Dokumenti v povezavi z EN 301 549 (V1.1.1) "Zahteve za dostopnost pri javnem naročanju izdelkov in storitev IKT v Evropi"

Documents relevant to EN 301 549 (V1.1.1) "Accessibility requirements suitable for public procurement of ICT products and services in Europe"

Relevante Dokumente zu EN 301 549 (V1.1.1) "Barrierefreiheitsanforderungen, geeignet für die öffentliche Beschaffung von IKT-Produkten und -Dienstleistungen in Europa"

Ta slovenski standard je istoveten z: **CEN/CLC/ETSI TR 101550:2022**

ICS:

35.020	Informacijska tehnika in tehnologija na splošno	Information technology (IT) in general

SIST-TP CEN/CLC/ETSI TR 101550:2022 en

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TR 101 550 V1.1.3 (2022-05)

TECHNICAL REPORT

Documents relevant to EN 301 549 (V1.1.1)
"Accessibility requirements suitable for public procurement of
ICT products and services in Europe"

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Foreword

This Technical Report (TR) has been produced by ETSI Technical Committee Human Factors (HF).

Modal verbs terminology

In the present document "**should**", "**should not**", "**may**", "**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 was prepared in response to Phase 2 of Mandate M 376 [i.9] from the European Commission to CEN, CENELEC and ETSI.

The primary objective of Mandate M 376 was to produce a European Standard (EN 301 549 (V1.1.1) [i.3]), hereafter, for the purpose of the present document, called "the EN", that sets out in a single source, detailed, practical and quantifiable functional accessibility requirements which: take note of global initiatives in that field, are applicable to all ICT products and services identified in Phase I, and are usable in public procurement.

The present document is one of two Technical Reports that support the EN. The present document lists the standards and technical specifications used in the creation of the compliance requirements for accessibility set out in EN 301 549 (V1.1.1) [i.3]. It also provides a source reference for other documents needed to implement the test procedures required by the EN.

The present document also notes new test methods developed during the work on the EN and identifies exceptional cases where further research was found to be necessary. It does not address additional sources or issues raised during the creation of later versions of the EN.

A second Technical Report (TR 101 551 [i.7]) gives guidance to procurers on the award criteria relevant to each area of user needs in the products and services under consideration.

1   Scope

The present document lists the documents used in the creation of EN 301 549 (V1.1.1) [i.3] on accessibility requirements for public procurement of ICT products and services in Europe and provides a source reference for any other documents needed to implement the test procedures specified in that document.

As well as identifying the sources for the EN content, the present document also provides additional explanation to assist users of the EN with clarifications and supporting information about measurement methods, particularly where no globally agreed test presently exists.

Where there are any test gaps, these are identified and test descriptions and evaluation methodologies are developed. In those exceptional cases where it is not possible to do so, recommendations are given on how the gaps should be filled. The present document does not address additional sources or issues raised during the creation of later versions of the EN.

2   References

2.1   Normative references

Normative references are not applicable in the present document.

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 referenced 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 C63.19 (2011): "Methods of Measurement of Compatibility between Wireless Communications Devices and Hearing Aids".

[i.2]   ETSI EG 201 013: "Human Factors (HF); Definitions, abbreviations and symbols".

[i.3]   CEN/CENELEC/ETSI EN 301 549 (V1.1.1): "Accessibility requirements suitable for public procurement of ICT products and services in Europe".

[i.4]   ETSI ES 200 381-1: "Telephony for hearing impaired people; Inductive coupling of telephone earphones to hearing aids Part 1: Fixed-line speech terminals".

[i.5]   ETSI ES 200 381-2: "Telephony for hearing impaired people; Inductive coupling of telephone earphones to hearing aids; Part 2: Cellular speech terminals".

[i.6]   ETSI ETS 300 381: "Telephony for hearing impaired people; Inductive coupling of telephone earphones to hearing aids".

[i.7]   CEN/CENELEC/ETSI TR 101 551: "Guidelines on the use of accessibility award criteria suitable for public procurement of ICT products and services in Europe".

[i.8]   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.9]   European Commission M 376: "Standardisation Mandate to CEN, CENELEC and ETSI in support of European accessibility requirements for public procurement of products and services in the ICT domain".

[i.10]   European Commission M 420: "Standardisation Mandate to CEN CENELEC and ETSI in support of European Accessibility Requirements for Public Procurement in the Built Environment".

[i.11]   ISO 9241-171:2008: "Ergonomics of human-system interaction-Part 171: Guidance on software accessibility".

[i.12]   ISO 21542:2011: "Building construction -- Accessibility and usability of the built environment".

[i.13]   ISO 26800: 2011: "Ergonomics -- General approach, principles and concepts".

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

[i.15]   ISO/IEC 13066-1:2011: "Information technology -- Interoperability with assistive technology (AT) -- Part 1: Requirements and recommendations for interoperability".

[i.16]   ISO/IEC 40500:2012: "Information technology -- W3C Web Content Accessibility Guidelines (WCAG) 2.0".

[i.17]   ISO/IEC TR 29138-1 "Information Technology -- Accessibility considerations for people with disabilities - User needs summary.

[i.18]   Supplement 1 to ITU-T H-Series Recommendations: "Application profile - sign language and lip-reading real time conversation using low bit rate video communication".

[i.19]   Telecommunications and Electronic and Information Technology Advisory Committee (TEITAC): "Report to the Access Board: Refreshed Accessibility Standards and Guidelines in Telecommunications and Electronic and Information Technology", April 2008.

[i.20]   TIA-825-A: 2003: "A Frequency Shift Keyed Modem for Use on the Public Switched Telephone Network".

[i.21]   TIA-1083-A (2010): "Telecommunications; Telephone Terminal equipment; Handset magnetic measurement procedures and performance requirements" - Telecommunications Industry Association.

[i.22]   US Access Board: "Draft Information and Communication Technology (ICT) Standards and Guidelines" March 2010 (ANPRM 2010).

[i.23]   US Access Board: "Draft Information and Communication Technology (ICT) Standards and Guidelines", December 2011 (ANPRM 2011).

[i.24]   US Department of Justice: "2010 ADA Standards for Accessible Design".

[i.25]   W3C® Recommendation (11 December 2008)/ISO/IEC 40500 (2012): "Web Content Accessibility Guidelines (WCAG) 2.0".

NOTE: Available at http://www.w3.org/TR/WCAG20/.

[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]   Recommendation ITU-T F.700: "Framework Recommendation for multimedia services".

[i.28]   Recommendation ITU-T F.703: "Multimedia conversational services".

3 Definition of terms, symbols and abbreviations

3.1 Terms

For the purposes of the present document, the terms given in ETSI EG 201 013 [i.2] 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

NOTE 1: This definition of term is from ISO 26800 [i.13].

NOTE 2: Context of use includes direct use or use supported by assistive technologies.

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

NOTE 1: This definition of term is from ISO 9241-171 [i.11].

NOTE 2: Examples are braille display, screen reader, screen magnification software, eye tracking devices.

NOTE 3: Where ICT does not support directly connected assistive technology, but 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.

electronic content: information and sensory experience to be communicated to the user by means of ICT

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

3.2 Symbols

Void

3.3 Abbreviations

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

ADA	Americans with Disabilities Act
ANPRM	Advance Notice of Proposed Rule Making
ANSI	American National Standards Institute
ATAG	Authoring Tool Accessibility Guidelines
FPC	Functional Performance Criteria
FPS	Functional Performance Statement
GSM	Global System for Mobile communications
ICT	Information and Communication Technologies
IEC	International Electrotechnical Commission
IMS	IP Multimedia Subsystem
IP	Internet Protocol
ISO	International Organisation for Standardization
JWG	Joint Working Group
PSTN	Public Switched Telephone Network
RTT	Real-Time Text
SI	Système International (International System of Units)
TEITAC	Telecommunications and Electronic and Information Technology Advisory Committee
W3C	World Wide Web Consortium
WCAG	Web Content Accessibility Guidelines (of W3C)

4   Overview

When writing EN 301 549 (V1.1.1) [i.3], hereafter, for the purpose of the present document, called "the EN", there were a number of key requirements that had to be taken into account.

It was important to build on the significant work undertaken during Phase 1 of Mandate M 376 [i.9] which resulted in ETSI TR 102 612 [i.8]. Phase 1 was the preparatory work that preceded the Phase 2 activity of preparing a European Standard (Norm) (EN) containing in one volume all the necessary functional accessibility requirements for public procurement of products and services in the ICT domain. This EN, EN 301 549 (V1.1.1) [i.3], was intended to contain these requirements in a fully demonstrable and testable form, compliant with ISO/IEC 17007 [i.14], the standard which gives guidance for drafting normative documents suitable for use in conformity assessment.

It was important that the document should achieve global acceptability, originally by taking into account the requirements of the US Telecommunications and Electronic and Information Technology Advisory Committee (TEITAC) Report published in April 2008 [i.19] on which the Phase 1 work was based. Unfortunately, before work started on Phase 2 of the Mandate [i.9], the US Access Board set out in an Advance Notice of Proposed Rulemaking (ANPRM) of their "Information and Communication Technology (ICT) Standards and Guidelines" [i.23].

In order to maintain the aim to reduce the burden on manufacturers by providing a common set of public procurement requirements for accessibility which as far as possible could apply to markets both in Europe and in the rest of the world it was necessary to change the work to meet the new US ANPRM [i.23]. This has been achieved whilst meeting the requirements mandated by the European Commission.

Whilst trying to achieve a globally acceptable standard it was important to ensure that the requirements of the EN took account of the European public procurement needs, particularly in those areas affected by European legislation. It was also necessary to take note of some areas where aspects of performance are controlled by different legislative requirements, such as telephone transmission.

Where websites are concerned, it was important to achieve global status for the accessibility requirements by referring to the well-established process of conformance to the internationally accepted web content accessibility guidelines (WCAG) produced by the World Wide Web Consortium (W3C), an international community that develops recommendations. These recommendations are currently at version WCAG 2.0 [i.25], which was adopted in December 2008.

5   Preparation of the EN requirements

5.1   General

For each potential requirement identified in Phase 1 of the work on Mandate M 376 [i.9], the sources identified in the report were checked to see if they were appropriate to be a potential source of wording for the requirement (i.e. whether it was a widely accepted global standard) and, where appropriate, to identify whether the specific text in the standard could be taken into account when wording the requirement. A full listing of the sources that relate to each requirement can be found in ETSI TR 102 612 [i.8] produced at the end of Phase 1.

The original Terms of Reference for the work on the EN were based on the output of Phase 1 of the mandate. Subsequent to the publication of the Phase 1 reports there were considerable developments in relevant international regulations and standards. The publication by the US Access Board of an Advance Notice of Proposed Rulemaking (ANPRM) [i.22] in March 2010 was particularly significant.

When writing the EN an attempt was made to maximize alignment with the updating of the American accessibility requirements that are foreseen by the American Architectural and Transportation Barriers compliance board's (Access Board) document entitled "Telecommunications Act Accessibility Guidelines: Electronic and Information Technology Accessibility Standards". This was published as an advance notice of proposed rulemaking (ANPRM) on the 22nd March 2010 [i.22]. This document led to the writing of the US Access Board's draft "Information and Communication Technology (ICT) Standards and Guidelines" [i.22] (henceforward described here as the first 508/255 ANPRM), and was followed by a second version of the standards and guidelines that was published on the 8th December 2011 [i.23]. This second 508/255 ANPRM was significantly different from the first one, replacing many of the previous requirements by global references to WCAG 2.0 [i.25]. At the time of writing it is not known what requirements will be included in the final Notice of Proposed Rule Making (NPRM) which will lead to the formal revision of Section 508 of the Rehabilitation Act.

Initially, the first 508/255 ANPRM text, together with the official comments on the proposed requirements, were considered as the basis of candidate text. Following this study, in some cases the same text was able to be used, but in many cases the wording was changed by the experts writing the new requirements in order to address the issues raised by the official comments and to address points found in the other standards that were consulted.

In some cases the concepts and wording from widely accepted International Standards were used as a basis for the drafting or re-drafting of those requirements.

A new requirement was introduced into the EN to provide a clear point of separation between those areas that are Web content, and hence within the scope of WCAG 2.0 [i.25], and those that are not. The intent was that for Web content, the requirements of the EN would be identical to those of WCAG 2.0. This was to be achieved by making WCAG 2.0 a part of the EN as a PDF attachment.

Major re-writing or expanding of the requirements beyond that of the 508/255 ANPRM had to be undertaken for areas where the performance requirements of European networks or legislation demanded different or more precisely defined specifications of services, for example when defining requirements for magnetic coupling of ICT to hearing aids and also for Real Time Text.

In summary, the net result of taking all of these factors into account was that, for the majority of the individual requirements (for ICT not within the scope of WCAG 2.0), the wording was closely based on the wording of the 508/255 ANPRM with changes being made to reflect the concerns expressed in the official comments on that document and also the concerns of the experts drafting the European requirements. Where a requirement that was identified in Phase 1 did not appear in the 508/255 ANPRM, but was still seen as being important to be included in EN 301 549 (V1.1.1) [i.3], the initial source chosen to look for appropriate wording was the TEITAC report [i.19].

The structure of some requirements in the 508/255 ANPRM was found to be incompatible with the rules adopted and considered essential by the ESOs and official International Standards Bodies. It was therefore necessary to alter the way in which these groups of requirements were structured and to amend the wording of requirements to match the revised structuring logic. In making these changes, care was taken to avoid altering the intended meaning of the individual requirements and the intended relationships between them.

On 8th December 2011, a second 508/255 ANPRM was issued with a completely new set of standards and guidelines [i.23]. The approach taken in the second 508/255 ANPRM was radically different from that taken in the first 508/255 ANPRM. The number of requirements and the overall size of the document was greatly reduced in this second 508/255 ANPRM by proposing that the WCAG 2.0 Success Criteria could be applied to "User interface components and content of platforms and applications" as well as to web pages. This approach met with initial scepticism from some commentators in the US, as well as from those drafting EN 301 549 (V1.1.1) [i.3]. In particular the US Access Board's suggestion that applying WCAG 2.0 Success Criteria to these other areas was "straightforward" was widely questioned. There was also concern that some requirements appeared to have been lost.

After considering the implications of the changes proposed in the second 508/255 ANPRM it was decided that it was possible to move significantly in the proposed direction. The result of this re-evaluation was that many of the requirements that had been developed in the earlier drafts of EN 301 549 (V1.1.1) [i.3] were removed, with their place being taken by equivalent Success Criteria in WCAG 2.0. This change was somewhat less dramatic than it might at first appear as many of the requirements in the first 508/255 ANPRM started as minor redrafts of WCAG 2.0 Success Criteria.