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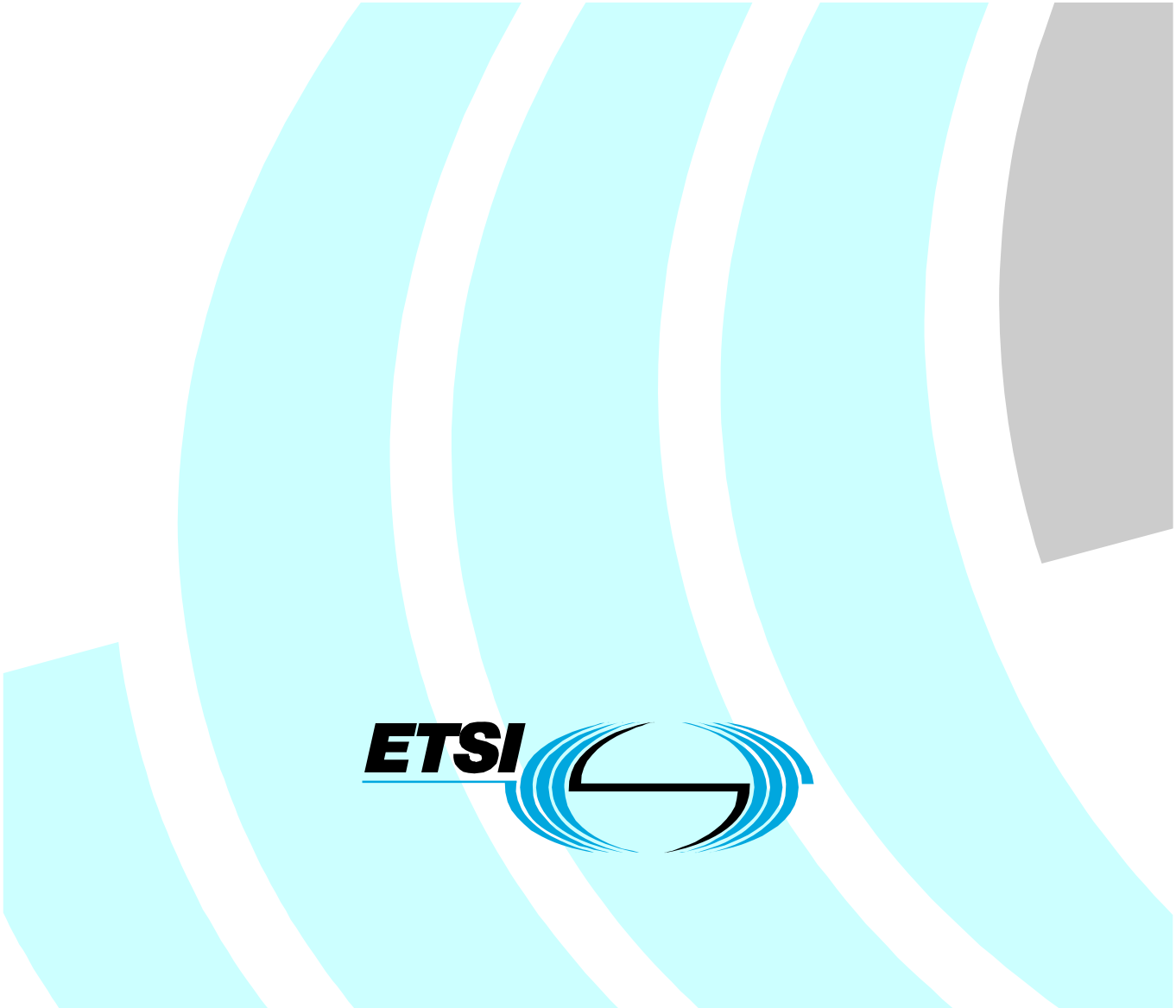
ETSI Standard

Human Factors (HF); User Interfaces; Generic spoken command vocabulary for ICT devices and services



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Contents

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Foreword

This ETSI Standard (ES) has been produced by ETSI Technical Committee Human Factors (HF), and is now submitted for the ETSI standards Membership Approval Procedure.

The work has been conducted in collaboration with industry. The present document is based upon user testing, empirical data, phonetic discriminability analysis, expert knowledge, and an industry-consultation and consensus process, aimed at a quick uptake and the widest possible support in product implementations to come.

Intended readers of the present document are:

- terminal manufacturers;
- service providers;
- network operators;
- manufacturers of multilingual speech recognizers;
- standards developers;
- software and user interface developers.

Introduction

Telecommunications, converging with information processing, and intersecting with mobility and the internet, are leading to the development of new interactive applications and services, offering global access.

A technology enabling a natural user interaction with these (often complex) systems and services is speech recognition. In recent years, speech recognition has become commercially viable in off-the-shelf ICT (Information and Communication Technology) devices and services. Just as the graphical user interface changed the way we interact with personal computers, so voice user interfaces are changing the way we interact with ICT devices and services.

Voice is fundamental to human communication and forms an important channel for universal access to ICT services. Voice user interfaces are a terminal, display and potentially location-independent user interface technology, enabled by speech recognition technologies. In order to simplify the user's learning and facilitate reuse of knowledge for the control of different applications and devices, it is desirable to standardize voice commands for the most common and generic functions. This standardization activity also meets one of the most important principles of the *e*Europe 2005 Action Plan; that of design for all. This theme has been continued by the new EU initiative; the i2010 Action Plan. This will help ensure that those with special needs such as elderly people, people with visual and other impairments, as well as young children will benefit from a generic spoken command vocabulary. As the standard necessarily addresses speech input it is recommended that the users of the present document provide some form of guidance for those end users who may have a speech impediment.

The present document is a timely contribution to enable the deployment of speech recognition in services and devices, offering multi-lingual voice user interfaces. Thereby it will minimize learning effort, facilitate knowledge transfer and develop user trust. Uniformity in the basic spoken commands improves the overall usability of the entire interactive environment, which becomes increasingly important in a world of ubiquitous devices and services using speech recognition.

The minimum generic set of spoken commands in the present document has been developed with a combined methodology, including the collection of data from native speakers of the 30 languages covered by the present document (see annex A for details). Therefore, it supports developers of ICT devices and services, leading to quicker, more consistent, cheaper, and better user interface development.

The work is aligned with, and co-funded by, the European Commission's initiative ***eEurope***, a programme for inclusive deployment of new, important, consumer-oriented technologies, opening up global access to communications and other new technologies, for all [2].

1 Scope

The present document specifies a minimum set of spoken commands required to control the generic and common functions of ICT devices and services that use speaker-independent speech recognition. It specifies the necessary and most common vocabularies for voice commands to be supported by ICT devices and services.

The present document is applicable to the functions required for user interface navigation, call handling, the control of and navigation in media, and management of device and service settings.

The present document specifies commands for the official languages (at the time of publication) of the European Union (EU) and the European Free Trade Association (EFTA) countries, and for Russian. The standard addresses Bulgarian, Croatian, Czech, Danish, Dutch, English, Estonian, Finnish, French, German, Greek, Hungarian, Icelandic, Irish, Italian, Latvian, Lithuanian, Macedonian, Maltese, Norwegian, Polish, Portuguese, Raeto-Romance, Romanian, Russian, Slovak, Slovene, Spanish, Swedish, and Turkish [4]. Therefore, this updates the existing standard, ES 202 076 [1], which covers only the five languages with the largest number of native speakers in the European Union: English, French, German, Italian and Spanish. The present document does not cover dialects with the exception of Norwegian and Raeto Romance both of which have established dialects. All languages are addressed in "Received Pronunciation".

The present document does not cover dialogue design issues, the full range of supplementary telecommunications services, performance-related issues or speech output. Alphanumeric characters and symbols are not covered with the exception of single digits and language-specific reference to two recurring digits (e.g. "Double Two").

2 References

References are either specific (identified by date of publication and/or edition number or version number) or non-specific.

- For a specific reference, subsequent revisions do not apply.
- Non-specific reference may be made only to a complete document or a part thereof and only in the following cases:
  - if it is accepted that it will be possible to use all future changes of the referenced document for the purposes of the referring document;
  - for informative references.

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2.1 Normative references

The following referenced documents are indispensable for the application of the present document. For dated references, only the edition cited applies. For non-specific references, the latest edition of the referenced document (including any amendments) applies.

[1] ETSI ES 202 076 (V1.1.2): "Human Factors (HF) ; User Interfaces; Generic spoken command vocabulary for ICT devices and services".

[2] i2010 - A European Information Society for growth and employment.

NOTE: Available at http://ec.europa.eu/information_society/eeurope/i2010/index_en.htm.

[3] ITU-T Recommendation I.210 (1993): "principles of telecommunications services supported by an ISDN and the means to describe them".

[4] Languages of Europe - The Official EU languages.

NOTE: Available at http://ec.europa.eu/education/policies/lang/languages/index_en.html.

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

2.2 Informative references

The following referenced documents are not essential to the use of the present document but they assist the user with regard to a particular subject area**.** For non-specific references, the latest version of the referenced document (including any amendments) applies.

[i.1] ETSI EG 201 013: "Human Factors (HF); Definitions, abbreviations and symbols".

[i.2] ETSI TR 102 068: "Human Factors (HF); Requirements for assistive technology devices in ICT".

[i.3] ETSI EG 202 048: "Human Factors (HF); Guidelines on the multimodality of icons, symbols and pictograms".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in EG 201 013 [i.1] and the following apply:

basic command: employed frequently across a wide range of applications

design for all: design of products to be usable by all people, to the greatest extent possible, without the need for specialized adaptation

dialogue: series of exchanges between the user and a system

function: abstract concept of a particular use of or operation in a device or service

hot word: See keyword.

ICT devices and services: devices or services for processing information and/or supporting communication, which have an interface to communicate with a user

impairment: reduction or loss of psychological, physiological or anatomical function or structure of a user (environmental included)

keyword: word that the speech recognition system is looking for in word spotting mode

magic word: See keyword.

menu: list of choices from which a selection can be made

NOTE: A menu dialogue offers a user a series of lists of choices from which a series of selections can be made. The result from any one selection may be another menu.

phonetic discriminability: ability to discriminate between words based on the analysis of their constituent phones

spoken command: verbal or other auditory dialogue format which enables the user to input commands to control a device or service

supplementary service: additional service that modifies or supplements a basic telecommunication service

NOTE: Consequently, it cannot be offered to a customer as a stand-alone service; it has to be offered in association with a basic telecommunication service. The same supplementary service may be common to a number of basic telecommunication services. See ITU-T Recommendation I.210 [3].

usability: effectiveness, efficiency and satisfaction with which specified users achieve specified goals in particular environments (see ISO 9241-11 [5])

user: person who interacts with a product (see ISO 9241-11 [5])

user interface: elements of a product used to control it and receive information about its status, and the interaction that enables the user to use it for its intended purpose

user requirements: requirements made by users, based on their needs and capabilities, in order to make use of a product in the easiest, safest, most efficient and most secure way

word spotting mode: special state of the recognition system in which no speech is recognized or processed other than a limited set of keywords

NOTE: A typical usage is in a dormant state of the speech recognizer, where issuing a "wake up" command (also known as hot-word or keyword) can reactivate speech functionality.

3.2 Abbreviations

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

ASR	Automatic Speech Recognition
CWD	Carefully Worded Description
EFTA	European Free Trade Association
EU	European Union
GPS	Global Positioning System
ICT	Information and Communication Technology
NLA	Native Language Assistant
UCU	University College Utrecht

4 User requirements

Intended *users* of the present document are those designing, developing, implementing and deploying ICT devices and services with a speech user interface.

Intended *end users* mentioned in the present document are people who use ICT devices and services with a speech interface, ranging from first time users to experienced power users.

Uniformity in the interactive elements increases the transfer of learning between different devices and services. Such knowledge transfer becomes even more important in a world of ubiquitous devices and services using speech recognition technology. In particular standardized commands improve the overall usability of the entire interactive environment. Use of the generic vocabulary of spoken commands in the present document for the development of ICT devices and services will enable end users to reapply knowledge and experience.

A generic spoken command vocabulary will particularly benefit some end users with temporary or permanent additional needs, such as those with literacy difficulties, people with visual or cognitive impairments, those with an impaired ability to perceive tactile stimuli, and people with limited dexterity.

For further guidance, including specifics of user impairments and resulting disabilities, assistive technologies, design for all and multi-modal interfaces, see TR 102 068 [i.2] and EG 202 048 [i.3].

Ideally, a spoken command vocabulary should be intuitive, easy to learn, memorable, natural, and unambiguous. A well-designed speech interface should:

- have a shallow learning curve;
- execute most common tasks;
- the ability to handle the vagaries of speech recognizers in a reliable and predictable way, maximizing the user experience.

Adequate feedback should be provided to users indicating, where applicable, that a command cannot be executed when requested. Three examples are:

- When a function is not supported.
- When the function is currently not available.
- When the command is not understood.

5 Method

5.1 General

In order to meet the requirements stated in clause 4, where the standard is designed for a wide range of end users, an empirical method has been employed for the elicitation and validation of potential voice commands. Native speakers of the 30 languages were sampled for this data collection. The previous standard used an online method of data collection where respondents were asked to complete a questionnaire. This worked well for the five most frequently spoken languages of the EU. However, the extension of the standard covers countries where internet penetration is relatively low and online questionnaires for these countries would not yield a representative sample of users for the purposes of inclusion.

In addition to elicitation and validation, a procedure of phonetic discriminability has been applied to the candidate commands to ensure minimal confusion with commands that are likely to be simultaneously available.

The employed method consists of three phases:

- Phase 1: Elicitation of command candidates;
- Phase 2: Validation of command candidates;
- Phase 3: Phonetic discriminability.

These phases are outlined here. More detailed descriptions of each phase can be found in annex A.

5.2 Elicitation of command candidates

In this phase, a sample of native speakers representing three age groups, aiming for an equal distribution of men and women, were invited to take part in an interview on voice commands. At this stage, they were given some general background to the aims of the study in order to inform them of the aims of the study prior to gaining their consent to participating in the research. In most cases the interview was conducted by telephone but, in a small number of cases, an interview was conducted with interviewer and interviewee sitting back to back in order to prevent artefacts based on the interviewer's reactions. The interviewer, or Native Language Assistant (NLA), was also always a native or near-native speaker who also carried out translations and transcriptions from documents in the original English and conducted analyses. They read out, for each command, a phrase describing the function of the device or service, known as the Carefully Worded Description (CWD), without mentioning any of the most likely resulting terms. The interviewees were then asked to name the term or terms they would find most suitable as a command in the context of a spoken-command supported device or service.

EXAMPLE: The carefully worded description used for describing the supplementary service "Call deflection" was: "You hear the phone ring at a time when you do not want to speak to anyone. You want the connection to be passed on to another name or number instead. What command would you give before saying this name or number?".

From this process a number of different alternative command candidates were collected. The lists of terms were then processed in order to reduce the number of morphological forms, e.g. infinitive or imperative, singular or plural, formal or informal addressing. The data were also checked for typological errors and answers which did not reflect the function implied by the carefully worded descriptions. The resulting terms were ordered according to the percentage of participants who had named them, and the most frequently chosen terms were used as input to the validation phase.

5.3 Validation of command candidates

In identifying the appropriate spoken commands it is not sufficient to conduct elicitation alone. It was also necessary to rank the proposed terms in order to provide a degree of validation. Therefore, validation interviews were set up and carried out in a similar way to elicitation interviews where the candidate commands were ranked in order of preference by the participants (see clause A.2). The top-ranked commands were then put forward to the phonetic discriminability phase.

The method described here was applied to the majority of the languages. However, it became clear that this method was an unnecessary use of resources as the same result could be obtained by subjecting the results from discrimination to expert analysis. Therefore, (see clause A.2), expert analysis was applied to those languages which had not undergone validation, namely: Estonian, Greek, Icelandic, Latvian, Maltese, Norwegian, Portuguese, Raeto-Romance, Swedish, and Turkish to identify the spoken commands which were chosen for phase 3, phonetic discriminability. The experts comprised a combination of: the NLAs, industry experts, linguistic and cultural representatives from the countries involved, and Human Factors experts.

5.4 Phonetic discriminability

Whilst the previous two steps have provided a user-centric approach to the selection of command words, it is still important to address technology issues.

EXAMPLE: A selection of words may be chosen as a result of the previous two phases that have a high level of agreement across the user group.

However, if this selection gives rise to a high degree of confusability in the speech recognizer, between words which are available for use in the same context, then the overall goal of usability is nullified. Therefore, discriminability analysis was carried out to ensure that command words that are likely to be active simultaneously in a dialogue context can be recognized correctly by the speech recognition system.

The approach consisted of the following steps:

a) Commands were clustered according to those which would be simultaneously available, e.g. all commands for functions related to the handling of phone calls.

b) For each context, the top three commands from validation were assessed by native-language experts with respect to their sounds and not to their orthographic forms. Commands were listed as potentially phonetically confusable if:

   - they share the same initial consonant or consonant cluster;
   - they share similar stressed vowels;
   - they rhyme;
   - they are of equal length.

c) Commands that give rise to possible phonetic confusion were collated.

d) An alternative for one of the command words was chosen, with minimum repercussion with respect to the ranking of candidates.

5.5 Final command definition

The final pass on the resulting command set was performed by submitting the results to a number of different groups for verification. These were:

- Educated native speakers to ensure consistency within the entire language set in terms of morphological and other characteristics.
- The NLAs, who were all native speakers of the languages they assisted with.
- Cultural and linguistic institutes of each of the languages represented in the standard.

- The industry reference group. This is a body of experts from industry, such as service providers and handset manufacturers, who would be responsible for the implementation of the standard in some or all of the countries involved.
- Experts in the design of ICT products and services for all.

6 List of commands

6.1 Principles of use

The spoken commands specified in the present document are divided into the following categories:

1) basic commands;
2) digits;
3) communication commands;
4) commands for the control of and navigation in media;
5) commands for device settings.

For the present document, the following principles of use in implementations apply, assuming a speech recognition user interface is provided:

1) The ICT device or service shall support all the commands specified in the present document if the corresponding functionality is implemented.
2) If a function as defined in the present document is not supported by the ICT device or service, the corresponding command should still be accepted as user input and guidance information should be provided to the user.
3) The commands specified in the present document can be concatenated into more complex expressions (e.g. "Call - Paul - Home", or "Divert to - Five - Seven - Nine").
4) In addition to the commands specified in the present document, alternative and additional commands may be offered by the device and service provider. However, additional commands should be tested for phonetic discriminability with other commands available in the same context.
5) One word which was suggested for inclusion in the standard is "Select". This allows users to choose an item from a menu. However, the suggestion came too late for the data collection exercise. This word may be the subject of an extension to the present document but, in the mean time, command 1.1 in table 1.a ("confirm operation") may provide a suitable command.
6) For some languages, one command is used for more than one function (e.g. 3.1 and 3.2). However, in these cases, the command should be disambiguated by their different contexts.
7) In some languages functions are covered by one command, in other languages alternative commands exist for those same functions. This is a direct result of the empirical data collection and subsequent analysis.

For clarity where there is more than one command for a function, these commands have been separated by commas and the first word of a command starts with an upper case letter.

8) For commands for emergency services (3.7) only the relevant words in each language are given. The spoken commands for the digits 112 are already specified in clause 6.3. In addition, if a user wanted to say "Call 112" or "Dial 112", the relevant word for "Call" or "Dial" is also specified in clause 6.4.

9) Two of the official languages of EFTA member countries Norway and Switzerland are represented by more than one variant, namely Bokmål and Nynorsk for Norwegian (Riksmål and Høgnorsk have not been considered), and Ladin, Surmiran, Sursilvan, and Rumantsch Grischun for Raeto-Romance (Sutsilvan, Putér, and Vallader have not been considered). Which of these variants is represented in a given command is indicated by indices and footnotes in the respective tables.

6.2 Basic commands

Basic commands are employed frequently across a wide range of applications but they maintain the same effect, irrespective of the (dialogue) context in which they are executed. The meaning of each basic command is explained in table 1a, and the language-specific versions of the basic commands in the 30 languages are presented in tables 1b through 1g.

EXAMPLE: A user is unfamiliar with a new spoken-command system. She activates it ("Wake-up") and requests it to list the available commands ("Options"). After exploring some of the supported functionality, she decides to return to the main menu of the command tree ("Main menu") to navigate to a specific application. Once taking the wrong menu tree branch, the user returns to the previous menu-tree position ("Go back"). The application she then activates requires some initial input from her by asking some questions that are answered either affirmatively ("Yes") or negatively ("No"). In one case, she did not understand the question properly and asks the system to repeat it ("Repeat"). Following this, she leaves the voice-command system for a break ("Standby"). After returning to the spoken-command system, the user activates the help system ("Help") and receives some voice-based explanation, but decides that this is not helpful ("Stop") and asks to be connected to a human operator ("Operator"). After having completed her activities, she shuts down the system ("Goodbye").

Table 1a: Basic commands

Index	ICT device/service function	Explanation
1.1	Confirm operation	Positive confirmation
1.2	Reject operation	Negative confirmation
1.3	Wake-up the speech recognizer (ICT device or service in word spotting mode)	ASR ignores all speech input, except a wake-up command (hot-word, magic word or keyword). When this command is detected, the recognizer switches to a larger active vocabulary, determined by the dialogue design
1.4	Enter idle mode	Put the service into monitoring mode for a wake-up command
1.5	Terminate service	Get off line, end session
1.6	Help	Provide context-dependent explanations and guidance (may provide more detailed help on repetition of the command)
1.7	Transfer to human operator	Leave the speech recognition mode and transfer to a human attendant, an operator, in telecommunications-specific contexts. This command should also be used when offering relay services
1.8	Go to top level of service	Leave current function, go to main menu or application
1.9	List commands and/or functions	Request for listing of available commands (optionally with their functionality)
1.10	Cancel current operation	Immediately abort ongoing operation (e.g. during the (long) playback of a recorded message)
1.11	Go back to previous node or menu	Navigate backwards in a dialogue structure (can also be used to cancel a forced choice operation)
1.12	Read prompt again	Repetition of the last acoustic feedback message

Table 1b: Basic commands (Bulgarian, Croatian, Czech, Danish, Dutch)

Index	ICT device/service function	Bulgarian	Croatian	Czech	Danish	Dutch
1.1	Confirm operation	Да	Da, Izvrši	Ano	Ja, Udfør	Ja
1.2	Reject operation	Не	Ne, Odustani	Ne	Nej, Annuller	Nee
1.3	Wake-up the speech recognizer (ICT device or service in word spotting mode)	Активирай	Aktiviraj	Vstávat	Aktiver	Activeren

Index	ICT device/service function	Bulgarian	Croatian	Czech	Danish	Dutch
1.4	Enter idle mode	Чакай команда	Zaključaj	Spi	Standby	Stand-by
1.5	Terminate service	Край	Ugasi se	Konec	Sluk	Afsluiten
1.6	Help	Помощ	Pomoć	Nápověda	Hjælp, Vejledning	Help
1.7	Transfer to human operator	Оператор	Zovi operatera	Volat pomoc	Personlig assistance	Helpdesk
1.8	Go to top level of service	Главно меню	Glavni meni	Menu	Menu	Menu
1.9	List commands and/or functions	Покажи функции	Opcije	Co umíš	Kommandoer	Opdrachten tonen
1.10	Cancel current operation	Стоп, Прекрати	Prekini pokušaj	Zrušit	Stop	Stop
1.11	Go back to previous node or menu	Върни назад	Vrati se, Nazad	Zpět	Tilbage	Terug
1.12	Read prompt again	Повтори	Ponovi	Opakovat	Gentag	Herhaal

Table 1c: Basic commands (English, Estonian, Finnish, French, German)

Index	ICT device/service function	English	Estonian	Finnish	French	German
1.1	Confirm operation	Yes, Confirm	Jah, Kinnita	Jatka, Kyllä	OK, Oui	Ja, OK, Ausführen
1.2	Reject operation	No	Ei	En jatka, Ei, Keskeytä	Non	Nein
1.3	Wake-up the speech recognizer (ICT device or service in word spotting mode)	Wake-up, Activate	Hääl, Ava	Herätys, Aktivoi	Activer	Aktivieren, Start, Aufwachen
1.4	Enter idle mode	Standby, Lock	Lukusta, Hääl lukku	Lepotila, Lukitse	Veille	Stand-by
1.5	Terminate service/End Call	Goodbye, Exit	Lõpeta, Lõpp	Sulje, Lopeta	Quitter, Au revoir	Beenden, Ausschalten, Ende
1.6	Help	Help	Juhend, Abi	Opasta, Apua	Aide	Hilfe, Weiterhelfen
1.7	Transfer to human operator	Operator	Infoabi, Kliendiinfo, Ühenda kliendiinfoga	Yhdistä tukipalveluun	Assistance, Support technique	Service, Hotline
1.8	Go to top level of service	Main menu	Peamenüü, Algmenüü	Päävalikko	Menu principal	Hauptmenü
1.9	List commands and/or functions	Options	Menüü	Näytä komennot	Choix, Menu	Menü, Befehls-übersicht, Optionen
1.10	Cancel current operation	Stop	Katkesta, Katkesta tegevus	Peruuta	Stop	Abbruch, Stopp
1.11	Go back to previous node or menu	Go back, Back	Tagasi, Eelmine olek	Edellinen valikko, Takaisin	Retour, Précédent	Zurück
1.12	Read prompt again	Repeat	Korda	Toista	Répéter	Wiederholen

Table 1d: Basic commands (Greek, Hungarian, Icelandic, Irish, Italian)

Index	ICT device/service function	Greek	Hungarian	Icelandic	Irish	Italian
1.1	Confirm operation	Επιβεβαίωση	Igen, Oké	Staðfesta	Cinnte	Sì, Confermo
1.2	Reject operation	Όχι	Nem	Hafna	Ná dein	Annulla, No
1.3	Wake-up the speech recognizer (ICT device or service in word spotting mode)	Ενεργοποιώ	Start, Ebredes	Vakna, Virkja, Vekja	Dúisaigh	Riprendi, Attiva, Comincia, Inizia
1.4	Enter idle mode	Εισαγωγή σε κατάσταση αδράνειας	Alvas	Sofna, Sofa, Svæfa, Hvíla	Téigh a codlath	Sospendi, Stand-by
1.5	Terminate service	Έξοδος	Kilépés	Hætta, Slökkva, Loka	Slán	Spegni, Fine
1.6	Help	Βοήθεια	Súgó	Hjálp, Leiðbeiningar	Cabhair	Aiuto
1.7	Transfer to human operator	Χειριστής	Segítség	Fá aðstoð	Duine	Operatore, Assistenza
1.8	Go to top level of service	Κεντρικό μενού	Menü	Yfirlit, Aðgerðayfirlit	Arís	Menù principale
1.9	List commands and/or functions	Λίστα εντολών	Parancsok	Telja upp valmöguleika, Valkostir	Liosta	Menù, Lista comandi
1.10	Cancel current operation	Ακύρωση τρέχουσας λειτουργίας	Állj	Hætta við, Afturkalla	Stop	Stop, Interrompi, Ferma, Cancella
1.11	Go back to previous node or menu	Επιστροφή στο προηγούμενο μενού	Vissza	Til baka, Bakka	Ar ais	Indietro, Precedente
1.12	Read prompt again	Επανάληψη	Újra	Endurtaka	Abair arís	Ripeti

Table 1e: Basic commands (Latvian, Lithuanian, Macedonian, Maltese, Norwegian)

Index	ICT device/service function	Latvian	Lithuanian	Macedonian	Maltese	Norwegian
1.1	Confirm operation	Jā	Taip	Да, Продолжи	Iva	Ja[1,2]
1.2	Reject operation	Nē	Ne	Не, Престани	Le	Nei[1,2]
1.3	Wake-up the speech recognizer (ICT device or service in word spotting mode)	Atbloķēt	Įjungti	Активирај се	Ixgħel	Aktiver[1,2]
1.4	Enter idle mode	Bloķēt	Budėti	Зачувај команда	Qiegħed għal-lest	Hvilemodus[1], Kvilemodus[2]
1.5	Terminate service	Beigt	Baigti	Исклучи се, Стоп	Itfi	Slå av[1,2], Avslutt[1,2]
1.6	Help	Palīdzība	Info, Pagalba	Помош	Għajnuna	Hjelp[1,2]
1.7	Transfer to human operator	Operatoru	Operatorius	Повикај оператор	Qabbadni ma' l-operatur	Ring kundeservice[1,2]
1.8	Go to top level of service	Atpakaļ	Pagrindinis meniu, Meniu	Главно мени	Menù prinċipali	Hovedmeny[1], Hovudmeny[2]
1.9	List commands and/or functions	Izvēlne	Komandų sąrašas, Meniu	Покажи опции	Lista ta' commands	Meny[1,2], Alternativ[1,2], Tilgjengelige kommandoer[1], Tilgjengelege kommandoar[2]
1.10	Cancel current operation	Pārtraukt	Stop	Стоп веднаш	Ieqaf	Avbryt[1,2]
1.11	Go back to previous node or menu	Atpakaļ	Atgal, Grįžti	Претходна опција	Ta' qabel	Gå tilbake[1,2]
1.12	Read prompt again	Atkārtot	Kartoti, Pakartoti	Повтори	Irrepeti	Gjenta[1,2]
NOTE: In the column for Norwegian, the indices represent the variants of the language to which a command applies: 1 = Bokmål; 2 = Nynorsk.						

Table 1f: Basic commands (Polish, Portuguese, Raeto-Romance, Romanian, Russian)

Index	ICT device/service function	Polish	Portuguese	Raeto-Romance	Romanian	Russian
1.1	Confirm operation	Tak	Sim	Schi[1], Ea[2], Gie[3], Gea[4]	Da	Да
1.2	Reject operation	Nie, Anuluj	Não	Na[1,2,3,4]	Nu	Нет
1.3	Wake-up the speech recognizer (ICT device or service in word spotting mode)	Aktywuj	Ativar	Activar[1,2,3,4], Cuntinuar[1,2,3,4]	Reactivează, Activează	Активировать, Включить
1.4	Enter idle mode	Zablokuj	Ligar	Standby[1,3,4], Pausa[3,4], Pôssa[2]	Standby, Pauză	Заблокировать, Стэнд-бай
1.5	Terminate service	Koniec	Sair	Finir[1,3,4], Fegn[2], Tschentar ora[3,4]	Închide	Выйти, Выключить
1.6	Help	Pomoc	Ajuda	Agüd[1], Ageid[2], Agid[3,4]	Ajutor	Помощь

Index	ICT device/service function	Polish	Portuguese	Raeto-Romance	Romanian	Russian
1.7	Transfer to human operator	Konsultant	Operador	Assistent[1,2,3,4]	Consultant, Operator	Оператор, Сервис
1.8	Go to top level of service	Menu	Voltar ao menu	Menu[1,3,4], Survista[1,2,4], Survesta[2]	Meniu	Функции, Меню
1.9	List commands and/or functions	Komendy	Menu	Funcziuns[1,2,3,4]	Comenzi	Список команд
1.10	Cancel current operation	Stop	Abortar	Stop[1,2,3,4], Interromper[2], Interrumper[1,3,4]	Stop	Остановить
1.11	Go back to previous node or menu	Wróć	Retornar	Inavo[1], Anavos[2,3], Enavos[4]	Înapoi	Назад
1.12	Read prompt again	Powtórz	Repetir	Repeter[1,2,3,4]	Repetă	Повторить

NOTE: In the column for Raeto-Romance, the indices represent the variants of the language to which a command applies:
1 = Ladin;
2 = Surmiran;
3 = Sursilvan;
4 = Rumantsch Grischun.

Table 1g: Basic commands (Slovak, Slovene, Spanish, Swedish, Turkish)

Index	ICT device/service function	Slovak	Slovene	Spanish	Swedish	Turkish
1.1	Confirm operation	Áno	Da, Potrdi, Ja	Sí, Confirmar	Ja, OK	Onayla
1.2	Reject operation	Nie	Ne	No, Cancelar	Nej	Hayır
1.3	Wake-up the speech recognizer (ICT device or service in word spotting mode)	Zobuď sa, Aktivuj sa	Aktiviraj se	Activar	Lås upp	Aktif ol
1.4	Enter idle mode	Spánok, Zamknúť	Mirovanje	Espera	Lås	Sistemi beklet
1.5	Terminate service	Koniec, Ukončiť	Izklop	Salir, Apagar	Stäng av	Sistemi kapat
1.6	Help	Pomoc	Pomoč	Ayuda	Hjälp	Yardım et
1.7	Transfer to human operator	Operátor	Pokliči pomoč	Operador	Människa, Personlig hjälp	Kişiden komut al
1.8	Go to top level of service	Menu	Meni	Menú principal, Inicio	Huvudmeny, Översikt	Ana menüye dön
1.9	List commands and/or functions	Zoznam príkazov	Prikaži ukaze	Opciones, Menú	Meny	Komutları göster
1.10	Cancel current operation	Zruš	Prekini, Prekliči	Cancelar, Anular	Avbryt	İşlemi durdur, İşlemi iptal et
1.11	Go back to previous node or menu	Späť	Ponovi, Nazaj	Atrás, Anterior	Backa, Tillbaka, Föregående	Önceki seçeneğe dön
1.12	Read prompt again	Zopakuj	Ponovi razlago	Repetir	Repetera, Upprepa	Söylenenleri tekrarla

6.3 Digits

The commands in table 2a apply to the entering of digits for services and applications such as voice menus or for entering telephone numbers. The meaning of each digit command is explained in table 2a, and the language-specific versions of the digit commands in the 30 languages are presented in tables 2b through 2g.

EXAMPLE: A user calls the support line from the manufacturer of an item that he previously bought and that he as a few questions about. The help line guides him though a voice based menu ("For help on our household appliances, say "1"). The user pronounces the digits before being put through to a human call-centre agent. He is told that his specific request is being dealt with from a call centre in another country. He writes down the number and uses his voice-command system to dial that number ("Dial Plus Double Three Two Oh Five Nine Seven Five Nine").

Table 2a: Digits

Index	ICT device/service function	Explanation
2.1	Enter digit 1	Enter the digits "one"
2.2	Enter digit 2	Enter the digits "two"
2.3	Enter digit 3	Enter the digits "three"
2.4	Enter digit 4	Enter the digits "four"
2.5	Enter digit 5	Enter the digits "five"
2.6	Enter digit 6	Enter the digits "six"
2.7	Enter digit 7	Enter the digits "seven"
2.8	Enter digit 8	Enter the digits "eight"
2.9	Enter digit 9	Enter the digits "nine"
2.10	Enter digit 0	Enter the digit "zero"
2.11	Indication that a digit is repeated	Enter the digit twice (not applicable to all languages)
2.12	Enter international access code	The command will enable placing calls using the standard international number format (e.g. "+" representing "00" in some countries)
NOTE 1: Although # (Hash, Pound, Square) and * (Star) are frequently used and typical telecommunication service delimiters, they are not standardized because these are typically keypad-interaction oriented, non-verbal commands.		
NOTE 2: A command word for repeated digits, index 2.11, e.g. "Double 5" in English, is not available in many languages.		

Table 2b: Digits (Bulgarian, Croatian, Czech, Danish, Dutch)

Index	ICT device/service function	Bulgarian	Croatian	Czech	Danish	Dutch
2.1	Enter digit 1	Едно	Jedan	Jedna	Et	Één
2.2	Enter digit 2	Две	Dva	Dva	To	Twee
2.3	Enter digit 3	Три	Tri	Tři	Tre	Drie
2.4	Enter digit 4	Четири	Četiri	Čtyři	Fire	Vier
2.5	Enter digit 5	Пет	Pet	Pět	Fem	Vijf
2.6	Enter digit 6	Шест	Šest	Šest	Seks	Zes
2.7	Enter digit 7	Седем	Sedam	Sedm	Syv	Zeven
2.8	Enter digit 8	Осем	Osam	Osm	Otte	Acht
2.9	Enter digit 9	Девет	Devet	Devět	Ni	Negen
2.10	Enter digit 0	Нула	Nula	Nula	Nul	Nul
2.11	Indication that a digit is repeated	-	-	-	-	-
2.12	Enter international access code	Интернационален, Името на държавата	Unesi predbroj, Plus	Použít předvolbu	Udland	Internationale toegangscode

Table 2c: Digits (English, Estonian, Finnish, French, German)

Index	ICT device/service function	English	Estonian	Finnish	French	German
2.1	Enter digit 1	One	Üks	Yksi	Un, Une	Eins
2.2	Enter digit 2	Two	Kaks	Kaksi	Deux	Zwei, Zwo
2.3	Enter digit 3	Three	Kolm	Kolme	Trois	Drei
2.4	Enter digit 4	Four	Neli	Neljä	Quatre	Vier
2.5	Enter digit 5	Five	Viis	Viisi	Cinq	Fünf
2.6	Enter digit 6	Six	Kuus	Kuusi	Six	Sechs
2.7	Enter digit 7	Seven	Seitse	Seitsemän	Sept	Sieben
2.8	Enter digit 8	Eight	Kaheksa	Kahdeksan	Huit	Acht
2.9	Enter digit 9	Nine	Üheksa	Yhdeksän	Neuf	Neun
2.10	Enter digit 0	Zero, Oh	Null	Nolla	Zéro	Null
2.11	Indication that a digit is repeated	Double	-	-	Double	-
2.12	Enter international access code	International, Plus	Rahvusvaheline	Ulkomaan puhelu, Plus	International, Plus	Plus, Null-null, International

Table 2d: Digits (Greek, Hungarian, Icelandic, Irish, Italian)

Index	ICT device/service function	Greek	Hungarian	Icelandic	Irish	Italian
2.1	Enter digit 1	Ένα	Egy	Einn	Aon	Uno
2.2	Enter digit 2	Δύο	Kettő	Tveir	Dó	Due
2.3	Enter digit 3	Τρία	Három	Þrír	Trí	Tre
2.4	Enter digit 4	Τέσσερα	Négy	Fjórir	Ceathar	Quattro
2.5	Enter digit 5	Πέντε	Öt	Fimm	Cúig	Cinque
2.6	Enter digit 6	Έξη	Hat	Sex	Sé	Sei
2.7	Enter digit 7	Εφτά	Hét	Sjö	Seacht	Sette
2.8	Enter digit 8	Οκτώ	Nyolc	Átta	Ocht	Otto
2.9	Enter digit 9	Εννέα	Kilenc	Níu	Naoi	Nove
2.10	Enter digit 0	Μηδέν	Nulla	Núll	Nialas, Náid	Zero
2.11	Indication that a digit is repeated	-	-	-	-	Doppio, Due volte
2.12	Enter international access code	Εισαγωγή διεθνούς κωδικού πρόσβασης	Plusz	Útlandasamtal, Núll núll	Cwir isteach cód diaitihe idirná isiunta	Zero zero, Internazionale, Più

Table 2e: Digits (Latvian, Lithuanian, Macedonian, Maltese, Norwegian)

Index	ICT device/service function	Latvian	Lithuanian	Macedonian	Maltese	Norwegian
2.1	Enter digit 1	Viens	Vienas	Еден	Wieħed	En[1], Ein[2]
2.2	Enter digit 2	Divi	Du	Два	Tnejn	To[1,2]
2.3	Enter digit 3	Trīs	Trys	Три	Tlieta	Tre[1,2]
2.4	Enter digit 4	Četri	Keturi	Четири	Erbgħa	Fire[1,2]
2.5	Enter digit 5	Pieci	Penki	Пет	Ħamsa	Fem[1,2]
2.6	Enter digit 6	Seši	Šeši	Шест	Sitta	Seks[1,2]
2.7	Enter digit 7	Septiņi	Septyni	Седум	Sebgħa	Syv[1], Sju[1,2]

Index	ICT device/service function	Latvian	Lithuanian	Macedonian	Maltese	Norwegian
2.8	Enter digit 8	Astoņi	Aštuoni	Осум	Tmienja	Åtte[1,2]
2.9	Enter digit 9	Deviņi	Devyni	Девет	Disgħa	Ni[1,2]
2.10	Enter digit 0	Nulle	Nulis	Нула	Zero	Null[1,2]
2.11	Indication that a digit is repeated	-	-	-	-	To ganger[1], To gongar[2]
2.12	Enter international access code	Internacionālais kods	Tarptautinis prefiksas	Повикај код на земја	Ċempel barra	Landskode[1,2]
NOTE: In the column for Norwegian, the indices represent the variants of the language to which a command applies: 1 = Bokmål; 2 = Nynorsk.						

Table 2f: Digits (Polish, Portuguese, Raeto-Romance, Romanian, Russian)

Index	ICT device/service function	Polish	Portuguese	Raeto-Romance	Romanian	Russian
2.1	Enter digit 1	Jeden	Um	Ün[1], Egn[2], In[3,4]	Unu	Один
2.2	Enter digit 2	Dwa	Dois	Duos[1], Dus[2,3,4]	Doi	Два
2.3	Enter digit 3	Trzy	Três	Trais[1,4], Treis[2,3]	Trei	Три
2.4	Enter digit 4	Cztery	Quatro	Quatter[1,2,3,4]	Patru	Четыре
2.5	Enter digit 5	Pięć	Cinco	Tschintg[1,2,4], Tschun[3]	Cinci	Пять
2.6	Enter digit 6	Sześć	Seis	Ses[1], Seis[2], Sis[3,4]	Şase	Шесть
2.7	Enter digit 7	Siedem	Sete	Set[1,2,4], Siat[3]	Şapte	Семь
2.8	Enter digit 8	Osiem	Oito	Ot[1], Otg[2,3,4]	Opt	Восемь
2.9	Enter digit 9	Dziewięć	Nove	Nouv[1], Nov[2,3,4]	Nouă	Девять
2.10	Enter digit 0	Zero	Zero	Nolla[1,2], Null[3,4], Nulla[4]	Zero	Ноль
2.11	Indication that a digit is repeated	-	-	-	-	-
2.12	Enter international access code	Kraj	Dar codigo internacional	Internaziunal[1,2,3,4], Exteriur[3,4]	Plus	Международ-ный звонок, Плюс
NOTE: In the column for Raeto-Romance, the indices represent the variants of the language to which a command applies: 1 = Ladin; 2 = Surmiran; 3 = Sursilvan; 4 = Rumantsch Grischun.						

Table 2g: Digits (Slovak, Slovene, Spanish, Swedish, Turkish)

Index	ICT device/service function	Slovak	Slovene	Spanish	Swedish	Turkish
2.1	Enter digit 1	Jeden, Jedna	Ena	Uno	Ett	Bir
2.2	Enter digit 2	Dva	Dve	Dos	Två	Iki
2.3	Enter digit 3	Tri	Tri	Tres	Tre	Üç
2.4	Enter digit 4	Štyri	Štiri	Cuatro	Fyra	Dört

Index	ICT device/service function	Slovak	Slovene	Spanish	Swedish	Turkish
2.5	Enter digit 5	Päť	Pet	Cinco	Fem	Beş
2.6	Enter digit 6	Šesť	Šest	Seis	Sex	Altı
2.7	Enter digit 7	Sedem	Sedem	Siete	Sju	Yedi
2.8	Enter digit 8	Osem	Osem	Ocho	Åtta	Sekiz
2.9	Enter digit 9	Deväť	Devet	Nueve	Nio	Dokuz
2.10	Enter digit 0	Nula	Nič	Cero	Noll	Sıfır
2.11	Indication that a digit is repeated	-	-	Doble	-	Çift
2.12	Enter international access code	Predvoľba	Klic v tujino	Internacional, Más, País	Utland, Utomlands	Uluslararası, artı

6.4 Communication commands

The commands in table 3a apply to communications-related functions of devices and services including call set-up by number dialling or by means of retrieving an interlocutor's contact details stored in the system. In addition, table 3a covers in-call and supplementary services. Activation of some services may require e.g. word-spotting technologies to be available and activated in order to recognize a wake-up command (e.g. handling of an incoming call, already having one connection active).

The meaning of each communication command is explained in table 3a, and the language-specific versions of those commands in the 30 languages are presented in tables 3b through 3g.

EXAMPLE 1: A user wishes to call some friends to invite them to a party. The contact details of some of his friends are stored in a telecommunications device that can be operated via voice commands. He initiates a call by saying "Call" followed by the friend's name (e.g. "Call Mike"). In some cases, his friends have more than one phone, so that the user needs to specify the specific subscription under which he wishes to reach a particular friend, e.g. "Call Mike Home", "Call Mike Office", "Call Mike Mobile", "Call Mike Car"). If a number is busy, the user can either ask the system to indicate when the number is available again ("Keep trying"), or he can re-dial at a later stage ("Redial").

EXAMPLE 2: The user of a communications system with a spoken-command interface receives a phone call. She accepts the call by saying "Answer". Had she preferred not to accept the call, she could have said "Busy" instead in order to indicate her unavailability to the calling party. Yet another option for dealing with an incoming call would have been to deflect the call to another phone without accepting it first ("Divert to"). Once the call is accepted, the call can still be transferred to another person ("Transfer"). If the user is away from her phone and wishes her incoming calls to be forwarded, she can instruct the system to do so by saying "Divert calls to" followed by the destination number.

EXAMPLE 3: A user would like to organize a meeting with two business partners. After initiating a call with the first interlocutor, he puts her on hold ("Hold") and initiates a call to the second interlocutor. As it is somewhat difficult to organize the time and the location of the meeting, the user switches between the calls ("Switch call") several times, before coming to the conclusion that it is probably easiest to establish a conference call, so that all parties can actively participate in the call at the same time ("Conference call").

EXAMPLE 4: An elderly user's smart home is equipped with a voice-recognition interface. It allows him to call for help ("Emergency") in case of an emergency.

NOTE 1: There is no need to explicitly support the commands "Call" and "Dial" if, for example, these are activated automatically in the ICT device or service.

NOTE 2: The spoken command "Emergency" is supported. However, as a variety of numbers and emergency organization designations are used on national levels, additional names (e.g. "ambulance", "police") for calling national emergency services should be included, as these commands might be used in a serious emergency situation. Numbers, e.g. "112", "999", will be recognized anyway, if digit recognition is available. This is of even higher importance in cases where manual dialling is not available.

Table 3a: Communications commands

Index	ICT device/service function	Explanation
3.1	Initiate digit dialling sequence	Initiate a call to a number
3.2	Dial a number or name	Initiate a call to a stored number or name
3.3	Home phone number (location)	Call the stored home number
3.4	Work phone number (location)	Call the stored work number
3.5	Mobile phone number (location)	Call the stored mobile number
3.6	Car phone number (location)	Call the stored car number
3.7	Make a call to the emergency services	Call the emergency service centre
3.8	Redial last dialled number	Dial the last dialled number once again
3.9	Set up a call-back to a called number	Call completion on no reply or busy (also known as Call-back; supplementary service CCBS Call Completion to Busy Subscriber)
3.10	Accept incoming call	Accept incoming call
3.11	Reject incoming call	Do not accept incoming call
3.12	Deflect an incoming call	Instead of taking an incoming call, send it on to another number (supplementary service Call Deflection)
3.13	Forward incoming calls	Redirect future incoming calls to a specified number (supplementary service Call Forwarding). This is the basic command for all Call Forwarding functions. Dialogues for specific types of Call Forwarding (e.g. all calls, if busy, or if not answered) as well as the destination number can be constructed using the command set specified in this standard (e.g. User: "Forward", Device: "Would you like to forward all calls? Please answer "Yes" or "No"")."
3.14	Transfer an ongoing call	During a call, transfer the other party to a third number (supplementary service Call Transfer)
3.15	Put call on hold	Park an ongoing call
3.16	Switch between two calls (hook flash)	Resume the call on the held line
3.17	Set up a conference call	Connect a minimum of two phone numbers to a single phone call

Table 3b: Communications commands (Bulgarian, Croatian, Czech, Danish, Dutch)

Index	ICT device/service function	Bulgarian	Croatian	Czech	Danish	Dutch
3.1	Initiate digit dialling sequence	Набери	Zovi	Volat	Ring	Bel
3.2	Dial a number or name	Набери	Nazovi, Spoji me sa	Volat	Ring	Bel
3.3	Home phone number (location)	Домашен	Dom	Domů	Hjem	Thuis
3.4	Work phone number (location)	Служебен, Офис	Posao	Do práce, Práce	Arbejde	Werk
3.5	Mobile phone number (location)	Мобилен	Mobilni	Mobil	Mobil	Mobiel
3.6	Car phone number (location)	Авто телефон	Auto	Do auta, Auta	Bil	Autotelefoon
3.7	Make a call to the emergency services	Личен номер	Nazovi hitnu pomoć, Nazovi vatrogasce, Nazovi policiju	Pomoc	Alarm	Alarmnummer
3.8	Redial last dialled number	СОС, Спешен номер	Zovi zadnji broj	Volat poslední volané číslo	Genopkald, Gentag opkald	Bel opnieuw
3.9	Set up a call-back to a called number	Последно набран	Nastavi da pokušavaš	Opakovat volání	Ring når ledig, Prøv når ledig	Blijf proberen
3.10	Accept incoming call	Набери отново	Prihvati poziv, Javi se	Zvednout	Tag telefon, Svar	Opnemen
3.11	Reject incoming call	Вдигни	Zauzet, Zauzet sam	Nezvedat telefon	Optaget	Negeren
3.12	Deflect an incoming call	Зает	Proslijedi	Přesmerovat na	Viderestil, Omstil	Doorschakelen

Index	ICT device/service function	Bulgarian	Croatian	Czech	Danish	Dutch
3.13	Forward incoming calls	Препрати	Preusmjeri na	Přesměrovat hovory na	Viderestil, Omstil, Optag	Doorschakelen
3.14	Transfer an ongoing call	Прехвърли	Spoji	Přepojit na	Viderestil	Doorverbinden
3.15	Put call on hold	Препрати към	Zadrži	Podržet hovor	Standby samtale	Wacht
3.16	Switch between two calls (hook flash)	Задръж	Prebaci, Stavi na čekanje	Přepnout na druhý hovor	Skift	Wisselen
3.17	Set up a conference call	Премини към	Konferencija	Konferenční hovor	Telefonmøde	Groepsgesprek

Table 3c: Communications commands (English, Estonian, Finnish, French, German)

Index	ICT device/service function	English	Estonian	Finnish	French	German
3.1	Initiate digit dialling sequence	Dial	Helista, Vali number	Soita, Yhdistä	Composer	Wählen, Anrufen
3.2	Dial a number or name	Call	Helista	Soita, Yhdistä	Appeler, Contacter	Verbinden mit, Anrufen
3.3	Home phone number (location)	Home	Kodu, Helista koju	Koti	Maison	Privat, Zuhause, Festnetz
3.4	Work phone number (location)	Work	Töö, Helista tööle	Työ	Travail, Bureau	Büro, Arbeit, Dienst
3.5	Mobile phone number (location)	Mobile	Mobiil, Helista mobiilile	Matkapuhelin	Mobile, Portable	Mobil, Handy
3.6	Car phone number (location)	Car	Auto, Autotelefon	Auto	Voiture	Auto, Autotelefon
3.7	Make a call to the emergency services	Emergency	Hädaabi	Hätänumero	Urgences, Secours	Notruf, Notfall, Notrufnummer wählen
3.8	Redial last dialled number	Redial	Vali uuesti, Vali viimane, Viimane kõne	Yhdistä edelliseen, Uudelleen valinta	Rappeler, Bis	Wahlwieder-holung
3.9	Set up a call-back to a called number	Keep trying	Helista kui vaba, Kordusvalimine	Yritä uudelleen	Rappel automatique, Insister	Rückruf, Später anrufen
3.10	Accept incoming call	Answer	Vasta, Võta vastu	Vastaa	Allô, Répondre, Décrocher	Gespräch annehmen, Ja, Abnehmen
3.11	Reject incoming call	Busy	Keeldu, Ära vasta	Varattu	Occupé	Abweisen, Nein, Ablehnen
3.12	Deflect an incoming call	Divert to, Forward	Suuna numbrile, Suuna	Siirrä puhelu	Transférer	Umleiten zu, Weiterleiten an
3.13	Forward incoming call	Divert to, Divert all calls, Transfer calls	Suuna kõik kõned, Suuna	Soitonsiirto, Siirrä puhelu	Transférer appels au	Anrufe umleiten, Rufumleitung
3.14	Transfer an ongoing call	Transfer, Connect to	Suuna edasi, Suuna	Siirrä puhelu	Transmettre	Weiterleiten an, Verbinden mit
3.15	Put call on hold	Hold	Ootele, Kõne ootele	Puhelu piton, Aseta piton	Attente	Halten, Gespräch halten
3.16	Switch between two calls (hook flash)	Switch call, Switch	Vaheta, Ootel kõne	Vaihda puhelu	Basculer	Wechseln zu, Makeln

Index	ICT device/service function	English	Estonian	Finnish	French	German
3.17	Set up a conference call	Conference call	Konverents, Konverentskõne	Ryhmäpuhelu	Conférence	Konferenz, Konferenzschaltung

Table 3d: Communications commands (Greek, Hungarian, Icelandic, Irish, Italian)

Index	ICT device/service function	Greek	Hungarian	Icelandic	Irish	Italian
3.1	Initiate digit dialling sequence	Καλέστε	Hívás	Hringja í	Glaoigh	Componi
3.2	Dial a number or name	Κάλεσμα αριθμού ή ατόμου	Hívás	Hringja í	Anim an duine	Chiama
3.3	Home phone number (location)	Οικία	Otthoni	Heimasíma	Baile	Casa
3.4	Work phone number (location)	Εργασία	Munkahely	Vinnusíma	Anim agus obair	Ufficio, Lavoro
3.5	Mobile phone number (location)	Κινητό	Mobil	Farsíma, Gemsa	Fón póca	Cellulare
3.6	Car phone number (location)	Αυτοκίνητο	Auto	Bílasíma, Bíl	Fón póca sheáin	Auto
3.7	Make a call to the emergency services	Επείγοντα	Segélyhívás	Neyðarlínu, Neyðarnúmer	Seirbhísí éigeandála	Emergenza, SOS, Soccorso
3.8	Redial last dialled number	Επανάκληση	Utolsó hívás	Síðasta númer, Endurvelja	Arís	Richiama, Ripeti numero
3.9	Set up a call-back to a called number	Επανάληψη προσπαθειας	Újrahívás	þegar númerið losnar	Glaoigh arís	Riprova
3.10	Accept incoming call	Απάντηση	Felvesz	Svara	Freagair	Rispondi, Sì
3.11	Reject incoming call	Καταλειμένο	Foglalt	Á tali	Gafa	Occupato, No, Rifiuta
3.12	Deflect an incoming call	Εκτροπή	Atirányítás	Áframsenda	Ar aghaidh	Inoltra
3.13	Forward incoming calls	Προώθηση κλήσεων σε	Atirányítás	Áframsenda öll símtöl	Ar aghaidh	Trasferisci chiamata a
3.14	Transfer an ongoing call	Εκτροπή τρέχουσας κλήσεως	Átkapcsol	Flytja símtalið, Flytja	Cuir ar aghaidh	Trasferisci a
3.15	Put call on hold	Αναμονή κλήσης	Tartsd	Setja í bið	Coimead	Attesa
3.16	Switch between two calls (hook flash)	Εναλλαγή κλήσεων	Átkapcsol	Skipta milli símtala, Skipta, Víxla	Fan go foil	Passa, Cambia
3.17	Set up a conference call	Κλήση συνδιάσκεψης	Konferenciahívas	Símafundur	Crinniú	Conferenza

Table 3e: Communications commands (Latvian, Lithuanian, Macedonian, Maltese, Norwegian)

Index	ICT device/service function	Latvian	Lithuanian	Macedonian	Maltese	Norwegian
3.1	Initiate digit dialling sequence	Zvanīt	Skambinti	Повикај	Ibda ċempel	Ring[1,2]
3.2	Dial a number or name	Zvanīt	Vardas, Gavėjas	Повикај	Ċempel	Ring[1,2]
3.3	Home phone number (location)	Mājas	Namai	Дома	Tad-dar	Hjem[1], Hjemme[1], Heim[2], Heime[2]
3.4	Work phone number (location)	Darbs	Darbas	Работа	Tax-xogħol	Jobb[1,2], Arbeid[1,2]
3.5	Mobile phone number (location)	Mobīlais	Mobilus	Мобилен	Mobile	Mobil[1,2]
3.6	Car phone number (location)	Auto	Auto, Automobilinis	Кола, Бараj го во кола	Tal-karozza	Bil[1,2]
3.7	Make a call to the emergency services	Neparedzēts gadījums	Pagalba, Pagalbos tarnyba	Повикај центар за итни случаи, Центар за итни случаи	Emerġenza	Nødhjelp[1,2], Nødnummer[1,2], Naudhjelp[2], Naudnummer[2]
3.8	Redial last dialled number	Atkārtot zvanīto	Kartoti skambutį, Kartoti paskutinįjį numerį	Бараj го последниот биран број	Ċempel l-aħħar numru	Repeter siste[1,2], Ring igjen[1,2]
3.9	Set up a call-back to a called number	Turpināt zvanīt	Pakartoti	Бараj пак	Erġa' pprova	Ring tilbake[1,2], Prøv på nytt[1,2], Ring attende[2]
3.10	Accept incoming call	Atbildēt	Klausau, Atsiliepti	Прифати	Irrispondi	Svar[1,2]
3.11	Reject incoming call	Ignorēt	Užimta	Одбиј, Не прифаќај	Aqta'	Opptatt[1,2], Avvis[1,2]
3.12	Deflect an incoming call	Pārsūtīt	Perjungti	Дивертираj	Ibdel id-direzzjoni	Viderekople[1], Videreкoble[1], Overfør[1,2], Videresend[1], Vidarekople[2], Vidaresend[2]
3.13	Forward incoming calls	Pāradresēt	Peradresuoti	Дивертираj каj	It-telefonati għaddihom fuq	Viderekople[1], Videreкoble[1], Overfør[1,2], Vidarekople[2]
3.14	Transfer an ongoing call	Pāradresēt	Persiųsti	Префрли	Għaddi lil	Overfør[1,2], Sett over[1], Set over[2]
3.15	Put call on hold	Pievienot	Laikyti, Sulaikyti skambutį	Задржи повик и направи нов	Zomm il-linja	Vent[1,2]
3.16	Switch between two calls (hook flash)	Pārslēgties	Kitas	Префрли на линија два	Kompli t-telefonata l-oħra	Bytt samtale[1], Byt samtale[2]
3.17	Set up a conference call	Konferences zvans	Konferencija	Конференција	Ċempel grupp	Konferansesamtale[1,2], Konferanse[1,2]

NOTE: In the column for Norwegian, the indices represent the variants of the language to which a command applies:
1 = Bokmål;
2 = Nynorsk.

Table 3f: Communications commands (Polish, Portuguese, Raeto-Romance, Romanian, Russian)

Index	ICT device/service function	Polish	Portuguese	Raeto-Romance	Romanian	Russian
3.1	Initiate digit dialling sequence	Połącz z	Discar	Colliar[1,4], Colliier[2], Telefonar[1,2,3,4]	Apelează, Sună	Позвонить, Набрать
3.2	Dial a number or name	Połącz z, Zadzwoń do	Ligar para	Colliar cun[1,4], Colliier cun[2], Colligiar cun[3], Telefonar a[1,2,3,4]	Apelează, Sună	Позвонить, Соединить, Соединить с
3.3	Home phone number (location)	Dom	Casa	Privat[1,2,3,4], Casa[3], Tgesa[2]	Sună acasă, Acasă	Домашний
3.4	Work phone number (location)	Praca	Trabalho	Lavur[1,3,4], Lavour[2]	Sună la serviciu, Serviciu	Рабочий
3.5	Mobile phone number (location)	Komórka	Telemóvel	Mobil[1,2,3,4], Telefonin[1,4]	Apelează mobil, Sună mobil, Mobil	Мобильный
3.6	Car phone number (location)	Samochód	Carro	Auto[1,2,3,4]	Apelează maşină, Sună maşină, Maşină	Вмашину
3.7	Make a call to the emergency services	Sto dwanaście, Ratunek, Alarm	Emergência	Urgenza[1,2,3,4], SOS[1,2,3,4]	Urgență, Alarmă, Apelează de urgență, Sună la Alarmă	Экстренная служба, Служба спасения, Скорая
3.8	Redial last dialled number	Połącz ponownie	Rediscar	Repeter numer[1,4], Repeter nomer[2], Repeter numera[3]	Reapelează, Sună din nou	Перенабрать, Повторить, Повтор
3.9	Set up a call-back to a called number	Ponawiaj	Insistir	Prouva inavant[1], Amprova anavant[2], Emprova vinavon[3], Emprova vinavant[4]	Apelează când disponibil, Sună când disponibil	Автодозвон
3.10	Accept incoming call	Odbierz	Aceitar	Respuonder[1], Rasponder[2], Rispunder[3], Respunder[4]	Răspunde	Ответить
3.11	Reject incoming call	Odrzuć	Rejeitar	Occupà[1,4], Occupo[2], Occupau[3]	Respinge, Refuză	Сбросить, Отклонить (звонок)
3.12	Deflect an incoming call	Przekieruj	Transferir para	Sviar a[1,3,4], Sviier a[2]	Redirecționează	Перенаправить, Переадресовать,
3.13	Forward incoming calls	Przekieruj	Redirecionar	Sviar tuot[1], Sviier tot[2], Sviar tut[3,4]	Redirecționează la	Переадресовать всех звонок, Переадресация всех звонков
3.14	Transfer an ongoing call	Przekieruj	Transferir para	Colliar cun[1,4], Colliier cun[2], Colligiar cun[3]	Transferă la	Перенаправить, Переадресовать
3.15	Put call on hold	Zawieś	Espera	Tgnair[1], Tigneir[2], Tener[3], Tegnair[4]	Apel în aşteptare, Aşteaptă	Удерживать (звонок)
3.16	Switch between two calls (hook flash)	Przełącz, Zamień	Retomar	Müdar[1], Midar[2,3,4]	Schimbă convorbire	Другая линия

Index	ICT device/service function	Polish	Portuguese	Raeto-Romance	Romanian	Russian
3.17	Set up a conference call	Konferencja	Conferência	Conferenza[1,2,3,4]	Conferință	Конференция
NOTE: In the column for Raeto-Romance, the indices represent the variants of the language to which a command applies: 1 = Ladin; 2 = Surmiran; 3 = Sursilvan; 4 = Rumantsch Grischun.						

Table 3g: Communications commands (Slovak, Slovene, Spanish, Swedish, Turkish)

Index	ICT device/service function	Slovak	Slovene	Spanish	Swedish	Turkish
3.1	Initiate digit dialling sequence	Volaj, Vytoč	Pokliči	Marcar	Ring	Ara
3.2	Dial a number or name	Volaj, Zavolaj	Pokliči	Llamar	Ring	Ara
3.3	Home phone number (location)	Pevná linka	Domov	Casa	Hem, Hemma, Bostad	Ev
3.4	Work phone number (location)	Práca, Do práce, Robota	Služba	Trabajo	Arbete, Jobb	İş yeri
3.5	Mobile phone number (location)	Mobil	Mobitel	Móvil	Mobil	Cep
3.6	Car phone number (location)	Autotelefón, Do auta	Avto	Coche	Bil	Araç telefonu
3.7	Make a call to the emergency services	Stodvanásť, Pohotovosť	Pokliči pomoč, Pokliči, Pokliči	Emergencias	SOS	Acili ara
3.8	Redial last dialled number	Opakuj volanie, Znova zavolať	Ponovno pokliči	Rellamada	Ring senaste	Son arananı ara
3.9	Set up a call-back to a called number	Volaj keď bude dostupný	Ponavljaj klic	Reintentar, Continuar llamando	Återuppringning	Aramayı tekrarla
3.10	Accept incoming call	Prijať	Javi se, Dvigni	Contestar	Svara	Cevapla
3.11	Reject incoming call	Zruš, Odmietni	Zaseden	Ocupado, Rechazar	Upptagen, Upptaget	Meşgule al
3.12	Deflect an incoming call	Presmeruj	Preusmeri	Desviar	Vidarekoppla, Koppla vidare	Aramayı yönlendir
3.13	Forward incoming calls	Presmeruj všetko	Preusmeri vse klice	Desviar, Desviar todas las llamadas	Vidarekoppla, Koppla vidare	Aramaları yönlendir
3.14	Transfer an ongoing call	Prepoj	Preveži	Transferir, Pasar la llamada	Flytta över, Överflyttning	Görüşmeyi aktar
3.15	Put call on hold	Podrž	Čakanje	Mantener, Llamada en espera	Parkera	Beklet
3.16	Switch between two calls (hook flash)	Prepni, Druhá linka	Preklopi na drugo linijo	Llamada en espera, Intercambiar	Växla, Pendla	Bekleyen hatta geri dön
3.17	Set up a conference call	Skupinový hovor, Konferencia	Konferenčni klic	Llamada multiple, Llamar a varios	Gruppsamtal, Konferens	Konferans görüşmesi başlat

6.5 Commands for the control of and navigation in media

The commands in table 4a apply to functions of devices and services related to the control of and navigation in media. In addition, they cover basic commands for editing media items.

The meaning of each media-related command is explained in table 4a, and the language-specific versions of those commands in the 30 languages are presented in tables 4b through 4g.

EXAMPLE 1: A user makes a voice recording on his mobile device for later typing into his word processor. He initiates the recording with the appropriate spoken command ("Record") and starts talking into the microphone. Every now and then, he needs to think about the right wording and interrupts the recording ("Pause") and continues it ("Continue") when he is ready. When he wishes to listen to a part of the recording, he stops the recording ("Stop"), and navigates to the part of the recording he wishes to listen to ("Rewind", "Fast forward") and starts the playback of the recording ("Play").

EXAMPLE 2: A blind person is reviewing her emails with the help of her voice-controlled communications device. She navigates the list of received mails ("Previous", "Next") and requires details on particular emails received ("Details"). She decides to complete a draft email she created previously ("Add") and saved for later completion ("Save"), and then asks the system to open the draft email ("Edit"). Once she is finished with the dictation of the email, she sends it off to the recipient ("Send") and continues to review the list of incoming emails, replying to some ("Reply") and forwarding others to a member of her staff ("Forward"). Other mails she stores in special directories to deal with them at a later stage ("Move"). She also likes the system because it allows her to re-apply ("Redo") or cancel ("Cancel") specific commands.

Table 4a: Commands for the control of and navigation in media

Index	ICT device/service function	Explanation
4.1	Play a recording	Initiate playback of a recording
4.2	Start a recording	For example, music or memo recording
4.3	Stop temporarily	Pause playing a recording
4.4	Resume interrupted playback	Continue playing a recording
4.5	Stop playing a recording	Terminate playback
4.6	Move forward faster than play	Fast forward
4.7	Move backward	Go backward in a recording
4.8	Go to previous item	Go back to the previous item
4.9	Go to next item	Go to the next item
4.10	Provide more information about selected item	Give information about the attributes of a selected item
4.11	Modify item	Select an item for modification
4.12	Store item	Save an item
4.13	Remove item	Delete an item
4.14	Respond to item	Draft a reply
4.15	Forward item	Forward an item
4.16	Create new item	Add new item
4.17	Send item	Transmission of any pre-prepared data (e.g. e-mail)
4.18	Move item to a new location	Transmission of stored data to a named location
4.19	Reapply the undone action	Go forward one step in the history of states (repeating the command should go forward one step further in the history)
4.20	Reverse the previous action	Go back one step in the history of states (repeating the command should go back one step further in the history)

Table 4b: Commands for the control of and navigation in media (Bulgarian, Croatian, Czech, Danish, Dutch)

Index	ICT device/service function	Bulgarian	Croatian	Czech	Danish	Dutch
4.1	Play a recording	Пусни	Pusti snimku	Přehrát	Afspil	Afspelen
4.2	Start a recording	Запиши гласово съобщение	Snimaj	Nahrát	Optag	Start opname
4.3	Stop temporarily	Пауза	Pauziraj	Přerušit přehrávání, Pauza	Pause	Pauze
4.4	Resume interrupted playback	Продължи	Nastavi	Pokračovat	Fortsæt	Doorgaan
4.5	Stop playing a recording	Спри	Prekini, Stani, Stop	Stop	Stop	Stop
4.6	Move forward faster than play	Премини напред	Premotaj naprijed	Posunout dopředu	Spol frem	Doorspoelen, Voonruitspoelen
4.7	Move backward	Превърти назад	Premotaj nazad	Posunout zpět	Spol tilbage	Terugspoelen
4.8	Go to previous item	Предишен	Prethodni, Prethodna, Prethodnu stavku	Předchozí	Gentag	Vorige
4.9	Go to next item	Следващ	Sledeći, Sledeća, Sledeću stavku, Sledeca stavka	Další	Næste	Volgende
4.10	Provide more information about selected item	Пусни	Detalji stavke	Přehrát	Uddyb	Meer informatie, Heel item, Afspelen
4.11	Modify item	Промени	Promeni, Promeni stavku	Upravit	Rediger	Wijzigen
4.12	Store item	Запази	Sačuvaj, Sačuvaj stavku	Uložit	Gem	Opslaan
4.13	Remove item	Изтрий	Izbriši, Izbriši stavku	Vymazat	Slet	Verwijderen
4.14	Respond to item	Отговори	Odgovori, Odgovori na stavku	Odpovědět	Besvar	Beantwoorden
4.15	Forward item	Препрати	Proslijedi, Proslijedi stavku	Přeposlat	Videresend	Doorsturen
4.16	Create new item	Нов файл	Kreiraj stavku, Dodaj stavku	Nová položka	Tilføj	Nieuw
4.17	Send item	Изпрати	Pošalji, Pošalji stavku	Poslat	Send	Verzenden
4.18	Move item to a new location	Премести	Premjesti, Premjesti stavku	Přesunout	Flyt	Verplaatsen
4.19	Reapply the undone action	Назад	Primijeni opet, Ponovi	Vrátit na původní	Prøv igen, Forsøg igen	Ongedaan maken
4.20	Reverse the previous action	Върни назад	Poništi akciju	Zpět	Fortryd	Ongedaan maken

Table 4c: Commands for the control of and navigation in media (English, Estonian, Finnish, French, German)

Index	ICT device/service function	English	Estonian	Finnish	French	German
4.1	Play a recording	Play	Esita, Mängi salvestus	Toista nauhoitus	Marche, Écouter, Lire	Wiedergabe, Abspielen
4.2	Start a recording	Record	Salvesta, Häälsõnum, Loo häälsõnum	Äänitä, Nauhoita	Enregistrer	Aufnahme, Aufnehmen
4.3	Stop temporarily	Pause	Paus, Peata	Tauko	Pause	Pause
4.4	Resume interrupted playback	Continue, Play	Jätka, Mängi, Mängi edasi	Jatka	Reprendre	Weiter, Fortsetzen
4.5	Stop playing a recording	Stop	Lõpeta, Stopp	Lopeta, Pysäytä	Stop	Stopp, Beenden, Ende
4.6	Move forward faster than play	Fast forward	Edasi, Keri edasi	Siirry eteenpäin	Avancer	Vorspulen, Vorlauf
4.7	Move backward	Rewind	Tagasi, Keri tagasi	Siirry taaksepäin	Rembobiner, Reculer	Zurückspulen, Rücklauf
4.8	Go to previous item	Previous	Eelmine	Edellinen	Précédent, Précédente	Zurück, Vorheriger
4.9	Go to next item	Next	Järgmine	Seuraava	Suivant, Suivante	Weiter, Nächster
4.10	Provide more information about selected item	Details	Info, Lisainfo	Näytä tiedot	Détails	Details, Mehr Informationen, Info
4.11	Modify item	Edit, Change	Muuda	Muokkaa, Muuta	Modifier	Ändern, Bearbeiten
4.12	Store item	Save	Salvesta	Tallenna	Sauvegarder	Speichern, Sichern
4.13	Remove item	Delete	Kustuta	Poista	Supprimer	Löschen, Entfernen
4.14	Respond to item	Reply	Vasta	Vastaa	Répondre	Antworten
4.15	Forward item	Forward	Saada edasi, Edasta	Lähetä edelleen	Faire suivre	Weiterleiten
4.16	Create new item	Add	Lisa, Uus	Luo uusi	Ajouter	Neu, Hinzufügen
4.17	Send item	Send	Saada	Lähetä	Envoyer	Abschicken, Senden
4.18	Move item to a new location	Move	Liiguta, Muuda asukohta	Siirrä	Déplacer	Verschieben
4.19	Reapply the undone action	Redo	Eelmine, Taasta	Yritä uudelleen	Refaire	Wiederherstellen
4.20	Reverse the previous action	Cancel, Undo	Tagasi, Mine tagasi, Samm tagasi	Peru peruutus, Peruuta mitätöi, Peruuta	Annuler	Abbrechen, Abbruch, Rückgängig

Table 4d: Commands for the control of and navigation in media (Greek, Hungarian, Icelandic, Irish, Italian)

Index	ICT device/service function	Greek	Hungarian	Icelandic	Irish	Italian
4.1	Play a recording	Αναπαραγωγή εγγραφής	Lejátszás	Spila upptöku, Spila, Hlusta á upptöku	Éist	Ascolta
4.2	Start a recording	Έναρξη εγγραφής	Hangfelvétel	Taka upp	Siar	Registra
4.3	Stop temporarily	Παύση	Szünet	Hlé, Pása	Sos	Pausa
4.4	Resume interrupted playback	Συνέχεια	Folytatás	Halda áfram	Ar aghaidh	Continua, Riprendi
4.5	Stop playing a recording	Τερματισμός	Állj	Stöðva spilun, Stoppa	Stop	Stop, Ferma
4.6	Move forward faster than play	Γρήγορα μπροστά	Ugrás	Hraðspóla, Spóla áfram	Ar aghaidh	Avanti veloce
4.7	Move backward	Γρήγορα πίσω	Visszatekerés	Spóla til baka	Éist liom	Indietro
4.8	Go to previous item	Προηγούμενο	Elözö	Endurtaka, Bakka um eitt	Ar ais	Precedente
4.9	Go to next item	Επόμενο	Következö	Næsta	Ar aghaidh	Avanti, Successivo, Prossimo
4.10	Provide more information about selected item	Λεπτομέρειες	Reszletezd	Nánari upplýsingar	Breis eolais	Dettagli, Informazioni
4.11	Modify item	Τροποποίηση	Modosit	Breyta vali	Athraigh	Modifica
4.12	Store item	Αποθήκευση	Mentés	Vista, Geyma	Coimead	Salva
4.13	Remove item	Διαγραφή	Törlés	Eyða	Glan	Elimina
4.14	Respond to item	Απάντηση	Válasz	Svara	Freagair	Rispondi
4.15	Forward item	Προώθηση	Továbbküld	Áframsenda	Seol	Inoltra
4.16	Create new item	Προσθήκη	Új	Bæta við	Cuir leis	Aggiungi, Nuovo
4.17	Send item	Αποστολή	Küldés	Senda	Seol	Invia, Spedisci
4.18	Move item to a new location	Μετακίνηση	Áthelyezés	Færa	Bog	Sposta
4.19	Reapply the undone action	Επανάληψη	Visszavonás	Endurtaka	Ar ais	Ripeti
4.20	Reverse the previous action	Ακύρωση ενέργειας	Javítás	Eyða, Ógilda	Ceartaigh	Cancella, Indietro

Table 4e: Commands for the control of and navigation in media (Latvian, Lithuanian, Macedonian, Maltese, Norwegian)

Index	ICT device/service function	Latvian	Lithuanian	Macedonian	Maltese	Norwegian
4.1	Play a recording	Atskaņot	Groti, Atkūrimas	Пушти снимка	Semmagħli	Spill av[1], Spel av[2]
4.2	Start a recording	Balss ieraksts	Balso žinutė	Снимај	Irrekordja	Ta opp[1,2]
4.3	Stop temporarily	Pauze	Stop, Pauzė	Пауза	Ieqaf ftit	Pause[1,2]
4.4	Resume interrupted playback	Turpināt	Tęsti	Продолжи	Kompli	Fortsett[1], Hald fram[2]
4.5	Stop playing a recording	Beigt	Stop	Стоп, Престани	Ieqaf	Stopp[1,2]
4.6	Move forward faster than play	Patīt uz priekšu	Kita	Оди напред	Mur 'il quddiem	Spol fram[1,2], Spol framover[1,2]
4.7	Move backward	Atgriezties	Atgal	Оди назад	Mur lura	Spol tilbake[1,2], Spol attende[1,2],

Index	ICT device/service function	Latvian	Lithuanian	Macedonian	Maltese	Norwegian
						Spol bakover[1,2]
4.8	Go to previous item	Lepriekšējā funkcija	Kartoti	Претходна	Ta' qabel	Forrige[1,2]
4.9	Go to next item	Nākamā funkcija	Kita	Наредна	Li jmiss	Neste[1,2]
4.10	Provide more information about selected item	Funkcijas info	Visa informacija	Пушти до крај, Пушти омилена песна	Iktar informazzjoni	Mer informasjon[1], Meir informasjon[2]
4.11	Modify item	Meklēt	Keisti	Отвори за модификација	Immodifikah	Endre[1,2], Endre punkt[1,2], Forandre[1], Forandre punkt[1]
4.12	Store item	Saglabaat	Išsaugoti	Сочувај	Zommu	Lagre[1,2]
4.13	Remove item	Dzēst	Trinti	Избриши	Neħħih	Slett[1,2]
4.14	Respond to item	Atbildēt	Atsakyti	Одговори, Одговори веднаш	Irrispondi	Svar[1,2], Svare[1,2]
4.15	Forward item	Paarsuutiit	Persiųsti	Препрати	Ibagħtu lil	Videresend[1], Send videre[1], Send vidare[2], Vidaresend[2]
4.16	Create new item	Pievienot	Sukurti	Додади, Додади ново	Zid	Opprett punkt[1,2], Nytt punkt[1,2], Legg til[1,2]
4.17	Send item	Sūtīt	Siųsti	Испрати на	Ibagħtu	Send[1,2]
4.18	Move item to a new location	Pārvietot	Perkelti	Премести	Biddel il-post	Flytt[1,2]
4.19	Reapply the undone action	Soli uz priekšu	Grįžti	Напред	Erġa' agħmel	Gjenopprett[1,2], Gjør om[1], Gjer om[2]
4.20	Reverse the previous action	Balss ieraksts	Atšaukti	Врати се чекор назад	Ħassar	Angre[1,2]
NOTE: In the column for Norwegian, the indices represent the variants of the language to which a command applies: 1 = Bokmål; 2 = Nynorsk.						

Table 4f: Commands for the control of and navigation in media (Polish, Portuguese, Raeto-Romance, Romanian, Russian)

Index	ICT device/service function	Polish	Portuguese	Raeto-Romance	Romanian	Russian
4.1	Play a recording	Odtwórz	Ouvir	Tadlar[1,2,4], Tedlar[3]	Redă	Воспроизвести
4.2	Start a recording	Nagraj	Voz	Registrar[1,2,3,4]	Înregistrează	Записать, Запись
4.3	Stop temporarily	Pauza	Pausar	Posa[1], Pôssa[2], Pausa[3,4]	Pauză	Пауза
4.4	Resume interrupted playback	Wznów	Tocar	Cuntinuar[1,2,3,4], Vinavon[3]	Continuă	Продолжить
4.5	Stop playing a recording	Stop	Parar	Stop[1,2,3,4], Finir[1,3,4]	Opreşte, Stop	Стоп
4.6	Move forward faster than play	Dalej	Avançar	Inavant[1], Anavant[2], Anavon[3], Enavant[4]	Derulează înainte	Перемотать вперед

Index	ICT device/service function	Polish	Portuguese	Raeto-Romance	Romanian	Russian
4.7	Move backward	Cofnij	Retroceder	Inavo[1], Anavos[2,3], Enavos[4]	Derulează înapoi	Перемотать назад
4.8	Go to previous item	Wróć, Poprzedni	Anterior	Ün inavo[1], Egn anavos[2], In anavos[3], In enavos[4]	Precedentul	Назад
4.9	Go to next item	Następny	Próximo	Prossem[1], Proxim[2,3,4]	Următorul	Вперед
4.10	Provide more information about selected item	Szczegóły	Mais detalhes	Detagls[1,2,3,4], Rapport[1,2,3,4]	Citeşte articol	Детали, Характеристики
4.11	Modify item	Edytuj	Modificar	Müdar[1], Midar[2,3,4], Surluvrar[3]	Modifică	Изменить
4.12	Store item	Zapisz	Salvar	Salvar[1,2,3,4], Arcunar[2,3,4]	Salvează	Сохранить
4.13	Remove item	Usuń	Apagar	Stüder[1], Stidar[2,4], Stizzar[3,4]	Şterge	Удалить
4.14	Respond to item	Odpowiedz	Responder	Respuonder[1], Rasponder[2], Rispunder[3], Respunder[4]	Răspunde	Ответить
4.15	Forward item	Prześlij do	Encaminhar	Trametter (inavant, enavant)[1,4], Tarmetter (anavant, vinavon)[2,3]	Trimite la	Переслать
4.16	Create new item	Nowy	Adicionar	Agiunscher[1,4], Agiuntar[2,4], Aschuntar[3]	Creează	Создать
4.17	Send item	Wyślij do	Enviar	Trametter[1,4], Tarmetter[2,3]	Trimite	Отправить
4.18	Move item to a new location	Przenieś do	Mover	Spostar[1], Spustar[2,3,4]	Mută	Переместить
4.19	Reapply the undone action	Przywróć	Refazer	Refar[1,3,4], Returnar[2,3,4]	Redo, Refa	Восстановить
4.20	Reverse the previous action	Cofnij	Desfazer	Interrumper[1,4], Stidar[2,4], Stizzar[3,4]	Revino	Отменить

NOTE: In the column for Raeto-Romance, the indices represent the variants of the language to which a command applies:
1 = Ladin;
2 = Surmiran;
3 = Sursilvan;
4 = Rumantsch Grischun.

Table 4g: Commands for the control of and navigation in media (Slovak, Slovene, Spanish, Swedish, Turkish)

Index	ICT device/service function	Slovak	Slovene	Spanish	Swedish	Turkish
4.1	Play a recording	Prehraj	Predvajaj	Reproducir, Escuchar grabación	Spela upp	Kaydı dinlet
4.2	Start a recording	Pretoč dozadu	Snemaj	Grabar	Spela in	Ses kaydet
4.3	Stop temporarily	Pauza	Prekini	Pausa	Paus, Pausa	Durdur
4.4	Resume interrupted playback	Pokračuj	Nadaljuj	Continuar	Fortsätt, Spela upp	Devam et
4.5	Stop playing a recording	Stop	Stop	Parar	Stopp, Stoppa	Kapat
4.6	Move forward faster than play	Pretoč dopredu	Naprej	Avance rapido, Avanzar	Spola fram, Spola framåt	İleri sar
4.7	Move backward	Nahraj	Nazaj	Rebobinar	Spola bak, Spola bakåt	Geri sar
4.8	Go to previous item	Predošlý, Predošlá	Predvajaj prejšnjega	Anterior	Föregående	Öncekine geç
4.9	Go to next item	Ďalší, Ďalšia	Predvajaj naslednjega	Siguiente	Nästa	Sonrakine geç
4.10	Provide more information about selected item	Detaily	Predvajaj celoto	Más información, Abrir, Detalles	Information	Detaylı bilgi ver
4.11	Modify item	Uprav	Spremeni	Modificar	Ändra	Değiştir
4.12	Store item	Ulož	Shrani	Guarder	Spara	Kaydet
4.13	Remove item	Vymaž	Izbriši	Borrar, Eliminar	Radera, Ta bort	Sil
4.14	Respond to item	Odpovedať	Odgovori	Responder	Svara	Cevapla
4.15	Forward item	Preposlať	Posreduj	Reenviar	Vidarebefordra, Skicka vidare	İlet
4.16	Create new item	Nová položka	Dodaj	Añadir	Lägg till	Listeye ekle
4.17	Send item	Odoslať	Pošlji	Enviar	Skicka	Gönder
4.18	Move item to a new location	Presuň, Premiestni	Prenesi	Mover, Desplazar	Flytta	Yerini değistir
4.19	Reapply the undone action	Krok dopredu	Pojdi nazaj	Rehacer	Gör om	İşlemi ileri al
4.20	Reverse the previous action	Naspäť	Popravi	Cancelar, Volver atrás	Ångra	İşlemi geri al

6.6 Commands for device and service settings

The commands in table 5a apply to commands related to the settings of devices and services.

The meaning of each command for device settings is explained in table 5a, and the language-specific versions of those commands in the 30 languages are presented in tables 5b through 5g.

EXAMPLE: A hiker carries her mobile phone in her backpack and wears a headset with a microphone that allows her to control the mobile phone by spoken commands. During the walk she reaches the national border and ensures that the phone does not connect to a foreign and expensive network ("Choose network"). When she listens to music from her mobile phone, she can increase ("Volume up" or "Louder") or decrease ("Volume down" or "Quieter") the volume or turn the speaker of the phone on ("Speaker on") or off ("Speaker off") by spoken commands. Similarly, the microphone can be activated ("Mike on") or de-activated ("Mike off") by voice command, and the vibrating alert can be controlled the same way ("Vibrate on", "Vibrate off"). If the user doesn't wish to be disturbed by incoming calls, she can turn off the acoustic indication of incoming calls ("Sound off") and turn it on again at a later time ("Sound on"). If she is unsure which settings are currently active, she can check the status of the device with a spoken command ("Status"). Certain configurations of settings (e.g. "in a meeting") can be stored in profiles for easy activation ("Profile").

Table 5a: Commands for device and service settings

Index	ICT device/service function	Explanation
5.1	List (and/or select) networks	List (and/or select or choose) currently available networks
5.2	Increase the volume	Increase auditory output level
5.3	Decrease the volume	Decrease auditory output level
5.4	Silent mode	Mute ring signals and tones
5.5	Activate the audio output	Activate all audio output
5.6	Silence the loudspeaker	Only the loudspeaker is muted
5.7	Activate the loudspeaker	Only the loudspeaker is activated
5.8	Silence the microphone	Only the microphone is muted
5.9	Activate the microphone	Only the microphone is activated
5.10	Activate vibrating alert	Causes the device to vibrate (instead of, or in addition to, giving an audible signal)
5.11	Deactivate vibrating alert	Switches off the vibrating alert
5.12	Summary of current device status	Typically, indicates battery status and network coverage details (e.g. time and date)
5.13	Change profile (pre-stored settings)	For example, one profile for noisy environments and one for quiet environments (or when a user does not want to be disturbed by calls)

Table 5b: Commands for device and service settings (Bulgarian, Croatian, Czech, Danish, Dutch)

Index	ICT device/service function	Bulgarian	Croatian	Czech	Danish	Dutch
5.1	List networks	Покажи мрежи	Dostupne mreže	Ukázat sítě	Netværk	Netwerken tonen
5.2	Increase the volume	Усили звука	Pojačaj se	Hlasitěji	Lydstyrke op, Skru op, Højere,	Volume omhoog
5.3	Decrease the volume	Намали звука	Stisaj se	Tišeji	Lydstyrke ned, Skru ned, Lavere	Zachter
5.4	Silent mode	Тих режим	Tišina	Vypnout zvuk	Lydløs, Slå lyd fra, Stille	Geluid uit
5.5	Activate the audio output	Нормален режим	Uključi zvuk	Zapnout zvuk	Lyd, Lydløs fra	Geluid aan
5.6	Silence the loudspeaker	Спри високоговорителя	Isključi zvučnike	Vypnout reproduktor	Højttalere fra, Sluk højttalere	Luidspreker uit
5.7	Activate the loudspeaker	Пусни високоговорителя	Uključi zvucnike	Zapnout reproduktor	Højttalere til, Tilslut højttalere	Luidspreker aan
5.8	Silence the microphone	Спри микрофона	Isključi mikrofon	Vypnout mikrofon	Mikrofon fra, Sluk mikrofon	Microfoon uit
5.9	Activate the microphone	Пусни микрофона	Uključi mikrofon	Zapnout mikrofon	Mikrofon til, Tænd mikrofon, Tilslut mikrofon	Microfoon aan
5.10	Activate vibrating alert	Пусни вибрация	Uključi vibraciju	Zapnout vibrace	Vibrer til, Vibrer	Trilfunctie aan
5.11	Deactivate vibrating alert	Спри вибрация	Isključi vibraciju	Vypnout vibrace	Vibrer fra, Sluk vibrere	Trilfunctie uit
5.12	Summary of current device status	Покажи параметри	Pokaži parametre	Stav	Status, Tilstand, Rapport	Status
5.13	Change profile (pre-stored settings)	Премини в (име) режим	Promeni postavku	Přepni profil	Skift profil	Profiel

Table 5c: Commands for device and service settings (English, Estonian, Finnish, French, German)

Index	ICT device/service function	English	Estonian	Finnish	French	German
5.1	List networks	Choose network, Show networks	Näita võrke, Võrgud	Näytä verkostot, Näytä verkot	Choisir le réseau, Réseaux	Netz wählen, Netze anzeigen
5.2	Increase the volume	Volume up, Louder, Increase volume	Valjemaks, Kõvemaks	Lisää ääntä, Kovempaa	Augmenter volume, Plus fort	Lauter
5.3	Decrease the volume	Volume down, Quieter, Decrease volume	Vaiksemaks	Hiljennä ääntä, Hiljempaa	Diminuer volume, Moins fort	Leiser
5.4	Silent mode	Sound off, Mute	Hääletu, Heli välja	Äänetön	Couper son, Silence	Ton aus, Lautlos, Stumm
5.5	Activate the audio output	Sound on	Heli sisse, Tavaline, Hääl peale	Normaali tila	Remettre son, Son	Ton an, Ton ein
5.6	Silence the loudspeaker	Speaker off	Kõlar välja	Sulje kaiuttimet, Ei Kaiuttimia	Couper haut-parleur	Lautsprecher aus
5.7	Activate the loudspeaker	Speaker on	Kõlar sisse	Kaiuttimet päälle, Käytä kaiuttimia	Activer haut-parleur	Lautsprecher an, Lautsprecher ein
5.8	Silence the microphone	Mike off, Microphone off	Mikrofon välja, Mikrofon kinni	Sulje mikrofoni, Ei mikrofonia	Couper micro	Mikrofon aus
5.9	Activate the microphone	Mike on, Microphone on	Mikrofon sisse, Mikrofon	Mikrofoni päälle, Avaa mikrofoni	Activer micro	Mikrofon an, Mikrofon ein
5.10	Activate vibrating alert	Vibrate on	Värin sisse	Värinä päälle	Activer vibreur	Vibrationsalarm an, Vibrationsalarm ein, Vibration an, Vibration ein
5.11	Deactivate vibrating alert	Vibrate off	Värin välja	Värinä pois	Désactiver vibreur	Vibrationsalarm aus, Vibration aus
5.12	Summary of current device status	Status	Telefoni olek, Olek	Näytä tila, Näytä toimintojen tila	État	Status, Einstellungen anzeigen
5.13	Change profile (pre-stored settings)	Profile	Vaheta profiili, Profiil	Vaihda tila	Profil	Profil

Table 5d: Commands for device and service settings (Greek, Hungarian, Icelandic, Irish, Italian)

Index	ICT device/service function	Greek	Hungarian	Icelandic	Irish	Italian
5.1	List networks	Εμφάνιση δικτύων	Hálózatok	Telja upp öll net, Tiltæk net	Taispeán líonraí	Scegli rete, Seleziona rete
5.2	Increase the volume	Αύξηση έντασης ήχου	Hangosabban	Hækka hljóðstyrk, Hækka	Árdaigh	Alza volume, Aumenta volume
5.3	Decrease the volume	Μείωση έντασης ήχου	Halkabban	Lækka hljóðstyrk, Lækka	Ísligh	Abbassa volume
5.4	Silent mode	Αθόρυβο	Néma	Slökkva á hljóði, Þögn	Fan uaim	Suono non attivo, Suono off, Spegni suono
5.5	Activate the audio output	Επαναφορά ήχων	Normál	Kveikja á hljóði	Mar a bhí	Suono attivo**,** Suono on, Attiva suono
5.6	Silence the loudspeaker	Απενεργοποίηση μεγαφώνου	Hangszóró ki	Slökkva á hátalara	Gan callaire	Altoparlante non attivo, Altoparlante off, Spegni altoparlante
5.7	Activate the loudspeaker	Ενεργοποίηση μεγαφώνου	Hangszóró be	Kveikja á hátalara	Callaire	Altoparlante attivo, Altoparlante on, Attiva altoparlante
5.8	Silence the microphone	Απενεργοποίηση μικροφώνου	Mikrofon ki	Slökkva á hljóðnema	Gan microfón	Microfono non attivo, Microfono off, Spegni microfono
5.9	Activate the microphone	Ενεργοποίηση μεγαφώνου	Mikrofon be	Kveikja á hljóðnema	Microfón	Microfono on, Attiva microfono
5.10	Activate vibrating alert	Ενεργοποίηση δόνησης	Rezgés	Kveikja á titringi	Crith	Vibrazione attiva, Vibrazione on, Attiva vibrazione
5.11	Deactivate vibrating alert	Απενεργοποίηση δόνησης	Rezgés ki	Slökkva á titringi	Stop a crith	Vibrazione non attiva, Vibrazione off, Spegni vibrazione
5.12	Summary of current device status	Κατάσταση	Állapot	Staða kerfis	Comhacht	Stato, Informazioni stato
5.13	Change profile (pre-stored settings)	Προφίλ	Üzemmód	Breyta sniði	Athraigh	Profili, Cambia profilo

Table 5e: Commands for device and service settings (Latvian, Lithuanian, Macedonian, Maltese, Norwegian)

Index	ICT device/service function	Latvian	Lithuanian	Macedonian	Maltese	Norwegian
5.1	List networks	Tīklu izvēle	Tinklai	Листа на мрежи	Tini lista tan-netwerks	Alle nettverk[1,2], Tilgjengelige nettverk[1], Tilgjengelege nettverk[2]
5.2	Increase the volume	Skaļāk	Garsinti	Погласно	Għolli l-volum	Volum opp[1,2], Lyd opp[1,2], Høyere[1], Øk volum[1], Skru opp volumet[1,2], Høgare[2], Auk volum[2]
5.3	Decrease the volume	Klusaak	Tylinti	Потивко	Baxxi l-volum	Volum ned[1,2], Lyd ned[1,2], Lavere[1], Demp volum[1,2], Skru ned volumet[1,2], Lågare[2]
5.4	Silent mode	Klusums	Be garso	Исклучи звук	Sikket	Lyd av[1,2], Stille[1,2]
5.5	Activate the audio output	Ieslēgt skaņu	Garsas	Вклучи звук	Erġa' ibda doqq	Lyd på[1,2]
5.6	Silence the loudspeaker	Izslēgt skaļruni	Išjungti garsiakalbį	Вклучи гласен звучник	Itfi l-loudspeaker	Høytaler av[1], Høgtaler av[1], Skru av høytaler[1], Skru av høgtaler[1], Høgtalar av[2], Skru av høgtalar[2]
5.7	Activate the loudspeaker	Ieslēgt skaļruni	Įjungti garsiakalbį	Вклучи гласен звучник	Ixgħel il-loudspeaker	Høytaler på[1], Høgtaler på[1], Skru på høytaler[1], Skru på høgtaler[1], Høgtalar på[2], Skru på høgtalar[2]
5.8	Silence the microphone	Izslēgt mikrafonu	Išjungti mikrofona	Исклучи микрофон	Tużax il-microphone	Mikrofon av[1,2], Skru av mikrofon[1,2]
5.9	Activate the microphone	Ieslēgt mikrafonu	Mikrofonas	Вклучи микрофон	Ixgħel il-microphone	Mikrofon på[1,2], Skru på mikrofon[1,2]
5.10	Activate vibrating alert	Ieslēgt vibrozvanu	Vibravimas	Вибрации, Вклучи вибрации	Ixgħel il-vibration	Vibrering på[1,2], Vibrasjon på[1,2], Vibrer[1,2], Skru på vibrering[1,2], Skru på vibrasjon[1,2]
5.11	Deactivate vibrating alert	Izslēgt vibrozvanu	Išjungti vibracija	Исклучи вибрации	Itfi l-vibration	Vibrering av[1,2], Vibrasjon av[1,2], Skru av vibrering[1,2], Skru av vibrasjon[1,2]
5.12	Summary of current device status	Tehniskie parametric	Būsena	Листа на параметри	Tini rapport	Tilstandsrapport[1,2]

Index	ICT device/service function	Latvian	Lithuanian	Macedonian	Maltese	Norwegian
5.13	Change profile (pre-stored settings)	Profilu maiņa	Keisti profilį	Смени профил	Profili	Profil[1,2]
NOTE: In the column for Norwegian, the indices represent the variants of the language to which a command applies: 1 = Bokmål; 2 = Nynorsk.						

Table 5f: Commands for device and service settings (Polish, Portuguese, Raeto-Romance, Romanian, Russian)

Index	ICT device/service function	Polish	Portuguese	Raeto-Romance	Romanian	Russian
5.1	List networks	Pokaż sieci	Redes	Muossar las raits[1], Mussar las reits[2,3], Mussar las raits[4]	Afişează reţele	Обзор сетей
5.2	Increase the volume	Głośniej	Aumentar volume	Dad ot[1,2], Dad ault[3], Dad aut[4]	Măreşte volumul	Громче
5.3	Decrease the volume	Ciszej	Abaixar volume	Da bass[1,2,3,4]	Redu volumul	Тише
5.4	Silent mode	Wycisz	Modo silencioso	Sainza tun[1], Sainza tung[2], Senza tun[3,4]	Silenţios	Выключить звук, Отключить звук
5.5	Activate the audio output	Włącz głos, Ogólny	Som normal	Cun tun[1,3,4], Cun tung[2]	Activează sunet	Включить звук
5.6	Silence the loudspeaker	Wyłącz głośnik	Desligar altifalante	Sainza otpledaders[1,2], Senza aultplidaders[3], Senza autpledaders[4]	Opreşte difuzoare	Выключить громкую связь, Отключить громкую связь
5.7	Activate the loudspeaker	Włącz głośnik	Ligar altifalante	Cun otpledaders[1,2], Cun aultplidaders[3], Cun autpledaders[4]	Activează difuzoare	Включить громкую связь
5.8	Silence the microphone	Wyłącz mikrofon	Desligar microfone	Sainza microfon[1,2], Senza microfon[3,4]	Închide microfon	Выключить микрофон, Отключить микрофон
5.9	Activate the microphone	Włącz mikrofon	Ligar microfone	Cun microfon[1,2,3,4]	Porneşte microfon	Включить микрофон
5.10	Activate vibrating alert	Włącz wibracje	Vibrar	Cun vibraziun[1,2,3,4]	Mod vibraţii	Включить вибрацию
5.11	Deactivate vibrating alert	Wyłącz wibracje	Desligar vibratório	Sainza vibraziun[1,2], Senza vibraziun[3,4]	Fără vibraţii	Выключить вибрацию, Отключить вибрацию
5.12	Summary of current device status	Pokaż parametry, Pokaż stan	Estado operacional	Parameters[1,2,3,4], Status[1,2,3,4], Stadi[2,3,4]	Arată stare, Arată parametrii	Параметры, Текущие настройки

Index	ICT device/service function	Polish	Portuguese	Raeto-Romance	Romanian	Russian
5.13	Change profile (pre-stored settings)	Zmień profil	Pré-definições	Profil[1,2,3,4]	Activează profil	Изменить текущие настройки, Изменить профиль
NOTE: In the column for Raeto-Romance, the indices represent the variants of the language to which a command applies: 1 = Ladin; 2 = Surmiran; 3 = Sursilvan; 4 = Rumantsch Grischun.						

Table 5g: Commands for device and service settings (Slovak, Slovene, Spanish, Swedish, Turkish)

Index	ICT device/service function	Slovak	Slovene	Spanish	Swedish	Turkish
5.1	List networks	Dostupné siete	Seznam omrežij	Selección de red, Mostrar redes	Nät	Şebekeleri göster
5.2	Increase the volume	Hlasnejšie	Glasneje	Subir volumen	Höj volymen, Högre	Sesini yükselt
5.3	Decrease the volume	Stíš	Tišje	Bajar volumen	Sänk volymen, Lägre	Sesini kıs
5.4	Silent mode	Tichý režim, Bez zvukov	Izklopi zvok	Apagar sonido, Desactivar sonido, Silenciar	Tyst, Ljud av, Stäng av ljudet	Sessize al
5.5	Activate the audio output	Zapni zvuk	Vklopi zvok	Encender sonido, Activar sonido	Ljud på, Sätt på ljudet	Sesli uyarıları aç
5.6	Silence the loudspeaker	Vypni reproduktor	Izklopi glasni zvočnik	Apagar altavoz, Desactivar altavoz, Silenciar altavoz	Högtalare av, Stäng av högtalaren	Hoparlörü kapat
5.7	Activate the loudspeaker	Zapni reproduktor	Vklopi glasni zvočnik	Encender altavoz, Activar altavoz	Högtalare på, Sätt på högtalaren	Hoparlörü aç
5.8	Silence the microphone	Vypni mikrofón	Izklopi mikrofon	Apagar micrófono, Desactivar micrófono, Silenciar micrófono	Mikrofon av, Stäng av mikrofonen	Mikrofonu kapat
5.9	Activate the microphone	Zapni mikrofón	Vklopi mikrofon	Encender micrófono, Activar micrófono	Mikrofon på, Sätt på mikrofonen	Mikrofonu aç
5.10	Activate vibrating alert	Zapni vibrácie, Vibrácie	Vibriraj	Encender vibración, Activar vibración, Vibración	Vibration på, Sätt på vibrationen, Vibrera	Titreşimi aç
5.11	Deactivate vibrating alert	Vypni vibrácie, Nevibruj	Ne vibriraj	Apagar vibración, Desactivar vibración	Vibration av, Stäng av vibrationen	Titreşimi kapat
5.12	Summary of current device status	Ukáž stav	Prikaži stanje	Estado	Status	Durum raporu ver
5.13	Change profile (pre-stored settings)	Zmeň režim	Spremeni profil	Perfil	Profil	Tercihleri değiştir

Annex A (informative): Methodology for defining command vocabularies

In this annex, we describe how the command words in the present document were determined. This will provide a useful guideline for extending the vocabularies to other languages or other functions. The overall methodology is described in detail for the three phases of elicitation, validation, and phonetic discriminability.

A.1 Elicitation: the spontaneous generation of potential command words

The selection of commands for each language in question required, initially, a set of candidate commands: these were alternative commands each of which, at this stage, could represent the functionality in question. To collect these candidate commands, a series of interviews with potential end-users was carried out, in which the interviewees, or *participants*, produced commands that they would use for a given function.

In order to ensure that command words for speech recognition enabled devices and services are intuitive, some evidence needs to be gathered as to which word(s) a user would say without prior training or experience. It is not trivial to elicit this information. One method for this is to explain a function to a potential user and ask them what word they think represents that function. However, in asking the potential user, it is likely that they would be primed for certain words or phrases used in the question. For instance, if a test is set up where the task to be performed is explained to the participants, it is likely that the explanation will contain some words that are candidate command words. Another method might be to analyse the words used on existing Automatic Speech Recognition (ASR) systems. Again though, if dialogues of actual users of running systems are analysed, it is likely that the command words found in these dialogues are the words that the system designer has chosen and that the user has learnt to use. They may not be intuitive and easy to remember. Alternatively, if descriptions using words are not used and functions are conveyed using pictures or cartoons, then it may be difficult for users to understand what the pictures represent or for all users to construe the same meaning from them.

Given these issues an approach was chosen for the present document where descriptions of the functions for which commands are required were presented to participants by an interviewer. The functions were described in a paragraph of text, which was carefully constructed not to use any word that may possibly have been used as a command word. These *Carefully Worded Descriptions (CWD)* were then put in the form of a questionnaire, where each description was preceded by a question in the style of "What command would you want to give in the following situation?". One disadvantage of this method is that the descriptions may sometimes sound artificial in order to prevent using an obvious command word, thus priming the participant for a particular answer.

It was decided that the questionnaire with CWDs would be presented to the participants via a telephone interview, (or, in the few cases where this was not possible, in "face-to-face" interviews with interviewer and participant sitting back to back in order to prevent experimenter effects based on non-verbal communication), carried out by an interviewer who was familiar with the purpose of the research. The reasons for this were:

- To deal with the low penetration of internet access in some countries.
- Even where there is higher penetration internet usage is skewed towards the younger population and it was the aim of this work to cover a wide age range (see clause A1.2).

Language comprehension and use can depend very much on the medium of communication and the medium of telephone conversation was deemed closer to the likely actual use of speech-driven ICT devices and services than an internet questionnaire. In addition to the above, the interview was conducted in the context of an imaginary speech interactive service ("Speak-to-me") and each CWD was spoken with reference to this service in order to provide as much realism as possible.

A.1.1 Interviewers

In order to cover all 30 of the languages in the present document, a team of international interviewers had to be recruited. Clearly, it is logistically challenging and expensive to locate, train, deploy and monitor such a large team over a geographical area covering all the languages. A solution to this challenge was to use a team of Native Language Assistants (NLA) all of whom were native language speakers of the languages addressed, recruited from the University College Utrecht (UCU), an international campus with native speakers of 25 of the countries represented in the standard. Therefore, a large part of the activities related to data collection were carried out there. For each language between 25 and 60 interviews were conducted. These participants, all native language speakers, were recruited from residents of the relevant countries. The remaining languages, i.e. those that could not be covered by NLAs from the UCU Utrecht, were dealt with by language experts from the respective countries.

All interviewers were trained in a special induction session, given by the team of experts. In this induction session, they learnt about the principles of establishing standards, the general method being used for the current work, their place in it, and the importance of their contribution. They were also trained in understanding the functionalities for which the command sets are sought, and the use of speech for command and control of ICT applications, as well as interviewing technique.

A.1.2 Test participants

The participants were recruited from the immediate social circle of the NLAs and then, by a process known as "Snowballing" where those initially recruited invited members of their social and familial group as participants, this group was extended and ultimately covered individuals from a wide range of socioeconomic and demographic characteristics.

A general participant-set profile was applied in which participants were balanced for gender, and were representative of three separate age groups, broadly categorized as the *young*, the *working*, and the *older* generations. The divisions were chosen to explicitly include the effects of language change, most often initiated by teenagers and young adults. Further, the ageing population, which receives specific mention in the i2010 framework [2], was also explicitly included.

The participants were contacted and informed about the proposed standard and encouraged to participate so that their language would be represented in the European standard. They were also asked for their consent to have their responses used anonymously for the purpose of creating the standard.

A.1.3 Set of functions

The functionality set for the present document used that of the standard published in 2002 [1]. Although technology is continuously evolving and many more functions are now built in to ICT devices and services, such as GPS-based navigation or camera functionality, the aim of the standard is to address generic functions. In total, 63 functions and their associated command words or phrases were required for each language.

A.1.4 Carefully Worded Descriptions (CWDs)

In order to elicit a potential command from a participant, carefully worded descriptions (CWD) of each function were read to the participant by the interviewer.

A master set CWDs, in English, was produced by the team of experts. The choice of English for the master set simply reflects the fact that this was the working language of this project. A small pilot of the elicitation method was carried out to clarify the CWDs for accuracy regarding their intended functionality and fluency for English and to avoid priming effects.

The master set was passed to each NLA. For each language, the NLA(s) translated the CWDs into the target language which again was followed by a small pilot.

A.1.5 Interviews

Each interview began with three minutes of unscripted informal conversation between the interviewer and their participant, in which the form of the questionnaire was explained. This was intended to put the participants at ease, and to give advance warning to the participant of the artificial nature of the questions, and the constraints on the interviewer, regarding the help he or she could give. Such constraints were necessary to reduce interviewer bias as much as possible. Explanation of the artificial nature of the questionnaire was necessary to avoid awkwardness due to the personal link between interviewer and participant.

Following this, the actual questionnaire was put to the participant, and the responses were entered into the computer as soon as they were given. The time required to carry out a questionnaire with 63 CWDs was in the region of 50 minutes.

At the end of each interview, the NLA had some time to close the session with informal conversation and to observe any difficulties or unusual data or participant behaviour.

A.1.6 Data Cleaning

When all interviews for a given language were completed, the data resulting from each interview were merged and cleaned for further analysis. Data cleaning consisted of a check for homonyms, spelling errors, and answers that did not reflect the functionalities for which they were given. This last problem arose where the participant did not understand the description of a function.

In addition, because this type of spontaneous generation of commands was an open response experiment, many different expressions for very similar command words could have been obtained. Therefore, a manual check of the recorded data was necessary, where responses with the same essential term were grouped together. For example, terms such as *"send", "send to addressee", "send to receiver", "send off", "send now"* may be represented by the term "*send"*. After such data cleaning, a set of candidates for validation were obtained for each function.

A.1.7 Frequency Analysis

After data cleaning each command was given a percentage in terms of its frequency of response by the participants. The top commands, together representing 85 % of responses (but not more than 5 commands), were put forward for the validation phase.

A.2 Validation

In elicitation, it is not guaranteed that the command words imply the targeted functionality. For instance, for the function "*confirmation*" the rhetorical command phrase "*why not*" might have come up in the list of spontaneous commands, but reversibly it might not be obvious to a user that the command "*why not*" implies confirmation; it might suggest the inquiry of a reason. A confidence check of command words tests how likely it is that the given command word implies the correct function. Therefore, the purpose of validation was to ensure that the words found in the first step were considered likely to be used for the function in question.

The initial method for validation used interviews where the NLAs contacted a different set of participants from the elicitation phase. The initial NLA pool remained largely unchanged although, for some languages, new NLAs joined the team, and some NLAs had moved on to other work and were not available. All new NLAs underwent a new induction session to ensure full understanding of the purpose and method of the work. The participant group was recruited in the same way as for the elicitation interviews.

Validation interviews were set up and carried out in a similar way to elicitation interviews. Firstly, the top frequency candidate command is presented in context to the participant who should give a best guess as to the functionality which the command implies. Where the correct functionality was given, the participant was then presented with maximally five alternatives from the elicitation data, as well as a dummy candidate which was taken from a different context. The inclusion of the dummy candidate helped to ensure that participants fully attended to the task at hand. The participant then ranked candidate commands in order of preference and maximally the top three candidates were entered into a data frame for further analysis.

Where participants make an incorrect guess at the functionality, they were presented with the second best candidate and the procedure was reiterated. This procedure was carried out for all candidates where misguessed functionality was noted separately. Where an incorrect response was obtained after maximally three attempts, the elicitation data was deemed unusable, and a pragmatic choice was made by native-language speakers and technical experts.

As can be seen the above method was somewhat complex and there were concerns that this complexity may have adversely affect the responses of the participants through fatigue in a lengthy interview, confusion relating to the use of a dummy, and may actually have resulted in random responses from the participant. Therefore, expert analysis was applied to the languages of: Estonian, Greek, Icelandic, Latvian, Maltese, Norwegian, Portuguese, Raeto-Romance, Swedish, and Turkish to identify the spoken commands which were chosen for phase 3, phonetic discriminability.

A further stakeholder phase of validation was carried out after this initial phase where the spoken commands were subjected to further expert analysis by the NLAs, industry experts, linguistic and cultural representatives from the countries involved.

A.3 Phonetic discriminability

Whilst the previous two steps of elicitation and validation provided a user-centric approach to the selection of command words, it was still important to address technology issues. For example, a set of commands may have been chosen by participants that had a high level of agreement. However, if this selection gave rise to a high degree of confusability in the speech recognizer, between words which were available for use in the same context, then the overall goal of usability was diminished. Therefore, the purpose of this step was to ensure that command words that were active simultaneously in a dialogue context could be recognized correctly by the speech recognition system. This involved phonetic discriminability analysis, to ensure that no commands were sufficiently phonetically alike as to confuse the speech recognition system.

For a voice-enabled application it is essential that command words are recognized correctly. Although a system can ask for confirmation for certain irreversible operations, e.g. "*delete subscription*", it is not acceptable if almost every command needs confirmation, e.g. "*do you want to hear the next item? Please say yes or no*". For a given application or service there will be several contexts defined in which certain command words will be available. The number of incorrectly recognized commands will be reduced if the available words in a given context are acoustically different.

There are several ways to test discriminability. Ideally, one would carry out a *recognizer field test* where a real speech recognition system is used to test how many times one command word is mistaken for another. This can then provide realistic discriminability measures in terms of confusability matrices for each context, containing the confusability of all active menu words with respect to each other, which can be tested on the system itself. However, since for all of the 30 languages covered, speech-recognition technology was not available, a more pragmatic but effective approach was chosen. This also helped to ensure the consistency of the methodology.

The method consisted of the following steps:

a) Commands were clustered according to those which would be simultaneously available, e.g. all commands for functions related to the handling of phone calls.

b) For each cluster, the top three commands from validation were assessed by native-language experts with respect to their sounds and not to their orthographic forms. Commands were listed as potentially phonetically confusable if:

   - they share the same initial consonant or consonant cluster;
   - they share similar stressed vowels;
   - they rhyme;
   - they are of equal length.

c) Commands that give rise to possible phonetic confusion were collated.

d) An alternative for one of the command words was chosen, with minimum repercussion with respect to the ranking of candidates.

With the completion of this discriminability phase the commands then went forward to a final check and validation described below.

A.4 Final command definition

The final pass on the resulting command set was performed by presenting and reviewing the results with representative stakeholders such as an Industry Reference Group, (e.g. mobile handset manufacturers and telecom service providers), representatives of people with disabilities, as well as cultural and linguistic institutes.

Annex B (informative): Bibliography

- ETSI ETR 116: "Human Factors (HF); Human factors guidelines for ISDN Terminal equipment design".
- Baber, C. and Noyes, J.M. (ed.): "Interactive Speech Technology: Human factors issues in the application of speech input/output to computers". Taylor and Francis, 1993.
- ETSI SR 001 996: "Human Factors (HF); An annotated bibliography of documents dealing with Human Factors and disability".
- Ericsson internal report: "Usage frequency of supplementary services in public and private networks".
- ETSI ETR 170 (1995): "Human Factors (HF): Generic user control procedures for telecommunication terminals and services".
- ETSI ETR 096 (1993): "Human Factors (HF); Phone based interfaces (PBI): Human factors guidelines for the design of minimum phone based user interface to computer services".
- ETSI ETS 300 788 (1997): "Human Factors (HF); Minimum Man-Machine Interface (MMI) to public network based supplementary services".
- Guzman, S.J. et al: "Determining a set of acoustically discriminable, intuitive command words". Proceedings AVIOS, p. 242-250, 2001.
- MacDermid, C. and Goldstein, M: "The "Storyboard" Method: Establishing an Unbiased Vocabulary for Keyword and Voice Command Applications." HCI Industry Day and Adjunct Proceedings, pp 104-109, 1996.
- SpeechDat- Car: "Technical Report LE4-8334-SD1.12: Specification of the car speech database (definition of corpus, scripts and standard), Car environments and speaker coverage", 2001.
- "Speech technology applications for disabled and elderly people": Proceedings of the COST 219 seminar Oberlinhaus, Potsdam-Babelsberg March 21, 1995.
- SPEECON (Speech Driven Interfaces for Consumer Applications) deliverables:
  - "D13: Functionalities of Speech Driven Interfaces";
  - "D21: Specification of Databases- Specification of Language Dependant Items";
  - "D215: Specification of Databases- Specification of Speakers".
- Telephone Speech Standards Committee, Common Dialog Tasks Subcommittee: "Universal Commands for Telephony-Based Spoken Language Systems". SIGCHI Bulletin, Volume 32/2, April 2000.
- ETSI ETR 095: "Human Factors (HF); Guide for usability evaluations of telecommunications systems and services".
- ETSI ETS 300 738: "Human Factors (HF); Minimum Man-Machine Interface (MMI) to public network based supplementary services".
- ETSI ETR 329: "Human Factors (HF); Guidelines for procedures and announcements in Stored Voice Services (SVS) and Universal Personal Telecommunication (UPT)".
- ITU-T Recommendation F.902: "Interactive services design guidelines".

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