS 300 381 [1], it shall provide a means of magnetic coupling which meets the requirements of ETSI ES 200 381-1 [2].

NOTE: ICT fulfilling the requirements of TIA-1083-A [i.24] is deemed to comply with the requirements of this clause.

8.2.2.2 Wireless communication devices

Where ICT hardware is a wireless communication device with speech output which is normally held to the ear, it shall provide a means of magnetic coupling to hearing technologies which meets the requirements of ETSI ES 200 381-2 [3].

NOTE: ICT fulfilling the requirements of ANSI/IEEE C63.19 [i.1] is deemed to comply with the requirements of this clause.

8.3 Physical access to ICT

8.3.1 General (informative)

Clauses 8.3.2 to 8.3.4 describe recommendations on those dimensions that are integral to the ICT (e.g. integral shelves, or integral cabins that may restrict access to the operable parts of the ICT).

When ICT is installed, the dimensions of the surrounding space combined with the dimensions of the ICT might affect the physical access to the ICT. Accessible physical access of the ICT would be achieved if the installation instructions referred to in clause 8.3.5 are followed.

It may not be possible to apply all recommendations of clause 8.3 to all aspects of maintenance, repair, or occasional monitoring of equipment in all circumstances. Nevertheless, it is best practice to apply the recommendations in clause 8.3, where feasible and safe to do so.

NOTE 1: The dimensions set out in clause 8.3 are identical to those given in the American 2010 ADA standards for accessible design [i.25].

NOTE 2: Physical access to ICT is dependent on the dimensions of both the ICT and the environment in which it is installed and operated. Clause 8.3 does not apply to the accessibility of the physical environment external to the ICT.

8.3.2 Clear floor or ground space

8.3.2.1 Change in level

Where there is a change in floor level that is integral to the ICT then it should be ramped with a slope no steeper than 1:48.

Exceptions:

a) If the change in floor level is less than or equal to 6,4 mm (¼ inch) the change may be vertical as shown in Figure 2.

b) If the change in floor level is less than or equal to 13 mm (½ inch) the change may have a slope not steeper than 1:2 as shown in Figure 3.

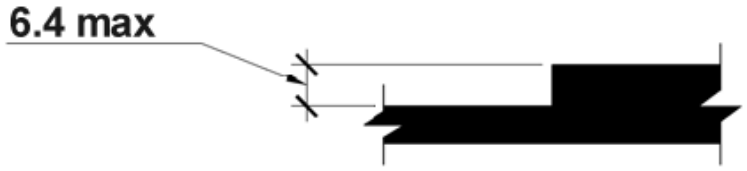

Figure 2: Vertical change in level

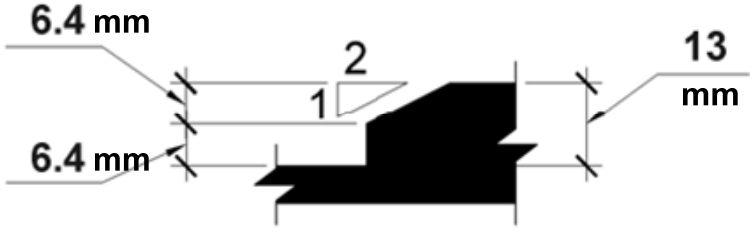

Figure 3: Bevelled change in level

8.3.2.2 Clear floor or ground space

Where the operating area is integral to the ICT, it should provide a clear floor area that has the minimum dimensions of 760 mm (30 inches) by 1 220 mm (48 inches) from which to operate the ICT. This is shown in Figure 4.

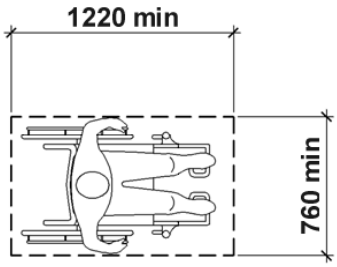

Figure 4: Clear floor or ground space

8.3.2.3 Approach

8.3.2.3.1 General

Where the access space is integral to the ICT, at least one full side of the space should be unobstructed.

8.3.2.3.2 Forward approach

Where the operating area is inside an alcove integral to the ICT, the alcove is deeper than 610 mm (24 inches), and where a forward approach is necessary, the dimension of the access space should be a minimum of 915 mm (36 inches) wide. This is shown in Figure 5.

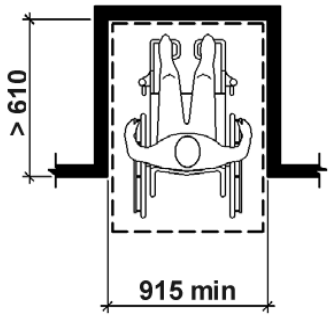

Figure 5: Manoeuvring Clearance in an Alcove, Forward Approach

8.3.2.3.3 Parallel approach

Where the operating area is inside an alcove integral to the ICT, the alcove is deeper than 380 mm (15 inches), and where a parallel approach is possible, the dimension of the access space should be a minimum of 1 525 mm (60 inches) wide. This is shown in Figure 6.

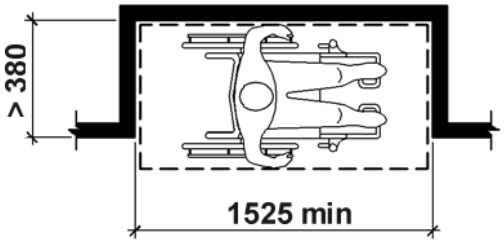

Figure 6: Manoeuvring Clearance in an Alcove, Parallel Approach

8.3.2.4 Knee and toe clearance width

Where the space under an obstacle that is integral to the ICT is part of access space, the clearance should be at least 760 mm (30 inches) wide.

8.3.2.5 Toe clearance

Where an obstacle is integral to the ICT, a space under the obstacle that is less than 230 mm (9 inches) above the floor is considered toe clearance and should:

a) extend 635 mm (25 inches) maximum under the whole obstacle;

b) provide a space at least 430 mm (17 inches) deep and 230 mm above the floor under the obstacle;

c) extend no more than150 mm (6 inches) beyond any obstruction at 230 mm (9 inches) above the floor.

This is shown in Figure 7.

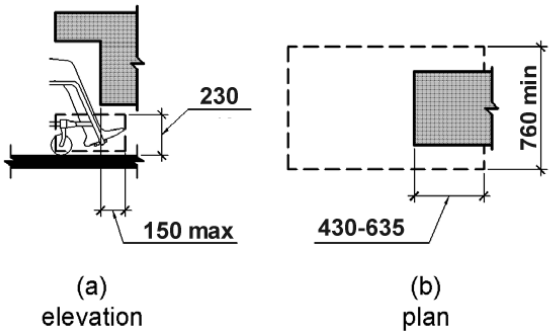

Figure 7: Toe clearance

8.3.2.6 Knee clearance

Where an obstacle is integral to the ICT, the space under the obstacle that is between 230 mm and 685 mm above the floor is considered knee clearance and should:

a) extend no more than 635 mm (25 inches) under the obstacle at a height of 230 mm (9 inches) above the floor;

b) extend at least 280 mm (11 inches) under the obstacle at a height of 230 mm (9 inches) above the floor;

c) extend at least 205 mm (8 inches) under the obstacle at a height of 685 mm (27 inches) above the floor;

d) be permitted to be reduced in depth at a rate of 25 mm (1 inch) for each 150 mm (6 inches) in height.

This is shown in Figure 8.

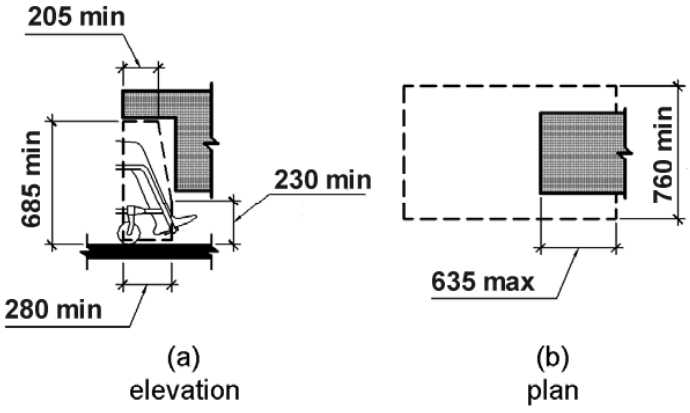

Figure 8: Knee clearance

8.3.3 Reach range for ICT

8.3.3.1 Forward reach

8.3.3.1.1 Unobstructed high forward reach

Where the access space is integral to the ICT and the forward reach is unobstructed, the essential controls should be located no higher than 1 220 mm (48 inches) above the floor of the access space. This is shown in Figure 9.

8.3.3.1.2 Unobstructed low forward reach

Where the access space is integral to the ICT and the forward reach is unobstructed, the essential controls should be located no lower than 380 mm (15 inches) above the floor of the access space. This is shown in Figure 9.

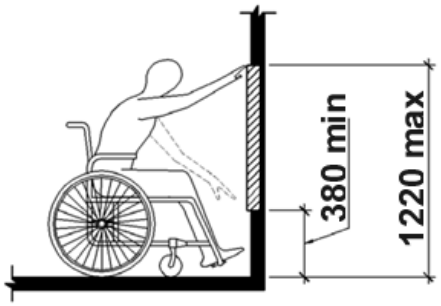

Figure 9: Unobstructed forward reach

8.3.3.1.3 Obstructed reach

8.3.3.1.3.1 Clear floor space

Where the access space is integral to the ICT and has an obstruction which is integral to the ICT which hinders the access to any essential controls, the ICT should provide a clear floor space which extends beneath the obstructing element for a distance not less than the required reach depth over the obstruction.

8.3.3.1.3.2 Obstructed (< 510 mm) forward reach

Where the access space is integral to the ICT and has an obstruction which is integral to the ICT and which is less than 510 mm (20 inches), the forward reach to all essential controls should be no higher than 1 220 mm (48 inches) above the floor contact of the ICT. This is shown in Figure 10 (a).

8.3.3.1.3.3 Obstructed (< 635 mm) forward reach

Where the access space is integral to the ICT and has an obstruction which is integral to the ICT and which is greater than 510 mm (20 inches) and less than 635 mm (25 inches) maximum, the forward reach to all essential controls should be no higher than 1 120 mm (44 inches) above the floor contact of the ICT. This is shown in Figure 10 (b).

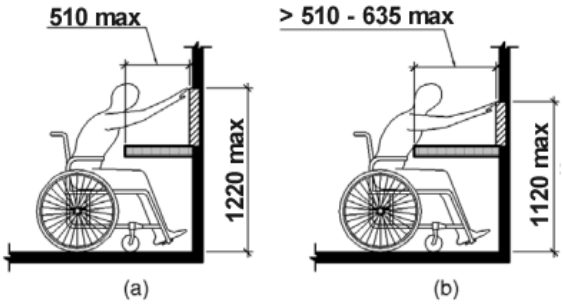

Figure 10: Obstructed high reach

8.3.3.2 Side reach

8.3.3.2.1 Unobstructed high side reach

Where the access space is integral to the ICT, allows a parallel approach, and the side reach is unobstructed or obstructed by an element integral to the ICT which is less than 255 mm (10 inches), all essential controls should be within a high side reach which is less than or equal to 1 220 mm (48 inches) above the floor of the access space. This is shown in Figure **Error! Reference source not found.**.

8.3.3.2.2 Unobstructed low side reach

Where the access space is integral to the ICT, allows a parallel approach, and the side reach is unobstructed or obstructed by an element integral to the ICT which is less than 255 mm (10 inches), all essential controls should be within a low side reach which is greater than or equal to 380 mm (15 inches) above the floor of the access space. This is shown in Figure **Error! Reference source not found.**.

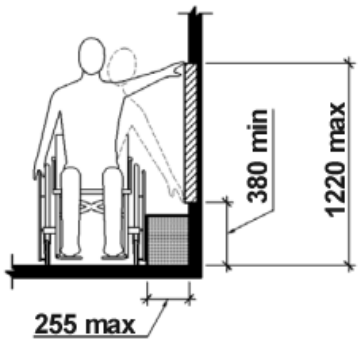

Figure 1: Unobstructed side reach

8.3.3.2.3 Obstructed side reach

8.3.3.2.3.1 Obstructed (≤ 255 mm) side reach

Where the access space is integral to the ICT, allows a parallel approach and has an obstruction which is integral to the ICT, the height of the obstruction should be less than 865 mm (34 inches). Where the depth of the obstruction is less than or equal to 255 mm (10 inches), the high side reach to all essential controls should be no higher than 1 220 mm (48 inches) above the floor of the access space. This is shown in Figure **Error! Reference source not found.** (a).

8.3.3.2.3.2 Obstructed (≤ 610 mm) side reach

Where the access space is integral to the ICT, allows a parallel approach and has an obstruction which is integral to the ICT, the height of the obstruction should be less than 865 mm (34 inches). Where the depth of the obstruction is greater than 255 mm (10 inches) with a maximum depth of 610 mm (24 inches), the high side reach to all essential controls should be no higher than 1 170 mm (46 inches) above the floor of the access space. This is shown in Figure **Error! Reference source not found.** (b).

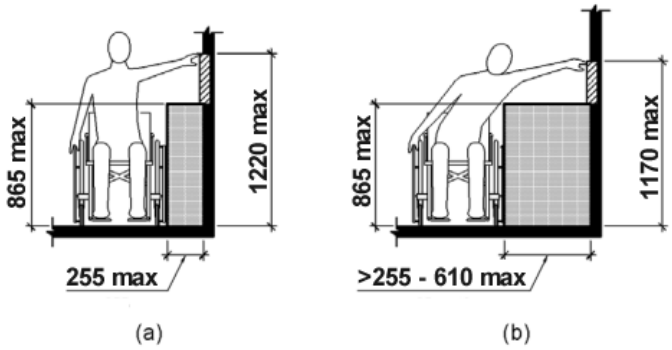

Figure 2: Obstructed high side reach

8.3.4 Visibility

Where the operating area is integral to the ICT, and a display screen is provided, information on the screen should be legible from a point located 1 015 mm (40 inches) above the centre of the floor of the operating area (as defined in clause 8.3.2.2).

NOTE: The intent of this provision is that the information on the screen can be read by users with normal vision and appropriate language skills, when seated in a wheelchair.

8.3.5 Installation instructions

Where an ICT is intended to be installed, instructions should be made available which outline a method to install the ICT in a manner that ensures that the dimensions of the integral spaces of the ICT conform to clauses 8.3.2 to 8.3.4.

8.4 Mechanically operable parts

8.4.1 Numeric keys

Where provided, physical numeric keys arranged in a rectangular keypad layout shall have the number five key tactilely distinct from the other keys of the keypad.

NOTE: Recommendation ITU-T E.161 [i.20] describes the 12-key telephone keypad layout and provides further details of the form of tactile markers.

8.4.2 Operation of mechanical parts

8.4.2.1 Means of operation of mechanical parts

Where a control requires grasping, pinching, or twisting of the wrist to operate it, an accessible alternative means of operation that does not require these actions shall be provided.

8.4.2.2 Force of operation of mechanical parts

Where a control requires a force greater than 22,2 N to operate it, an accessible alternative means of operation that requires a force less than 22,2 N shall be provided.

8.4.3 Keys, tickets and fare cards

Where ICT provides keys, tickets or fare cards, and their orientation is important for further use, they shall have an orientation that is tactilely discernible.

NOTE: ETSI ETS 300 767 [i.6] defines suitable tactile indications for plastic cards.

8.5 Tactile indication of speech mode

Where ICT is designed for shared use and speech output is available, a tactile indication of the means to initiate the speech mode of operation shall be provided.

NOTE: The tactile indication could include Braille instructions.

9 Web

9.1 General (informative)

Requirements in clause 9 apply to web pages (as defined in clause 3.1) including:

- documents that are web pages;
- documents that are embedded in web pages and that are used in the rendering or that are intended to be rendered together with the web page in which they are embedded;
- software that is a web page;
- software that is embedded in web pages and that is used in the rendering or that is intended to be rendered together with the web page in which it is embedded.

Requirements for other documents and software are provided in clauses 10 and 11 respectively.

NOTE 1: When evaluating web sites they are evaluated as individual web pages. Web applications, mobile web applications etc. are covered under the definition of web page which is quite broad and covers all web content types.

The web content requirements in clause 9.2 set out all of the Level A and Level AA Success Criteria from the W3C Web Content Accessibility Guidelines (WCAG 2.1). The web content requirements in clause 9.2.1 to 9.2.38 set out all of the Level A and Level AA Success Criteria from the W3C Web Content Accessibility Guidelines (WCAG 2.0) [4]. These are followed in clauses 9.2.39 to 9.2.49 by the new provisions added in WCAG 2.1 [5].

- Web Pages that conform to WCAG 2.0 Level AA conform to clause 9.2.1 to 9.2.38 and the conformance requirements of clause 9.3.
- Web Pages that conform to WCAG 2.1 Level AA conform to all of clause 9.2 and the conformance requirements of clause 9.3.
- Web Pages that conform to clause 9.2.1 to 9.2.38 and the conformance requirements of clause 9.3 conform to WCAG 2.0 Level AA.
- Web Pages that conform to all of clause 9.2 and the conformance requirements of clause 9.3 conform to WCAG 2.1 Level AA.

NOTE 2: WCAG 2.0 is identical to ISO/IEC 40500 (2012): "Information technology - W3C Web Content Accessibility Guidelines (WCAG) 2.0" [4].

The requirements in clause 9.2 are written using the concept of satisfying success criteria (defined in clause 3.1). A web page satisfies a WCAG success criterion when the success criterion does not evaluate to false when applied to the web page. This implies that if the success criterion puts conditions on a specific feature and that specific feature does not occur in the web page, then the web page satisfies the success criterion.

NOTE 3: For example, a web page that does not contain pre-recorded audio content in synchronized media will automatically satisfy WCAG success criterion 1.2.2 (captions – pre-recorded) and, in consequence, will also conform to clause 9.2.3.

NOTE 4: Each of the headings in clause 9.2 includes a mapping, shown in parenthesis, between the requirement and the relevant success criteria in WCAG.

NOTE 5: In addition to Level AA success criteria, the Web Content Accessibility Guidelines also include success criteria for Level AAA. The W3C states that “It is not recommended that Level AAA conformance be required as a general policy for entire sites because it is not possible to satisfy all Level AAA Success Criteria for some content.”

NOTE 6: The EN does not include the Level AAA success criteria, both to avoid confusion with the Level A and Level AA based requirements and for harmonisation with other procurement standards.
Web authors are encouraged to improve accessibility beyond the requirements of the EN. The WCAG Level AAA success criteria, and other advisory documents, offer suggestions that may be applicable and beneficial to some users.

9.2 Web content requirements

9.2.1 Non-text content (SC 1.1.1)

Where ICT is a web page, it shall satisfy WCAG 2.0 Success Criterion 1.1.1 Non-text content [4].

9.2.2 Audio-only and video-only (pre-recorded) (SC 1.2.1)

Where ICT is a web page, it shall satisfy WCAG 2.0 Success Criterion 1.2.1 Audio-only and Video-only (Pre-recorded) [4].

9.2.3 Captions (pre-recorded) (SC 1.2.2)

Where ICT is a web page, it shall satisfy WCAG 2.0 Success Criterion 1.2.2 Captions (Pre-recorded) [4].

9.2.4 Audio description or media alternative (pre-recorded) (SC 1.2.3)

Where ICT is a web page, it shall satisfy WCAG 2.0 Success Criterion 1.2.3 Audio Description or Media Alternative (Pre-recorded) [4].

9.2.5 Captions (live) (SC 1.2.4)

Where ICT is a web page, it shall satisfy WCAG 2.0 Success Criterion 1.2.4 Captions (Live) [4].

9.2.6 Audio description (pre-recorded) (SC 1.2.5)

Where ICT is a web page, it shall satisfy WCAG 2.0 Success Criterion 1.2.5 Audio Description (Pre-recorded) [4].

9.2.7 Info and relationships (SC 1.3.1)

Where ICT is a web page, it shall satisfy WCAG 2.0 Success Criterion 1.3.1 Info and Relationships [4].

9.2.8 Meaningful sequence (SC 1.3.2)

Where ICT is a web page, it shall satisfy WCAG 2.0 Success Criterion 1.3.2 Meaningful Sequence [4].

9.2.9 Sensory characteristics (SC 1.3.3)

Where ICT is a web page, it shall satisfy WCAG 2.0 Success Criterion 1.3.3 Sensory Characteristics [4].

9.2.10 Use of colour (SC 1.4.1)

Where ICT is a web page, it shall satisfy WCAG 2.0 Success Criterion 1.4.1 Use of Color [4].

9.2.11 Audio control (SC 1.4.2)

Where ICT is a web page, it shall satisfy WCAG 2.0 Success Criterion 1.4.2 Audio Control [4].

9.2.12 Contrast (minimum) (SC 1.4.3)

Where ICT is a web page, it shall satisfy WCAG 2.0 Success Criterion 1.4.3 Contrast (Minimum) [4].

9.2.13 Resize text (SC 1.4.4)

Where ICT is a web page, it shall satisfy WCAG 2.0 Success Criterion 1.4.4 Resize text [4].

9.2.14 Images of text (SC 1.4.5)

Where ICT is a web page, it shall satisfy WCAG 2.0 Success Criterion 1.4.5 Images of Text [4].

9.2.15 Keyboard (SC 2.1.1)

Where ICT is a web page, it shall satisfy WCAG 2.0 Success Criterion 2.1.1 Keyboard [4].

9.2.16 No keyboard trap (SC 2.1.2)

Where ICT is a web page, it shall satisfy WCAG 2.0 Success Criterion 2.1.2 No Keyboard Trap [4].

9.2.17 Timing adjustable (SC 2.2.1)

Where ICT is a web page, it shall satisfy WCAG 2.0 Success Criterion 2.2.1 Timing Adjustable [4].

9.2.18 Pause, stop, hide (SC 2.2.2)

Where ICT is a web page, it shall satisfy WCAG 2.0 Success Criterion 2.2.2 Pause, Stop, Hide [4].

9.2.19 Three flashes or below threshold (SC 2.3.1)

Where ICT is a web page, it shall satisfy WCAG 2.0 Success Criterion 2.3.1 Three Flashes or Below Threshold [4].

9.2.20 Bypass blocks (SC 2.4.1)

Where ICT is a web page, it shall satisfy WCAG 2.0 Success Criterion 2.4.1 Bypass Blocks [4].

9.2.21 Page titled (SC 2.4.2)

Where ICT is a web page, it shall satisfy WCAG 2.0 Success Criterion 2.4.2 Page Titled [4].

9.2.22 Focus Order (SC 2.4.3)

Where ICT is a web page, it shall satisfy WCAG 2.0 Success Criterion 2.4.3 Focus Order [4].

9.2.23 Link purpose (in context) (SC 2.4.4)

Where ICT is a web page, it shall satisfy WCAG 2.0 Success Criterion 2.4.4 Link Purpose (In Context) [4].

9.2.24 Multiple ways (SC 2.4.5)

Where ICT is a web page, it shall satisfy WCAG 2.0 Success Criterion 2.4.5 Multiple Ways [4].

9.2.25 Headings and labels (SC 2.4.6)

Where ICT is a web page, it shall satisfy WCAG 2.0 Success Criterion 2.4.6 Headings and Labels [4].

9.2.26 Focus visible (SC 2.4.7)

Where ICT is a web page, it shall satisfy WCAG 2.0 Success Criterion 2.4.7 Focus Visible [4].

9.2.27 Language of page (SC 3.1.1)

Where ICT is a web page, it shall satisfy WCAG 2.0 Success Criterion 3.1.1 Language of Page [4].

9.2.28 Language of parts (SC 3.1.2)

Where ICT is a web page, it shall satisfy WCAG 2.0 Success Criterion 3.1.2 Language of Parts [4].

9.2.29 On focus (SC 3.2.1)

Where ICT is a web page, it shall satisfy WCAG 2.0 Success Criterion 3.2.1 On Focus [4].

9.2.30 On input (SC 3.2.2)

Where ICT is a web page, it shall satisfy WCAG 2.0 Success Criterion 3.2.2 On Input [4].

9.2.31 Consistent navigation (SC 3.2.3)

Where ICT is a web page, it shall satisfy WCAG 2.0 Success Criterion 3.2.3 Consistent Navigation [4].

9.2.32 Consistent identification (SC 3.2.4)

Where ICT is a web page, it shall satisfy WCAG 2.0 Success Criterion 3.2.4 Consistent Identification [4].

9.2.33 Error identification (SC 3.3.1)

Where ICT is a web page, it shall satisfy WCAG 2.0 Success Criterion 3.3.1 Error Identification [4].

9.2.34 Labels or instructions (SC 3.3.2)

Where ICT is a web page, it shall satisfy WCAG 2.0 Success Criterion 3.3.2 Labels or Instructions [4].

9.2.35 Error suggestion (SC 3.3.3)

Where ICT is a web page, it shall satisfy WCAG 2.0 Success Criterion 3.3.3 Error Suggestion [4].

9.2.36 Error prevention (legal, financial, data) (SC 3.3.4)

Where ICT is a web page, it shall satisfy WCAG 2.0 Success Criterion 3.3.4 Error Prevention (Legal, Financial, Data) [4].

9.2.37 Parsing (SC 4.1.1)

Where ICT is a web page, it shall satisfy WCAG 2.0 Success Criterion 4.1.1 Parsing [4].

9.2.38 Name, role, value (SC 4.1.2)

Where ICT is a web page, it shall satisfy WCAG 2.0 Success Criterion 4.1.2 Name, Role, Value [4].

9.2.39 Reflow (SC 1.4.10)

Where ICT is a web page, it shall satisfy WCAG 2.1 Success Criterion 1.4.10 [5].

9.2.40 Graphics contrast (SC 1.4.11)

Where ICT is a web page, it shall satisfy WCAG 2.1 Success Criterion 1.4.11 [5].

9.2.41 Text spacing (SC 1.4.12)

Where ICT is a web page, it shall satisfy WCAG 2.1 Success Criterion 1.4.12 [5].

9.2.42 Content on hover or focus (SC 1.4.13)

Where ICT is a web page, it shall satisfy WCAG 2.1 Success Criterion 1.4.13 [5].

9.2.43 Character key shortcuts (SC 2.4.11)

Where ICT is a web page, it shall satisfy WCAG 2.1 Success Criterion 2.4.11 [5].

9.2.44 Label in name (SC 2.4.12)

Where ICT is a web page, it shall satisfy WCAG 2.1 Success Criterion 2.4.12 [5].

9.2.45 Pointer gestures (SC 2.5.1)

Where ICT is a web page, it shall satisfy WCAG 2.1 Success Criterion 2.5.1 [5].

9.2.46 Pointer cancellation (SC 2.5.2)

Where ICT is a web page, it shall satisfy WCAG 2.1 Success Criterion 2.5.2 [5].

9.2.47 Target size (SC 2.5.3)

Where ICT is a web page, it shall satisfy WCAG 2.1 Success Criterion 2.5.3 [5].

9.2.48 Motion actuation (SC 2.6.1)

Where ICT is a web page, it shall satisfy WCAG 2.1 Success Criterion 2.6.1 [5].

9.2.49 Orientation (SC 2.6.2)

Where ICT is a web page, it shall satisfy WCAG 2.1 Success Criterion 2.6.2 [5].

9.3 WCAG conformance requirements

Where ICT is a web page, it shall satisfy all the following five WCAG 2.1 conformance requirements at Level AA [5].

1) Conformance level
2) Full pages
3) Complete processes
4) Only Accessibility-Supported Ways of Using Technologies
5) Non-interference

NOTE 1: A Web page that meets all of requirements 9.2.1 to 9.2.49, or where a Level AA conforming alternate version (as defined in WCAG 2.1 [5]) is provided, will meet conformance requirement 1.

NOTE 2: According to W3C: "WCAG 2.1 extends Web Content Accessibility Guidelines 2.0 [WCAG20], which was published as a W3C Recommendation December 2008. Content that conforms to WCAG 2.1 also conforms to WCAG 2.0, and therefore to policies that reference WCAG 2.0". [5]

NOTE 3: Conformance requirement 5 states that all content on the page, including content that is not otherwise relied upon to meet conformance, meets clauses 9.2.11, 9.2.16, 9.2.18 and 9.2.19.

10 Non-web documents

10.1 General (informative)

Requirements in clause 10 apply to documents:

- that are not web pages;
- that are not embedded in web pages;
- that are embedded in web pages and that are not used in the rendering and that are not intended to be rendered together with the web page in which they are embedded.

Clause 9 provides requirements for documents that are in web pages or that are embedded in web pages and that are used in the rendering or that are intended to be rendered together with the web page in which they are embedded.

NOTE 1: Some examples of documents are letters, spreadsheets, emails, books, pictures, presentations, and movies that have an associated user agent such as a document reader, editor or media player.

NOTE 2: A single document may be composed of multiple files such as the video content, closed caption text etc. This fact is not usually apparent to the end-user consuming the document/content.

NOTE 3: Documents require a user agent in order for the content to be presented to users. The requirements for user agents can be found in clause 11.

NOTE 4: The requirements for content that is part of software, can be found in clause 11.

10.2 Document success criteria

10.2.0 General (informative)

NOTE 1: The success criteria set out in this clause are intended to harmonize with the Working Group Note [i.26] produced by the W3C's WCAG2ICT Task Force.

NOTE 2: Each of the headings in clause 10.2 includes a mapping, shown in parenthesis, between the requirement and the relevant success criteria in WCAG.

10.2.1 Non-text content (SC 1.1.1)

Where ICT is a non-web document, it shall satisfy the WCAG 2.0 Success Criterion 1.1.1 Non-text content.

NOTE 1: CAPTCHAs do not currently appear outside of the Web. However, if they do appear, this guidance is accurate.

10.2.2 Audio-only and video-only (pre-recorded) (SC 1.2.1)

Where ICT is a non-web document, it shall satisfy the WCAG 2.0 Success Criterion 1.2.1 Audio-only and Video-only (Pre-recorded).

NOTE 1: The alternative can be provided directly in the document - or provided in an alternate version that meets the success criterion.

10.2.3 Captions (pre-recorded) (SC 1.2.2)

Where ICT is a non-web document, it shall satisfy the WCAG 2.0 Success Criterion 1.2.2 Captions (Pre-recorded).

NOTE 1: The WCAG 2.0 definition of "captions" notes that "in some countries, captions are called subtitles". They are also sometimes referred to as "subtitles for the hearing impaired". Per the definition in WCAG 2.0, to meet this success criterion, whether called captions or subtitles, they would have to provide "synchronized visual and / or text alternative for both speech and non-speech audio information needed to

understand the media content" where non-speech information includes "sound effects, music, laughter, speaker identification and location".

10.2.4 Audio description or media alternative (pre-recorded) (SC 1.2.3)

Where ICT is a non-web document, it shall satisfy the WCAG 2.0 Success Criterion 1.2.3 Audio Description or Media Alternative (Pre-recorded).

NOTE 1: The WCAG 2.0 definition of "audio description" says that "audio description" is "Also called 'video description' and 'descriptive narration'".

NOTE 2: Secondary or alternate audio tracks are commonly used for this purpose.

10.2.5 Captions (live) (SC 1.2.4)

Where ICT is a non-web document, it shall satisfy the WCAG 2.0 Success Criterion 1.2.4 Captions (Live).

NOTE 1: The WCAG 2.0 definition of "captions" notes that "in some countries, captions are called subtitles". They are also sometimes referred to as "subtitles for the hearing impaired". Per the definition in WCAG 2.0, to meet this success criterion, whether called captions or subtitles, they would have to provide "synchronized visual and / or text alternative for both speech and non-speech audio information needed to understand the media content" where non-speech information includes "sound effects, music, laughter, speaker identification and location".

10.2.6 Audio description (pre-recorded) (SC 1.2.5)

Where ICT is a non-web document, it shall satisfy the WCAG 2.0 Success Criterion 1.2.5 Audio Description (Pre-recorded).

NOTE 1: The WCAG 2.0 definition of "audio description" says that audio description is "Also called 'video description' and 'descriptive narration'".

NOTE 2: Secondary or alternate audio tracks are commonly used for this purpose.

10.2.7 Info and relationships (SC 1.3.1)

Where ICT is a non-web document, it shall satisfy the WCAG 2.0 Success Criterion 1.3.1 Info and Relationships.

10.2.8 Meaningful sequence (SC 1.3.2)

Where ICT is a non-web document, it shall satisfy the WCAG 2.0 Success Criterion 1.3.2 Meaningful Sequence.

10.2.9 Sensory characteristics (SC 1.3.3)

Where ICT is a non-web document, it shall satisfy the WCAG 2.0 Success Criterion 1.3.3 Sensory Characteristics.

10.2.10 Use of colour (SC 1.4.1)

Where ICT is a non-web document, it shall satisfy the WCAG 2.0 Success Criterion 1.4.1 Use of Color.

10.2.11 Audio control (SC 1.4.2)

Where ICT is a non-web document, it shall satisfy the success criterion in Table 10.1.

Table 10.1: Document success criterion: Audio control

If any audio in a document plays automatically for more than 3 seconds, either a mechanism is available to pause or stop the audio, or a mechanism is available to control audio volume independently from the overall system volume level.
NOTE 1: Since any part of a document that does not meet this success criterion can interfere with a user's ability to use the whole document, all content in the document (whether or not it is used to meet other success criteria) shall meet this success criterion.

NOTE 2: This success criterion is identical to the WCAG 2.0 Success Criterion 1.4.2 Audio Control replacing "on a Web page" with "in a document", "any content" with "any part of a document", "whole page" with "whole document", "on the Web page" with "in the document", removing "See Conformance Requirement 5: Non-Interference" and adding note 1.

10.2.12 Contrast (minimum) (SC 1.4.3)

Where ICT is a non-web document, it shall satisfy the WCAG 2.0 Success Criterion 1.4.3 Contrast (Minimum).

10.2.13 Resize text (SC 1.4.4)

Where ICT is a non-web document, it shall satisfy the WCAG 2.0 Success Criterion 1.4.4 Resize text.

NOTE 1: Content for which there are software players, viewers or editors with a 200 percent zoom feature would automatically meet this success criterion when used with such players, unless the content will not work with zoom.

NOTE 2: This success criterion is about the ability to allow users to enlarge the text on screen at least up to 200 % without needing to use assistive technologies. This means that the application provides some means for enlarging the text 200 % (zoom or otherwise) without loss of content or functionality or that the application works with the platform features that meet this requirement.

10.2.14 Images of text (SC 1.4.5)

Where ICT is a non-web document, it shall satisfy the WCAG 2.0 Success Criterion 1.4.5 Images of Text.

10.2.15 Keyboard (SC 2.1.1)

Where ICT is a non-web document, it shall satisfy the WCAG 2.0 Success Criterion 2.1.1 Keyboard.

10.2.16 No keyboard trap (SC 2.1.2)

Where ICT is a non-web document, it shall satisfy the success criterion in Table 10.2.

Table 10.2: Document success criterion: No keyboard trap

If keyboard focus can be moved to a component of the document using a keyboard interface, then focus can be moved away from that component using only a keyboard interface, and, if it requires more than unmodified arrow or tab keys or other standard exit methods, the user is advised of the method for moving focus away.
NOTE 1: Since any part of a document that does not meet this success criterion can interfere with a user's ability to use the whole document, it is necessary for all content in the document (whether or not it is used to meet other success criteria) to meet this success criterion.
NOTE 2: Standard exit methods may vary by platform. For example, on many desktop platforms, the Escape key is a standard method for exiting.
NOTE 3: This success criterion is identical to the WCAG 2.0 Success Criterion 2.1.2 No Keyboard Trap replacing "page" and "Web page" with "document", removing "See Conformance Requirement 5: Non-Interference" and with the addition of note 2 above and with note 1 above re-drafted to avoid the use of the word "must".

10.2.17 Timing adjustable (SC 2.2.1)

Where ICT is a non-web document, it shall satisfy the success criterion in Table 10.3.

Table 10.3: Document success criterion: Timing adjustable

For each time limit that is set by the document, at least one of the following is true: • **Turn off:** The user is allowed to turn off the time limit before encountering it; or • **Adjust:** The user is allowed to adjust the time limit before encountering it over a wide range that is at least ten times the length of the default setting; or • **Extend:** The user is warned before time expires and given at least 20 seconds to extend the time limit with a simple action (for example, "press the space bar"), and the user is allowed to extend the time limit at least ten times; or • **Real-time Exception:** The time limit is a required part of a real-time event (for example, an auction), and no alternative to the time limit is possible; or • **Essential Exception:** The time limit is essential and extending it would invalidate the activity; or • **20 Hour Exception:** The time limit is longer than 20 hours.
NOTE 1: This success criterion helps ensure that users can complete tasks without unexpected changes in content or context that are a result of a time limit. This success criterion should be considered in conjunction with WCAG 2.0 Success Criterion 3.2.1, which puts limits on changes of content or context as a result of user action. NOTE 2: This success criterion is identical to the WCAG 2.0 Success Criterion 2.2.1 Timing Adjustable replacing "the content" with "documents" and with the words "WCAG 2.0" added before the word "Success Criterion" in note 1 above.

10.2.18 Pause, stop, hide (SC 2.2.2)

Where ICT is a non-web document, it shall satisfy the success criterion in Table 10.4.

Table 10.4: Document success criterion: Pause, stop, hide

For moving, blinking, scrolling, or auto-updating information, all of the following are true: • **Moving, blinking, scrolling:** For any moving, blinking or scrolling information that (1) starts automatically, (2) lasts more than five seconds, and (3) is presented in parallel with other content, there is a mechanism for the user to pause, stop, or hide it unless the movement, blinking, or scrolling is part of an activity where it is essential; and • **Auto-updating:** For any auto-updating information that (1) starts automatically and (2) is presented in parallel with other content, there is a mechanism for the user to pause, stop, or hide it or to control the frequency of the update unless the auto-updating is part of an activity where it is essential.
NOTE 1: For requirements related to flickering or flashing content, refer to WCAG 2.0 Guideline 2.3. NOTE 2: This success criteria is applicable to all content in the document (whether or not there is an alternate accessible version of the document) since any part of a document that does not meet this success criterion can interfere with a user's ability to use the whole document (including a link to the alternate version). NOTE 3: Content that is updated periodically by software or that is streamed to the user agent is not required to preserve or present information that is generated or received between the initiation of the pause and resuming presentation, as this may not be technically possible, and in many situations could be misleading to do so. NOTE 4: An animation that occurs as part of a preload phase or similar situation can be considered essential if interaction cannot occur during that phase for all users and if not indicating progress could confuse users or cause them to think that content was frozen or broken. NOTE 5: This is to be applied to all content. Any content, whether informative or decorative, that is updated automatically, blinks, or moves may create an accessibility barrier. NOTE 6: This success criterion is identical to the WCAG 2.0 Success Criterion 2.2.2 Pause, Stop, Hide replacing "page" and "Web page" with "document", removing "See Conformance Requirement 5: Non-Interference" in note 2 of the success criterion, with the words "WCAG 2.0" added before the word "Guideline" in note 1 above and with note 2 above re-drafted to avoid the use of the word "must".

10.2.19 Three flashes or below threshold (SC 2.3.1)

Where ICT is a non-web document, it shall satisfy the success criterion in Table 10.5.

Table 10.5: Document success criterion: Three flashes or below threshold

Documents do not contain anything that flashes more than three times in any one second period, or the flash is below the general flash and red flash thresholds.
NOTE 1: This success criterion is applicable to all content in the document (whether or not there is an alternate accessible version of the document) since any part of a document that does not meet this success criterion can interfere with a user's ability to use the whole document (including a link to the alternate version).

NOTE 2:	This success criterion is identical to the WCAG 2.0 Success Criterion 2.3.1 Three Flashes or Below Threshold replacing "Web pages" with "documents", "the whole page" with "the whole document", "the Web page" with "the document" and removing "See Conformance Requirement 5: Non-Interference" and with note 1 above re-drafted to avoid the use of the word "must".

10.2.20 Empty clause

This clause contains no requirements. It is included to align the numbering of related sub-clauses in clauses 9.2, 10.2 and 11.2.

10.2.21 Document titled (SC 2.4.2)

Where ICT is a non-web document, it shall satisfy the success criterion in Table 10.6.

Table 10.6: Document success criterion: Document titled

Documents have titles that describe topic or purpose.	
NOTE 1:	The name of a document (e.g. document, media file) is a sufficient title if it describes the topic or purpose.
NOTE 2:	This success criterion is identical to the WCAG 2.0 Success Criterion 2.4.2 Page Titled replacing "Web pages" with "documents", "Page" with "Document" and with the addition of note 1 above.

10.2.22 Focus order (SC 2.4.3)

Where ICT is a non-web document, it shall satisfy the success criterion in Table 10.7.

Table 10.7: Document success criterion: Focus order

If a document can be navigated sequentially and the navigation sequences affect meaning or operation, focusable components receive focus in an order that preserves meaning and operability.	
NOTE:	This success criterion is identical to the WCAG 2.0 Success Criterion 2.4.3 Focus Order replacing "Web page" with "document".

10.2.23 Link purpose (in context) (SC 2.4.4)

Where ICT is a non-web document, it shall satisfy the WCAG 2.0 Success Criterion 2.4.4 Link Purpose (In Context).

10.2.24 Empty clause

This clause contains no requirements. It is included to align the numbering of related sub-clauses in clauses 9.2, 10.2 and 11.2.

10.2.25 Headings and labels (SC 2.4.6)

Where ICT is a non-web document, it shall satisfy the WCAG 2.0 Success Criterion 2.4.6 Headings and Labels.

10.2.26 Focus visible (SC 2.4.7)

Where ICT is a non-web document, it shall satisfy the WCAG 2.0 Success Criterion 2.4.7 Focus Visible.

10.2.27 Language of document (SC 3.1.1)

Where ICT is a non-web document, it shall satisfy the success criterion in Table 10.8.

Table 10.8: Document success criterion: Language of page

The default human language of each document can be programmatically determined.	
NOTE:	This success criterion is identical to the WCAG 2.0 Success Criterion 3.1.1 Language of Page replacing "web page" with "document".

10.2.28 Language of parts (SC 3.1.2)

Where ICT is a non-web document, it shall satisfy the success criterion in Table 10.9.

Table 10.9: Document success criterion: Language of parts

The human language of each passage or phrase in the document can be programmatically determined except for proper names, technical terms, words of indeterminate language, and words or phrases that have become part of the vernacular of the immediately surrounding text.
NOTE 1: There are some document technologies where there is no assistive technology supported method for marking the language for the different passages or phrases in the document, and it would not be possible to meet this success criterion with those technologies. NOTE 2: Inheritance is one common method. For example a document provides the language that it is using and it can be assumed that all of the text or user interface elements within that document will be using the same language unless it is indicated. NOTE 3: This success criterion is identical to the WCAG 2.0 Success Criterion 3.1.2 Language of Parts replacing "content" with "document" and with the addition of notes 1 and 2 above.

10.2.29 On focus (SC 3.2.1)

Where ICT is a non-web document, it shall satisfy the WCAG 2.0 Success Criterion 3.2.1 On Focus.

NOTE 1: Some compound documents and their user agents are designed to provide significantly different viewing and editing functionality depending upon what portion of the compound document is being interacted with (e.g. a presentation that contains an embedded spreadsheet, where the menus and toolbars of the user agent change depending upon whether the user is interacting with the presentation content, or the embedded spreadsheet content). If the user uses a mechanism other than putting focus on that portion of the compound document with which they mean to interact (e.g. by a menu choice or special keyboard gesture), any resulting change of context would not be subject to this success criterion because it was not caused by a change of focus.

10.2.30 On input (SC 3.2.2)

Where ICT is a non-web document, it shall satisfy the WCAG 2.0 Success Criterion 3.2.2 On Input.

10.2.31 Empty clause

This clause contains no requirements. It is included to align the numbering of related sub-clauses in clauses 9.2, 10.2 and 11.2.

10.2.32 Empty clause

This clause contains no requirements. It is included to align the numbering of related sub-clauses in clauses 9.2, 10.2 and 11.2.

10.2.33 Error identification (SC 3.3.1)

Where ICT is a non-web document, it shall satisfy the WCAG 2.0 Success Criterion 3.3.1 Error Identification.

10.2.34 Labels or instructions (SC 3.3.2)

Where ICT is a non-web document, it shall satisfy the WCAG 2.0 Success Criterion 3.3.2 Labels or Instructions.

10.2.35 Error suggestion (SC 3.3.3)

Where ICT is a non-web document, it shall satisfy the WCAG 2.0 Success Criterion 3.3.3 Error Suggestion.

10.2.36 Error prevention (legal, financial, data) (SC 3.3.4)

Where ICT is a non-web document, it shall satisfy the success criterion in Table 10.10.

Table 10.10: Document success criterion: Error prevention (legal, financial, data)

For documents that cause legal commitments or financial transactions for the user to occur, that modify or delete user-controllable data in data storage systems, or that submit user test responses, at least one of the following is true: 1) Reversible: Submissions are reversible. 2) Checked: Data entered by the user is checked for input errors and the user is provided an opportunity to correct them. 3) Confirmed: A mechanism is available for reviewing, confirming, and correcting information before finalizing the submission.
NOTE: This success criterion is identical to the WCAG 2.0 Success Criterion 3.3.4 Error Prevention (Legal, Financial, Data) replacing "web pages" with "documents".

10.2.37 Parsing (SC 4.1.1)

Where ICT is a non-web document, it shall satisfy the success criterion in Table 10.11.

Table 10.11: Document success criterion: Parsing

For documents that use markup languages, in such a way that the markup is separately exposed and available to assistive technologies and accessibility features of software or to a user-selectable user agent, elements have complete start and end tags, elements are nested according to their specifications, elements do not contain duplicate attributes, and any IDs are unique, except where the specifications allow these features.
NOTE 1: Start and end tags that are missing a critical character in their formation, such as a closing angle bracket or a mismatched attribute value quotation mark are not complete. NOTE 2: Markup is not always available to assistive technology or to user selectable user agents such as browsers. In such cases, conformance to this provision would have no impact on accessibility as it can for web content where it is exposed. NOTE 3: Examples of markup that is separately exposed and available to assistive technologies and to user agents include but are not limited to: documents encoded in HTML, ODF, and OOXML. In these examples, the markup can be parsed entirely in two ways: (a) by assistive technologies which may directly open the document, (b) by assistive technologies using DOM APIs of user agents for these document formats. NOTE 4: This success criterion is identical to the WCAG 2.0 Success Criterion 4.1.1 Parsing replacing "In content implemented using markup languages" with "For documents that use markup languages, in such a way that the markup is separately exposed and available to assistive technologies and accessibility features of software or to a user-selectable user agent" with the addition of notes 2 and 3 above.

10.2.38 Name, role, value (SC 4.1.2)

Where ICT is a non-web document, it shall satisfy the success criterion in Table 10.12.

Table 10.12: Document success criterion: Name, role, value

For all user interface components (including but not limited to: form elements, links and components generated by scripts), the name and role can be programmatically determined; states, properties, and values that can be set by the user can be programmatically set; and notification of changes to these items is available to user agents, including assistive technologies.
NOTE 1: This success criterion is primarily for software developers who develop or use custom user interface components. Standard user interface components on most accessibility-supported platforms already meet this success criterion when used according to specification. NOTE 2: For document formats that support interoperability with assistive technology, standard user interface components often meet this success criterion when used according to the general design and accessibility guidance for the document format. NOTE 3: This success criterion is identical to the WCAG 2.0 Success Criterion 4.1.2 Name, Role, Value replacing the original WCAG 2.0 note with: "This success criterion is primarily for software developers who develop or use custom user interface components. For example, standard user interface components on most accessibility-supported platforms already meet this success criterion when used according to specification." and with the addition of note 2 above.

10.2.39 Reflow (SC 1.4.10)

Where ICT is a non-web document, it shall satisfy WCAG 2.1 Success Criterion 1.4.10 Reflow [5].

10.2.40 Graphics contrast (SC 1.4.11)

Where ICT is a non-web document, it shall satisfy WCAG 2.1 Success Criterion 1.4.11 Graphics contrast [5].

10.2.41 Text spacing (SC 1.4.12)

Where ICT is a non-web document that does not have a fixed size content layout area that is essential to the information being conveyed, it shall satisfy WCAG 2.1 Success Criterion 1.4.12 Text spacing [5].

10.2.42 Content on hover or focus (SC 1.4.13)

Where ICT is a non-web document, it shall satisfy WCAG 2.1 Success Criterion 1.4.13 Content on hover or focus [5].

10.2.43 Character key shortcuts (SC 2.4.11)

Where ICT is a non-web document, it shall satisfy WCAG 2.1 Success Criterion 2.4.11 Character key shortcuts [5].

10.2.44 Label in name (SC 2.4.12)

Where ICT is a non-web document, it shall satisfy WCAG 2.1 Success Criterion 2.4.12 Label in name [5].

10.2.45 Pointer gestures (SC 2.5.1)

Where ICT is a non-web document, it shall satisfy WCAG 2.1 Success Criterion 2.5.1 Pointer gestures [5].

10.2.46 Pointer cancellation (SC 2.5.2)

Where ICT is a non-web document, it shall satisfy WCAG 2.1 Success Criterion 2.5.2 Pointer cancellation [5].

10.2.47 Target size (SC 2.5.3)

Where ICT is a non-web document, it shall satisfy WCAG 2.1 Success Criterion 2.5.3 Target size [5].

10.2.48 Motion actuation (SC 2.6.1)

Where ICT is a non-web document, it shall satisfy WCAG 2.1 Success Criterion 2.6.1 Motion actuation [5].

10.2.49 Orientation (SC 2.6.2)

Where ICT is a non-web document, it shall satisfy WCAG 2.1 Success Criterion 2.6.2 Orientation [5].

10.2.50 Caption positioning

Where ICT is a non-web document that contains synchronized media with captions, the captions should not obscure relevant information in the synchronized media.

10.2.51 Audio description timing

Where ICT is a non-web document that contains synchronized media with audio description, the audio description should not interfere with relevant audio information in the synchronized media.

11 Software

11.1 General (informative)

This clause provides requirements for:

- platform software;
- software that provides a user interface including content that is in the software;
- authoring tools;
- software that operates as assistive technology.

NOTE 1: User agents are examples of software that provide a user interface.

NOTE 2: The requirements for Web content, including software that is Web content, can be found in clause 9.

NOTE 3: The requirements for documents, that may be presented by user agents, can be found in clause 10.

NOTE 4: Although the accessibility of command line interfaces is not dealt with in the present document, accessibility may be achieved by context specific requirements, some of which may be found in clauses 5 or 11.

11.2 Non-Web software success criteria

11.2.0 General (informative)

Requirements in clause 11.2 apply to software:

- that is not a web page;
- not embedded in web pages nor used in the rendering or functioning of the page.

Clause 9 provides requirements for software that is in web pages or that is embedded in web pages and that is used in the rendering or that is intended to be rendered together with the web page in which it is embedded.

Some requirements in clause 11.2 have different versions for open or closed functionality. In those cases, the corresponding clause will be divided into two subclauses.

The success criteria set out in clause 11.2 are intended to harmonize with the W3C Working Group Note [i.26] produced by the W3C's WCAG2ICT Task Force.

NOTE 1: Software that provides a user interface includes its own content. Some examples of content in software include: the controls and text displayed in a menu bar of a graphical user interface application, images that appear in a toolbar, prompts spoken in an auditory user interface, other user interaction controls, and other text, graphics or material that is not loaded from outside the software.

NOTE 2: Each of the headings in clause 11.2 includes a mapping, shown in parenthesis, between the requirement and the relevant success criteria in WCAG 2.0

11.2.1 Non-text content

11.2.1.1 Non-text content (open functionality) (SC 1.1.1)

Where ICT is non-web software that provides a user interface and that supports access to assistive technologies for screen reading, it shall satisfy WCAG 2.0 Success Criterion 1.1.1 Non-text content.

NOTE 1: CAPTCHAs do not currently appear outside of the Web. However, if they do appear, this guidance is accurate.

11.2.1.2 Non-text content (closed functionality)

Where ICT is non-web software that provides a user interface which is closed to assistive technologies for screen reading, it shall meet requirement 5.1.3.6 (Speech output for non-text content).

11.2.2 Audio-only and video-only (pre-recorded)

11.2.2.1 Audio-only and video-only (pre-recorded – open functionality) (SC 1.2.1)

Where ICT is non-web software that provides a user interface and that supports access to assistive technologies for screen reading and where pre-recorded auditory information is not needed to enable the use of closed functions of ICT, it shall satisfy the WCAG 2.0 Success Criterion 1.2.1 Audio-only and Video-only (Pre-recorded).

NOTE 1: The alternative can be provided directly in the software - or provided in an alternate version that meets the success criterion.

11.2.2.2 Audio-only and video-only (pre-recorded – closed functionality)

11.2.2.2.1 Pre-recorded audio-only (closed functionality)

Where ICT is non-web software that provides a user interface which is closed to assistive technologies for screen reading and where pre-recorded auditory information is needed to enable the use of closed functions of ICT, the functionality of software that provides a user interface shall meet requirement 5.1.5 (Visual output for auditory information).

11.2.2.2.2 Pre-recorded video-only (closed functionality)

Where ICT is non-web software that provides a user interface which is closed to assistive technologies for screen reading, it shall meet requirement 5.1.3.7 (Speech output for video information).

11.2.3 Captions (pre-recorded) (SC 1.2.2)

Where ICT is non-web software that provides a user interface, it shall satisfy the WCAG 2.0 Success Criterion 1.2.2 Captions (Pre-recorded).

NOTE 1: The WCAG 2.0 definition of "captions" notes that "in some countries, captions are called subtitles". They are also sometimes referred to as "subtitles for the hearing impaired". Per the definition in WCAG 2.0, to meet this success criterion, whether called captions or subtitles, they would have to provide "synchronized visual and / or text alternative for both speech and non-speech audio information needed to understand the media content" where non-speech information includes "sound effects, music, laughter, speaker identification and location".

11.2.4 Audio description or media alternative (pre-recorded)

11.2.4.1 Audio description or media alternative (pre-recorded – open functionality) (SC 1.2.3)

Where ICT is non-web software that provides a user interface and that supports access to assistive technologies for screen reading, it shall satisfy the WCAG 2.0 Success Criterion 1.2.3 Audio Description or Media Alternative (Pre-recorded).

NOTE 1: The WCAG 2.0 definition of "audio description" says that "audio description" is "also called 'video description' and 'descriptive narration'".

NOTE 2: Secondary or alternate audio tracks are commonly used for this purpose.

11.2.4.2 Audio description or media alternative (pre-recorded – closed functionality)

Where ICT is non-web software that provides a user interface which is closed to assistive technologies for screen reading, it shall meet requirement 5.1.3.7 (Speech output for video information).

11.2.5 Captions (live) (SC 1.2.4)

Where ICT is non-web software that provides a user interface, it shall satisfy the WCAG 2.0 Success Criterion 1.2.4 Captions (Live).

NOTE 1: The WCAG 2.0 definition of "captions" notes that "in some countries, captions are called subtitles". They are also sometimes referred to as "subtitles for the hearing impaired". Per the definition in WCAG 2.0, to meet this success criterion, whether called captions or subtitles, they would have to provide "synchronized visual and / or text alternative for both speech and non-speech audio information needed to understand the media content" where non-speech information includes "sound effects, music, laughter, speaker identification and location".

11.2.6 Audio description (pre-recorded) (SC 1.2.5)

Where ICT is non-web software that provides a user interface, it shall satisfy the WCAG 2.0 Success Criterion 1.2.5 Audio Description (Pre-recorded).

NOTE 1: The WCAG 2.0 definition of "audio description" says that audio description is "Also called 'video description' and 'descriptive narration'".

NOTE 2: Secondary or alternate audio tracks are commonly used for this purpose.

11.2.7 Info and relationships

11.2.7.1 Info and relationships (open functionality) (SC 1.3.1)

Where ICT is non-web software that provides a user interface and that supports access to assistive technologies for screen reading, it shall satisfy the WCAG 2.0 Success Criterion 1.3.1 Info and Relationships.

NOTE 1: In software, programmatic determinability is best achieved through the use of accessibility services provided by platform software to enable interoperability between software and assistive technologies and accessibility features of software. (see clause 11.3 Interoperability with assistive technology).

11.2.7.2 Info and relationships (closed functionality)

Where ICT is non-web software that provides a user interface which is closed to assistive technologies for screen reading and where information is displayed on the screen, the ICT should provide auditory information that allows the user to correlate the audio with the information displayed on the screen.

NOTE 1: Many people who are legally blind still have visual ability, and use aspects of the visual display even if it cannot be fully comprehended. An audio alternative that is both complete and complementary includes all visual information such as focus or highlighting, so that the audio can be correlated with information that is visible on the screen at any point in time.

NOTE 2: Examples of auditory information that allows the user to correlate the audio with the information displayed on the screen include structure and relationships conveyed through presentation.

11.2.8 Meaningful sequence

11.2.8.1 Meaningful sequence (open functionality) (SC 1.3.2)

Where ICT is non-web software that provides a user interface and that supports access to assistive technologies for screen reading, it shall satisfy the WCAG 2.0 Success Criterion 1.3.2 Meaningful Sequence.

11.2.8.2 Meaningful sequence (closed functionality)

Where ICT is non-web software that provides a user interface which is closed to assistive technologies for screen reading and where information is displayed on the screen, the ICT should provide auditory information that allows the user to correlate the audio with the information displayed on the screen.

NOTE 1: Many people who are legally blind still have visual ability, and use aspects of the visual display even if it cannot be fully comprehended. An audio alternative that is both complete and complementary includes all visual information such as focus or highlighting, so that the audio can be correlated with information that is visible on the screen at any point in time.

NOTE 2: Examples of auditory information that allows the user to correlate the audio with the information displayed on the screen include structure and relationships conveyed through presentation.

11.2.9 Sensory characteristics (SC 1.3.3)

Where ICT is non-web software that provides a user interface, it shall satisfy the WCAG 2.0 Success Criterion 1.3.3 Sensory Characteristics.

11.2.10 Use of colour (SC 1.4.1)

Where ICT is non-web software that provides a user interface, it shall satisfy the WCAG 2.0 Success Criterion 1.4.1 Use of Color.

11.2.11 Audio control (SC 1.4.2)

Where ICT is non-web software that provides a user interface, it shall satisfy the success criterion in Table 11.1.

Table 11.1: Software success criterion: Audio control

If any audio in a software plays automatically for more than 3 seconds, either a mechanism is available to pause or stop the audio, or a mechanism is available to control audio volume independently from the overall system volume level.
NOTE 1: Since any part of a software that does not meet this success criterion can interfere with a user's ability to use the whole software, all content in the software (whether or not it is used to meet other success criteria) shall meet this success criterion.
NOTE 2: This success criterion is identical to the WCAG 2.0 Success Criterion 1.4.2 Audio Control replacing "on a Web page" with "in a software", "any content" with "any part of a software", "whole page" with "whole software", "on the Web page" with "in the software", removing "See Conformance Requirement 5: Non-Interference" and adding note 1.

11.2.12 Contrast (minimum) (SC 1.4.3)

Where ICT is non-web software that provides a user interface, it shall satisfy the WCAG 2.0 Success Criterion 1.4.3 Contrast (Minimum).

11.2.13 Resize text

11.2.13.1 Resize text (open functionality) (SC 1.4.4)

Where ICT is non-web software that provides a user interface and that supports access to enlargement features of platform or assistive technology, it shall satisfy the WCAG 2.0 Success Criterion 1.4.4 Resize text.

NOTE 1: Content for which there are software players, viewers or editors with a 200 percent zoom feature would automatically meet this success criterion when used with such players, unless the content will not work with zoom.

NOTE 2: This success criterion is about the ability to allow users to enlarge the text on screen at least up to 200 % without needing to use assistive technologies. This means that the application provides some means for enlarging the text 200 % (zoom or otherwise) without loss of content or functionality or that the application works with the platform features that meet this requirement.

11.2.13.2 Resize text (closed functionality)

Where ICT is non-web software that provides a user interface which is not able to access the enlargement features of platform or assistive technology, it shall meet requirement 5.1.4 (Functionality closed to text enlargement).

NOTE 2: Because the text rendering support in a closed environment may be more limited than the support found in user agents for the Web, meeting 11.2.13.1 in a closed environment may place a much heavier burden on the content author.

11.2.14 Images of text

11.2.14.1 Images of text (open functionality) (SC 1.4.5)

Where ICT is non-web software that provides a user interface and that supports access to assistive technologies for screen reading, it shall satisfy the WCAG 2.0 Success Criterion 1.4.5 Images of Text.

11.2.14.2 Images of text (closed functionality)

Where ICT is non-web software that provides a user interface which is closed to assistive technologies for screen reading, it does not need to meet the "Images of text" success criterion in Table 11.14 because there is no need to impose a requirement on all closed functionality that text displayed on the screen actually be represented internally as text (as defined by WCAG 2.0), given that there is no interoperability with assistive technology.

11.2. 15 Keyboard

11.2.15.1 Keyboard (open functionality) (SC 2.1.1)

Where ICT is non-web software that provides a user interface and that supports access to keyboards or a keyboard interface, it shall satisfy the WCAG 2.0 Success Criterion 2.1.1 Keyboard.

NOTE 1: This does not imply that software is required to directly support a keyboard or "keyboard interface". Nor does it imply that software is required to provide a soft keyboard. Underlying platform software may provide device independent input services to applications that enable operation via a keyboard. Software that supports operation via such platform device independent services would be operable by a keyboard and would comply.

11.2.15.2 Keyboard (closed functionality)

Where ICT is non-web software that provides a user interface which is closed to keyboards or keyboard interface, it shall meet requirement 5.1.6.1 (Operation without keyboard interface: Closed functionality).

11.2.16 No keyboard trap (SC 2.1.2)

Where ICT is non-web software that provides a user interface, it shall satisfy the success criterion in Table 11.2.

Table 11.2: Software success criterion: No keyboard trap

If keyboard focus can be moved to a component of the software using a keyboard interface, then focus can be moved away from that component using only a keyboard interface, and, if it requires more than unmodified arrow or tab keys or other standard exit methods, the user is advised of the method for moving focus away.
NOTE 1: Since any part of a software that does not meet this success criterion can interfere with a user's ability to use the whole software, all content in the software (whether or not it is used to meet other success criteria) shall meet this success criterion.
NOTE 2: Standard exit methods may vary by platform. For example, on many desktop platforms, the Escape key is a standard method for exiting.
NOTE 3: This success criterion is identical to the WCAG 2.0 Success Criterion 2.1.2 No Keyboard Trap replacing "content", "page" and "Web page" with "software", removing "See Conformance Requirement 5: Non-Interference" and with the addition of note 2 above.

11.2.17 Timing adjustable (SC 2.2.1)

Where ICT is non-web software that provides a user interface, it shall satisfy the success criterion in Table 11.3.

Table 11.3: Software success criterion: Timing adjustable

For each time limit that is set by the software, at least one of the following is true: • **Turn off:** The user is allowed to turn off the time limit before encountering it; or • **Adjust:** The user is allowed to adjust the time limit before encountering it over a wide range that is at least ten times the length of the default setting; or • **Extend:** The user is warned before time expires and given at least 20 seconds to extend the time limit with a simple action (for example, "press the space bar"), and the user is allowed to extend the time limit at least ten times; or • **Real-time Exception:** The time limit is a required part of a real-time event (for example, an auction), and no alternative to the time limit is possible; or • **Essential Exception:** The time limit is essential and extending it would invalidate the activity; or • **20 Hour Exception:** The time limit is longer than 20 hours.
NOTE 1: This success criterion helps ensure that users can complete tasks without unexpected changes in content or context that are a result of a time limit. This success criterion should be considered in conjunction with clause 11.2.1.29 (On focus), which puts limits on changes of content or context as a result of user action. NOTE 2: This success criterion is identical to the WCAG 2.0 Success Criterion 2.2.1 Timing Adjustable replacing "the content" with "software".

11.2.18 Pause, stop, hide (SC 2.2.2)

Where ICT is non-web software that provides a user interface, it shall satisfy the success criterion in Table 11.4.

Table 11.4: Software success criterion: Pause, stop, hide

For moving, blinking, scrolling, or auto-updating information, all of the following are true: • **Moving, blinking, scrolling:** For any moving, blinking or scrolling information that (1) starts automatically, (2) lasts more than five seconds, and (3) is presented in parallel with other content, there is a mechanism for the user to pause, stop, or hide it unless the movement, blinking, or scrolling is part of an activity where it is essential; and • **Auto-updating:** For any auto-updating information that (1) starts automatically and (2) is presented in parallel with other content, there is a mechanism for the user to pause, stop, or hide it or to control the frequency of the update unless the auto-updating is part of an activity where it is essential.
NOTE 1: For requirements related to flickering or flashing content, refer to WCAG 2.0 Guideline 2.3. NOTE 2: This success criteria is applicable to all content in the software (whether or not there is an alternate accessible mode of operation of the software) since any part of a software that does not meet this success criterion can interfere with a user's ability to use the whole software (including a user interface element that enables the user to activate the alternate accessible mode of operation). NOTE 3: Content that is updated periodically by software or that is streamed to the user agent is not required to preserve or present information that is generated or received between the initiation of the pause and resuming presentation, as this may not be technically possible, and in many situations could be misleading to do so. NOTE 4: An animation that occurs as part of a preload phase or similar situation can be considered essential if interaction cannot occur during that phase for all users and if not indicating progress could confuse users or cause them to think that content was frozen or broken. NOTE 5: This is to be applied to all content. Any content, whether informative or decorative, that is updated automatically, blinks, or moves may create an accessibility barrier. NOTE 6: This success criterion is identical to the WCAG 2.0 Success Criterion 2.2.2 Pause, Stop, Hide replacing "page" and "Web page" with "software", removing "See Conformance Requirement 5: Non-Interference" in note 2 of the success criterion, with the words "WCAG 2.0" added before the word "Guideline" in note 1 above, with note 2 above re-drafted to avoid the use of the word "must" and with the addition of note 5 above.

11.2.19 Three flashes or below threshold (SC 2.3.1)

Where ICT is non-web software that provides a user interface, it shall satisfy the success criterion in Table 11.5.

Table 11.5: Software success criterion: Three flashes or below threshold

Software does not contain anything that flashes more than three times in any one second period, or the flash is below the general flash and red flash thresholds.	
NOTE 1:	This success criteria is applicable to all content in the software (whether or not there is an alternate accessible mode of operation of the software) since any part of a software that does not meet this success criterion can interfere with a user's ability to use the whole software (including a user interface element that enables the user to activate the alternate accessible mode of operation).
NOTE 2:	This success criterion is identical to the WCAG 2.0 Success Criterion 2.3.1 Three Flashes or Below Threshold replacing "Web pages" with "software", "the whole page" with "the whole software", "the Web page" with "the software" and removing "See Conformance Requirement 5: Non-Interference" and with note 1 above re-drafted to avoid the use of the word "must".

11.2.20 Empty clause

This clause contains no requirements. It is included to align the numbering of related sub-clauses in clauses 9.2, 10.2 and 11.2.

11.2.21 Empty clause

This clause contains no requirements. It is included to align the numbering of related sub-clauses in clauses 9.2, 10.2 and 11.2.

11.2.22 Focus order (SC 2.4.3)

Where ICT is non-web software that provides a user interface, it shall satisfy the success criterion in Table 11.6.

Table 11.6: Software success criterion: Focus order

If software can be navigated sequentially and the navigation sequences affect meaning or operation, focusable components receive focus in an order that preserves meaning and operability.	
NOTE:	This success criterion is identical to the WCAG 2.0 Success Criterion 2.4.3 Focus order replacing "Web page" with "software".

11.2.23 Link purpose (in context) (SC 2.4.4)

Where ICT is non-web software that provides a user interface, it shall satisfy the success criterion in Table 11.7.

Table 11.7: Software success criterion: Link purpose (in context)

The purpose of each link can be determined from the link text alone or from the link text together with its programmatically determined link context, except where the purpose of the link would be ambiguous to users in general.	
NOTE 1:	In software, a "link" is any text string or image in the user interface outside a user interface control that behaves like a hypertext link. This does not include general user interface controls or buttons. (An OK button, for example, would not be a link.)
NOTE 2:	This success criterion is identical to the WCAG 2.0 Success Criterion 2.4.4 Link purpose (in context), replacing both "web page" and "page" with "software" and with the addition of note 1 above.

11.2.24 Empty clause

This clause contains no requirements. It is included to align the numbering of related sub-clauses in clauses 9.2, 10.2 and 11.2.

11.2.25 Headings and labels (SC 2.4.6)

Where ICT is non-web software that provides a user interface, it shall satisfy the WCAG 2.0 Success Criterion 2.4.6 Headings and labels.

NOTE 1: In software, headings and labels are used to describe sections of content and controls respectively. In some cases it may be unclear whether a piece of static text is a heading or a label. But whether treated as a label or a heading, the requirement is the same: that if they are present they describe the topic or purpose of the item(s) they are associated with.

11.2.26 Focus visible (SC 2.4.7)

Where ICT is non-web software that provides a user interface, it shall satisfy the WCAG 2.0 Success Criterion 2.4.7 Focus visible.

11.2.27 Language of software

11.2.27.1 Language of software (open functionality) (SC 3.1.1)

Where ICT is non-web software that provides a user interface and that supports access to assistive technologies for screen reading, it shall satisfy the success criterion in Table 11.8.

Table 11.8: Software success criterion: Language of software

The default human language of software can be programmatically determined.	
NOTE 1:	Where software platforms provide a "locale / language" setting, applications that use that setting and render their interface in that "locale / language" would comply with this success criterion. Applications that do not use the platform "locale / language" setting but instead use an accessibility-supported method for exposing the human language of the software would also comply with this success criterion. Applications implemented in technologies where assistive technologies cannot determine the human language and that do not support the platform "locale / language" setting may not be able to meet this success criterion in that locale / language.
NOTE 2:	This success criterion is identical to the WCAG 2.0 Success Criterion 3.1.1 Language of page, replacing "each web page" with "software" and with the addition of note 1 above.

11.2.27.2 Language of software (closed functionality)

Where ICT is non-web software that provides a user interface which is closed to assistive technologies for screen reading, it shall meet requirement 5.1.3.14 (Spoken languages).

11.2.28 Empty clause

This clause contains no requirements. It is included to align the numbering of related sub-clauses in clauses 9.2, 10.2 and 11.2.

11.2.29 On focus (SC 3.2.1)

Where ICT is non-web software that provides a user interface, it shall satisfy the WCAG 2.0 Success Criterion 3.2.1 On focus.

NOTE 1: Some compound documents and their user agents are designed to provide significantly different viewing and editing functionality depending upon what portion of the compound document is being interacted with (e.g. a presentation that contains an embedded spreadsheet, where the menus and toolbars of the user agent change depending upon whether the user is interacting with the presentation content, or the embedded spreadsheet content). If the user uses a mechanism other than putting focus on that portion of the compound document with which they mean to interact (e.g. by a menu choice or special keyboard gesture), any resulting change of context would not be subject to this success criterion because it was not caused by a change of focus.

11.2.30 On input (SC 3.2.2)

Where ICT is non-web software that provides a user interface, it shall satisfy the WCAG 2.0 Success Criterion 3.2.2 On input.

11.2.31 Empty clause

This clause contains no requirements. It is included to align the numbering of related sub-clauses in clauses 9.2, 10.2 and 11.2.

11.2.32 Empty clause

This clause contains no requirements. It is included to align the numbering of related sub-clauses in clauses 9.2, 10.2 and 11.2.

11.2.33 Error identification

11.2.33.1 Error identification (open functionality) (SC 3.3.1)

Where ICT is non-web software that provides a user interface and that supports access to assistive technologies for screen reading, it shall satisfy the WCAG 2.0 Success Criterion 3.3.1 Error identification.

11.2.33.2 Error Identification (closed functionality)

Where ICT is non-web software that provides a user interface which is closed to assistive technologies for screen reading, it shall meet requirement 5.1.3.15 (Non-visual error identification).

11.2.34 Labels or instructions (SC 3.3.2)

Where ICT is non-web software that provides a user interface, it shall satisfy the WCAG 2.0 Success Criterion 3.3.2 Labels or instructions.

11.2.35 Error suggestion (SC 3.3.3)

Where ICT is non-web software that provides a user interface, it shall satisfy the WCAG 2.0 Success Criterion 3.3.3 Error suggestion.

11.2.36 Error prevention (legal, financial, data) (SC 3.3.4)

Where ICT is non-web software that provides a user interface, it shall satisfy the success criterion in Table 11.9.

Table 11.9: Software success criterion: Error prevention (legal, financial, data)

For software that cause legal commitments or financial transactions for the user to occur, that modify or delete user-controllable data in data storage systems, or that submit user test responses, at least one of the following is true: 1) Reversible: Submissions are reversible. 2) Checked: Data entered by the user is checked for input errors and the user is provided an opportunity to correct them. 3) Confirmed: A mechanism is available for reviewing, confirming, and correcting information before finalizing the submission.
NOTE: This success criterion is identical to the WCAG 2.0 Success Criterion 3.3.4 Error prevention (legal, financial, data) replacing "web pages" with "software".

11.2.37 Parsing

11.2.37.1 Parsing (open functionality) (SC 4.1.1)

Where ICT is non-web software that provides a user interface and that supports access to any assistive technologies, it shall satisfy the success criterion in Table 11.10.

Table 11.10: Software success criterion: Parsing

For software that uses markup languages, in such a way that the markup is separately exposed and available to assistive technologies and accessibility features of software or to a user-selectable user agent, elements have complete start and end tags, elements are nested according to their specifications, elements do not contain duplicate attributes, and any IDs are unique, except where the specifications allow these features.
NOTE 1: Start and end tags that are missing a critical character in their formation, such as a closing angle bracket or a mismatched attribute value quotation mark are not complete. NOTE 2: Markup is not always available to assistive technology or to user selectable user agents such as browsers. In such cases, conformance to this provision would have no impact on accessibility as it can for web content where it is exposed.

NOTE 3:	Examples of markup that is separately exposed and available to assistive technologies and to user agents include but are not limited to: documents encoded in HTML, ODF, and OOXML. In these examples, the markup can be parsed entirely in two ways: (a) by assistive technologies which may directly open the document, (b) by assistive technologies using DOM APIs of user agents for these document formats.
NOTE 4:	Examples of markup used internally for persistence of the software user interface that are never exposed to assistive technology include but are not limited to: XUL, GladeXML, and FXML. In these examples assistive technology only interacts with the user interface of generated software.
NOTE 5:	This success criterion is identical to the WCAG 2.0 Success Criterion 4.1.1 Parsing replacing "In content implemented using markup languages" with "For software that uses markup languages, in such a way that the markup is separately exposed and available to assistive technologies and accessibility features of software or to a user-selectable user agent" with the addition of notes 2, 3 and 4 above.

11.2.37.2 Parsing (closed functionality)

Where ICT is non-web software that provides a user interface which is closed to all assistive technology it shall not have to meet the "Parsing" success criterion in Table 11.10 because the intent of this success criterion is to provide consistency so that different user agents or assistive technologies will yield the same result.

11.2.38 Name, role, value

11.2.38.1 Name, role, value (open functionality) (SC 4.1.2)

Where ICT is non-web software that provides a user interface and that supports access to any assistive technologies, it shall satisfy the success criterion in Table 11.11.

Table 11.11: Software success criterion: Name, role, value

For all user interface components (including but not limited to: form elements, links and components generated by scripts), the name and role can be programmatically determined; states, properties, and values that can be set by the user can be programmatically set; and notification of changes to these items is available to user agents, including assistive technologies.	
NOTE 1:	This success criterion is primarily for software developers who develop or use custom user interface components. Standard user interface components on most accessibility-supported platforms already meet this success criterion when used according to specification.
NOTE 2:	For conforming to this success criterion, it is usually best practice for software user interfaces to use the accessibility services provided by platform software. These accessibility services enable interoperability between software user interfaces and both assistive technologies and accessibility features of software in standardised ways. Most platform accessibility services go beyond programmatic exposure of name and role, and programmatic setting of states, properties and values (and notification of same), and specify additional information that could or should be exposed and / or set (for instance, a list of the available actions for a given user interface component, and a means to programmatically execute one of the listed actions).
NOTE 3:	This success criterion is identical to the WCAG 2.0 Success Criterion 4.1.2 Name, Role, Value replacing the original WCAG 2.0 note with: "This success criterion is primarily for software developers who develop or use custom user interface components. Standard user interface components on most accessibility-supported platforms already meet this success criterion when used according to specification." and the addition of note 2 above.

11.2.38.2 Name, role, value (closed functionality)

Where ICT is non-web software that provides a user interface which is closed to all assistive technology it shall not have to meet the "Name, role, value" success criterion in Table 11.11 because this success criterion requires information in a programmatically determinable form.

11.2.39 Reflow

11.2.39.1 Reflow (open functionality) (SC 1.4.10)

Where ICT is non-web software that provides a user interface and that supports access to enlargement features of platform or assistive technology, it shall satisfy WCAG 2.1 Success Criterion 1.4.10 Reflow [5].

11.2.39.2 Reflow (closed functionality)

Where ICT is non-web software that provides a user interface which is not able to access the enlargement features of platform or assistive technology, it shall meet requirement 5.1.4 (Functionality closed to text enlargement).

11.2.40 Graphics contrast (SC 1.4.11)

Where ICT is non-web software that provides a user interface and that supports access to keyboards or a keyboard interface, it shall satisfy WCAG 2.1 Success Criterion 1.4.11 Graphics contrast [5].

11.2.41 Text spacing (SC 1.4.12)

Where ICT is non-web software that provides a user interface, it shall satisfy WCAG 2.1 Success Criterion 1.4.12 Text spacing [5].

11.2.42 Content on hover or focus (SC 1.4.13)

Where ICT is non-web software that provides a user interface, it shall satisfy WCAG 2.1 Success Criterion 1.4.13 Content on hover or focus [5].

11.2.43 Character key shortcuts

11.2.43.1 Character key shortcuts (open functionality) (SC 2.4.11)

Where ICT is non-web software that provides a user interface, it shall satisfy WCAG 2.1 Success Criterion 2.4.11 Character key shortcuts [5].

11.2.43.2 Character key shortcuts (closed functionality)

Where ICT is non-web software that provides a user interface which is closed to keyboards or keyboard interface, it shall meet requirement 5.1.6.1 (Operation without keyboard interface: Closed functionality).

11.2.44 Label in name

11.2.44.1 Label in name (open functionality) (SC 2.4.12)

Where ICT is non-web software that provides a user interface and that supports access to assistive technologies for speech input, it shall satisfy WCAG 2.1 Success Criterion 2.4.12 Label in name [5].

11.2.44.2 Label in name (closed functionality)

Where ICT is non-web software that provides a user interface which is closed to assistive technologies for speech input, it does not need to meet the "Label in name" success criterion in table 11.17

11.2.45 Pointer gestures (SC 2.5.1)

Where ICT is non-web software that provides a user interface, it shall satisfy WCAG 2.1 Success Criterion 2.5.1 Pointer gestures [5].

11.2.46 Pointer cancellation (SC 2.5.2)

Where ICT is non-web software that provides a user interface, it shall satisfy WCAG 2.1 Success Criterion 2.5.2 Pointer cancellation [5].

11.2.47 Target size (SC 2.5.3)

Where ICT is non-web software that provides a user interface, it shall satisfy WCAG 2.1 Success Criterion 2.5.3 Target size [5].

11.2.48 Motion actuation (SC 2.6.1)

Where ICT is non-web software that provides a user interface, it shall satisfy WCAG 2.1 Success Criterion 2.6.1 Motion actuation [5].

11.2.49 Orientation (SC 2.6.2)

Where ICT is non-web software that provides a user interface, and it runs on hardware that supports displays that can be rotated, it shall satisfy WCAG 2.1 Success Criterion 2.6.2 Orientation [5].

11.3 Interoperability with assistive technology

11.3.1 Closed functionality

Where the closed functionality of software conforms to clause 5.1 (Closed functionality) it shall not be required to conform with clause 11.3.2 to clause 11.3.17.

11.3.2 Accessibility services

11.3.2.1 Platform accessibility service support for software that provides a user interface

Platform software shall provide a set of documented platform services that enable software that provides a user interface running on the platform software to interoperate with assistive technology.

Platform software should support requirements 11.3.2.5 to 11.3.2.17 except that, where a user interface concept that corresponds to one of the clauses 11.3.2.5 to 11.3.2.17 is not supported within the software environment, these requirements are not applicable. For example, selection attributes from 11.3.2.14 (Modification of focus and selection attributes) may not exist in environments that do not allow selection, which is most commonly associated with copy and paste.

NOTE 1: These define the minimum functionality of software providing user interfaces when using platform services.

NOTE 2: In some platforms these services may be called accessibility services, but in some other platforms these services may be provided as part of the user interface services.

NOTE 3: User interface services that provide accessibility support by default are considered to be part of the services provided to conform to this clause (e.g. the service for creating a new user interface element provides role, state, boundary, name and description).

NOTE 4: To comply with this requirement the platform software can provide its own set of services or expose the services provided by its underlying platform layers, if those services conform to this requirement.

NOTE 5: Within specific programming environments, the technical attributes associated with the user interface properties described in clauses 11.3.2.5 to 11.3.2.17 might have different names than those used within the clauses.

11.3.2.2 Platform accessibility service support for assistive technologies

Platform software shall provide a set of documented platform accessibility services that enable assistive technology to interoperate with software that provides a user interface running on the platform software.

Platform software should support the requirements of clauses 11.3.2.5 to 11.3.2.17 except that, where a user interface concept that corresponds to one of the clauses 11.3.2.5 to 11.3.2.17 is not supported within the software environment, these requirement are not applicable. For example, selection attributes from 11.3.2.14 (Modification of focus and selection attributes) may not exist in environments that do not allow selection, which is most commonly associated with copy and paste.

NOTE 1: These define the minimum functionality available to assistive technologies when using platform services.

NOTE 2: The definition of platform in 3.1 applies to software that provides services to other software, including but not limited to, operating systems, web browsers, virtual machines.

NOTE 3: In some platforms these services may be called accessibility services, but in some other platforms these services may be provided as part of the user interface services.

NOTE 4: Typically these services belong to the same set of services that are described in clause 11.3.2.1.

NOTE 5: To comply with this requirement the platform software can provide its own set of services or expose the services provided by its underlying platform layers, if those services conform to this requirement.

11.3.2.3 Use of accessibility services

Where the software provides a user interface it shall use the applicable documented platform accessibility services. If the documented platform accessibility services do not allow the software to meet the applicable requirements of clauses 11.3.2.5 to 11.3.2.17, then software that provides a user interface shall use other documented services to interoperate with assistive technology.

NOTE: The term "documented platform accessibility services" refers to the set of services provided by the platform according to clauses 11.3.2.1 and 11.3.2.2.

It is best practice to develop software using toolkits that automatically implement the underlying platform accessibility services.

11.3.2.4 Assistive technology

Where the ICT is assistive technology it shall use the documented platform accessibility services.

NOTE 1: The term "documented platform accessibility services" refers to the set of services provided by the platform according to clauses 11.3.2.1 and 11.3.2.2.

NOTE 2: Assistive technology can also use other documented accessibility services.

11.3.2.5 Object information

Where the software provides a user interface it shall, by using the services as described in clause 11.3.2.3, make the user interface elements' role, state(s), boundary, name, and description programmatically determinable by assistive technologies.

11.3.2.6 Row, column, and headers

Where the software provides a user interface it shall, by using the services as described in clause 11.3.2.3, make the row and column of each cell in a data table, including headers of the row and column if present, programmatically determinable by assistive technologies.

11.3.2.7 Values

Where the software provides a user interface, it shall, by using the services as described in clause 11.3.2.3, make the current value of a user interface element and any minimum or maximum values of the range, if the user interface element conveys information about a range of values, programmatically determinable by assistive technologies.

11.3.2.8 Label relationships

Where the software provides a user interface it shall expose the relationship that a user interface element has as a label for another element, or of being labelled by another element, using the services as described in clause 11.3.2.3, so that this information is programmatically determinable by assistive technologies.

11.3.2.9 Parent-child relationships

Where the software provides a user interface it shall, by using the services as described in clause 11.3.2.3, make the relationship between a user interface element and any parent or children elements programmatically determinable by assistive technologies.

11.3.2.10 Text

Where the software provides a user interface it shall, by using the services as described in clause 11.3.2.3, make the text contents, text attributes, and the boundary of text rendered to the screen programmatically determinable by assistive technologies.

11.3.2.11 List of available actions

Where the software provides a user interface it shall, by using the services as described in clause 11.3.2.3, make a list of available actions that can be executed on a user interface element, programmatically determinable by assistive technologies.

11.3.2.12 Execution of available actions

Where permitted by security requirements, software that provides a user interface shall, by using the services as described in clause 11.3.2.3, allow the programmatic execution of the actions exposed according to clause 11.3.2.11 by assistive technologies.

NOTE 1: In some cases the security requirements imposed on a software product may forbid external software from interfering with the ICT product. Examples of systems under strict security requirements are systems dealing with intelligence activities, cryptologic activities related to national security, command and control of military forces.

NOTE 2: Assistive technologies may be required to maintain the same level of security as the standard input mechanisms supported by the platform.

11.3.2.13 Tracking of focus and selection attributes

Where software provides a user interface it shall, by using the services as described in clause 11.3.2.3, make information and mechanisms necessary to track focus, text insertion point, and selection attributes of user interface elements programmatically determinable by assistive technologies.

11.3.2.14 Modification of focus and selection attributes

Where permitted by security requirements, software that provides a user interface shall, by using the services as described in clause 11.3.2.3, allow assistive technologies to programmatically modify focus, text insertion point, and selection attributes of user interface elements where the user can modify these items.

NOTE 1: In some cases the security requirements imposed on a software product may forbid external software from interfering with the ICT product and so this requirement would not apply. Examples of systems under strict security requirements are systems dealing with intelligence activities, cryptologic activities related to national security, command and control of military forces.

NOTE 2: Assistive technologies may be required to maintain the same level of security as the standard input mechanisms supported by the platform.

11.3.2.15 Change notification

Where software provides a user interface it shall, by using the services as described in 11.3.2.3, notify assistive technologies about changes in those programmatically determinable attributes of user interface elements that are referenced in requirements 11.3.2.5 to 11.3.2.11 and 11.3.2.13.

11.3.2.16 Modifications of states and properties

Where permitted by security requirements, software that provides a user interface shall, by using the services as described in clause 11.3.2.3, allow assistive technologies to programmatically modify states and properties of user interface elements, where the user can modify these items.

NOTE 1: In some cases the security requirements imposed on a software product may forbid external software from interfering with the ICT product and so this requirement would not apply. Examples of systems under strict security requirements are systems dealing with intelligence activities, cryptologic activities related to national security, command and control of military forces.

NOTE 2: Assistive technologies may be required to maintain the same level of security as the standard input mechanisms supported by the platform.

11.3.2.17 Modifications of values and text

Where permitted by security requirements, software that provides a user interface shall, by using the services as described in 11.3.2.3, allow assistive technologies to modify values and text of user interface elements using the input methods of the platform, where a user can modify these items without the use of assistive technology.

NOTE 1: In some cases the security requirements imposed on a software product may forbid external software from interfering with the ICT product and so this requirement would not apply. Examples of systems under strict security requirements are systems dealing with intelligence activities, cryptologic activities related to national security, command and control of military forces.

NOTE 2: Assistive technologies may be required to maintain the same level of security as the standard input mechanisms supported by the platform.

11.4 Documented accessibility usage

11.4.1 User control of accessibility features

Where software is a platform it shall provide sufficient modes of operation for user control over those platform accessibility features documented as intended for users.

11.4.2 No disruption of accessibility features

Where software provides a user interface it shall not disrupt those documented accessibility features that are defined in platform documentation except when requested to do so by the user during the operation of the software.

11.5 User preferences

Where software provides a user interface it shall provide sufficient modes of operation that use user preferences for platform settings for colour, contrast, font type, font size, and focus cursor except for software that is designed to be isolated from its underlying platforms.

NOTE: Software that is isolated from its underlying platform has no access to user settings in the platform and thus cannot adhere to them.

11.6 Authoring tools

11.6.1 Content technology

Authoring tools shall conform to clauses 11.6.2 to 11.6.5 to the extent that information required for accessibility is supported by the format used for the output of the authoring tool.

11.6.2 Accessible content creation

Authoring tools shall enable and guide the production of content that conforms to clauses 9 (Web content) or 10 (Non-Web content) as applicable.

NOTE: Authoring tools may rely on additional tools where conformance with specific requirements is not achievable by a single tool. For example, a video editing tool may enable the creation of video files for distribution via broadcast television and the web, but authoring of caption files for multiple formats may be provided by a different tool.

11.6.3 Preservation of accessibility information in transformations

If the authoring tool provides restructuring transformations or re-coding transformations, then accessibility information shall be preserved in the output if equivalent mechanisms exist in the content technology of the output.

NOTE 1: Restructuring transformations are transformations in which the content technology stays the same, but the structural features of the content are changed (e.g. linearizing tables, splitting a document into pages).

NOTE 2: Re-coding transformations are transformations in which the technology used to encode the content is changed.

11.6.4 Repair assistance

If the accessibility checking functionality of an authoring tool can detect that content does not meet a requirement of clauses 9 (Web content) or 10 (Documents) as applicable, then the authoring tool shall provide repair suggestion(s).

NOTE: This does not preclude automated and semi-automated repair which is possible (and encouraged) for many types of content accessibility problems.

11.6.5 Templates

When an authoring tool provides templates, at least one template that supports the creation of content that conforms to the requirements of clauses 9 (Web content) or 10 (Documents) as applicable shall be available and identified as such.

12 Documentation and support services

12.1 Product documentation

12.1.1 Accessibility and compatibility features

Product documentation provided with the ICT whether provided separately or integrated within the ICT shall list and explain how to use the accessibility and compatibility features of the ICT.

NOTE: Accessibility and compatibility features include accessibility features that are built-in and accessibility features that provide compatibility with assistive technology.

12.1.2 Accessible documentation

Product documentation provided with the ICT shall be made available in at least one of the following electronic formats:

a) a Web format that conforms to the requirements of clause 9, or

b) a non-web format that conforms to the requirements of clause 10.

NOTE 1: This does not preclude the possibility of also providing the product documentation in other formats (electronic or printed) that are not accessible.

NOTE 2: It also does not preclude the possibility of providing alternate formats that meet the needs of some specific type of users (e.g. Braille documents for blind people or easy-to-read information for persons with cognitive impairments).

NOTE 3: Where the documentation is integral to the ICT it will be provided through the user interface which is accessible.

NOTE 4: A user agent that supports automatic media conversion would be beneficial to enhancing accessibility.

12.2 Support services

12.2.1 General (informative)

ICT support services include, but are not limited to: help desks, call centres, technical support, relay services and training services.

12.2.2 Information on accessibility and compatibility features

ICT support services shall provide information on the accessibility and compatibility features that are included in the product documentation.

NOTE: Accessibility and compatibility features include accessibility features that are built-in and accessibility features that provide compatibility with assistive technology.

12.2.3 Effective communication

ICT support services shall accommodate the communication needs of individuals with disabilities either directly or through a referral point.

12.2.4 Accessible documentation

Documentation provided by support services shall be made available in at least one of the following electronic formats:

a) a Web format that conforms to clause 9, or

b) a non-web format that conforms to clause 10.

NOTE 1: This does not preclude the possibility of also providing the documentation in other formats (electronic or printed) that are not accessible.

NOTE 2: It also does not preclude the possibility of providing alternate formats that meet the needs of some specific type of users (e.g. Braille documents for blind people or easy-to-read information for persons with cognitive impairments).

NOTE 3: A user agent that supports automatic media conversion would be beneficial to enhancing accessibility.

13 ICT providing relay or emergency service access

13.1 Relay services requirements

13.1.1 General (informative)

Relay services enable users of different modes of communication e.g. text, sign, speech, to interact remotely through ICT with two-way communication by providing conversion between the modes of communication, normally by a human operator.

It is best practice to meet the applicable relay service requirements of ETSI ES 202 975 [i.5].

13.1.2 Text relay services

Where ICT is intended to provide a text relay service, the text relay service shall enable text users and speech users to interact by providing conversion between the two modes of communication.

13.1.3 Sign relay services

Where ICT is intended to provide a sign relay service, the sign relay service shall enable sign language users and speech users to interact by providing conversion between the two modes of communication.

NOTE: Sign relay services are also sometimes referred to as sign language relay services or video relay services.

13.1.4 Lip-reading relay services

Where ICT is intended to provide a lip-reading relay service, the lip-reading service shall enable lip-readers and voice telephone users to interact by providing conversion between the two modes of communication.

13.1.5 Captioned telephony services

Where ICT is intended to provide a captioned telephony service, the captioned telephony service shall assist a deaf or hard of hearing user in a spoken dialogue by providing text captions translating the incoming part of the conversation.

13.1.6 Speech to speech relay services

Where ICT is intended to provide a speech to speech relay service, the speech to speech relay service shall enable speech or cognitively impaired telephone users and any other user to communicate by providing assistance between them.

13.2 Access to relay services

Where ICT systems support two-way communication and a set of relay services for such communication is specified, access to those relay services shall not be prevented for outgoing and incoming calls.

NOTE 1: Two-way communication may include voice, real-time text, or video, singly or in combinations supported by both the relay service and the ICT system.

NOTE 2: The purpose of this requirement is to achieve functionally equivalent communication access by persons with disabilities.

13.3 Access to emergency services

Where ICT systems support two-way communication and a set of emergency services for such communication is specified, access to those emergency services shall not be prevented for outgoing and incoming calls.

NOTE 1: Two–way communication may include voice, real-time text, or video, singly or in combinations supported by both the emergency service and the ICT system.

NOTE 2: The purpose of this requirement is to achieve functionally equivalent communication access to the emergency service by persons with disabilities.

Annex A (informative): Relationship between the present document and the essential requirements of Directive 2016/2102

The present document has been prepared under the Commission's standardisation request C(2017) 2585 final [i.x] to provide one voluntary means of conforming to the essential requirements of Directive 2016/2102/EU on the accessibility of the websites and mobile applications of public sector bodies

Once the present document is cited in the Official Journal of the European Union under that Directive, compliance with the normative clauses of the present document given in tables A.1 and A.2 confers, within the limits of the scope of the present document, a presumption of conformity with the corresponding essential requirements of that Directive and associated EFTA regulations.

The requirements listed in Table A.1 apply to web pages (as defined in clause 3.1) including:

- documents that are web pages;
- documents that are embedded in web pages and that are used in the rendering or that are intended to be rendered together with the web page in which they are embedded;
- software that is a web page; or
- software that is embedded in web pages and that is used in the rendering or that is intended to be rendered together with the web page in which it is embedded.

Key to columns:

Requirement:

No A unique identifier for one row of the table which may be used to identify a requirement.

Description A textual reference to the requirement.

Essential requirements of Directive

Identification of article(s) defining the requirement in the Directive.

Clause(s) of the present document

Identification of clause(s) defining the requirement in the present document unless another document is referenced explicitly.

Requirement Conditionality:

U/C "U" indicates that compliance with the clause is unconditionally required.
"C" indicates that compliance with the clause is required only if the specified condition is met.

Condition For conditional requirements this column describes the condition that has to be met for compliance with the clause to be a requirement.

Assessment:

Indicates the clause of the present document that contains the relevant assessment method

Presumption of conformity stays valid only as long as a reference to the present document is maintained in the list published in the Official Journal of the European Union. Users of the present document should consult frequently the latest list published in the Official Journal of the European Union.

Other Union legislation may be applicable to the product(s) falling within the scope of the present document.

Table A.1: Web Pages - relationship between the present document and the essential requirements of Directive 2016/2102/EU

Requirement						Requirement conditionality		Assessment
No.	Clause of the present document	Essential requirements of Directive				Conditional or Unconditional	Condition	Clause of the present document
		Perceivable	Operable	Understandable	Robust			
1	5.2 Activation of accessibility features	✓	✓	✓	✓	C	Where ICT has documented accessibility features	C5.2
2	5.3 Biometrics		✓			C	Where ICT uses biological characteristics	C5.3
3	5.4 Preservation of accessibility information during conversion	✓		✓	✓	C	Where ICT converts information or communication	C5.4
4	5.5.1 Means of operation		✓			C	Where ICT has operable parts	C5.5.1
5	5.5.2 Operable parts discernibility	✓	✓			C	Where ICT has operable parts	C5.5.2
6	5.6.1 Locking or toggle controls - Tactile or auditory status	✓	✓			C	Where ICT has a locking or toggle control	C5.6.1
7	5.6.2 Locking or toggle controls- Visual status	✓	✓			C	Where ICT has a locking or toggle control	C5.6.2
8	5.7 Key repeat		✓			C	Where ICT has a key repeat function that cannot be turned off	C5.7
9	5.8 Double-strike key acceptance		✓			C	Where ICT has a keyboard or keypad	C5.8
10	5.9 Simultaneous user actions		✓			C	Where ICT uses simultaneous user actions for its operation	C5.9
11	6.1 Audio bandwidth for speech	✓				C	Where ICT provides two-way voice communication	C6.1
12	6.2.1 RTT provision	✓				C	Where ICT supports two-way voice communication	C6.2.1
13	6.2.2 Display of Real-time Text	✓				C	Where ICT provides two-way voice communication	C6.2.2
14	6.2.3 Interoperability	✓				C	Where ICT provides two-way voice communication	C6.2.3
15	6.2.4 Real-time text responsiveness	✓				C	Where ICT provides two-way voice communication	C6.2.4
16	6.3 Caller ID	✓	✓	✓	✓	C	Where ICT provides two-way voice communication	C6.3
17	6.5.2a Resolution	✓		✓		C	Where ICT provides two-way voice communication	C6.5.2
18	6.5.3a Frame rate	✓		✓		C	Where ICT provides two-way voice communication	C6.5.3
19	7.1.1 Captioning playback	✓				C	Where ICT has video capabilities	C7.1.1
20	7.1.2 Captioning synchronization	✓				C	Where ICT has video capabilities	C7.1.2
21	7.1.3 Preservation of captioning	✓				C	Where ICT has video capabilities	C7.1.3
22	7.2.1 Audio description playback	✓				C	Where ICT has video capabilities	C7.2.1
23	7.2.2 Audio description synchronization	✓				C	Where ICT has video capabilities	C7.2.2
24	7.2.3 Preservation of audio description	✓				C	Where ICT has video capabilities	C7.2.3
25	7.3 User controls for captions and audio description	✓	✓			C	Where ICT has video capabilities	C7.3
26	9.2.1 Non-text content	✓				U		C9.2.1

Requirement						Requirement conditionality		Assessment
No.	Clause of the present document	Essential requirements of Directive				Conditional or Unconditional	Condition	Clause of the present document
		Perceivable	Operable	Understandable	Robust			
27	9.2.2 Audio-only and video-only (pre-recorded)	✓				U		C9.2.2
28	9.2.3 Captions (pre-recorded)	✓				U		C9.2.3
29	9.2.4 Audio description or media alternative (pre-recorded)	✓				U		C9.2.4
30	9.2.5 Captions (live)	✓				U		C9.2.5
31	9.2.6 Audio description (pre-recorded)	✓				U		C9.2.6
32	9.2.7 Info and relationships	✓				U		C9.2.7
33	9.2.8 Meaningful sequence	✓				U		C9.2.8
34	9.2.9 Sensory characteristics	✓				U		C9.2.9
35	9.2.10 Use of colour	✓				U		C9.2.10
36	9.2.11 Audio control	✓				U		C9.2.11
37	9.2.12 Contrast (minimum)	✓				U		C9.2.12
38	9.2.13 Resize text	✓				U		C9.2.13
39	9.2.14 Images of text	✓				U		C9.2.14
40	9.2.15 Keyboard		✓			U		C9.2.15
41	9.2.16 No keyboard trap		✓			U		C9.2.16
42	9.2.17 Timing adjustable		✓			U		C9.2.17
43	9.2.18 Pause, stop, hide		✓			U		C9.2.18
44	9.2.19 Three flashes or below threshold		✓			U		C9.2.19
45	9.2.20 Bypass blocks		✓			U		C9.2.20
46	9.2.21 Page titled		✓			U		C9.2.21
47	9.2.22 Focus Order		✓			U		C9.2.22
48	9.2.23 Link purpose (in context)		✓			U		C9.2.23
49	9.2.24 Multiple ways		✓			U		C9.2.24
50	9.2.25 Headings and labels		✓			U		C9.2.25
51	9.2.26 Focus visible		✓			U		C9.2.26
52	9.2.27 Language of page			✓		U		C9.2.27
53	9.2.28 Language of parts			✓		U		C9.2.28
54	9.2.29 On focus			✓		U		C9.2.29
55	9.2.30 On input			✓		U		C9.2.30
56	9.2.31 Consistent navigation			✓		U		C9.2.31
57	9.2.32 Consistent identification			✓		U		C9.2.32
58	9.2.33 Error identification			✓		U		C9.2.33
59	9.2.34 Labels or instructions			✓		U		C9.2.34
60	9.2.35 Error suggestion			✓		U		C9.2.35
61	9.2.36 Error prevention (legal, financial, data)			✓		U		C9.2.36
62	9.2.37 Parsing				✓	U		C9.2.37
63	9.2.38 Name, role, value				✓	U		C9.2.38
64	9.2.39 Reflow	✓				U		C9.2.39
65	9.2.40 Graphics contrast	✓				U		C9.2.40
66	9.2.41 Text spacing	✓	✓			U		C9.2.41
67	9.2.42 Content on hover or focus	✓	✓			U		C9.2.42
68	9.2.43 Character key shortcuts		✓			U		C9.2.43
69	9.2.44 Label in name		✓			U		C9.2.44
70	9.2.45 Pointer gestures		✓			U		C9.2.45
71	9.2.46 Pointer cancellation		✓			U		C9.2.46

Requirement						Requirement conditionality		Assessment
No.	Clause of the present document	Essential requirements of Directive				Conditional or Unconditional	Condition	Clause of the present document
		Perceivable	Operable	Understandable	Robust			
72	9.2.47 Target size		✓			U		C9.2.47
73	9.2.48 Motion activation		✓			U		C9.2.48
74	9.2.49 Orientation		✓			U		C9.2.49
75	11.4.2 No disruption of accessibility features	✓	✓	✓	✓	U		C11.4.2
76	11.5 User preferences	✓	✓	✓	✓	U		C11.5
77	11.6.1 Content technology	✓	✓	✓	✓	C	Where ICT is an authoring tool	C11.6.1
78	11.6.2 Accessible content creation	✓	✓	✓	✓	C	Where ICT is an authoring tool	C11.6.2
79	11.6.3 Preservation of accessibility information in transformations	✓	✓	✓	✓	C	Where ICT is an authoring tool	C11.6.3
80	11.6.4 Repair assistance	✓	✓	✓	✓	C	Where ICT is an authoring tool	C11.6.4
81	11.6.5 Templates	✓	✓	✓	✓	C	Where ICT is an authoring tool	C11.6.5
82	12.1.1 Accessibility and compatibility features	✓	✓	✓	✓	U		C12.1.1
83	12.1.2 Accessible documentation	✓	✓	✓	✓	U		C12.1.2
84	12.2.2 Information on accessibility and compatibility features	✓	✓	✓	✓	U		C12.2.2
85	12.2.3 Effective communication	✓		✓		U		C12.2.3
86	12.2.4 Accessible documentation	✓	✓	✓	✓	U		C12.2.4.

Table A.2: Mobile Applications - relationship between the present document and the essential requirements of Directive 2016/2102/EU

Requirement						Requirement conditionality		Assessment
No.	Clause of the present document	Essential requirements of Directive				Conditional or Unconditional	Condition	Clause of the present document
		Perceivable	Operable	Understandable	Robust			
1	5.2 Activation of accessibility features	✓	✓	✓	✓	C	Where ICT has documented accessibility features	C5.2
2	5.3 Biometrics		✓			C	Where ICT uses biological characteristics	C5.3
3	5.4 Preservation of accessibility information during conversion	✓		✓	✓	C	Where ICT converts information or communication	C5.4
4	5.5.2 Operable parts discernibility	✓	✓			C	Where ICT has operable parts	C5.5.2
5	5.6.1 Locking or toggle controls - Tactile or auditory status	✓	✓			C	Where ICT has a locking or toggle control	C5.6.1
6	5.6.2 Locking or toggle controls- Visual status	✓	✓			C	Where ICT has a locking or toggle control	C5.6.2

Requirement						Requirement conditionality		Assessment
No.	Clause of the present document	Essential requirements of Directive				Conditional or Unconditional	Condition	Clause of the present document
		Perceivable	Operable	Understandable	Robust			
7	5.7 Key repeat		✓			C	Where ICT has a key repeat function that cannot be turned off	C5.7
8	5.8 Double-strike key acceptance		✓			C	Where ICT has a keyboard or keypad	C5.8
9	5.9 Simultaneous user actions		✓			C	Where ICT uses simultaneous user actions for its operation	C5.9
10	6.1 Audio bandwidth for speech	✓				C	Where ICT provides two-way voice communication	C6.1
11	6.2.1 RTT provision	✓				C	Where ICT supports two-way voice communication	C6.2.1
12	6.2.2 Display of Real-time Text	✓				C	Where ICT provides two-way voice communication	C6.2.2
13	6.2.3 Interoperability	✓				C	Where ICT provides two-way voice communication	C6.2.3
14	6.2.4 Real-time text responsiveness	✓				C	Where ICT provides two-way voice communication	C6.2.4
15	6.3 Caller ID	✓	✓	✓	✓	C	Where ICT provides two-way voice communication	C6.3
16	6.5.2a Resolution	✓		✓		C	Where ICT provides two-way voice communication	C6.5.2
17	6.5.3a Frame rate	✓		✓		C	Where ICT provides two-way voice communication	C6.5.3
18	7.1.1 Captioning playback	✓				C	Where ICT has video capabilities	C7.1.1
19	7.1.2 Captioning synchronization	✓				C	Where ICT has video capabilities	C7.1.2
20	7.1.3 Preservation of captioning	✓				C	Where ICT has video capabilities	C7.1.3
21	7.2.1 Audio description playback	✓				C	Where ICT has video capabilities	C7.2.1
22	7.2.2 Audio description synchronization	✓				C	Where ICT has video capabilities	C7.2.2
23	7.2.3 Preservation of audio description	✓				C	Where ICT has video capabilities	C7.2.3
24	7.3 User controls for captions and audio description	✓	✓			C	Where ICT has video capabilities	C7.3
25	11.2.1.1 Non-text content (open functionality)	✓				U		C11.2.1.1
26	11.2.2.1 Audio-only and video-only (pre-recorded – open functionality)	✓				U		C11.2.2.1
27	11.2.3 Captions (pre-recorded)	✓				U		C11.2.3
28	11.2.4.1 Audio description or media alternative (pre-recorded – open functionality)	✓				U		C11.2.4.1
29	11.2.5 Captions (live	✓				U		C11.2.5
30	11.2.6 Audio description (pre-recorded)	✓				U		C11.2.6
31	11.2.7.1 Info and relationships (open functionality)	✓				U		C11.2.7.1
32	11.2.8.1 Meaningful sequence (open functionality)	✓				U		C11.2.8.1
33	11.2.9 Sensory characteristics	✓				U		C11.2.9

Requirement						Requirement conditionality		Assessment
No.	Clause of the present document	Essential requirements of Directive				Conditional or Unconditional	Condition	Clause of the present document
		Perceivable	Operable	Understandable	Robust			
34	11.2.10 Use of colour	✓				U		C11.2.10
35	11.2.11 Audio control	✓				U		C11.2.11
36	11.2.12 Contrast (minimum)	✓				U		C11.2.12
37	11.2.13.1 Resize text (open functionality)	✓				U		C11.2.13.1
38	11.2.14.1 Images of text (open functionality)	✓				U		C11.2.14.1
39	11.2.15.1 Keyboard (open functionality)		✓			U		C11.2.15.1
40	11.2.16 No keyboard trap		✓			U		C11.2.16
41	11.2.17 Timing adjustable		✓			U		C11.2.17
42	11.2.18 Pause, stop, hide		✓			U		C11.2.18
43	11.2.19 Three flashes or below threshold		✓			U		C11.2.19
44	11.2.22 Focus order		✓			U		C11.2.22
45	11.2.23 Link purpose (in context)		✓			U		C11.2.23
46	11.2.25 Headings and labels		✓			U		C11.2.25
47	11.2.26 Focus visible		✓			U		C11.2.26
48	11.2.27.1 Language of software (open functionality)			✓		U		C11.2.27.1
49	11.2.29 On focus			✓		U		C11.2.29
50	11.2.30 On input			✓		U		C11.2.30
51	11.2.33.1 Error identification (open functionality)			✓		U		C11.2.33.1
52	11.2.34 Labels or instructions			✓		U		C11.2.34
53	11.2.35 Error suggestion			✓		U		C11.2.35
54	11.2.36 Error prevention (legal, financial, data)			✓		U		C11.2.36
55	11.2.37.1 Parsing (open functionality)				✓	U		C11.2.37.1
56	11.2.38.1 Name, role, value (open functionality)				✓	U		C11.2.38.1
57	11.2.39.1 Reflow (open functionality)	✓				U		C11.2.39.1
58	11.2.39.2 Reflow (closed functionality)	✓				U		C11.2.39.2
59	11.2.40 Graphics contrast	✓				U		C11.2.40
60	11.2.41 Text spacing	✓	✓			U		C11.2.41
61	11.2.42 Content on hover or focus	✓	✓			U		C11.2.42
62	11.2.43.1 Character key shortcuts (open functionality)		✓			U		C11.2.43.1
63	11.2.43.2 Character key shortcuts (closed functionality)		✓			U		C11.2.43.2
64	11.2.44.1 Label in name (open functionality)		✓			U		C11.2.44.1
65	11.2.45 Pointer gestures		✓			U		C11.2.45
66	11.2.46 Pointer cancellation		✓			U		C11.2.46
67	11.2.47 Target size		✓			U		C11.2.47
68	11.2.48 Motion actuation		✓			U		C11.2.48
69	11.2.49 Orientation		✓			U		C11.2.49

Requirement						Requirement conditionality		Assessment
No.	Clause of the present document	Essential requirements of Directive				Conditional or Unconditional	Condition	Clause of the present document
		Perceivable	Operable	Understandable	Robust			
70	11.3.2.3 Use of accessibility services	✓	✓	✓	✓	U		C11.3.2.3
71	11.3.2.5 Object information	✓		✓		U		C11.3.2.5
72	11.3.2.6 Row, column, and headers	✓		✓		U		C11.3.2.6
73	11.3.2.7 Values	✓		✓		U		C11.3.2.7
74	11.3.2.8 Label relationships	✓		✓		U		C11.3.2.8
75	11.3.2.9 Parent-child relationships	✓		✓		U		C11.3.2.9
76	11.3.2.10 Text	✓		✓		U		C11.3.2.10
77	11.3.2.11 List of available actions		✓			U		C11.3.2.11
78	11.3.2.12 Execution of available actions		✓			U		C11.3.2.12
79	11.3.2.13 Tracking of focus and selection attributes		✓			U		C11.3.2.13
80	11.3.2.14 Modification of focus and selection attributes		✓			U		C11.3.2.14
81	11.3.2.15 Change notification		✓	✓		U		C11.3.2.15
82	11.3.2.16 Modifications of states and properties		✓			U		C11.3.2.16
83	11.3.2.17 Modifications of values and text		✓			U		C11.3.2.17
84	11.4.2 No disruption of accessibility features	✓	✓	✓	✓	U		C11.4.2
85	11.5 User preferences	✓	✓	✓	✓	U		C11.5
86	11.6.1 Content technology	✓	✓	✓	✓	C	Where ICT is an authoring tool	C11.6.1
87	11.6.2 Accessible content creation	✓	✓	✓	✓	C	Where ICT is an authoring tool	C11.6.2
88	11.6.3 Preservation of accessibility information in transformations	✓	✓	✓	✓	C	Where ICT is an authoring tool	C11.6.3
89	11.6.4 Repair assistance	✓	✓	✓	✓	C	Where ICT is an authoring tool	C11.6.4
90	11.6.5 Templates	✓	✓	✓	✓	C	Where ICT is an authoring tool	C11.6.5
91	12.1.1 Accessibility and compatibility features	✓	✓	✓	✓	U		C12.1.1
92	12.1.2 Accessible documentation	✓	✓	✓	✓	U		C12.1.2
93	12.2.2 Information on accessibility and compatibility features	✓	✓	✓	✓	U		C12.2.2
94	12.2.3 Effective communication	✓		✓		U		C12.2.3
95	12.2.4 Accessible documentation	✓	✓	✓	✓	U		C12.2.4.

Annex B (informative): Relationship between requirements and functional performance statements

B.1 Relationships between clauses 5 to 13 and the functional performance statements

Table B.2 shows which of the requirements set out in clauses 5 to 13 support each of the functional performance statements set out in clause 4.2.

To allow Table B.2 to fit the page, the abbreviations shown in Table B.1 have been used in the column headers of Table B.2.

Table B.1: Key to the column header designations used in Table B.2

Clause number	Column header abbreviation	Functional performance statement
4.2.1	WV	Usage without vision
4.2.2	LV	Usage with limited vision
4.2.3	WPC	Usage without perception of colour
4.2.4	WH	Usage without hearing
4.2.5	LH	Usage with limited hearing
4.2.6	WVC	Usage without vocal capability
4.2.7	LMS	Usage with limited manipulation or strength
4.2.8	LR	Usage with limited reach
4.2.9	PST	Minimize photosensitive seizure triggers
4.2.10	LC	Usage with limited cognition
4.2.11	P	Privacy

The following abbreviations have been used to represent the relationship between the requirements in clauses 5 to 13 and the functional performance statements:

- P = Primary relationship. The requirement supports the functional performance statement.
- S = Secondary relationship. The requirement provides partial support for the functional performance statement because some users may use the feature in specific situations.

Table B.2: Requirements in clauses 5 to 13 supporting the accessibility needs expressed in the functional performance statements

Requirements	4.2.1 WV	4.2.2 LV	4.2.3 WPC	4.2.4 WH	4.2.5 LH	4.2.6 WVC	4.2.7 LMS	4.2.8 LR	4.2.9 PST	4.2.10 LC	4.2.11 P
5.1.2.1 Closed functionality	P	P	P	P	P	P	P	P	P	P	P
5.1.2.2 Assistive technology	-	-	-	-	-	-	-	-	-	-	S
5.1.3.1 General (belongs to 5.1.3 Non-visual access)	P	S	-	-	-	-	-	-	-	S	-
5.1.3.2 Auditory output delivery including speech	P	S	-	-	-	-	-	-	-	S	-
5.1.3.3 Auditory output correlation	-	P	-	-	-	-	-	-	-	S	-
5.1.3.4 Speech output user control	P	S	-	-	-	-	-	-	-	S	-
5.1.3.5 Speech output automatic interruption	P	S	-	-	-	-	-	-	-	S	-
5.1.3.6 Speech output for non-text content	P	S	-	-	-	-	-	-	-	S	-
5.1.3.7 Speech output for video information	P	S	-	-	-	-	-	-	-	S	-
5.1.3.8 Masked entry	P	S	-	-	-	-	-	-	-	S	P

Requirements	4.2.1 WV	4.2.2 LV	4.2.3 WPC	4.2.4 WH	4.2.5 LH	4.2.6 WVC	4.2.7 LMS	4.2.8 LR	4.2.9 PST	4.2.10 LC	4.2.11 P
5.1.3.9 Private access to personal data	P	S	-	-	-	-	-	-	-	S	P
5.1.3.10 Non-interfering audio output	P	S	-	-	-	-	-	-	-	S	-
5.1.3.11 Private listening volume	P	S	-	-	S	-	-	-	-	S	S
5.1.3.12 Speaker volume	P	S	-	-	S	-	-	-	-	S	-
5.1.3.13 Volume reset	P	S	-	-	S	-	-	-	-	S	-
5.1.3.14 Spoken languages	P	S	-	-	-	-	-	-	-	S	-
5.1.3.15 Non-visual error identification	P	S	-	-	-	-	-	-	-	S	-
5.1.3.16 Receipts, tickets, and transactional outputs	P	S	-	-	-	-	-	-	-	-	-
5.1.4 Functionality closed to text enlargement	-	P	-	-	-	-	-	-	-	-	-
5.1.5 Visual output for auditory information	-	-	-	P	P	-	-	-	-	S	-
5.1.6.1 Operation without keyboard interface (closed functionality)	P	P	-	-	-	S	P	-	-	-	-
5.1.6.2 Operation without keyboard interface (Input focus)	P	P	-	-	-	S	P	-	-	-	-
5.2 Activation of accessibility features	P	P	P	P	P	-	P	-	-	-	-
5.3 Biometrics	P	P	-	P	-	P	P	P	-	-	P
5.4 Preservation of accessibility information during conversion	P	P	-	P	P	-	-	-	-	S	-
5.5.1 Means of operation	-	-	-	-	-	-	P	-	-	-	-
5.5.2 Operable part discernibility	P	S	-	-	-	-	-	-	-	-	-
5.6.1 Tactile or auditory status (belongs to 5.6 Locking or toggle controls)	P	P	-	-	-	-	-	-	-	S	-
5.6.2 Visual status	-	-	-	P	P	-	P	P	-	S	-
5.7 Key repeat	-	-	-	-	-	-	P	-	-	S	-
5.8 Double-strike key acceptance	-	-	-	-	-	-	P	P	-	S	-
5.9 Simultaneous user actions	-	-	-	-	-	-	P	P	-	S	-
6.1 Audio bandwidth for speech (informative recommendation)	-	-	-	-	P	-	-	-	-	-	-
6.2.1.1 RTT communication	-	-	-	P	S	S	-	-	-	-	-
6.2.1.2 Concurrent voice and text	-	-	-	P	P	S	-	-	-	-	-
6.2.2.1 Visually distinguishable display	-	-	-	P	S	S	-	-	-	-	-
6.2.2.2 Programmatically determinable send and receive direction	-	-	-	P	S	S	-	-	-	-	-
6.2.3 Interoperability	-	-	-	P	S	S	-	-	-	-	-
6.2.4 Real-time text responsiveness	-	-	-	P	S	S	-	-	-	-	-
6.3 Caller ID	P	P	-	-	-	-	-	-	-	S	-
6.4 Alternatives to voice-based services	-	-	-	P	P	P	-	-	-	-	-
6.5.2 (Video) Resolution	-	-	-	P	P	S	-	-	-	-	-
6.5.3 (Video) Frame rate	-	-	-	P	P	S	-	-	-	-	-
6.5.4 Synchronization between audio and video	-	-	-	P	P	S	-	-	-	-	-

Requirements	4.2.1 WV	4.2.2 LV	4.2.3 WPC	4.2.4 WH	4.2.5 LH	4.2.6 WVC	4.2.7 LMS	4.2.8 LR	4.2.9 PST	4.2.10 LC	4.2.11 P
6.6 Alternatives to video-based services	P	S	-	P	P	P	-	-	-	-	-
7.1.1 Captioning playback	-	-	-	P	P	-	-	-	-	S	-
7.1.2 Captioning synchronization	-	-	-	P	P	-	-	-	-	S	-
7.1.3 Preservation of captioning	-	-	-	P	P	-	-	-	-	S	-
7.2.1 Audio description playback	P	P	-	-	-	-	-	-	-	S	-
7.2.2 Audio description synchronization	P	P	-	-	-	-	-	-	-	S	-
7.2.3 Preservation of audio description	P	P	-	-	-	-	-	-	-	S	-
7.3 User controls for captions and audio description	P	P	-	P	P	-	-	-	-	S	-
8.1.2 Standard connections	P	P	-	-	P	-	P	P	-	P	-
8.1.3 Colour	-	S	P	-	-	-	-	-	-	S	-
8.2.1.1 Speech volume range	-	-	-	-	P	-	-	-	-	-	-
8.2.1.2 Incremental volume control	-	-	-	-	P	-	-	-	-	-	-
8.2.2.1 Fixed-line devices (8.2.2 Magnetic coupling)	-	-	-	-	P	-	-	-	-	-	-
8.2.2.2 Wireless communication devices	-	-	-	-	P	-	-	-	-	-	-
8.3.2.1 Change in Level	-	-	-	-	-	-	-	P	-	-	-
8.3.2.2 Clear floor or ground space	-	-	-	-	-	-	-	P	-	-	-
8.3.2.3.1 General (8.3.2.3 Approach)	-	-	-	-	-	-	-	P	-	-	-
8.3.2.3.2 Forward Approach	-	-	-	-	-	-	-	P	-	-	-
8.3.2.3.3 Parallel Approach	-	-	-	-	-	-	-	P	-	-	-
8.3.2.4 Knee and Toe clearance width	-	-	-	-	-	-	-	P	-	-	-
8.3.2.5 Toe Clearance	-	-	-	-	-	-	-	P	-	-	-
8.3.2.6 Knee Clearance	-	-	-	-	-	-	-	P	-	-	-
8.3.3.1.1 Unobstructed high forward reach	-	-	-	-	-	-	-	P	-	-	-
8.3.3.1.2 Unobstructed low forward reach	-	-	-	-	-	-	-	P	-	-	-
8.3.3.1.3.1 Clear floor space	-	-	-	-	-	-	-	P	-	-	-
8.3.3.1.3.2 Obstructed (< 510 mm) forward reach	-	-	-	-	-	-	-	P	-	-	-
8.3.3.1.3.3 Obstructed (< 635 mm) forward reach	-	-	-	-	-	-	-	P	-	-	-
8.3.3.2.1 Unobstructed high side reach	-	-	-	-	-	-	-	P	-	-	-
8.3.3.2.2 Unobstructed low side reach	-	-	-	-	-	-	-	P	-	-	-
8.3.3.2.3.1 Obstructed (≤ 255 mm) side reach	-	-	-	-	-	-	-	P	-	-	-
8.3.3.2.3.2 Obstructed (≤ 610 mm) side reach	-	-	-	-	-	-	-	P	-	-	-
8.3.4 Visibility	-	-	-	-	-	-	-	P	-	-	-
8.3.5 Installation instructions	-	-	-	-	-	-	-	P	-	-	-
8.4.1 Numeric keys	P	S	-	-	-	-	-	-	-	-	-
8.4.2 Means of operation of mechanical parts	-	-	-	-	-	-	P	-	-	-	-
8.4.2.2 Force of operation of mechanical parts	-	-	-	-	-	-	P	-	-	-	-
8.4.3 Keys, tickets and fare cards	P	S	-	-	-	-	-	-	-	-	-

Requirements	4.2.1 WV	4.2.2 LV	4.2.3 WPC	4.2.4 WH	4.2.5 LH	4.2.6 WVC	4.2.7 LMS	4.2.8 LR	4.2.9 PST	4.2.10 LC	4.2.11 P
8.5 Tactile indication of speech mode	P	-	-	-	-	-	-	-	-	-	-
9.2.1 Non-text content (SC 1.1.1)	P	P	-	P	S	-	-	-	-	S	S
9.2.2 Audio-only and video-only (pre-recorded) (SC 1.2.1)	P	P	-	P	P	-	-	-	-	S	-
9.2.3 Captions (pre-recorded) (SC 1.2.2)	-	-	-	P	P	-	-	-	-	S	-
9.2.4 Audio description or media alternative (pre-recorded) (SC 1.2.3)	P	S	-	-	-	-	-	-	-	S	-
9.2.5 Captions (live) (SC 1.2.4)	-	-	-	P	P	-	-	-	-	S	-
9.2.6 Audio description (pre-recorded) (SC 1.2.5)	P	S	-	-	-	-	-	-	-	S	-
9.2.7 Info and relationships (SC 1.3.1)	P	S	-	-	-	-	-	-	-	S	-
9.2.8 Meaningful sequence (1.3.2)	P	S	-	-	-	-	-	-	-	S	-
9.2.9 Sensory characteristics (1.3.3)	P	P	P	P	P	-	-	-	-	S	-
9.2.10 Use of colour (SC 1.4.1)	P	P	P	-	-	-	-	-	-	S	-
9.2.11 Audio control (SC 1.4.2)	P	-	-	-	P	-	-	-	-	S	-
9.2.12 Contrast (minimum) (SC 1.4.3)	-	P	P	-	-	-	-	-	-	S	-
9.2.13 Resize text (SC 1.4.4)	-	P	-	-	-	-	S	-	-	-	-
9.2.14 Images of text (SC 1.4.5)	-	P	P	-	-	-	-	-	-	S	-
9.2.15 Keyboard (SC 2.1.1)	P	P	-	-	-	S	P	-	-	-	-
9.2.16 No keyboard trap (SC 2.1.2)	P	P	-	-	-	S	P	-	-	-	-
9.2.17 Timing adjustable (SC 2.2.1)	P	P	-	P	P	-	P	-	-	P	-
9.2.18 Pause, stop, hide (SC 2.2.2)	P	P	-	P	P	-	P	-	-	P	-
9.2.19 Three flashes or below threshold (SC 2.3.1)	-	-	-	-	-	-	-	-	P	-	-
9.2.20 Bypass blocks (SC 2.4.1)	P	P	-	-	-	S	P	-	-	P	-
9.2.21 Page titled (SC 2.4.2)	P	P	-	-	-	-	P	-	-	P	-
9.2.22 Focus order (SC 2.4.3)	P	P	-	S	-	-	P	-	-	P	-
9.2.23 Link Purpose (In Context) (SC 2.4.4)	P	P	-	-	-	S	P	-	-	P	-
9.2.24 Multiple ways (SC 2.4.5)	P	P	-	-	-	S	P	-	-	P	-
9.2.25 Headings and labels (SC 2.4.6)	P	P	-	S	-	S	P	-	-	P	-
9.2.26 Focus visible (SC 2.4.7)	P	P	-	-	-	S	P	-	-	P	-
9.2.27 Language of page (SC 3.1.1)	P	S	-	S	S	-	-	-	-	S	-
9.2.28 Language of parts (SC 3.1.2)	P	S	-	S	S	-	-	-	-	S	-
9.2.29 On focus (SC 3.2.1)	P	P	-	-	-	-	P	-	-	P	-
9.2.30 On Input (SC 3.2.2)	P	P	-	-	-	-	P	-	-	P	-
9.2.31 Consistent navigation (SC 3.2.3)	P	P	-	-	-	-	-	-	-	P	-
9.2.32 Consistent identifica (SC 3.2.4)	S	P	-	-	-	-	-	-	-	P	-
9.2.33 Error identification (SC 3.3.1)	P	P	P	-	-	-	-	-	-	P	-

Requirements	4.2.1 WV	4.2.2 LV	4.2.3 WPC	4.2.4 WH	4.2.5 LH	4.2.6 WVC	4.2.7 LMS	4.2.8 LR	4.2.9 PST	4.2.10 LC	4.2.11 P
9.2.34 Labels or instructions (SC 3.3.2)	P	P	-	-	-	S	S	-	-	P	-
9.2.35 Error suggestion (SC 3.3.3)	P	P	-	-	-	S	S	-	-	P	-
9.2.36 Error prevention (legal, financial, data) (SC 3.3.4)	P	P	-	-	-	-	S	-	-	P	-
9.2.37 Parsing (SC 4.1.1)	P	S	-	-	-	-	-	-	-	-	-
9.2.38 Name, role, value (SC 4.1.2)	P	P	-	-	-	-	S	-	-	-	-
9.2.39 Reflow (SC 1.4.10)	-	P	-	-	-	-	-	-	-	-	-
9.2.40 Graphics contrast (SC 1.4.11)	-	P	P	-	-	-	-	-	-	S	-
9.2.41 Text spacing (SC 1.4.12)	-	P	-	-	-	-	-	-	-	P	-
9.2.42 Content on hover or focus (SC 1.4.13)	-	P	-	-	-	-	-	-	-	P	-
9.2.43 Character key shortcuts (SC 2.4.11)	-	-	-	-	-	-	P	P	-	S	-
9.2.44 Label in name (SC 2.4.12)	-	-	-	-	-	-	P	P	-	S	-
9.2.45 Pointer gestures (SC 2.5.1)	-	-	-	-	-	-	P	P	-	P	-
9.2.46 Pointer cancellation (SC 2.5.2)	-	P	-	-	-	-	P	P	-	P	-
9.2.47 Target size (SC 2.5.3)	-	P	-	-	-	-	P	P	-	S	-
9.2.48 Motion actuation (SC 2.6.1)	S	S	-	-	-	-	P	P	-	S	-
9.2.49 Orientation (SC 2.6.2)	-	-	-	-	-	-	P	P	-	S	-
9.3 WCAG Conformance requirements	P	P	P	P	P	S	P	P	P	P	S
10.2.1 Non-text content (SC 1.1.1)	P	P	-	P	S	-	-	-	-	S	S
10.2.2 Audio-only and video-only (pre-recorded) (SC 1.2.1)	P	P	-	P	P	-	-	-	-	S	-
10.2.3 Captions (pre-recorded) (SC 1.2.2)	-	-	-	P	P	-	-	-	-	S	-
10.2.4 Audio description or media alternative (pre-recorded) (SC 1.2.3)	P	S	-	-	-	-	-	-	-	S	-
10.2.5 Captions (live) (SC 1.2.4)	-	-	-	P	P	-	-	-	-	S	-
10.2.6 Audio description (pre-recorded) (SC 1.2.5)	P	S	-	-	-	-	-	-	-	S	-
10.2.7 Info and relationships (SC 1.3.1)	P	S	-	-	-	-	-	-	-	S	-
10.2.8 Meaningful sequence (SC 1.3.2)	P	S	-	-	-	-	-	-	-	S	-
10.2.9 Sensory characteristics (SC 1.3.3)	P	P	P	P	P	-	-	-	-	S	-
10.2.10 Use of colour (SC 1.4.1)	P	P	P	-	-	-	-	-	-	S	-
10.2.11 Audio control (SC 1.42))	P	-	-	-	P	-	-	-	-	S	-
10.2.12 Contrast (minimum) (SC 1.4.3)	-	P	P	-	-	-	-	-	-	S	-
10.2.13 Resize text (SC 1.4.4)	-	P	-	-	-	-	S	-	-	-	-
10.2.14 Images of text (SC 1.4.5)	-	P	P	-	-	-	-	-	-	S	-
10.2.15 Keyboard (SC 2.1.1)	P	P	-	-	-	S	P	-	-	-	-
10.2.16 No keyboard trap (SC 2.1.2)	P	P	-	-	-	S	P	-	-	-	-

Requirements	4.2.1 WV	4.2.2 LV	4.2.3 WPC	4.2.4 WH	4.2.5 LH	4.2.6 WVC	4.2.7 LMS	4.2.8 LR	4.2.9 PST	4.2.10 LC	4.2.11 P
10.2.17 Timing adjustable (SC 2.2.1)	P	P	-	P	P	-	P	-	-	P	-
10.2.18 Pause, stop, hide (SC 2.2.2)	P	P	-	P	P	-	P	-	-	P	-
10.2.19 Three flashes or below threshold (SC 2.3.1)	-	-	-	-	-	-	-	-	P	-	-
10.2.21 Document titled (SC 2.4.2)	P	P	-	-	-	-	P	-	-	P	-
10.2.22 Focus order (SC 2.4.3)	P	P	-	S	-	-	P	-	-	P	-
10.2.23 Link purpose (In context) (SC 2.4.4)	P	P	-	-	-	S	P	-	-	P	-
10.2.25 Headings and labels (SC 2.4.6)	P	P	-	S	-	S	P	-	-	P	-
10.2.26 Focus visible (SC 2.4.7)	P	P	-	-	-	S	P	-	-	P	-
10.2.27 Language of document (SC 3.1.1)	P	S	-	S	S	-	-	-	-	S	-
10.2.28 Language of parts (SC 3.1.2)	P	S	-	S	S	-	-	-	-	S	-
10.2.29 On focus (SC 3.2.1)	P	P	-	-	-	-	P	-	-	P	-
10.2.30 On input (SC 3.2.2)	P	P	-	-	-	-	P	-	-	P	-
10.2.33 Error identification (SC 3.3.1)	P	P	P	-	-	-	-	-	-	P	-
10.2.34 Labels or instructions (SC 3.3.2)	P	P	-	-	-	S	S	-	-	P	-
10.2.35 Error suggestion (SC 3.3.3)	P	P	-	-	-	S	S	-	-	P	-
10.2.36 Error prevention (legal, financial, data) (SC 3.3.4)	P	P	-	-	-	-	S	-	-	P	-
10.2.37 Parsing (SC 4.1.1)	P	S	-	-	-	-	-	-	-	-	-
10.2.38 Name, role, value (SC 4.1.2)	P	P	-	-	-	-	S	-	-	-	-
10.2.39 Reflow (SC 1.4.10)	-	P	-	-	-	-	-	-	-	-	-
10.2.40 Graphics contrast (SC 1.4.11)	-	P	P	-	-	-	-	-	-	S	-
10.2.41 Text spacing (SC 1.4.12)	-	P	-	-	-	-	-	-	-	P	-
10.2.42 Content on hover or focus (SC 1.4.13)	-	P	-	-	-	-	-	-	-	P	-
10.2.43 Character key shortcuts (SC 2.4.11)	-	-	-	-	-	-	P	P	-	S	-
10.2.44 Label in name (SC 2.4.12)	-	-	-	-	-	-	P	P	-	S	-
10.2.45 Pointer gestures (SC 2.5.1)	-	-	-	-	-	-	P	P	-	P	-
10.2.46 Pointer cancellation (SC 2.5.2)	-	P	-	-	-	-	P	P	-	P	-
10.2.47 Target size (SC 2.5.3)	-	P	-	-	-	-	P	P	-	S	-
10.2.48 Motion actuation (SC 2.6.1)	S	S	-	-	-	-	P	P	-	S	-
10.2.49 Orientation (SC 2.6.2)	-	-	-	-	-	-	P	P	-	S	-
10.2.50 Caption positioning	-	-	-	P	P	-	-	-	-	S	-
10.2.51 Audio description timing	P	S	-	-	-	-	-	-	-	S	-
11.2.1.1 Non-text content (open functionality) (SC 1.1.1)	P	P	-	P	S	-	-	-	-	S	S
11.2.1.2 Non-text content (closed functionality	P	P	-	P	S	-	-	-	-	S	S

Requirements	4.2.1 WV	4.2.2 LV	4.2.3 WPC	4.2.4 WH	4.2.5 LH	4.2.6 WVC	4.2.7 LMS	4.2.8 LR	4.2.9 PST	4.2.10 LC	4.2.11 P
11.2.2.1 Audio-only and video-only (pre-recorded – open functionality) (SC 1.2.1)	P	P	-	P	P	-	-	-	-	S	-
11.2.2.2.1 Pre-recorded audio-only (closed functionality)	-	-	-	P	P	-	-	-	-	S	-
11.2.2.2.2 Pre-recorded video-only (closed functionality)	P	S	-	-	-	-	-	-	-	S	-
11.2.3 Captions (pre-recorded) (SC 1.2.2)	-	-	-	P	P	-	-	-	-	S	-
11.2.4.1 Audio description or media alternative (pre-recorded – open functionality) (SC 1.2.3)	P	S	-	-	-	-	-	-	-	S	-
11.2.4.2 Audio description or media alternative (pre-recorded – closed functionality)	P	S	-	-	-	-	-	-	-	S	-
11.2.5 Captions (live) (SC 1.2.4)	-	-	-	P	P	-	-	-	-	S	-
11.2.6 Audio description (pre-recorded) (SC 1.2.5)	P	S	-	-	-	-	-	-	-	S	-
11.2.7.1 Info and relationships (open functionality) (SC 1.3.1)	P	S	-	-	-	-	-	-	-	S	-
11.2.7.2 Info and relationships (closed functionality)	P	S	-	-	-	-	-	-	-	S	-
11.2.8.1 Meaningful sequence (open functionality) (SC 1.3.2)	P	S	-	-	-	-	-	-	-	S	-
11.2.8.2 Meaningful sequence (closed functionality)	P	S	-	-	-	-	-	-	-	S	-
11.2.9 Sensory characteristics (SC 1.3.3)	P	P	P	P	P	-	-	-	-	S	-
11..10 Use of colour (SC 1.4.1)	P	P	P	-	-	-	-	-	-	S	-
11.2.11 Audio control (SC 1.4.2)	P	-	-	-	P	-	-	-	-	S	-
11.2.12 Contrast (minimum) (SC 1.4.3)	-	P	P	-	-	-	-	-	-	S	-
11.2.13.1 Resize text (open functionality) (SC 1.4.4)	-	P	-	-	-	-	S	-	-	-	-
11.2.13.2 Resize text (closed functionality)	-	P	-	-	-	-	S	-	-	-	-
11.2.14.1 Images of text (open functionality) (SC 1.4.5)	-	P	P	-	-	-	-	-	-	S	-
11.2.14.2 Images of text (closed functionality)	-	-	-	-	-	-	-	-	-	-	-
11.2.15.1 Keyboard (open functionality) (SC 2.1.1)	P	P	-	-	-	S	P	-	-	-	-
11.2.15.2 Keyboard (closed functionality)	P	P	-	-	-	S	P	-	-	-	-
11.2.16 No keyboard trap (SC 2.1.2)	P	P	-	-	-	S	P	-	-	-	-
11.2.17 Timing adjustable (SC 2.2.1)	P	P	-	P	P	-	P	-	-	P	-
11.2.18 Pause, stop, hide (SC 2.2.2)	P	P	-	P	P	-	P	-	-	P	-
11.2.19 Three flashes or below threshold (SC 2.3.1)	-	-	-	-	-	-	-	-	P	-	-

Requirements	4.2.1 WV	4.2.2 LV	4.2.3 WPC	4.2.4 WH	4.2.5 LH	4.2.6 WVC	4.2.7 LMS	4.2.8 LR	4.2.9 PST	4.2.10 LC	4.2.11 P
11.2.22 Focus order (SC 2.4.3)	P	P	-	S	-	-	P	-	-	P	-
11.2.23 Link purpose (in context) (SC 2.4.4)	P	P	-	-	-	S	P	-	-	P	-
11.2.25 Headings and labels (SC 2.4.6)	P	P	-	S	-	S	P	-	-	P	-
11.2.26 Focus visible (SC 2.4.7)	P	P	-	-	-	S	P	-	-	P	-
11.2.27.1 Language of software (open functionality) (SC 3.1.1)	P	S	-	S	S	-	-	-	-	S	-
11.2.27.2 Language of software (closed functionality)	P	S	-	S	S	-	-	-	-	S	-
11.2.29 On focus (SC 3.2.1)	P	P	-	-	-	-	P	-	-	P	-
11.2.30 On input (SC 3.2.2)	P	P	-	-	-	-	P	-	-	P	-
11.2.33.1 Error identification (open functionality) (SC 3.3.1)	P	P	P	-	-	-	-	-	-	P	-
11.2.33.2 Error Identification (closed functionality)	P	P	P	-	-	-	-	-	-	P	-
11.2.34 Labels or instructions (SC 3.3.2)	P	P	-	-	-	S	S	-	-	P	-
11.2.35 Error suggestion (SC 3.3.3)	P	P	-	-	-	S	S	-	-	P	-
11.2.36 Error prevention (legal, financial, data) (SC 3.3.4)	P	P	-	-	-	-	S	-	-	P	-
11.2.37.1 Parsing (open functionality) (SC 4.1.1)	P	S	-	-	-	-	-	-	-	-	-
11.2.37.2 Parsing (closed functionality)	-	-	-	-	-	-	-	-	-	-	-
11.2.38.1 Name, role, value (open functionality) (SC 4.1.2)	P	P	-	-	-	-	S	-	-	-	-
11.2.38.2 Name, role, value (closed functionality)	-	-	-	-	-	-	-	-	-	-	-
11.2.39.1 Reflow (SC 1.4.10)	-	P	-	-	-	-	-	-	-	-	-
11.2.39.2 Reflow	-	P	-	-	-	-	-	-	-	-	-
11.2.40 Graphics contrast (SC 1.4.11)	-	P	P	-	-	-	-	-	-	S	-
11.2.41 Text spacing (SC 1.4.12)	-	P	-	-	-	-	-	-	-	P	-
11.2.42 Content on hover or focus (SC 1.4.13)	-	P	-	-	-	-	-	-	-	P	-
11.2.43.1 Character key shortcuts (SC 2.4.11)	-	-	-	-	-	-	P	P	-	S	-
11.2.43.2 Character key shortcuts	-	-	-	-	-	-	P	P	-	S	-
11.2.44.1 Label in name (SC 2.4.12)	-	-	-	-	-	-	P	P	-	S	-
11.2.44.2 Label in name	-	-	-	-	-	-	-	-	-	-	-
11.2.45 Pointer gestures (SC 2.5.1)	-	-	-	-	-	-	P	P	-	P	-
11.2.46 Pointer cancellation (SC 2.5.2)	-	P	-	-	-	-	P	P	-	P	-
11.2.47 Target size (SC 2.5.3)	-	P	-	-	-	-	P	P	-	S	-
11.2.48 Motion actuation (SC 2.6.1)	S	S	-	-	-	-	P	P	-	S	-
11.2.49 Orientation (SC 2.6.2)	-	-	-	-	-	-	P	P	-	S	-
11.3.1 Closed functionality	-	-	-	-	-	-	-	-	-	-	-
11.3.2.1 Platform accessibility service support for software that provides a user interface	P	P	-	-	-	-	P	-	-	S	-

Requirements	4.2.1 WV	4.2.2 LV	4.2.3 WPC	4.2.4 WH	4.2.5 LH	4.2.6 WVC	4.2.7 LMS	4.2.8 LR	4.2.9 PST	4.2.10 LC	4.2.11 P
11.3.2.2 Platform accessibility service support for assistive technologies	P	P	-	-	-	-	P	-	-	S	-
11.3.2.3 Use of accessibility services	P	P	-	-	-	-	P	-	-	S	-
11.3.2.4 Assistive technology	P	P	-	-	-	-	P	-	-	S	-
11.3.2.5 Object information	P	P	-	-	-	-	P	-	-	S	-
11.3.2.6 Row, column, and headers	P	P	-	-	-	-	P	-	-	S	-
11.3.2.7 Values	P	P	-	-	-	-	P	-	-	S	-
11.3.2.8 Label relationships	P	P	-	-	-	-	P	-	-	S	-
11.3.2.9 Parent-child relationships	P	P	-	-	-	-	P	-	-	S	-
11.3.2.10 Text	P	P	-	-	-	-	P	-	-	S	-
11.3.2.11 List of available actions	P	P	-	-	-	-	P	-	-	S	-
11.3.2.12 Execution of available actions	P	P	-	-	-	-	P	-	-	S	-
11.3.2.13 Tracking of focus and selection attributes	P	P	-	-	-	-	P	-	-	S	-
11.3.2.14 Modification of focus and selection attributes	P	P	-	-	-	-	P	-	-	S	-
11.3.2.15 Change notification	P	P	-	-	-	-	P	-	-	S	-
11.3.2.16 Modifications of states and properties	P	P	-	-	-	-	P	-	-	S	-
11.3.2.17 Modifications of values and text	P	P	-	-	-	-	P	-	-	S	-
11.4.1 User control of accessibility features	P	P	P	P	P	-	P	-	-	-	-
11.4.2 No disruption of accessibility features	P	P	P	P	P	-	P	-	-	-	-
11.5 User preferences	-	P	P	-	-	-	-	-	-	S	-
11.6.1 Content technology	P	P	P	P	P	S	P	P	P	P	S
11.6.2 Accessible content creation	P	P	P	P	P	S	P	P	P	P	S
11.6.3 Preservation of accessibility information in transformations	P	P	P	P	P	S	P	P	P	P	S
11.6.4 Repair assistance	P	P	P	P	P	S	P	P	P	P	S
11.6.5 Templates	P	P	P	P	P	S	P	P	P	P	S
12.1.1 Accessibility and compatibility features	P	P	P	P	P	-	P	-	-	S	-
12.1.2 Accessible documentation	P	P	P	P	P	S	P	P	P	P	S
12.2.2 Information on accessibility and compatibility features	P	P	P	P	P	-	P	-	-	S	-
12.2.3 Effective communication	-	-	-	P	P	P	-	-	-	S	-
12.2.4 Accessible documentation	P	P	P	P	P	S	P	P	P	P	S
13.1.2 Text relay services	-	-	-	P	P	P	-	-	-	S	-
13.1.3 Sign relay services	-	-	-	P	P	P	-	-	-	-	-
13.1.4 Lip-reading relay services	-	-	-	P	P	P	-	-	-	-	-
13.1.5 Captioned telephony services	-	-	-	P	P	P	-	-	-	-	-
13.1.6 Speech to speech relay services	-	-	-	-	-	-	-	-	-	P	-
13.2 Access to relay services	-	-	-	P	P	P	-	-	-	S	-
13.3 Access to emergency services	-	-	-	P	P	P	-	-	-	S	-

Annex C (normative): Determination of compliance

C.1 Introduction

This normative annex sets out the means necessary to determine compliance with the individual requirements set out in the body of the present document.

All clauses except those in clause 12 are self-scoping. This means they are introduced with the phrase 'Where ICT <pre-condition>'. Compliance is achieved either when the pre-condition is true and the corresponding test (in Annex C) is passed, or when the pre-condition is false (i.e. the pre-condition is not met or not valid).

To assist the reader, blank clauses are inserted in order to make the numbering of the annex reflect the clause numbers in the requirements.

ICT is often comprised of an assembly of two or more items of ICT. In some cases, two or more interoperable items of ICT may together meet more requirements of the standard when one item complements the functionality of the other and the sum together meets more of the accessibility requirements. However, combining two items of ICT, both of which fail to meet any particular requirement, will not lead to a combined ICT system that meets that requirement.

The present document does not prioritise requirements. Prioritization of those requirements is left to the user of the present document.

Prioritization of those requirements that align with the targeted context of use may enhance accessibility in the case of partial compliance and the rationale for that prioritization, if used, should be stated.

Compliance should shall be reported in a form that:

- makes clear whether there is compliance with all the applicable requirements or whether there is only compliance with some requirements;
- notes the sampling and assessment techniques used to evaluate the ICT;
- notes whether equivalent accessible functionality exists in places where non-compliance was found; and
- notes whether equivalent means were used that achieve the outcome envisioned, where technical non-compliance was found.

NOTE 1: In some circumstances, when the present document is used for purposes other than supporting Directive 2016/2102, user accessibility needs might be met by a subset of the requirements. For example, where ICT is designed to be used by a specific individual, or in a well-defined usage scenario, a particular functional performance statement in clause 4.2, and/or associated requirement of clauses 5-13, could be omitted if such an omission will have no negative impact on the accessibility needs of the intended users in the planned context of use.

NOTE 2: Compliance with the accessibility requirements could be affected by subsequent implementation or maintenance.

OTE 3: Sampling is frequently required on complex ICT when there are too many instances of the object to be tested. The present document cannot recommend specific ICT evaluation sampling techniques as these are context specific.

C.2 Blank clause

This clause is intentionally left blank.

C.3 Blank clause

This clause is intentionally left blank.

C.4 Functional performance

Clause 4 is informative and does not contain requirements that require testing.C.5 Generic requirements

C.5.1 Closed functionality

C.5.1.1 Introduction

Clause 5.1.1 is informative and does not contain requirements that require testing.C.5.1.2 General

C.5.1.2.1 Closed functionality

ICT with closed functionality shall meet the requirements set out in clauses C.5.2 to C.13, as applicable.

C.5.1.2.2 Assistive technology

Type of assessment	Testing
Pre-conditions	1. The ICT has closed functionality.
Procedure	1. Determine the closed functions of the ICT. 2. Check that the tests C.5.1.3 to C.5.1.6 can be carried out without the attachment or installation of any assistive technology except personal headsets or inductive loops.
Result	Pass: Check 2 is true Fail: Check 2 is false

C.5.1.3 Non-visual access

C.5.1.3.1 General

Type of assessment	Testing
Pre-conditions	1. Visual information is needed to enable the use of those functions of the ICT that are closed to assistive technology for screen reading.
Procedure	1. Determine the functions of the ICT closed to screen reading. 2. Check that they are all operable using non-visual access.
Result	Pass: Check 2 is true Fail: Check 2 is false

C.5.1.3.2 Auditory output delivery including speech

Type of assessment	Inspection
Pre-conditions	1. Auditory output is provided as non-visual access to closed functionality.
Procedure	1. Check that the auditory output is delivered by a mechanism included in or provided with the ICT. 2. Check that the auditory output is delivered by a personal headset that can be connected through a 3,5 mm audio jack or an industry standard connection without requiring the use of vision.
Result	Pass: Check 1 or 2 is true Fail: Checks 1 and 2 are false

C.5.1.3.3 Auditory output correlation

Clause 5.1.3.3 is informative only and contains no requirements requiring test.

C.5.1.3.4 Speech output user control

Type of assessment	Inspection
Pre-conditions	1. Speech output is provided as non-visual access to closed functionality.
Procedure	1. Check that the speech output is capable of being interrupted when requested by the user. 2. Check that the speech output is capable of being repeated when requested by the user.

Result	Pass: All checks are true Fail: Any check is false

C.5.1.3.5 Speech output automatic interruption

Type of assessment	Inspection
Pre-conditions	1. Speech output is provided as non-visual access to closed functionality.
Procedure	1. Determine the closed functions of the ICT. 2. Check that the speech output for each single function is interrupted on a user action. 3. Check that the speech output for each single function is interrupted when new speech output begins.
Result	Pass: Check 2 and 3 are true Fail: Check 2 or 3 are false

C.5.1.3.6 Speech output for non-text content

Type of assessment	Testing
Pre-conditions	1. Non-text content is presented to users via speech output.
Procedure	1. Check that speech output is provided as an alternative for non-text content. 2. Check that the non-text content is not pure decoration. 3. Check that the non-text content is not used only for visual formatting. 4. Check that the speech output follows the guidance for "text alternative" described in WCAG 2.0 Success Criterion 1.1.1.
Result	Pass: Checks 1 and 2 and 3 and 4 are true; or 1 and 2 are false; or 1 and 3 are false Fail: Checks 1 is true and 2 false; or 1 is true and 3 false; or 1 and 2 and 3 are true and 4 is false

C.5.1.3.7 Speech output for video information

Type of assessment	Testing
Pre-conditions	1. Pre-recorded video content is needed to enable the use of closed functions of ICT 2. Speech output is provided as non-visual access to non-text content displayed on closed functionality.
Procedure	1. Check that the speech output presents equivalent information for the pre-recorded video content.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.5.1.3.8 Masked entry

Type of assessment	Testing
Pre-conditions	1. Auditory output is provided as non-visual access to closed functionality. 2. The characters displayed are masking characters. 3. The user does not explicitly choose to allow non-private auditory output.
Procedure	1. Check that the auditory output is not a spoken version of the characters entered. 2. Check that the auditory output is known to be delivered only to a mechanism for private listening. 3. If 1 and 2 are false, check that the user has explicitly chosen to allow non-private auditory output.
Result	Pass: Any check is true Fail: All checks are false

C.5.1.3.9 Private access to personal data

Type of assessment	Testing
Pre-conditions	1. Auditory output is provided as non-visual access to closed functionality. 2. The output contains data. 3. There is an applicable privacy policy which considers that data to be private.
Procedure	1. Check that the auditory output is only delivered through a mechanism for private listening. 2. Check that the mechanism for private listening can be connected without requiring the use of vision. 3. Check that the auditory output is delivered through any other mechanism that can be chosen by the user.
Result	Pass: Checks 1 and 2 or 3 are true Fail: Checks 1 or 2 and 3 are false

C.5.1.3.10 Non-interfering audio output

Type of assessment	Testing
Pre-conditions	1. Auditory output is provided as non-visual access to closed functionality. 2. The ICT automatically plays interfering audible output.
Procedure	1. Check that the interfering audible output lasts no longer than three seconds.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.5.1.3.11 Private listening volume

Type of assessment	Inspection
Pre-conditions	1. The auditory output is provided as non-visual access to closed functionality. 2. The auditory output is delivered through a mechanism for private listening.
Procedure	1. Check that there is at least one non-visual mode of operation for controlling the volume.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.5.1.3.12 Speaker volume

Type of assessment	Inspection and measurement
Pre-conditions	1. The auditory output is provided as non-visual access to closed functionality. 2. The auditory output is delivered through speakers.
Procedure	1. Check that a non-visual incremental volume control is provided. 2. Check that output amplification up to a level of at least 65 dBA (-29 dBPaA) is available.
Result	Pass: Checks 1 and 2 are true Fail: Check 1 or 2 is false

C.5.1.3.13 Volume reset

Type of assessment	Inspection and measurement
Pre-conditions	1. The auditory output is provided as non-visual access to closed functionality. 2. The ICT is not dedicated to a single user.
Procedure	1. Check that a function that automatically resets the volume to be at a level of 65 dBA or less after every use is provided.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.5.1.3.14 Spoken languages

Type of assessment	Testing
Pre-conditions	1. The speech output is provided as non-visual access to closed functionality. 2. The speech output is not proper names, technical terms, words of indeterminate language, and words or phrases that have become part of the vernacular of the immediately surrounding text. 3. The content is not generated externally and is under the control of the ICT vendor. 4. The displayed languages can be selected using non-visual access. 5. The user has not selected a speech language that is different from the language of the displayed content.
Procedure	1. Check that the speech output is in the same human language of the displayed content provided.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.5.1.3.15 Non-visual error identification

Type of assessment	Testing
Pre-conditions	1. Speech output is provided as non-visual access to closed functionality. 2. An input error is automatically detected.
Procedure	1. Check that speech output identifies the item that is in error. 2. Check that the speech output describes the item that is in error.
Result	Pass: Checks 1 and 2 are true Fail: Check 1 or check 2 false

C.5.1.3.16 Receipts, tickets, and transactional outputs

Type of assessment	Testing
Pre-conditions	1. The ICT is closed to visual access. 2. The ICT provides receipts, tickets, or other outputs as a result of a self-service transaction. 3. The information being checked is not printed copies of itineraries and maps.
Procedure	1. Check that speech output is provided which includes all information necessary to complete or verify the transaction.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.5.1.4 Functionality closed to text enlargement

Type of assessment	Inspection and measurement
Pre-conditions	1. A functionality of the ICT is closed to enlargement features of platform or assistive technology. 2. A viewing distance is specified by the supplier.
Procedure	1. Measure the height of a capital letter H. 2. Check that it subtends an angle of at least 0,7 degrees at the specified viewing distance.
Result	Pass: Check 2 is true Fail: Check 2 is false

C.5.1.5 Visual output for auditory information

Type of assessment	Inspection
Pre-conditions	1. Pre-recorded auditory information is needed to enable the use of closed functions of ICT.
Procedure	1. Check that the visual information is equivalent to the pre-recorded auditory output.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.5.1.6 Operation without keyboard interface

C.5.1.6.1 Closed functionality

Type of assessment	Inspection
Pre-conditions	1. ICT functionality is closed to keyboards or keyboard interfaces.
Procedure	1. Check that all functionality is operable without vision.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.5.1.6.2 Input focus

Type of assessment	Inspection
Pre-conditions	1. ICT functionality is closed to keyboards or keyboard interfaces. 2. Input focus can be moved to a user interface element.
Procedure	1. Check that it is possible to move the input focus away from that element using the same mechanism.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.5.2 Activation of accessibility features

Type of assessment	Inspection
Pre-conditions	1. The ICT has documented accessibility features to meet a specific need.
Procedure	1. Check that it is possible to activate those accessibility features without relying on a method that does not support that need.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.5.3 Biometrics

Type of assessment	Test 1
Pre-conditions	1. The ICT uses biological characteristic for user identification.
Procedure	1. Check that more than one means can be used for user identification.

Result	Pass: Check 1 is true Fail: Check 1 is false
Type of assessment	Test 2
Pre-conditions	1. The ICT uses biological characteristic for control of ICT.
Procedure	1. Check that more than one means can be used for control of ICT.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.5.4 Preservation of accessibility information during conversion

Type of assessment	Inspection
Pre-conditions	1. The non-proprietary information provided for accessibility is documented. 2. The ICT converts information or communication. 3. The non-proprietary information provided for accessibility can be contained in the destination format. 4. The non-proprietary information provided for accessibility can be supported by the destination format.
Procedure	1. Check that the non-proprietary information provided for accessibility is preserved when the ICT converts information or communication.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.5.5 Operable parts

C.5.5.1 Means of operation

Type of assessment	Testing
Pre-conditions	The ICT has operable parts that require grasping, pinching, or twisting of the wrist to operate.
Procedure	1. Check that there is an accessible alternative means of operation that does not require these actions.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.5.5.2 Operable part discernibility

Type of assessment	Testing
Pre-conditions	The ICT has operable parts.
Procedure	1. Identify that there is a means to discern each operable part without vision. 2. Check that the action associated with the operable part has not been performed when using the means to discern each operable part of step 1.
Result	Pass: Checks 1 and 2 are true Fail: Checks 1 or 2 are false

C.5.6 Locking or toggle controls

C.5.6.1 Tactile or auditory status

Type of assessment	Inspection
Pre-conditions	1. The ICT has a locking or toggle control. 2. The locking or toggle control is visually presented to the user.
Procedure	1. Check that there is at least one mode of operation where the status of all locking or toggle controls can be determined through touch without operating the control. 2. Check that there is at least one mode of operation where the status of all locking or toggle controls can be determined through sound without operating the control.
Result	Pass: Check 1 or 2 is true Fail: Checks 1 and 2 are false

C.5.6.2 Visual status

Type of assessment	Inspection
Pre-conditions	1. The ICT has a locking or toggle control. 2. The locking or toggle control is presented to the user.
Procedure	1. Check that there is at least one mode of operation where the status of all locking or toggle controls can be visually determined when the control is presented.

Result	Pass: Check 1 is true Fail: Check 1 is false

C.5.7 Key repeat

Type of assessment	Testing
Pre-conditions	1. The ICT has a key repeat function A keyboard or keypad with key repeat is provided. 2. The key repeat cannot be turned off.
Procedure	1. Check that the delay before key repeat can be adjusted to at least 2 seconds. 2. Check that the key repeat rate can be adjusted to 2 seconds per character.
Result	Pass: Checks 1 and 2 are true Fail: Check 1 or 2 is false

C.5.8 Double-strike key acceptance

Type of assessment	Testing
Pre-conditions	1. The ICT has a keyboard or keypadA keyboard or keypad is provided.
Procedure	1. Check that there is a mechanism that allows adjustment of the delay after any keystroke, during which an additional key-press will not be accepted if it is identical to the previous keystroke. 2. Adjust that mechanism to its maximum setting. 3. Press any key. 4. After a delay of 0,5 seconds press the same key as that pressed in step 3. 5. Check whether the keystroke of step 4 has been accepted.
Result	Pass: Check 1 is true and check 5 is false Fail: Check 1 is false or check 5 is true

C.5.9 Simultaneous user actions

Type of assessment	Inspection
Pre-conditions	None.
Procedure	1. If there are multiple modes of operation, select one mode of operation (see notes 1 and 2 of this table for guidance on the selection). 2. Determine all the user controllable functions of the ICT. 3. Check that each user controllable function can be operated with a single point of contact. 4. If there are multiple modes of operation and the test is not passed, repeat the procedure until all modes of operation have been tested.
Result	Pass: Check 3 is true Fail: Check 3 is false for all modes of operation
NOTE 1: If there are multiple modes of operation, these should be tested until the compliance test is passed. NOTE 2: Where it is claimed that a specific mode complies with clause 5.6, this mode should be tested first.	

C.6 ICT with two-way voice communication

C.6.1 Audio bandwidth for speech

The tests in clause C.6.1 are made available to support the recommendations in clause 6.1. They should be applied if the recommendations in clause 6.1 are being followed. However, tests in clause C.6.1 do not form part of the compliance requirements and are not required in any compliance report.

Type of assessment	Measurement
Pre-conditions	1. The ICT under test provides two-way voice communication.
Procedure	1. Check that the ICT can encode and decode audio with a frequency range with an upper limit of at least 7 000 Hz.
Result	If check 1 is true then this recommendation is followed. This is not a requirement for conformance to the present document.

C.6.2 Real-Time Text (RTT) functionality

C.6.2.1 RTT provision

C.6.2.1.1 RTT communication

Type of assessment	Inspection
Pre-conditions	1. The ICT system under test allows two-way voice communication. 2. A "reference" RTT-capable device compatible with the system is connected at the other end of the system.
Procedure	1. Check that the ICT allows a user to communicate with the "reference" ICT by RTT.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.6.2.1.2 Concurrent voice and text

Type of assessment	Inspection
Pre-conditions	1. The ICT supports two-way voice communication. 2. The ICT enables a user to communicate with another user by RTT.
Procedure	1. Check that the ICT provides a mechanism to select a mode of operation which allows concurrent voice and text. 2. Check that ICT allows the concurrent use of voice and text when in the mode of operation identified in step 1.
Result	Pass: Checks 1 and 2 are true Fail: Check 1 or 2 is false

C.6.2.2 Display of Real-Time Text

C.6.2.2.1 Visually distinguishable display

Type of assessment	Inspection
Pre-conditions	1. The ICT under test has RTT send and receive capabilities. 2. The ICT supports RTT mechanism(s). 3. A "reference" RTT-capable terminal using mechanisms supported by the ICT system is connected at the other end of the system to the ICT under test.
Procedure	1. The ICT under test is connected to the ICT system terminated by the "reference" terminal. 2. The different elements of the ICT are in an operational status (the connection is active and the terminals are in the relevant RTT mode) and the two terminals are communicating to each other. 3. A Short text sequence is sent by the ICT under test. 4. A Short text sequence is sent by the "reference" terminal. 5. Check, on the ICT under test, that displayed sent text is visually differentiated from and separated from received text.
Result	Pass: Check 5 is true Fail: Check 5 is false
NOTE: A "reference" terminal is a terminal having RTT send and receive capabilities that uses the RTT mechanisms supported by the ICT system. This "reference" terminal is the responsibility of the test laboratory.	

C.6.2.2.2 Programmatically determinable send and receive direction

Type of assessment	Inspection
Pre-conditions	1. The ICT under test has RTT send and receive capabilities. 2. The RTT is not a closed functionality. 3. A "reference" RTT-capable terminal using mechanisms supported by the ICT network is connected at the other end of an ICT system to the ICT under test.
Procedure	1. The ICT under test is connected to the ICT system terminated by the "reference" terminal. 2. The different elements of the ICT are in an operational status (the connection is active and the terminals are in the relevant RTT mode) and the two terminals are communicating to each other. 3. A Short text sequence is sent by the ICT under test. 4. A Short text sequence is sent by the "reference" terminal.

	5. Check that the send/receive direction of transmitted text is programmatically determinable.
Result	Pass: Check 5 is true Fail: Check 5 is false
NOTE: A "reference" terminal is a terminal having RTT send and receive capabilities that uses the RTT mechanisms supported by the ICT network. This "reference" terminal is the responsibility of the test laboratory.	

C.6.2.3 Interoperability

Type of assessment	Test
Pre-conditions	1. The ICT under test supports two-way voice communication. 2. The ICT under test has RTT functionality.
Procedure	1. Check that the ICT interoperates over the Public Switched Telephone Network (PSTN), with other ICT that directly connects to the PSTN as described in Recommendation ITU-T V.18 [i.23] or any of its annexes for text telephony signals at the PSTN interface. 2. Check that the ICT interoperates with other ICT using VOIP with Session Initiation Protocol (SIP) and using real-time text that conforms to IETF RFC 4103 [i.13]. 3. Check that the ICT interoperates with other ICT using RTT that conforms with the IP Multimedia Sub-System (IMS) set of protocols specified in ETSI TS 126 114 [i.10], ETSI TS 122 173 [i.11] and ETSI TS 134 229 [i.12]. 4. Check that the ICT interoperates with other ICT using a relevant and applicable common specification that is published and available. 5. Check that the common specification in check 4 includes a method for indicating loss or corruption of characters.
Result	Pass: Check 1 or 2 or 3 or both 4 and 5 are true Fail: All of Checks 1, 2, 3 and at least one of 4 or 5 are false

C.6.2.4 Real-Time Text responsiveness

Type of assessment	Inspection of Measurement data or Test
Pre-conditions	1. The ICT under test has RTT send and receive capabilities. 2. A "reference" RTT-capable terminal using mechanisms supported by the ICT system is connected at the other end of an ICT system to the ICT under test. 3. The ICT under test is connected to the ICT system terminated by the "reference" terminal. 4. The different elements of the ICT are in a working status (the connection is active and the terminals are in the relevant RTT mode).
Procedure	1. A short sequence is input to the terminal under test. 2. Check the time at which input entry has occurred. 3. Check the period between input entry to the ICT terminal under test and the time when the text is transmitted to the ICT network.
Result	Pass: Check 3 is less than or equal to 1 second Fail: Check 3 is greater than 1 second
NOTE: As described in the notes to clause 6.2.4, the identification of when input entry has occurred may vary according to the type of RTT system under test.	

C.6.3 Caller ID

Type of assessment	Inspection
Pre-conditions	1. The ICT provides caller identification, or similar telecommunications functions are provided.
Procedure	1. Check that the information delivered by each function is available as text. 2. Check that the information delivered by each function is available in another modality.
Result	Pass: Both Checks 1 and 2 are true Fail: Check 1 or 2 is false

C.6.4 Alternatives to voice-based services

Type of assessment	Inspection
Pre-conditions	1. The ICT provides real-time voice-based communication. 2. The ICT provides voice mail, auto-attendant, or interactive voice response facilities.
Procedure	1. Check that the ICT offers users a means to access the information without the use of hearing or speech.

	2. Check that a user can carry out the tasks provided by the system without the use of hearing or speech.
Result	Pass: Checks 1 and 2 are true Fail: Check 1 or 2 is false

C.6.5 Video communication

C.6.5.1 General

Clause 6.5.1 is informative only and contains no requirements requiring test.

C.6.5.2 Resolution

Type of assessment	Inspection
Pre-conditions	1. The ICT provides 2 way voice communication. 2. The ICT includes real-time video functionality.
Procedure	1. Check that the video communication resolution is QCIF resolution or better.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.6.5.3 Frame rate

Type of assessment	Inspection
Pre-conditions	1. The ICT provides 2 way voice communication. 2. The ICT includes real-time video functionality.
Procedure	1. Check that the video communication frame rate is equal to or higher than 12 frames per second.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.6.5.4 Synchronization between audio and video

Type of assessment	Measurement
Pre-conditions	1. The ICT provides 2 way voice communication. 2. The ICT includes real-time video functionality.
Procedure	1. Check that the time difference between the speech and video presented to the user is equal to or less than 100 ms.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.6.6 Alternatives to video-based services

Clause 6.6 is advisory only and contains no requirements requiring test.

C.7 ICT with video capabilities

C.7.1 Caption processing technology

C.7.1.1 Captioning playback

Type of assessment	Test 1
Pre-conditions	1. The ICT displays or processes video with synchronized audio. 2. Captions are provided in the video.
Procedure	1. Check that there is a mechanism to display the captions.
Result	Pass: Check 1 is true Fail: Check 1 is false
Type of assessment	Test 2
Pre-conditions	1. The ICT displays or processes video with synchronized audio. 2. Closed captions are provided by the content.
Procedure	1. Check that there is a mechanism to choose to display the captions.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.7.1.2 Captioning synchronization

Type of assessment	Inspection
Pre-conditions	1. The ICT has a mechanism to display captions.
Procedure	1. Check that the mechanism to display the captions preserves the synchronization between the audio and corresponding captions.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.7.1.3 Preservation of captioning

Type of assessment	Inspection
Pre-conditions	1. The ICT transmits converts or records video with synchronized audio.
Procedure	1. Check that the ICT preserves caption data such that it can be displayed in a manner consistent with 7.1.1 and 7.1.2.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.7.2 Audio description technology

C.7.2.1 Audio description playback

Type of assessment	Inspection
Pre-conditions	1. The ICT displays video with synchronized audio.
Procedure	1. Check that there is an explicit and separate mechanism for audio description. 2. Check that there is a mechanism to select and play the audio description to the default audio channel. 3. Check that the ICT enables the user to select and play several audio tracks.
Result	Pass: Check 1 and 2 are true or 1 is false and 3 is true Fail: Check 1 is true and 2 is false or 1 is false and 3 is false

C.7.2.2 Audio description synchronization

Type of assessment	Inspection
Pre-conditions	1. The ICT has a mechanism to play audio description.
Procedure	1. Check that the synchronization between the audio/visual content and the corresponding audio description is preserved.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.7.2.3 Preservation of audio description

Type of assessment	Inspection
Pre-conditions	1. The ICT transmits converts or records video with synchronized audio.
Procedure	1. Check that the ICT preserves audio description data such that it can be played in a manner consistent with 7.2.1 and 7.2.2.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.7.3 User controls for captions and audio description

Type of assessment	Inspection
Pre-conditions	1. The ICT primarily display materials containing video with associated audio content.
Procedure	1. Check that user controls to activate subtitling and audio descriptions are provided to the user at the same level of interaction as the primary media controls.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.8 Hardware

C.8.1 General

C.8.1.1 Generic requirements

Clause 8.1.1 contains no requirements requiring test.

C.8.1.2 Standard connections

Type of assessment	Inspection
Pre-conditions	1. The ICT provides user input or output device connection points.
Procedure	1. Check that one type of connection conforms to an industry standard non-proprietary format. 2. Check that one type of connection conforms to an industry standard non-proprietary format through the use of commercially available adapters.
Result	Pass: Check 1 or 2 is true Fail: Checks 1 and 2 are false
NOTE: The connections may be physical or wireless connections.	

C.8.1.3 Colour

Type of assessment	Inspection
Pre-conditions	1. The hardware aspects of the ICT conveys visual information using colour coding as a means to indicate an action, to prompt a response, or to distinguish a visual element.
Procedure	1. Check that an alternative form of visual coding is provided.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.8.2 Hardware products with speech output

C.8.2.1 Speech volume gain

C.8.2.1.1 Speech volume range

Type of assessment	Inspection based on measurement data
Pre-conditions	1. The ICT hardware has speech output.
Procedure	1. Check that the ICT is certified to meet ANSI/TIA-4965 [i.2]. 2. Measure the level (in dB) of the speech output at the lowest volume setting. 3. Measure the level (in dB) of the speech output at the highest volume setting. 4. Check that the range between 1 and 2 is greater than or equal to 18 dB.
Result	Pass: Check 1 or 4 is true Fail: Check 1 and 4 are false

C.8.2.1.2 Incremental volume control

Type of assessment	Inspection based on measurement data
Pre-conditions	1. The ICT hardware has speech output. 2. The volume control is incremental.
Procedure	1. Measure the level (in dB) of the speech output at the lowest volume setting. 2. Check if one intermediate step provides a level 12 dB above the lowest volume level measured in step 1.
Result	Pass: Check 2 is true Fail: Check 2 is false

C.8.2.2 Magnetic coupling

C.8.2.2.1 Fixed-line devices

Type of assessment	Inspection based on measurement data
Pre-conditions	1. The ICT hardware is a fixed line communication device with an audio output that is normally held to the ear. 2. The ICT carries the "T" symbol.
Procedure	1. Check that the ICT is certified to meet TIA-1083-A [i.24].

	2. Measurements are made according to ETSI ES 200 381-1 [2] which prove that the requirements defined in that standard are fulfilled.
Result	Pass: Check 1 or 2 is true Fail: Checks 1 and 2 are false

C.8.2.2.2 Wireless communication devices

Type of assessment	Inspection based on measurement data
Pre-conditions	1. The ICT hardware is a wireless communication device which is normally held to the ear.
Procedure	1. Check that the ICT is certified to meet ANSI/IEEE C63.19 [i.1]. 2. Check that the ICT provide a means of magnetic coupling to hearing technologies which meets the requirements of ETSI ES 200 381-2 [3].
Result	Pass: Check 1 or 2 is true Fail: Checks 1 and 2 are false

C.8.3 Physical access to ICT

C.8.3.1 General

Clause 8.3.1 is advisory only and contains no requirements requiring test.

The tests in clause C.8.3 are made available to support the recommendations in clause 8.3. They should be applied if the recommendations in clause 8.3 are being followed. However, tests in clause C.8.3 do not form part of the compliance requirements and are not required in any compliance report.

C.8.3.2 Clear floor or ground space

C.8.3.2.1 Change in level

a)

Type of assessment	Inspection and measurement
Pre-conditions	1. There is a change in level integral to the ICT.
Procedure	1. Check that the change in level is ramped with a slope less than1:48.
Result	If check 1 is true then this recommendation is followed.

b)

Type of assessment	Inspection and measurement
Pre-conditions	1. There is a change in level integral to the ICT. 2. The change in level is less than or equal to 6,4 mm.
Procedure	1. Check that the step is vertical or ramped.
Result	If check 1 is true then this recommendation is followed.

c)

Type of assessment	Inspection and measurement
Pre-conditions	1. There is a change in level integral to the ICT. 2. The change in level is less than or equal to 13 mm.
Procedure	1. Check that the ramp has a slope less than 1:2.
Result	If check 1 is true then this recommendation is followed.

C.8.3.2.2 Clear floor or ground space

Type of assessment	Inspection and measurement
Pre-conditions	1. The operating area is integral to the ICT.
Procedure	1. Check that the operating area is a rectangle with minimum dimension on one edge of 760 mm. 2. Check that the operating area is a rectangle with the minimum dimension on the other edge of 1 220 mm.
Result	If check 1 is true then this recommendation is followed.

C.8.3.2.3 Approach

C.8.3.2.3.1 General

Type of assessment	Inspection
Pre-conditions	1. Access space is integral to the ICT.
Procedure	1. Check that one full side of the space is unobstructed.
Result	If check 1 is true then this recommendation is followed.

C.8.3.2.3.2 Forward Approach

Type of assessment	Inspection and measurement
Pre-conditions	1. The operating area is inside an alcove integral to the ICT. 2. The depth of the alcove is greater than 610 mm. 3. A forward approach is necessary.
Procedure	1. Check that the width of the alcove is greater than 915 mm.
Result	If check 1 is true then this recommendation is followed.

C.8.3.2.3.3 Parallel Approach

Type of assessment	Inspection and measurement
Pre-conditions	1. The operating area is inside an alcove integral to the ICT. 2. The depth of the alcove is greater than 380 mm. 3. A parallel approach is possible.
Procedure	1. Check that the width of the access space is greater than 1 525 mm.
Result	If check 1 is true then this recommendation is followed.

C.8.3.2.4 Knee and toe clearance width

Type of assessment	Inspection and measurement
Pre-conditions	1. The space under an obstacle integral to the ICT is part of an access space.
Procedure	1. Check that the width of the knee clearance is greater than 760 mm. 2. Check that the width of the toe clearance is greater than 760 mm.
Result	If check 1 is true then this recommendation is followed.

C.8.3.2.5 Toe clearance

a)

Type of assessment	Inspection and measurement
Pre-conditions	1. The ICT is free-standing. 2. There is a space under any obstacle integral to the ICT that is less than 230 mm over the floor.
Procedure	1. Check that the toe clearance does not extend more than 635 mm under the obstacle.
Result	If check 1 is true then this recommendation is followed.

b)

Type of assessment	Inspection and measurement
Pre-conditions	1. The ICT is free-standing. 2. There is a space under any obstacle integral to the ICT that is less than 230 mm over the floor.
Procedure	1. Check that the toe clearance extends more than 430 mm under the whole obstacle.
Result	If check 1 is true then this recommendation is followed.

c)

Type of assessment	Inspection and measurement
Pre-conditions	1. The ICT is free-standing. 2. There is an obstacle integral to the ICT at less than 230 mm over the floor.
Procedure	1. Check that the toe clearance extends less than 150 mm under the obstacle.
Result	If check 1 is true then this recommendation is followed.

C.8.3.2.6 Knee clearance

a)

Type of assessment	Inspection and measurement
Pre-conditions	1. There is an obstacle that is integral to the ICT. 2. The obstacle is between 230 mm and 685 mm above the floor.
Procedure	1. Check that there is a clearance less than 635 mm at a height of 230 mm.
Result	If check 1 is true then this recommendation is followed.

b)

Type of assessment	Inspection and measurement
Pre-conditions	1. There is an obstacle that is integral to the ICT. 2. The obstacle is between 230 mm and 685 mm above the floor.
Procedure	1. Check that there is a clearance more than 280 mm at a height of 230 mm.
Result	If check 1 is true then this recommendation is followed.

c)

Type of assessment	Inspection and measurement
Pre-conditions	1. There is an obstacle that is integral to the ICT. 2. The obstacle is between 230 mm and 685 mm above the floor.
Procedure	1. Check that there is a clearance more than 205 mm at a height of 685 mm
Result	If check 1 is true then this recommendation is followed.

d)

Type of assessment	Inspection and measurement
Pre-conditions	1. There is an obstacle that is integral to the ICT. 2. The obstacle is between 230 mm and 685 mm above the floor.
Procedure	1. Check that the reduction in depth of the clearance is no greater than 25 mm for each 150 mm in height.
Result	If check 1 is true then this recommendation is followed.

C.8.3.3 Reach range for ICT

C.8.3.3.1 Forward reach

C.8.3.3.1.1 Unobstructed high forward reach

Type of assessment	Inspection and measurement
Pre-conditions	1. The access space is integral to the ICT. 2. There is an unobstructed access to the controls.
Procedure	1. Check that the height of the topmost essential control is no higher than 1 220 mm above the floor contact of the ICT.
Result	If check 1 is true then this recommendation is followed.

C.8.3.3.1.2 Unobstructed low forward reach

Type of assessment	Inspection and measurement
Pre-conditions	1. The access space is integral to the ICT. 2. There is an unobstructed access to the controls.
Procedure	1. Check that the height of the lowest essential control is no lower than 380 mm above the floor contact of the ICT.
Result	If check 1 is true then this recommendation is followed.

C.8.3.3.1.3 Obstructed reach

C.8.3.3.1.3.1 Clear floor space

Type of assessment	Inspection and measurement
Pre-conditions	1. The access space is integral to the ICT. 2. There is an integral obstructed access to the controls.
Procedure	1. Check that there is clear floor space greater than the required reach depth over the obstruction.
Result	If check 1 is true then this recommendation is followed.

C.8.3.3.1.3.2 Obstructed (< 510 mm) forward reach

Type of assessment	Inspection and measurement
Pre-conditions	1. The access space is integral to the ICT. 2. There is an integral obstructed access to the controls. 3. The obstruction is less than 510 mm
Procedure	1. Check that the height of the topmost essential control is no higher than 1 220 mm above the floor contact of the ICT.
Result	If check 1 is true then this recommendation is followed.

C.8.3.3.1.3.3 Obstructed (< 635 mm) forward reach

Type of assessment	Inspection and measurement
Pre-conditions	1. The access space is integral to the ICT. 2. There is an integral obstructed access to the controls. 3. The obstruction is between 510 mm and 635 mm.
Procedure	1. Check that the height of the topmost essential control is no higher than 1 120 mm above the floor contact of the ICT.
Result	If check 1 is true then this recommendation is followed.

C.8.3.3.2 Side reach

C.8.3.3.2.1 Unobstructed high side reach

Type of assessment	Inspection and measurement
Pre-conditions	1. The access space is integral to the ICT. 2. A parallel approach to the ICT is possible. 3. The side reach is unobstructed or obstructed by a part less than 255 mm wide.
Procedure	1. Check that the height of the topmost essential control is less than or equal to 1 220 mm above the floor contact of the ICT.
Result	If check 1 is true then this recommendation is followed.

C.8.3.3.2.2 Unobstructed low side reach

Type of assessment	Inspection and measurement
Pre-conditions	1. The access space is integral to the ICT. 2. A parallel approach to the ICT is possible. 3. The side reach is unobstructed or obstructed by a part less than 255 mm wide.
Procedure	1. Check that the height of the lowest essential control is greater than or equal to 380 mm above the floor contact of the ICT.
Result	If check 1 is true then this recommendation is followed.

C.8.3.3.2.3 Obstructed side reach

C.8.3.3.2.3.1 Obstructed (< 255 mm) side reach

Type of assessment	Inspection and measurement
Pre-conditions	1. The access space is integral to the ICT. 2. A parallel approach to the ICT is possible. 3. There is an obstacle integral to the ICT with a height less than 865 mm. 4. The side reach is obstructed by a part less than 255 mm wide.
Procedure	1. Check that the height of the topmost essential control no higher than 1 220 mm above the floor contact of the ICT.
Result	If check 1 is true then this recommendation is followed.

C.8.3.3.2.3.2 Obstructed (< 610 mm) side reach

Type of assessment	Inspection and measurement
Pre-conditions	1. The access space is integral to the ICT. 2. A parallel approach to the ICT is possible. 3. There is an obstacle integral to the ICT with a height less than 865 mm. 4. The side reach is obstructed by a part more than 255 mm and less than 610 mm wide.
Procedure	1. Check that the height of the topmost essential control is no higher than 1 170 mm above the floor contact of the ICT.
Result	If check 1 is true then this recommendation is followed.

C.8.3.4 Visibility

Type of assessment	Inspection and measurement
Pre-conditions	1. The operating area is integral to the ICT. 2. A display screen is provided.
Procedure	1. Check that the screen is readable from a point located 40 inches (1 015 mm) above the centre of the clear floor space.
Result	If check 1 is true then this recommendation is followed.

C.8.3.5 Installation instructions

Type of assessment	Inspection and measurement
Pre-conditions	1. The ICT is intended to be installed.
Procedure	1. Check that instructions are made available which outline a method to install the ICT in a manner that ensures that the dimensions of the integral spaces of the ICT conform to clauses 8.3.2 to 8.3.4.
Result	If check 1 is true then this recommendation is followed.

C.8.4 Mechanically operable parts

C.8.4.1 Numeric keys

Type of assessment	Inspection
Pre-conditions	1. The ICT has physical numeric keys arranged in a 12-key telephone keypad layout.
Procedure	1. Check that the number five key is tactilely distinct from the other keys of the keypad.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.8.4.2 Operation of mechanical parts

C.8.4.2.1 Means of operation of mechanical parts

Type of assessment	Inspection
Pre-conditions	1. The ICT has operable parts that requires grasping, pinching, or twisting of the wrist to operate.
Procedure	1. Check that there is an accessible alternative means of operation that does not require these actions.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.8.4.2.2 Force of operation of mechanical parts

Type of assessment	Inspection and measurement
Pre-conditions	1. The ICT has a control which requires a force greater than 22,2 N to operate it.
Procedure	1. Check that an accessible alternative means of operation is provided that requires a force less than or equal to 22,2 N.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.8.4.3 Keys, tickets and fare cards

Type of assessment	Inspection and measurement
Pre-conditions	1. ICT provides keys, tickets or fare cards, and their orientation is important for further use.
Procedure	1. Check that keys, tickets or fare cards have an orientation that is tactilely discernible.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.8.5 Tactile indication of speech mode

Type of assessment	Inspection and measurement
Pre-conditions	1. The ICT is designed for shared use. 2. Speech output is available.

Procedure	1. Check that a tactile indication of the means to initiate the speech mode of operation is provided.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.9 Web

C.9.1 General (informative)

Clause 9.1 is informative only and contains no requirements requiring test.

C.9.2 Web content requirements

C.9.2.1 Non-text content

Type of assessment	Inspection
Pre-conditions	1. The ICT is a web page.
Procedure	1. Check that the web page does not fail WCAG 2.0 Success Criterion 1.1.1 Non-text content [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.9.2.2 Audio-only and video-only (pre-recorded)

Type of assessment	Inspection
Pre-conditions	1. The ICT is a web page.
Procedure	1. Check that the web page does not fail WCAG 2.0 Success Criterion 1.2.1 Audio-only and video-only (pre-recorded) [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.9.2.3 Captions (pre-recorded)

Type of assessment	Inspection
Pre-conditions	1. The ICT is a web page.
Procedure	1. Check that the web page does not fail WCAG 2.0 Success Criterion 1.2.2 Captions (Pre-recorded) [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.9.2.4 Audio description or media alternative (pre-recorded)

Type of assessment	Inspection
Pre-conditions	1. The ICT is a web page.
Procedure	1. Check that the web page does not fail WCAG 2.0 Success Criterion 1.2.3 Audio Description or Media Alternative (Pre-recorded) [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.9.2.5 Captions (live)

Type of assessment	Inspection
Pre-conditions	1. The ICT is a web page.
Procedure	1. Check that the web page does not fail WCAG 2.0 Success Criterion 1.2.4 Captions (Live) [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.9.2.6 Audio description (pre-recorded)

Type of assessment	Inspection
Pre-conditions	1. The ICT is a web page.
Procedure	1. Check that the web page does not fail WCAG 2.0 Success Criterion 1.2.5 Audio-Description (Pre-recorded) [4].

Result	Pass: Check 1 is true Fail: Check 1 is false

C.9.2.7 Info and relationships

Type of assessment	Inspection
Pre-conditions	1. The ICT is a web page.
Procedure	1. Check that the web page does not fail WCAG 2.0 Success Criterion 1.3.1 Info and Relationships [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.9.2.8 Meaningful sequence

Type of assessment	Inspection
Pre-conditions	1. The ICT is a web page.
Procedure	1. Check that the web page does not fail WCAG 2.0 Success Criterion 1.3.2 Meaningful Sequence [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.9.2.9 Sensory characteristics

Type of assessment	Inspection
Pre-conditions	1. The ICT is a web page.
Procedure	1. Check that the web page does not fail WCAG 2.0 Success Criterion 1.3.3 Sensory Characteristics [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.9.2.10 Use of colour

Type of assessment	Inspection
Pre-conditions	1. The ICT is a web page.
Procedure	1. Check that the web page does not fail WCAG 2.0 Success Criterion 1.4.1 Use of Colour [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.9.2.11 Audio control

Type of assessment	Inspection
Pre-conditions	1. The ICT is a web page.
Procedure	1. Check that the web page does not fail WCAG 2.0 Success Criterion 1.4.2 Audio Control [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.9.2.12 Contrast (minimum)

Type of assessment	Inspection
Pre-conditions	1. The ICT is a web page.
Procedure	1. Check that the web page does not fail WCAG 2.0 Success Criterion 1.4.3 Contrast (Minimum) [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.9.2.13 Resize text

Type of assessment	Inspection
Pre-conditions	1. The ICT is a web page.
Procedure	1. Check that the web page does not fail WCAG 2.0 Success Criterion 1.4.4 Resize text [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.9.2.14 Images of text

Type of assessment	Inspection
Pre-conditions	1. The ICT is a web page.
Procedure	1. Check that the web page does not fail WCAG 2.0 Success Criterion 1.4.5 Images of Text [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.9.2.15 Keyboard

Type of assessment	Inspection
Pre-conditions	1. The ICT is a web page.
Procedure	1. Check that the web page does not fail WCAG 2.0 Success Criterion 2.1.1 Keyboard [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.9.2.16 No keyboard trap

Type of assessment	Inspection
Pre-conditions	1. The ICT is a web page.
Procedure	1. Check that the web page does not fail WCAG 2.0 Success Criterion 2.1.2 No Keyboard Trap [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.9.2.17 Timing adjustable

Type of assessment	Inspection
Pre-conditions	1. The ICT is a web page.
Procedure	1. Check that the web page does not fail WCAG 2.0 Success Criterion 2.2.1 Timing Adjustable [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.9.2.18 Pause, stop, hide

Type of assessment	Inspection
Pre-conditions	1. The ICT is a web page.
Procedure	1. Check that the web page does not fail WCAG 2.0 Success Criterion 2.2.2 Pause, Stop, Hide [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.9.2.19 Three flashes or below threshold

Type of assessment	Inspection
Pre-conditions	1. The ICT is a web page.
Procedure	1. Check that the web page does not fail WCAG 2.0 Success Criterion 2.3.1 Three Flashes or Below Threshold [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.9.2.20 Bypass blocks

Type of assessment	Inspection
Pre-conditions	1. The ICT is a web page.
Procedure	1. Check that the web page does not fail WCAG 2.0 Success Criterion 2.4.1 Bypass Blocks [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.9.2.21 Page titled

Type of assessment	Inspection

Pre-conditions	1. The ICT is a web page.
Procedure	1. Check that the web page does not fail WCAG 2.0 Success Criterion 2.4.2 Page Titled [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.9.2.22 Focus Order

Type of assessment	Inspection
Pre-conditions	1. The ICT is a web page.
Procedure	1. Check that the web page does not fail WCAG 2.0 Success Criterion 2.4.3 Focus Order [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.9.2.23 Link purpose (in context)

Type of assessment	Inspection
Pre-conditions	1. The ICT is a web page.
Procedure	1. Check that the web page does not fail WCAG 2.0 Success Criterion 2.4.4 Link Purpose (In Context) [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.9.2.24 Multiple ways

Type of assessment	Inspection
Pre-conditions	1. The ICT is a web page.
Procedure	1. Check that the web page does not fail WCAG 2.0 Success Criterion 2.4.5 Multiple Ways [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.9.2.25 Headings and labels

Type of assessment	Inspection
Pre-conditions	1. The ICT is a web page.
Procedure	1. Check that the web page does not fail WCAG 2.0 Success Criterion 2.4.6 Headings and Labels [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.9.2.26 Focus visible

Type of assessment	Inspection
Pre-conditions	1. The ICT is a web page.
Procedure	1. Check that the web page does not fail WCAG 2.0 Success Criterion 2.4.7 Focus Visible [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.9.2.27 Language of page

Type of assessment	Inspection
Pre-conditions	1. The ICT is a web page.
Procedure	1. Check that the web page does not fail WCAG 2.0 Success Criterion 3.1.1 Language of Page [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.9.2.28 Language of parts

Type of assessment	Inspection
Pre-conditions	1. The ICT is a web page.
Procedure	1. Check that the web page does not fail WCAG 2.0 Success Criterion 3.1.2 Language of Parts [4].
Result	Pass: Check 1 is true

	Fail: Check 1 is false

C.9.2.29 On focus

Type of assessment	Inspection
Pre-conditions	1. The ICT is a web page.
Procedure	1. Check that the web page does not fail WCAG 2.0 Success Criterion 3.2.1 On Focus [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.9.2.30 On input

Type of assessment	Inspection
Pre-conditions	1. The ICT is a web page.
Procedure	1. Check that the web page does not fail WCAG 2.0 Success Criterion 3.2.2 On Input [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.9.2.31 Consistent navigation

Type of assessment	Inspection
Pre-conditions	1. The ICT is a web page.
Procedure	1. Check that the web page does not fail WCAG 2.0 Success Criterion 3.2.3 Consistent Navigation [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.9.2.32 Consistent identification

Type of assessment	Inspection
Pre-conditions	1. The ICT is a web page.
Procedure	1. Check that the web page does not fail WCAG 2.0 Success Criterion 3.2.4 Consistent Identification [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.9.2.33 Error identification

Type of assessment	Inspection
Pre-conditions	1. The ICT is a web page.
Procedure	1. Check that the web page does not fail WCAG 2.0 Success Criterion 3.3.1 Error Identification [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.9.2.34 Labels or instructions

Type of assessment	Inspection
Pre-conditions	1. The ICT is a web page.
Procedure	1. Check that the web page does not fail WCAG 2.0 Success Criterion 3.3.2 Labels or Instructions [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.9.2.35 Error suggestion

Type of assessment	Inspection
Pre-conditions	1. The ICT is a web page.
Procedure	1. Check that the web page does not fail WCAG 2.0 Success Criterion 3.3.3 Error Suggestion [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.9.2.36 Error prevention (legal, financial, data)

Type of assessment	Inspection
Pre-conditions	1. The ICT is a web page.
Procedure	1. Check that the web page does not fail WCAG 2.0 Success Criterion 3.3.4 Error Prevention (Legal, Financial, Data) [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.9.2.37 Parsing

Type of assessment	Inspection
Pre-conditions	1. The ICT is a web page.
Procedure	1. Check that the web page does not fail WCAG 2.0 Success Criterion 4.1.1 Parsing [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.9.2.38 Name, role, value

Type of assessment	Inspection
Pre-conditions	1. The ICT is a web page.
Procedure	1. Check that the web page does not fail WCAG 2.0 Success Criterion 4.1.2 Name, Role, Value [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.9.2.39 Reflow

Type of assessment	Inspection
Pre-conditions	1. The ICT is a web page.
Procedure	1. Check that the web page does not fail WCAG 2.1 Success Criterion 1.4.10 Reflow [5]
Result	Pass: Check 1 is true Fail: Check 1 is false

C.9.2.40 Graphics contrast

Type of assessment	Inspection
Pre-conditions	1. The ICT is a web page.
Procedure	1. Check that the web page does not fail WCAG 2.1 Success Criterion 1.4.11. Graphics contrast [5]
Result	Pass: Check 1 is true Fail: Check 1 is false

C.9.2.41 Text spacing

Type of assessment	Inspection
Pre-conditions	1. The ICT is a web page.
Procedure	1. Check that the web page does not fail WCAG 2.1 Success Criterion 1.4.12. Text spacing [5]
Result	Pass: Check 1 is true Fail: Check 1 is false

C.9.2.42 Content on hover or focus

Type of assessment	Inspection
Pre-conditions	1. The ICT is a web page.
Procedure	1. Check that the web page does not fail WCAG 2.1 Success Criterion 1.4.13. Content on hover or focus [5]
Result	Pass: Check 1 is true Fail: Check 1 is false

C.9.2.43 Character key shortcuts

Type of assessment	Inspection

Pre-conditions	1. The ICT is a web page.
Procedure	1. Check that the web page does not fail WCAG 2.1 Success Criterion 2.4.11. Character key shortcuts [5]
Result	Pass: Check 1 is true Fail: Check 1 is false

C.9.2.44 Label in name

Type of assessment	Inspection
Pre-conditions	1. The ICT is a web page.
Procedure	1. Check that the web page does not fail WCAG 2.1 Success Criterion 2.4.12. Label in name [5]
Result	Pass: Check 1 is true Fail: Check 1 is false

C.9.2.45 Pointer gestures

Type of assessment	Inspection
Pre-conditions	1. The ICT is a web page.
Procedure	1. Check that the web page does not fail WCAG 2.1 Success Criterion 2.5.1. Pointer gestures [5]
Result	Pass: Check 1 is true Fail: Check 1 is false

C.9.2.46 Pointer cancellation

Type of assessment	Inspection
Pre-conditions	1. The ICT is a web page.
Procedure	1. Check that the web page does not fail WCAG 2.1 Success Criterion 2.5.2. Pointer cancellation [5]
Result	Pass: Check 1 is true Fail: Check 1 is false

C.9.2.47 Target size

Type of assessment	Inspection
Pre-conditions	1. The ICT is a web page.
Procedure	1. Check that the web page does not fail WCAG 2.1 Success Criterion 2.5.3. Target size [5]
Result	Pass: Check 1 is true Fail: Check 1 is false

C.9.2.48 Motion actuation

Type of assessment	Inspection
Pre-conditions	1. The ICT is a web page.
Procedure	1. Check that the web page does not fail WCAG 2.1 Success Criterion 2.6.1. Motion actuation [5]
Result	Pass: Check 1 is true Fail: Check 1 is false

C.9.2.49 Orientation

Type of assessment	Inspection
Pre-conditions	1. The ICT is a web page.
Procedure	1. Check that the web page does not fail WCAG 2.1 Success Criterion 2.6.2. Orientation [5]
Result	Pass: Check 1 is true Fail: Check 1 is false

C.9.3 WCAG 2.0 conformance requirements

Type of assessment	Inspection
Pre-conditions	1. The ICT is a web page.
Procedure	1. Check that the web page satisfies WCAG 2.0 [4] conformance requirement "1: Conformance level" at Level AA.

	2. Check that the web page satisfies WCAG 2.0 [4] conformance requirement "2: Full pages". 3. Check that the web page satisfies WCAG 2.0 [4] conformance requirement "3: Complete processes". 4. Check that the web page satisfies WCAG 2.0 [4] conformance requirement "4: Only Accessibility-Supported Ways of Using Technologies". 5. Check that the web page satisfies WCAG 2.0 [4] conformance requirement "5: Non-interference".
Result	Pass: All checks are true Fail: Any check is false

C.10 Non-web documents

C.10.1 General

Clause 10.1 is advisory only and contains no requirements requiring test.

C.10.2 Document success criteria

C.10.2.1 Non-text content

Type of assessment	Inspection
Pre-conditions	1. The ICT is a non-web document.
Procedure	1. Check that the document does not fail WCAG 2.0 Success Criterion 1.1.1 Non-text content [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.10.2.2 Audio-only and video-only (pre-recorded)

Type of assessment	Inspection
Pre-conditions	1. The ICT is a non-web document.
Procedure	1. Check that the document does not fail WCAG 2.0 Success Criterion 1.2.1 Audio-only and video-only (pre-recorded) [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.10.2.3 Captions (pre-recorded)

Type of assessment	Inspection
Pre-conditions	1. The ICT is a non-web document.
Procedure	1. Check that the document does not fail WCAG 2.0 Success Criterion 1.2.2 Captions (Pre-recorded) [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.10.2.4 Audio description or media alternative (pre-recorded)

Type of assessment	Inspection
Pre-conditions	1. The ICT is a non-web document.
Procedure	1. Check that the document does not fail WCAG 2.0 Success Criterion 1.2.3 Audio description or media alternative (pre-recorded) [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.10.2.5 Captions (live)

Type of assessment	Inspection
Pre-conditions	1. The ICT is a non-web document.

Procedure	1. Check that the document does not fail WCAG 2.0 Success Criterion 1.2.4 Captions (live) [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.10.2.6 Audio description (pre-recorded)

Type of assessment	Inspection
Pre-conditions	1. The ICT is a non-web document.
Procedure	1. Check that the document does not fail WCAG 2.0 Success Criterion 1.2.5 Audio description (pre-recorded) [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.10.2.7 Info and relationships

Type of assessment	Inspection
Pre-conditions	1. The ICT is a non-web document.
Procedure	1. Check that the document does not fail WCAG 2.0 Success Criterion 1.3.1 Info and relationships [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.10.2.8 Meaningful sequence

Type of assessment	Inspection
Pre-conditions	1. The ICT is a non-web document.
Procedure	1. Check that the document does not fail WCAG 2.0 Success Criterion 1.3.2 Meaningful sequence [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.10.2.9 Sensory characteristics

Type of assessment	Inspection
Pre-conditions	1. The ICT is a non-web document.
Procedure	1. Check that the document does not fail WCAG 2.0 Success Criterion 1.3.3 Sensory characteristics [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.10.2.10 Use of colour

Type of assessment	Inspection
Pre-conditions	1. The ICT is a non-web document.
Procedure	1. Check that the document does not fail WCAG 2.0 Success Criterion 1.4.1 Use of colour [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.10.2.11 Audio control

Type of assessment	Inspection
Pre-conditions	1. The ICT is a non-web document.
Procedure	1. Check that the document does not fail the Success Criterion in Table 10.1.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.10.2.12 Contrast (minimum)

Type of assessment	Inspection
Pre-conditions	1. The ICT is a non-web document.

Procedure	1. Check that the document does not fail WCAG 2.0 Success Criterion 1.4.3 Contrast (minimum) [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.10.2.13 Resize text

Type of assessment	Inspection
Pre-conditions	1. The ICT is a non-web document.
Procedure	1. Check that the document does not fail WCAG 2.0 Success Criterion 1.4.4 Resize text [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.10.2.14 Images of text

Type of assessment	Inspection
Pre-conditions	1. The ICT is a non-web document.
Procedure	1. Check that the document does not fail WCAG 2.0 Success Criterion 1.4.5 Images of text [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.10.2.15 Keyboard

Type of assessment	Inspection
Pre-conditions	1. The ICT is a non-web document.
Procedure	1. Check that the document does not fail WCAG 2.0 Success Criterion 2.1.1 Keyboard [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.10.2.16 No keyboard trap

Type of assessment	Inspection
Pre-conditions	1. The ICT is a non-web document.
Procedure	1. Check that the document does not fail the Success Criterion in Table 10.2.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.10.2.17 Timing adjustable

Type of assessment	Inspection
Pre-conditions	1. The ICT is a non-web document.
Procedure	1. Check that the document does not fail the Success Criterion in Table 10.3.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.10.2.18 Pause, stop, hide

Type of assessment	Inspection
Pre-conditions	1. The ICT is a non-web document.
Procedure	1. Check that the document does not fail the Success Criterion in Table 10.4.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.10.2.19 Three flashes or below threshold

Type of assessment	Inspection
Pre-conditions	1. The ICT is a non-web document.
Procedure	1. Check that the document does not fail the Success Criterion in Table 10.5.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.10.2.20 Empty clause

Clause 10.2.20 contains no requirements requiring test.

C.10.2.21 Document titled

Type of assessment	Inspection
Pre-conditions	1. The ICT is a non-web document.
Procedure	1. Check that the document does not fail the Success Criterion in Table 10.6.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.10.2.22 Focus order

Type of assessment	Inspection
Pre-conditions	1. The ICT is a non-web document.
Procedure	1. Check that the document does not fail the Success Criterion in Table 10.7.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.10.2.23 Link purpose (in context)

Type of assessment	Inspection
Pre-conditions	1. The ICT is a non-web document.
Procedure	1. Check that the document does not fail WCAG 2.0 Success Criterion 2.4.4 Link purpose (in context) [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.10.2.24 Empty clause

Clause 10.2.24 contains no requirements requiring test.

C.10.2.25 Headings and labels

Type of assessment	Inspection
Pre-conditions	1. The ICT is a non-web document.
Procedure	1. Check that the document does not fail WCAG 2.0 Success Criterion 2.4.6 Headings and labels [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.10.2.26 Focus visible

Type of assessment	Inspection
Pre-conditions	1. The ICT is a non-web document.
Procedure	1. Check that the document does not fail WCAG 2.0 Success Criterion 2.4.7 Focus visible [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.10.2.27 Language of document

Type of assessment	Inspection
Pre-conditions	1. The ICT is a non-web document.
Procedure	1. Check that the document does not fail the Success Criterion in Table 10.8.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.10.2.28 Language of parts

Type of assessment	Inspection
Pre-conditions	1. The ICT is a non-web document.

Procedure	1. Check that the document does not fail the Success Criterion in Table 10.9.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.10.2.29 On focus

Type of assessment	Inspection
Pre-conditions	1. The ICT is a non-web document.
Procedure	1. Check that the document does not fail WCAG 2.0 Success Criterion 3.2.1 On focus [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.10.2.30 On input

Type of assessment	Inspection
Pre-conditions	1. The ICT is a non-web document.
Procedure	1. Check that the document does not fail WCAG 2.0 Success Criterion 3.2.2 On input [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.10.2.31 Empty clause

Clause 10.2.31 contains no requirements requiring test.

C.10.2.32 Empty clause

Clause 10.2.32 contains no requirements requiring test.

C.10.2.33 Error identification

Type of assessment	Inspection
Pre-conditions	1. The ICT is a non-web document.
Procedure	1. Check that the document does not fail WCAG 2.0 Success Criterion 3.3.1 Error identification [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.10.2.34 Labels or instructions

Type of assessment	Inspection
Pre-conditions	1. The ICT is a non-web document.
Procedure	1. Check that the document does not fail WCAG 2.0 Success Criterion 3.3.2 Labels or instructions [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.10.2.35 Error suggestion

Type of assessment	Inspection
Pre-conditions	1. The ICT is a non-web document.
Procedure	1. Check that the document does not fail WCAG 2.0 Success Criterion 3.3.3 Error suggestion [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.10.2.36 Error prevention (legal, financial, data)

Type of assessment	Inspection
Pre-conditions	1. The ICT is a non-web document.
Procedure	1. Check that the document does not fail the Success Criterion in Table 10.10.
Result	Pass: Check 1 is true

	Fail: Check 1 is false

C.10.2.37 Parsing

Type of assessment	Inspection
Pre-conditions	1. The ICT is a non-web document.
Procedure	1. Check that the document does not fail the Success Criterion in Table 10.11.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.10.2.38 Name, role, value

Type of assessment	Inspection
Pre-conditions	1. The ICT is a non-web document.
Procedure	1. Check that the document does not fail the Success Criterion in Table 10.12.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.10.2.39 Reflow

Type of assessment	Inspection
Pre-conditions	1. The ICT is a non-web document.
Procedure	1. Check that the document does not fail the WCAG 2.1 Success Criterion 1.4.10 Reflow [5].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.10.2.40 Graphics contrast

Type of assessment	Inspection
Pre-conditions	1. The ICT is a non-web document.
Procedure	1. Check that the document does not fail the WCAG 2.1 Success Criterion 1.4.11 Graphics contrast [5].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.10.2.41 Text spacing

Type of assessment	Inspection
Pre-conditions	1. The ICT is a non-web document. 2. The ICT does not have a fixed size content layout area that is essential to the information being conveyed
Procedure	1. Check that the document does not fail the WCAG 2.1 Success Criterion 1.4.12 Text spacing
Result	Pass: Check 1 is true Fail: Check 1 is false

C.10.2.42 Content on hover or focus

Type of assessment	Inspection
Pre-conditions	1. The ICT is a non-web document.
Procedure	1. Check that the document does not fail the WCAG 2.1 Success Criterion 1.4.13 Content on hover or focus [5].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.10.2.43 Character key shortcuts

Type of assessment	Inspection
Pre-conditions	1. The ICT is a non-web document.
Procedure	1. Check that the document does not fail the WCAG 2.1 Success Criterion 2.4.11 Character key shortcuts [5].
Result	Pass: Check 1 is true

	Fail: Check 1 is false

C.10.2.44 Label in name

Type of assessment	Inspection
Pre-conditions	1. The ICT is a non-web document.
Procedure	1. Check that the document does not fail the WCAG 2.1 Success Criterion 2.4.12 Label in name [5].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.10.2.45 Pointer gestures

Type of assessment	Inspection
Pre-conditions	1. The ICT is a non-web document.
Procedure	1. Check that the document does not fail the WCAG 2.1 Success Criterion 2.5.1 Pointer gestures [5].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.10.2.46 Pointer cancellation

Type of assessment	Inspection
Pre-conditions	1. The ICT is a non-web document.
Procedure	1. Check that the document does not fail the WCAG 2.1 Success Criterion 2.5.2 Pointer cancellation [5].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.10.2.47 Target size

Type of assessment	Inspection
Pre-conditions	1. The ICT is a non-web document.
Procedure	1. Check that the document does not fail the WCAG 2.1 Success Criterion 2.5.3 Target size [5].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.10.2.48 Motion actuation

Type of assessment	Inspection
Pre-conditions	1. The ICT is a non-web document.
Procedure	1. Check that the document does not fail the WCAG 2.1 Success Criterion 2.6.1 Motion actuation [5].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.10.2.49 Orientation

Type of assessment	Inspection
Pre-conditions	1. The ICT is a non-web document.
Procedure	1. Check that the document does not fail the WCAG 2.1 Success Criterion 2.6.2 Orientation [5].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.10.2.50 Caption positioning

Clause 10.2.50 contains no requirements requiring test.

C.10.2.51 Audio description timing

Clause 10.2.51 contains no requirements requiring test.

C.11 Software

C.11.1 General

Clause 11.1 is advisory only and contains no requirements requiring test.

C.11.2 Non-Web software success criteria

C.11.2.1 Non-text content

C.11.2.1.1 Non-text content (screen reading supported open functionality)

Type of assessment	Inspection
Pre-conditions	1. The ICT is non-web software that provides a user interface. 2. The software provides support to assistive technologies for screen reading.
Procedure	1. Check that the software does not fail WCAG 2.0 Success Criterion 1.1.1 Non-text content [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.2.1.2 Non-text content (closed functionality)

Type of assessment	Testing
Pre-conditions	1. The ICT is non-web software that provides a user interface. 2. The user interface is closed to assistive technologies for screen reading. 3. Non-text content is presented to users via speech output.
Procedure	1. Check that speech output is provided as an alternative for non-text content. 2. Check that the non-text content is not pure decoration. 3. Check that the non-text content is not used only for visual formatting. 4. Check that the speech output follows the guidance for "text alternative" described in WCAG 2.0 Success Criterion 1.1.1.
Result	Pass: Check (1 and 2 and 3 and 4 are true) or (1 and 2 are false) or (1 and 3 are false) Fail: Checks (1 true and 2 false) or (1 true and 3 false) or (1 and 2 and 3 are true and 4 is false)

C.11.2.2 Audio-only and video-only (pre-recorded)

C.11.2.2.1 Audio-only and video-only (pre-recorded – open functionality)

Type of assessment	Inspection
Pre-conditions	1. The ICT is non-web software that provides a user interface. 2. The software provides support to assistive technologies for screen reading. 3. Pre-recorded auditory information is not needed to enable the use of closed functions of ICT.
Procedure	1. Check that the software does not fail WCAG 2.0 Success Criterion 1.2.1 Audio-only and Video-only (Pre-recorded) [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.2.2.2 Audio-only and video-only (pre-recorded – closed functionality)

C.11.2.2.2.1 Pre-recorded audio-only (closed functionality)

Type of assessment	Inspection
Pre-conditions	1. ICT is non-web software that provides a user interface. 2. The user interface is closed to assistive technologies for screen reading. 3. Pre-recorded auditory information is needed to enable the use of closed functions of ICT.
Procedure	1. Check that the visual information is equivalent to the pre-recorded auditory output.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.2.2.2.2 Pre-recorded video-only (closed functionality)

Type of assessment	Inspection
Pre-conditions	1. ICT is non-web software that provides a user interface. 2. The user interface is closed to assistive technologies for screen reading. 3. Pre-recorded video content is needed to enable the use of closed functions of ICT. 4. Speech output is provided as non-visual access to non-text content displayed on closed functionality.
Procedure	1. Check that the speech output presents equivalent information for the pre-recorded video content.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.2.3 Captions (pre-recorded)

Type of assessment	Inspection
Pre-conditions	1. The ICT is non-web software that provides a user interface.
Procedure	1. Check that the software does not fail WCAG 2.0 Success Criterion 1.2.2 Captions (Pre-recorded) [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.2.4 Audio description or media alternative (pre-recorded)

C.11.2.4.1 Audio description or media alternative (pre-recorded – open functionality)

Type of assessment	Inspection
Pre-conditions	1. The ICT is non-web software that provides a user interface. 2. The software provides support to assistive technologies for screen reading.
Procedure	1. Check that the software does not fail WCAG 2.0 Success Criterion 1.2.3 Audio Description or Media Alternative (Pre-recorded) [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.2.4.2 Audio description or media alternative (pre-recorded – closed functionality)

Type of assessment	Inspection
Pre-conditions	1. ICT is non-web software that provides a user interface. 2. The user interface is closed to assistive technologies for screen reading. 3. Speech output is provided as non-visual access to non-text content displayed on closed functionality.
Procedure	1. Check that the speech output presents equivalent information for the pre-recorded video content.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.2.5 Captions (live)

Type of assessment	Inspection
Pre-conditions	1. The ICT is non-web software that provides a user interface.
Procedure	1. Check that the software does not fail WCAG 2.0 Success Criterion 1.2.4 Captions (Live) [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.2.6 Audio description (pre-recorded)

Type of assessment	Inspection
Pre-conditions	1. The ICT is non-web software that provides a user interface.
Procedure	1. Check that the software does not fail WCAG 2.0 Success Criterion 1.2.5 Audio Description (Pre-recorded) [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.2.7 Info and relationships

C.11.2.7.1 Info and relationships (open functionality)

Type of assessment	Inspection
Pre-conditions	1. The ICT is non-web software that provides a user interface. 2. The software provides support to assistive technologies for screen reading.
Procedure	1. Check that the software does not fail WCAG 2.0 Success Criterion 1.3.1 Info and Relationships [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.2.7.2 Info and relationships (closed functionality)

Clause 11.2.7.2 contains no requirements requiring test.

C.11.2.8 Meaningful sequence

C.11.2.8.1 Meaningful sequence (open functionality)

Type of assessment	Inspection
Pre-conditions	1. The ICT is non-web software that provides a user interface. 2. The software provides support to assistive technologies for screen reading.
Procedure	1. Check that the software does not fail WCAG 2.0 Success Criterion 1.3.2 Meaningful Sequence [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.2.8.2 Meaningful sequence (closed functionality)

Clause 11.2.8.2 is informative only and contains no requirements requiring test.

C.11.2.9 Sensory characteristics

Type of assessment	Inspection
Pre-conditions	1. The ICT is non-web software that provides a user interface.
Procedure	1. Check that the software does not fail WCAG 2.0 Success Criterion 1.3.3 Sensory Characteristics [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.2.10 Use of colour

Type of assessment	Inspection
Pre-conditions	1. The ICT is non-web software that provides a user interface.
Procedure	1. Check that the software does not fail WCAG 2.0 Success Criterion 1.4.1 Use of Color [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.2.11 Audio control

Type of assessment	Inspection
Pre-conditions	1. The ICT is non-web software that provides a user interface.
Procedure	1. Check that the software does not fail the Success Criterion in Table 11.1.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.2.12 Contrast (minimum)

Type of assessment	Inspection
Pre-conditions	1. The ICT is non-web software that provides a user interface.

Procedure	1. Check that the software does not fail WCAG 2.0 Success Criterion 1.4.3 Contrast (Minimum) [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.2.13 Resize text

C.11.2.13.1 Resize text (open functionality)

Type of assessment	Inspection
Pre-conditions	1. The ICT is non-web software that provides a user interface. 2. The software provides support to enlargement features of platform or assistive technology.
Procedure	1. Check that the software does not fail WCAG 2.0 Success Criterion 1.4.4 Resize text [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.2.13.2 Resize text (closed functionality)

Type of assessment	Inspection and measurement
Pre-conditions	1. ICT is non-web software that provides a user interface. 2. The user interface is closed to enlargement features of platform or assistive technology. 3. A viewing distance is specified by the supplier.
Procedure	1. Measure the height of a capital letter H. 2. Check that it subtends an angle of at least 0,7 degrees at the specified viewing distance.
Result	Pass: Check 2 is true Fail: Check 2 is false

C.11.2.14 Images of text

C.11.2.14.1 Images of text (open functionality)

Type of assessment	Inspection
Pre-conditions	1. The ICT is non-web software that provides a user interface. 2. The software provides support to assistive technologies for screen reading.
Procedure	1. Check that the software does not fail WCAG 2.0 Success Criterion 1.4.5 Images of Text [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.2.14.2 Images of text (closed functionality)

Clause 11.2.14.2 is informative only and contains no requirements requiring test.

C.11.2.15 Keyboard

C.11.2.15.1 Keyboard (open functionality)

Type of assessment	Inspection
Pre-conditions	1. The ICT is non-web software that provides a user interface. 2. The software provides support to keyboards or a keyboard interface.
Procedure	1. Check that the software does not fail WCAG 2.0 Success Criterion 2.1.1 Keyboard [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.2.15.2 Keyboard (closed functionality)

Type of assessment	Inspection
Pre-conditions	1. ICT is non-web software that provides a user interface. 2. The user interface is closed to keyboards or keyboard interfaces.

Procedure	1. Check that all functionality of the user interface is operable without vision.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.2.16 No keyboard trap

Type of assessment	Inspection
Pre-conditions	1. The ICT is non-web software that provides a user interface.
Procedure	1. Check that the software does not fail the Success Criterion in Table 11.2.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.2.17 Timing adjustable

Type of assessment	Inspection
Pre-conditions	1. The ICT is non-web software that provides a user interface.
Procedure	1. Check that the software does not fail the Success Criterion in Table 11.3.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.2.18 Pause, stop, hide

Type of assessment	Inspection
Pre-conditions	1. The ICT is non-web software that provides a user interface.
Procedure	1. Check that the software does not fail the Success Criterion in Table 11.4.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.2.19 Three flashes or below threshold

Type of assessment	Inspection
Pre-conditions	1. The ICT is non-web software that provides a user interface.
Procedure	1. Check that the software does not fail the Success Criterion in Table 11.5.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.2.20 Empty clause

Clause 11.2.20 contains no requirements requiring test.

C.11.2.21 Empty clause

Clause 11.2.21 contains no requirements requiring test.

C.11.2.22 Focus order

Type of assessment	Inspection
Pre-conditions	1. The ICT is non-web software that provides a user interface.
Procedure	1. Check that the software does not fail the Success Criterion in Table 11.6.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.2.23 Link purpose (in context)

Type of assessment	Inspection
Pre-conditions	1. The ICT is non-web software that provides a user interface.
Procedure	1. Check that the software does not fail the Success Criterion in Table 11.7.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.2.24 Empty clause

Clause 11.2.24 contains no requirements requiring test.

C.11.2.25 Headings and labels

Type of assessment	Inspection
Pre-conditions	1. The ICT is non-web software that provides a user interface.
Procedure	1. Check that the software does not fail WCAG 2.0 Success Criterion 2.4.6 Headings and labels [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.2.26 Focus visible

Type of assessment	Inspection
Pre-conditions	1. The ICT is non-web software that provides a user interface.
Procedure	1. Check that the software does not fail WCAG 2.0 Success Criterion 2.4.7 Focus visible [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.2.27 Language of software

C.11.2.27.1 Language of software (open functionality)

Type of assessment	Inspection
Pre-conditions	1. The ICT is non-web software that provides a user interface. 2. The software provides support to assistive technologies for screen reading.
Procedure	1. Check that the software does not fail the Success Criterion in Table 11.8.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.2.27.2 Language of software (closed functionality)

Type of assessment	Testing
Pre-conditions	1. ICT is non-web software that provides a user interface. 2. The user interface is closed to assistive technologies for screen reading. 3. The speech output is provided as non-visual access to closed functionality. 4. The speech output is not proper names, technical terms, words of indeterminate. language, and words or phrases that have become part of the vernacular of the immediately surrounding text. 5. The content is not generated externally and is under the control of the ICT vendor. 6. The displayed languages can be selected using non-visual access. 7. The user has not selected a speech language that is different from the language of the displayed content.
Procedure	1. Check that the speech output is in the same human language of the displayed content provided.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.2.28 Empty clause

Clause 11.2.1.28 contains no requirements requiring test.

C.11.2.29 On focus

Type of assessment	Inspection
Pre-conditions	1. The ICT is non-web software that provides a user interface.
Procedure	1. Check that the software does not fail WCAG 2.0 Success Criterion 3.2.1 On focus [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.2.30 On input

Type of assessment	Inspection

Pre-conditions	1. The ICT is non-web software that provides a user interface.
Procedure	1. Check that the software does not fail WCAG 2.0 Success Criterion 3.2.2 On input [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.2.31 Empty clause

Clause 11.2.31 contains no requirements requiring test.

C.11.2.32 Empty clause

Clause 11.2.32 contains no requirements requiring test.

C.11.2.33 Error identification

C.11.2.33.1 Error identification (open functionality)

Type of assessment	Inspection
Pre-conditions	1. The ICT is non-web software that provides a user interface. 2. The software provides support to assistive technologies for screen reading.
Procedure	1. Check that the software does not fail WCAG 2.0 Success Criterion 3.3.1 Error identification [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.2.33.2 Error Identification (closed functionality)

Type of assessment	Testing
Pre-conditions	1. ICT is non-web software that provides a user interface. 2. The user interface is closed to assistive technologies for screen reading. 3. Speech output is provided as non-visual access to closed functionality. 4. An input error is automatically detected.
Procedure	1. Check that speech output identifies the item that is in error. 2. Check that the speech output describes the item that is in error.
Result	Pass: Checks 1 and 2 are true Fail: Check 1 or check 2 false

C.11.2.34 Labels or instructions

Type of assessment	Inspection
Pre-conditions	1. The ICT is non-web software that provides a user interface.
Procedure	1. Check that the software does not fail WCAG 2.0 Success Criterion 3.3.2 Labels or instructions [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.2.35 Error suggestion

Type of assessment	Inspection
Pre-conditions	1. The ICT is non-web software that provides a user interface.
Procedure	1. Check that the software does not fail WCAG 2.0 Success Criterion 3.3.3 Error suggestion [4].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.2.36 Error prevention (legal, financial, data)

Type of assessment	Inspection
Pre-conditions	1. The ICT is non-web software that provides a user interface.
Procedure	1. Check that the software does not fail the Success Criterion in Table 11.9.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.2.37 Parsing

C.11.2.37.1 Parsing (open functionality)

Type of assessment	Inspection
Pre-conditions	1. The ICT is non-web software that provides a user interface. 2. The software provides support to at least one assistive technology.
Procedure	1. Check that the software does not fail the Success Criterion in Table 11.10.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.2.37.2 Parsing (closed functionality)

Clause 11.2.37.2 contains no requirements requiring test.

C.11.2.38 Name, role, value

C.11.2.38.1 Name, role, value (open functionality)

Type of assessment	Inspection
Pre-conditions	1. The ICT is non-web software that provides a user interface. 2. The software provides support to at least one assistive technology.
Procedure	1. Check that the software does not fail the Success Criterion in Table 11.11.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.2.38.2 Name, role, value (closed functionality)

Clause 11.2.38.2 contains no requirements requiring test.

C.11.2.39 Reflow

C.11.2.39.1 Reflow (open functionality) (SC 1.4.10)

Type of assessment	Inspection
Pre-conditions	1. The ICT is non-web software that provides a user interface. 2. The software provides support to at least one assistive technology.
Procedure	1. Check that the software does not fail the WCAG 2.1 Success Criterion 1.4.10 Reflow [5].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.2.39.2 Reflow (closed functionality)

Type of assessment	Inspection and measurement
Pre-conditions	1. The ICT is non-web software that provides a user interface. 2. A functionality of the ICT is closed to enlargement features of platform or assistive technology. 3. A viewing distance is specified by the supplier.
Procedure	1. Measure the height of a capital letter H. 2. Check that it subtends an angle of at least 0,7 degrees at the specified viewing distance.
Result	Pass: Check 2 is true Fail: Check 2 is false

C.11.2.40 Graphics contrast (SC 1.4.11)

Type of assessment	Inspection
Pre-conditions	1. The ICT is non-web software that provides a user interface. 2. The software provides support to at least one assistive technology.
Procedure	1. Check that the software does not fail the WCAG 2.1 Success Criterion 1.4.11 Graphics contrast [5].
Result	Pass: Check 1 is true

	Fail: Check 1 is false

C.11.2.41 Text spacing (SC 1.4.12)

Type of assessment	Inspection
Pre-conditions	1. The ICT is non-web software that provides a user interface. 2. The software provides support to at least one assistive technology.
Procedure	1. Check that the software does not fail the WCAG 2.1 Success Criterion 1.4.12 Text spacing [5].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.2.42 Content on hover or focus (SC 1.4.13)

Type of assessment	Inspection
Pre-conditions	1. The ICT is non-web software that provides a user interface. 2. The software provides support to at least one assistive technology.
Procedure	1. Check that the software does not fail the WCAG 2.1 Success Criterion 1.4.13 Content on hover or focus [5].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.2.43 Character key shortcuts

C.11.2.43.1 Character key shortcuts (open functionality) (SC 2.4.11)

Type of assessment	Inspection
Pre-conditions	1. The ICT is non-web software that provides a user interface. 2. The software provides support to at least one assistive technology.
Procedure	1. Check that the software does not fail the WCAG 2.1 Success Criterion 2.4.11 Character key shortcuts [5].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.2.43.2 Character key shortcuts (closed functionality)

Type of assessment	Inspection
Pre-conditions	1. ICT functionality is closed to keyboards or keyboard interfaces.
Procedure	1. Check that all functionality is operable without vision.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.2.44 Label in name

C.11.2.44.1 Label in name (open functionality) (SC 2.4.12)

Type of assessment	Inspection
Pre-conditions	1. The ICT is non-web software that provides a user interface. 2. The software provides support to at least one assistive technology.
Procedure	1. Check that the software does not fail the WCAG 2.1 Success Criterion 2.4.12 Label in name [5].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.2.44.2 Label in name (closed functionality)

Clause 11.2.44.2 contains no requirements requiring test.

C.11.2.45 Pointer gestures (SC 2.5.1)

Type of assessment	Inspection
Pre-conditions	1. The ICT is non-web software that provides a user interface. 2. The software provides support to at least one assistive technology.

Procedure	1. Check that the software does not fail the WCAG 2.1 Success Criterion 2.5.1 Pointer gestures [5].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.2.46 Pointer cancellation (SC 2.5.2)

Type of assessment	Inspection
Pre-conditions	1. The ICT is non-web software that provides a user interface. 2. The software provides support to at least one assistive technology.
Procedure	1. Check that the software does not fail the WCAG 2.1 Success Criterion 2.5.2 Pointer cancellation [5].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.2.47 Target size (SC 2.5.3)

Type of assessment	Inspection
Pre-conditions	1. The ICT is non-web software that provides a user interface. 2. The software provides support to at least one assistive technology.
Procedure	1. Check that the software does not fail the WCAG 2.1 Success Criterion 2.5.3 Target size [5].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.2.48 Motion actuation (SC 2.6.1)

Type of assessment	Inspection
Pre-conditions	1. The ICT is non-web software that provides a user interface. 2. The software provides support to at least one assistive technology.
Procedure	1. Check that the software does not fail the WCAG 2.1 Success Criterion 2.6.1 Motion actuation [5].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.2.49 Orientation (SC 2.6.2)

Type of assessment	Inspection
Pre-conditions	1. The ICT is non-web software that provides a user interface. 2. The software provides support to at least one assistive technology.
Procedure	1. Check that the software does not fail the WCAG 2.1 Success Criterion 2.6.2 Orientation [5].
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.3 Interoperability with assistive technology

C.11.3.1 Closed functionality

Type of assessment	Inspection
Pre-conditions	1. The software has closed functionality.
Procedure	1. Check that the closed functionality conforms to clause 5.1.
Result	If check 1 is true, the software is not required to conform to clauses 11.3.2 to 11.3.17 If check 1 is false the software is required to conform to clauses 11.3.2 to 11.3.17

C.11.3.2 Accessibility services

C.11.3.2.1 Platform accessibility service support for software that provides a user interface

Type of assessment	Inspection
Pre-conditions	1. The software evaluated is platform software.

Procedure	1. Check that the platform software documentation includes information about platform services that may be used by software that provides a user interface to interoperate with assistive technology.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.3.2.2 Platform accessibility service support for assistive technologies

Type of assessment	Inspection
Pre-conditions	1. The software evaluated is platform software.
Procedure	1. Check that the platform software documentation includes information about platform accessibility services that enables assistive technology to interoperate with software that provides a user interface running on the platform software.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.3.2.3 Use of accessibility services

Type of assessment	Inspection
Pre-conditions	1. The software evaluated is software that provides a user interface.
Procedure	1. Check that the software uses the applicable documented platform accessibility services. 2. Check that the software can meet the applicable requirements 11.3.2.5 to 11.3.2.17 whilst using the documented platform accessibility services. 3. Check that the software can meet requirements 11.3.2.5 to 11.3.2.17 whilst using the documented platform accessibility services and other documented services.
Result	Pass: Check 1 is true and check 2 or check 3 is true Fail: Check 1 or check 3 is false

C.11.3.2.4 Assistive technology

Type of assessment	Inspection
Pre-conditions	1. The ICT is assistive technology.
Procedure	1. Check that the assistive technology uses the documented platform accessibility services.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.3.2.5 Object information

Type of assessment	Inspection
Pre-conditions	1. The software evaluated is software that provides a user interface.
Procedure	1. Check that the user interface element's role is programmatically determinable by assistive technologies. 2. Check that the user interface element's state(s) is programmatically determinable by assistive technologies. 3. Check that the user interface element's boundary is programmatically determinable by assistive technologies. 4. Check that the user interface element's name is programmatically determinable by assistive technologies. 5. Check that the user interface element's description is programmatically determinable by assistive technologies.
Result	Pass: Checks 1, 2, 3, 4 and 5 are true Fail: Check 1 or 2 or 3 or 4 or 5 is false

C.11.3.2.6 Row, column, and headers

Type of assessment	Inspection
Pre-conditions	1. The software evaluated is software that provides a user interface. 2. There are data tables in the user interface.
Procedure	1. Select a data table in which the tests are to be performed. 2. Check that each cell's row is programmatically determinable by assistive technologies. 3. Check that each cell's column is programmatically determinable by assistive technologies. 4. Check that each cell's row header, if the row header exists, is programmatically determinable by assistive technologies.

	5. Check that each cell's column header, if the column header exists, is programmatically determinable by assistive technologies.
Result	Pass: Checks 2, 3, 4 and 5 are true Fail: Check 2 or 3 or 4 or 5 is false

C.11.3.2.7 Values

Type of assessment	Inspection
Pre-conditions	1. The software evaluated is software that provides a user interface. 2. There are user interface elements that can have values.
Procedure	1. Select a user interface element that can have a value. 2. Check that the current value is programmatically determinable by assistive technologies. 3. If the user interface element conveys information about a range of values, check that the minimum value is programmatically determinable by assistive technologies. 4. If the user interface element conveys information about a range of values, check that the maximum value is programmatically determinable by assistive technologies.
Result	Pass: Checks 2, 3 and 4 are true Fail: Check 2 or 3 or 4 is false

C.11.3.2.8 Label relationships

Type of assessment	Inspection
Pre-conditions	1. The software evaluated is software that provides a user interface. 2. There are user interface elements that are labels of other user interface elements.
Procedure	1. Obtain the information of each user interface element. 2. Check that the user interface element's information includes the relationship with the user interface element that is its label, if the current user interface element has a label, and that this relationship is programmatically determinable by assistive technologies. 3. Check that the user interface element's information includes the relationship with the user interface element that it is labelling, if the current user interface element is a label, and that this relationship is programmatically determinable by assistive technologies.
Result	Pass: Checks 2 or 3 are true Fail: Check 2 and 3 are false

C.11.3.2.9 Parent-child relationships

Type of assessment	Inspection
Pre-conditions	1. The software evaluated is software that provides a user interface. 2. There are user interface elements that are parents of other user interface elements in a hierarchical structure.
Procedure	1. For user interface elements that have a parent, check that the user interface element's information includes the relationship with the user interface element that is its parent. 2. Check that the user interface elements that are parents of the user interface element selected in check 1, include the relationship with the user interface elements that are its children in their information, and that this relationship is programmatically determinable by assistive technologies. 3. For user interface elements that are a parent of other user interface elements, check that the user interface element's information includes the relationship with the user interface elements that are its children, and that this relationship is programmatically determinable by assistive technologies. 4. Check that the user interface elements that are a child of the user interface element selected in check 3, include the relationship with the user interface elements that are its parents in their information, and that this relationship is programmatically determinable by assistive technologies.
Result	Pass: Checks 1 or 2 is true and check 3 or 4 is true Fail: Checks 1 and 2 are false or check 3 and 4 are false
NOTE: For this requirement it is enough that one of the two directions of a parent-child relationship is programmatically determinable. This is the reason why the requirement checks are in pairs and why the requirement is met if one member of each pair is true.	

C.11.3.2.10 Text

Type of assessment	Inspection
Pre-conditions	1. The software evaluated is software that provides a user interface. 2. There is text rendered to the screen.

Procedure	1. For instances of text rendered to the screen, check that the text's information includes its text content, and that this information is programmatically determinable by assistive technologies. 2. For instances of text rendered to the screen, check that the text's information includes its attributes, and that this information is programmatically determinable by assistive technologies. 3. For instances of text rendered to the screen, check that the text's information includes its boundary, and that this information is programmatically determinable by assistive technologies.
Result	Pass: Checks 1, 2 and 3 are true Fail: Check 1 or 2 or 3 is false

C.11.3.2.11 List of available actions

Type of assessment	Inspection
Pre-conditions	1. The software evaluated is software that provides a user interface. 2. There are user interface elements that have actions that can be executed by the user.
Procedure	1. Check that the user interface element's information includes the list of actions that can be executed. 2. Check that this list is programmatically determinable by assistive technologies.
Result	Pass: Checks 1 and 2 are true Fail: Check 1 or 2 is false

C.11.3.2.12 Execution of available actions

Type of assessment	Inspection and testing
Pre-conditions	1. The software evaluated is software that provides a user interface. 2. There are user interface elements that have actions that can be executed by the user. 3. The security requirements permit assistive technology to programmatically execute user actions.
Procedure	1. Check that the user interface element's information includes the list of actions that can be executed by assistive technologies according to 11.3.2.11. 2. Check that all the actions in the list can successfully be executed by assistive technologies.
Result	Pass: Checks 1 and 2 are true Fail: Check 1 or 2 is false

C.11.3.2.13 Tracking of focus and selection attributes

Type of assessment	Inspection and testing
Pre-conditions	1. The software evaluated is software that provides a user interface. 2. There are user interface elements that enable text editing.
Procedure	1. Check that the user interface element's information includes mechanisms to track focus, text insertion point and selection attributes. 2. Check that this information is programmatically determinable by assistive technologies. 3. Activate those tracking mechanisms. 4. As a user, use the text editing functionality in the evaluated software product. 5. Check that the tracking of focus, text insertion point and selection attributes work.
Result	Pass: Checks 2 and 5 are true Fail: Check 1 or 5 is false

C.11.3.2.14 Modification of focus and selection attributes

Type of assessment	Testing
Pre-conditions	1. The software evaluated is software that provides a user interface. 2. There are user interface elements that can receive focus or that enable text editing. 3. The security requirements permit platform software to programmatically modify focus, text insertion point and selection attributes of user interface elements.
Procedure	1. For user interface elements that can receive focus and where the focus can be modified by a user without the use of assistive technology, check that the focus can be programmatically modified by assistive technologies. 2. For user interface elements that enable text editing by a user without the use of assistive technology, check that the position of the text insertion point can be programmatically modified by assistive technologies.

	3. For user interface elements that enable text editing, check that the selection attributes can be programmatically modified by assistive technologies where they can be modified by user without the use of assistive technology.
Result	Pass: All checks are true Fail: Any check is false

C.11.3.2.15 Change notification

Type of assessment	Inspection and testing
Pre-conditions	1. The software evaluated is software that provides a user interface.
Procedure	1. Activate notifications of changes in the user interface elements. 2. Check that notifications about changes in object information (role, state, boundary, name and description) are sent to assistive technologies, if this information changes in the software user interface. 3. Check that notifications about changes in row, column and headers of data tables are sent to assistive technologies, if this information changes in the software. 4. Check that notifications about changes in values (current value, minimum value and maximum value) are sent, if this information changes in the software. 5. Check that notifications about changes in label relationships are sent o assistive technologies, if this information changes in the software. 6. Check that notifications about changes in parent-child relationships are sent to assistive technologies, if this information changes in the software. 7. Check notifications about changes in text (text contents, text attributes and the boundary of text rendered to the screen) are sent to assistive technologies, if this information changes in the software. 8. Check that notifications about changes in the list of available actions are sent to assistive technologies, if this information changes in the software. 9. Check that notifications about changes in focus, text insertion point and selection attributes are sent to assistive technologies, if this information changes in the software.
Result	Pass: Checks 2, 3, 4, 5, 6, 7, 8 and 9 are true Fail: Check 2, 3, 4, 5, 6, 7, 8 or 9 is false

C.11.3.2.16 Modifications of states and properties

Type of assessment	Testing
Pre-conditions	1. The software evaluated is software that provides a user interface. 2. There are user interface elements whose state or properties can be modified by a user without the use of assistive technology. 3. The security requirements permit assistive technology to programmatically modify states and properties of user interface elements.
Procedure	1. Check that the state of user interface elements, whose state can be modified by a user without the use of assistive technology, can be programmatically modified by assistive technologies. 2. Check the properties of user interface elements, whose properties can be modified by a user without the use of assistive technologies, can be programmatically modified by assistive technologies.
Result	Pass: All checks are true Fail: Any check is false

C.11.3.2.17 Modifications of values and text

Type of assessment	Testing
Pre-conditions	1. The software evaluated is software that provides a user interface. 2. There are user interface elements whose values or text can be modified by a user without the use of assistive technology. 3. The security requirements permit assistive technology to programmatically modify values and text of user interface elements.
Procedure	1. Check that the values of user interface elements, whose values can be modified by a user without the use of assistive technology, can be modified by assistive technologies using the input methods of the platform. 2. Check that the text of user interface elements, whose text can be modified by a user without the use of assistive technology, can be modified by assistive technologies using the input methods of the platform.
Result	Pass: all checks are true Fail: any check is false

C.11.4 Documented accessibility usage

C.11.4.1 User control of accessibility features

Type of assessment	Testing
Pre-conditions	1. There are platform features that are defined in the platform documentation as accessibility features intended for users.
Procedure	1. Check that sufficient modes of operation exists where user control over platform features, that are defined in the platform documentation as accessibility features intended for users, is possible.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.4.2 No disruption of accessibility features

Type of assessment	Testing
Pre-conditions	1. There are platform features that are defined in the platform documentation as accessibility features.
Procedure	1. Check if software that provides a user interface disrupts normal operation of platform accessibility features. 2. Check if the disruption was specifically requested or confirmed by the user.
Result	Pass: Check 1 is false or both checks are true Fail: Check 1 is true and check 2 is false

C.11.5 User preferences

Type of assessment	Inspection and Testing
Pre-conditions	1. The software is software that provides a user interface.
Procedure	1. Check if the software provides sufficient modes of operation that uses user preferences for platform settings for colour, contrast, font type, font size, and focus cursor. 2. Check that the software documentation indicates that the software is designed to be isolated from its underlying platform.
Result	Pass: Check 1 is true or Check 1 is false and check 2 is true Fail: Check 1 is false and check 2 is false

C.11.6 Authoring tools

C.11.6.1 Content technology

Type of assessment	Inspection and Testing
Pre-conditions	1. The software is an authoring tool. 2. The output format of the authoring tool supports information required for accessibility.
Procedure	1. Check if the authoring tool conforms to 11.6.2 to 11.6.5 to the extent that information required for accessibility is supported by the format used for the output of the authoring tool.
Result	Pass: Check 1 is true Fail: Check 1 is false
NOTE: Where the output format of the authoring tool does not support certain types of information required for accessibility, compliance with requirements that relate to that type of information is not required.	

C.11.6.2 Accessible content creation

Type of assessment	Inspection and Testing
Pre-conditions	1. The software is an authoring tool.
Procedure	1. Check if the authoring tool has features that enable and guide the production of content that conforms to clauses 9 (Web content) and 10 (Documents).
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.6.3 Preservation of accessibility information in transformations

Type of assessment	Inspection and Testing
Pre-conditions	1. The software is an authoring tool.

	2. The authoring tool provides restructuring transformations or re-coding transformations.
Procedure	1. For a restructuring transformation, check if the accessibility information is preserved in the output. 2. For a restructuring transformation, check if the content technology supports accessibility information for the restructured form of the information. 3. For a re-coding transformation, check if the accessibility information is preserved in the output. 4. For a re-coding transformation, check if the accessibility information is supported by the technology of the re-coded output.
Result	Pass: Check 1 is true or checks 1 and 2 are false or check 3 is true or checks 3 and 4 are false Fail: Check 1 is false and check 2 is true

C.11.6.4 Repair assistance

Type of assessment	Inspection
Pre-conditions	1. The software is an authoring tool. 2. The accessibility checking functionality of the authoring tool can detect that content does not meet a requirement of clauses 9 (Web content) or 10 (Documents) as applicable.
Procedure	1. The authoring tool provides repair suggestions when content does not meet a requirement of clauses 9 or 10 (as applicable).
Result	Pass: Check 1 is true Fail: Check 1 is false

C.11.6.5 Templates

Type of assessment	Inspection
Pre-conditions	1. The software is an authoring tool. 2. The authoring tool provides templates.
Procedure	1. Check that the authoring tool provides at least one template that supports the creation of content that conforms to requirements of clauses 9 (Web content) or 10 (Documents) as applicable. 2. Check that at least one template identified in step 1 is available and is identified as conforming to clauses 9 or 10 (as applicable).
Result	Pass: Checks 1 and 2 are true Fail: Check 1 or 2 is false
NOTE:	The identification as conforming to the requirements of clauses 9 or 10 (as applicable) described in check 2 may be described in terms such as "Conformant to WCAG 2.0". Where the identification does not explicitly state that all of the requirements identified in clauses 9 or 10 (as appropriate) are covered, it may be necessary to use the template to create a web site or document and then test that web site or document according to the requirements of clauses 9 or 10 to provide full assurance that the template behaves as required.

C.12 Documentation and support services

C.12.1 Product documentation

C.12.1.1 Accessibility and compatibility features

Type of assessment	Inspection
Pre-conditions	1. Product documentation is supplied with the ICT.
Procedure	1. Check that product documentation provided with the ICT lists and explains how to use the accessibility and compatibility features of the ICT.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.12.1.2 Accessible documentation

Type of assessment	Inspection
Pre-conditions	1. Product documentation in electronic format is supplied with the ICT.
Procedure	1. Check that product documentation in electronic format provided with the ICT conforms to the requirements of clauses 9 or 10 as appropriate.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.12.2 Support services

C.12.2.1 General

Clause 12.2.1 is informative only and contains no requirements requiring test.

C.12.2.2 Information on accessibility and compatibility features

Type of assessment	Inspection
Pre-conditions	1. ICT support services are provided.
Procedure	1. Check that the ICT support services provide information on the accessibility and compatibility features that are included in the product documentation.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.12.2.3 Effective communication

Type of assessment	Inspection
Pre-conditions	1. ICT support services are provided.
Procedure	1. Check that the ICT support services accommodate the communication needs of individuals with disabilities either directly or through a referral point.
Result	Pass: Check 1 is true Fail: Check 1 is false
NOTE: The provision of any level of support for the communication needs of individuals with disabilities constitutes a pass of this requirement. Suppliers may wish to provide further information about the level of support that is provided to enable the adequacy and quality of the support to be judged.	

C.12.2.4 Accessible documentation

Type of assessment	Inspection
Pre-conditions	1. Documentation is provided by the ICT support services.
Procedure	1. Check that documentation in electronic format provided by the ICT support services conforms to the requirements of clauses 9 or 10 as appropriate.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.13 ICT providing relay or emergency service access

C.13.1 Relay service requirements

C.13.1.1 General

Clause 13.1.1 is informative only and contains no requirements requiring test.

C.13.1.2 Text relay services

Type of assessment	Inspection
Pre-conditions	1. The service is a text relay service.
Procedure	1. Check that the service enables text users and speech users to interact by providing conversion between the two modes of communication.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.13.1.3 Sign relay services

Type of assessment	Inspection
Pre-conditions	1. The service is a sign relay service.
Procedure	1. Check that the service enables sign language users and speech users to interact by providing conversion between the two modes of communication.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.13.1.4 Lip-reading relay services

Type of assessment	Inspection
Pre-conditions	1. The service is a lip-reading relay service.
Procedure	1. Check that the service enables lip-readers and voice telephone users to interact by providing conversion between the two modes of communication.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.13.1.5 Captioned telephony services

Type of assessment	Inspection
Pre-conditions	1. The service is a captioned telephony service.
Procedure	1. Check that the service assists a deaf or hard of hearing user in a spoken dialogue by providing text captions translating the incoming part of the conversation.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.13.1.6 Speech to speech relay services

Type of assessment	Inspection
Pre-conditions	1. The service is a speech to speech relay service.
Procedure	1. Check that the service enables enable speech or cognitively impaired telephone users and any other user to communicate by providing assistance between them.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.13.2 Access to relay services

Type of assessment	Inspection
Pre-conditions	1. The ICT system supports two-way communication. 2. A set of relay services for two-way communication is specified.
Procedure	1. Check that the system does not prevent access to those relay services for incoming and outgoing calls.
Result	Pass: Check 1 is true Fail: Check 1 is false

C.13.3 Access to emergency services

Type of assessment	Inspection
Pre-conditions	1. The ICT system supports two-way communication. 2. A set of emergency services for two-way communication is specified.
Procedure	1. Check that the system does not prevent access to those emergency services for outgoing and incoming calls.
Result	Pass: Check 1 is true Fail: Check 1 is false

History

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V1.1.1	February 2014	Publication
V.1.1.2	April 2015	Publication
draftV2.1.1a	19/Sep/2017	First restructuring and 11.2
draftV2.1.6	27/Nov/2017	Annex A, WCAG 2.1, further restructuring and editorial changes, updates to reflect WCAG2.1 development as at 24 Nov 2017
Draft v2.1.7	6/Dec/2017	General editorial changes in response to comments
Draft v2.1.8	8/Dec/2017	WCAG 2.1 content updated to align with W3C's December 7th Working Draft
Draft v2.1.9	9/Jan/2018	WCAG 2.1 content updated to align with W3C's December 9th Working Draft
Draft v2.10	10/Jan/2018	Corrections to table titles, version for discussion on Friday 12/Jan
Draft v2.10_compact	10/Jan/2018	Removal of WCAG2.1 text (change tracked from v2.10_clean)
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