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Title: **NFTH Contribution Requesting that References to the Recommendations and Guidelines Published by NFTH (Nordic Forum for Telecommunication and Disability) be Included in the Publication of JTC 1 N 8819 (Standards Inventory)**

Source: Thomas Lyhne, Secretariat for NFTH - The Danish Centre for Assistive Technology

Requested Action: For consideration at the June 2008 SWG-A meeting during the Ballot Resolution for ISO/IEC PDTR 29138-2, Information Technology – Accessibility Considerations for People with Disabilities – Part 2: Standards inventory.

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Sent: Tuesday, March 25, 2008 4:16 AM
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Cc: ewi@zealandcare.dk
Subject: SV: JTC1 SWG-A standards inventory

Attachments: NFTH (2007) 19 The possibilities for sending and receiving alarms.pdf

Dear Helle Bjarnø and Jennifer Garner,

Could you please consider including references to recommendations and guidelines published by NFTH (Nordic Forum for Telecommunication and Disability) in the publication ISO/IEC JTC 1 N 8819? All NFTH-publications published in english you will find at http://www.nuh.fi/NFTH_eng.htm.

Also please consider including a reference to the attached publication, which is not yet available from http://www.nuh.fi/NFTH_eng.htm

If you need more information please contact me.

Best regards

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**NFTH, Work group
Nordisk Forum For Telekommunikation
og Handicap (Nordic Forum for Telecommunication and Disability)**

**NFTH (2007) 19
November 2007**

The possibilities for disabled to send and receive alarm calls

**Prepared by:
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Foreword

NFTH stands for “Nordisk Forum for Telekommunikation and Handicap” (Nordic Forum for Telecommunication and Disability) and is a collaborative agency established in 1987. The group works under NUH (The Nordic Development Centre for Rehabilitation Technology), which is a subsidiary of NSH (The Nordic Cooperation on Disability) under the Nordic Council of Ministers.

The purpose of NFTH is to deal with relevant areas of telecommunication that concern people with disabilities and to support efforts in the Nordic countries to integrate people with disabilities into the information society. NFTH carries this out by producing recommendations and preparing guidelines that address the problems that already exist and will arise in the future. The type of tasks NFTH works with is activities that accommodate a common Nordic relevance. The tasks are of such character that joint efforts can have a significant and lasting impact.

In NFTH, each of the Nordic countries are represented, more or less equally, by a representative appointed by the dominating national telecommunications company, a representative appointed by the Ministry of Social Affairs as well as a representative appointed by the Ministry of Telecommunication in the country concerned. In association with each NFTH meeting, either a seminar or a theme day is held about a current topic relevant to the NFTH group.

NFTH holds meetings twice annually.

Background

The purpose of this document is, primarily, to inform about the general and specific problems which people with disabilities have, including elderly, in connection with receiving and sending alarm calls.

At the end of the document are recommendations to solutions in relation to the various user groups' needs.

The target groups for this document are user organisations, authorities, telecommunication operators, The Nordic Council of Ministers, European standardisation organisations and other interested parties.

November 2007, NFTH Secretariat

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General problems

The existing equipment alarm calls are designed in such a way that not all people with disabilities can use. However, special solutions and some general solutions exist, which can be used by disabled people.

In certain countries, some disabled groups, e.g. hearing impaired, can use alternative solutions, for instance text messaging via mobile telephone or via vibration alarm to send and receive alarms. It must however, be ascertained that this manner of sending and receiving alarms results in more problems because the text messaging system is not, as a basis, made for this purpose and because the sender cannot know whether a text message has been received or is delayed. In some countries, supplementary solutions exist which give text messaged alarm calls an acceptable security.

For hearing impaired (with spoken language) there is also a problem in relation to ordinary telephone calls; that the hearing impaired cannot hear the dial tone or receive confirmation that the alarm has been received.

Another problem about sending of alarm calls is that the majority of mobile telephones' base stations do not have battery back-up. Thus they do not work in the case of power failure, which means that it is not a secure system. There is likewise a problem with communication that takes place via IP telephones and ISDN which cannot be done with power outage unless back-up power exists.

It can also be difficult to find out where the person who is sending an alarm via a mobile telephone is located (positioning), just as it is unclear whether alarms can be sent where there is a lack of signal.

The organisations for the disabled would like a solution despite the uncertainty factor. Their alternative in the majority of cases is no alarm call option, but resistance has been met from experts and authorities due to the abovementioned problems, which means that so far, solutions have been curbed in certain countries.

A solution that suits one group of people with disabilities can give actual disadvantages for another group with disabilities. For example, a flashing alarm can prompt an attack for an epileptic.

Among the elderly and disabled, there are several who have a combination of different types of disability. Due to their disability, many have a special need to be able to send and receive alarm calls.

Finally, there is the problem that some countries have more alarm call numbers than 112 and that special alarm numbers for disabled exist.

Examples of different user groups' problems with sending and receiving alarm calls

Deaf people and hearing impaired people with reduced hearing

Deaf people and people with hearing impairments can have problems sending alarm calls if they only have access to an ordinary telephone or a mobile telephone. Alarm calls can be sent from a text telephone if such is available at the place of alarm. In some countries, deaf and hearing impaired can send alarms via text messaging to the alarm central.

Deaf and hearing impaired people can have problems with receiving alarm calls if alarms can only be sent as sound, for example via a radio or a loudspeaker van. For the alarm to be received by a deaf or hearing impaired person, the alarm must be sent to the user's text telephone or as a text message to the user's mobile telephone. This service exists in several of the Nordic countries.

Speech impaired

Unless a special communication centre exists, people with speech impairment do not have the possibility of either sending an alarm call or of informing about the special issues (time, place, and problem) about the alarm call. In some countries, people with speech impairment can send alarms via text messaging to the alarm central.

People with speech impairment do not normally have problems receiving alarm calls that are sent as sound, for example via the radio or a loudspeaker van.

Blind and sight impaired

The blind and sight impaired can have problems sending alarm calls if they cannot find the place from which the alarm call must be sent, e.g. it can be difficult to find the location of an alarm cupboard or a public telephone and know the operating principles.

The blind and sight impaired can have problems receiving alarm calls if the information is only given as text or light signals.

Blind people with a mobile telephone or computer with speech synthesis will not have these problems if the alarm is sent or received from these.

Deaf-blind

Deaf-blind people have very serious problems with both sending and receiving alarm calls as they can only communicate via special equipment adapted to the person or via a personal helper.

People with cognitive disability

People with cognitive disabilities (e.g. mentally ill, brain-damaged, people with dementia or development impediments) can have problems sending alarm calls if they cannot understand how to send the alarm call and how the communication with the alarm central should take place.

People with cognitive disabilities can have problems receiving alarm calls if they do not understand how to receive the alarm and interpret the information.

Motor skills disabled

Motor skills disabled can have problems sending alarm calls if they cannot use a mobile telephone, an ordinary telephone or get to the place where the telephone is located.

Motor skills disabled can have problems receiving alarm calls if the equipment cannot be operated and the equipment is placed in such a way that the information cannot be read.

Elderly

Some elderly can have many of the abovementioned function impediments, either individually or in combination. Additionally, some of the elderly have limitations in learning new things and have difficulties handling an alarm situation.

Other issues

People who cannot move themselves can have a need to call relatives or personnel, who on their behalf can send the alarm.

Recommendations and requirements to alarm equipment

Information

It is important that every country's telecommunication authority and the institutions that are responsible for the daily lives of people with disabilities, inform the users and their relatives about the options of sending and receiving alarms. In those situations where the options for individual groups are lacking, alternatives must be informed.

General principles

Pursuant to NFTH's recommendation (Nordic guidelines for the alarm service for text telephone and including the use of joint text telephone alarm number in the Nordic region, NFTH 3/1998, Danish, 7 pages – can be downloaded from <http://nuh.fi/NFTH.htm>) regarding alarms received via 112, it is recommended that all countries in the future, use 112 for the receiving of alarms of all kinds and for all user groups.

We recommend that alarms can be sent and received from the communication units which disabled people use, regardless of the disability.

In situations where alarms are given via broadcasting (e.g. TV, radio, sirens and loudspeaker vans) those groups that cannot make use of the information should be able to receive the alarm and other information via other channels, e.g. text messaging, email or other.

In those situations where communication equipment is used, e.g. IP telecommunication, computer or ISDN, back-up power should be ensured for a suitable period.

Recommendations

People with impaired hearing and deaf people

Sending alarms

People who are deaf or are hearing impaired must be able to send an alarm via text messaging, text telephone, email or sign language (via videophone) and the alarm central must be able to receive these alarms and confirm receipt of the alarm via the same media.

Receiving alarms

When alarm is given via broadcasting (loudspeaker vans, sirens, radio, TV) it is recommended that corresponding information be given via the media which deaf and hearing impaired people normally use (text messaging, sign language via videophone, sign language and text on TV, text telephone, email, etc.).

People with vision impairment and blind

Procedures should exist about how blind people and people with impaired vision are handled in an alarm situation.

Sending alarms

People who are vision impaired or blind must be informed about the alarm buttons physical location and there must be an acoustic feedback that the alarm has been sent. Any information that the system gives when sending the alarm must also occur acoustically.

Receiving alarms

All alarm calls and information about the alarm must also be given acoustically.

People with motor skills disability

Sending alarms

Alarm buttons must be placed at such a height and places where people in wheelchairs can operate them. To the extent the alarm button cannot be operated by people with motor skills disability, it must be possible to send alarms via the communication equipment that is usually used or via a specially adapted solution. In addition to the usual sending of alarms, it must also be possible to send alarms to relatives or personnel.

Receiving alarms

Information in connection with alarm calls must be given in such a way that they are available to people with motor skill impairments.

People with cognitive disability

The recommendations under this point only include those people with cognitive disability, who are able to take care of themselves to a certain extent.

In particular for this group, it is important that training occurs for the disabled as well as those people who surround the person concerned in what must be done in an alarm situation.

Sending alarms

The operating of the alarm equipment must be simple. The alarm receiver must be informed about the user's special situation.

Receiving alarms

Information given in connection with alarm calls must be easy to understand for the receiver and assisting personnel / relatives must be simultaneously informed if there is a need for this.