Telecommunications Accessibility Guidelines for Older Persons and Persons with Disabilities
(Attachments)

May 2004

This document provides reference information designed to supplement the information set out in the second edition of the Telecommunications Accessibility Guidelines for Older Persons and Persons with Disabilities.

The Attachments document is designed to be read in conjunction with the Guidelines in relation to the processes of product planning, development, design and evaluation.

How to use the tables

The tables in attachments 1 through 4 are designed to assist telecommunications equipment developers in identifying areas where special consideration needs to be applied in the planning, development, design and evaluation stages to the physical and cognitive capacity of users to perform basic operations on typical terminal machines in accordance with instructions.

Shaded cells in the tables indicate areas where the combination of the physical and/or cognitive attributes of the user (on the horizontal axis) and the required operational procedure (on the vertical axis) need to be taken into consideration by product developers.

The Guidelines provide specific examples and other information about initiatives and strategies that can be used in such areas.

Attachment 6 is a sample checklist of considerations in the product planning, development, design and evaluation processes. It lists the features of fixed line telephones as stated in Section 6.2.1 of the Guidelines and the associated considerations.

It is hoped that telecommunications equipment developers will refer to these examples in preparing similar tables for use in the planning, development, design and evaluation of terminal devices.

Contents

1. Disability design considerations for basic fixed-line telephone operations

■ Design consideration

Objective	Operation	Steps	Sensory			Physical					Cognitive		Allergy
			Seeing	Hearing	Touch	Dexterity	Strength	Single hand	Wheelchair	Voice	Intellect/memory	Cultural/language differences	Contact
Make a telephone call	1. Pick up receiver	Identify receiver	■									■	
		Pick up receiver and hold to ear				■	■						
	2. Dial number	Confirm dial tone		■									
		Identify keypad	■										
		Press number keys			■	■	■				■	■	
	3. Wait for response	Confirm ringing tone		■									
	4. Begin conversation	Confirm that ringing tone has stopped		■									
		Confirm remote party		■									
		Talk to remote party								■			
	5. End call	Confirm location of telephone	■										
		Replace receiver in cradle				■	■						
Receive a telephone call	1. Telephone rings	Confirm ring tone		■									
	2. Pick up receiver	Identify receiver	■										
		Remove receiver from cradle				■	■						
	3. Begin conversation	Confirm remote party		■								■	
		Talk to remote party								■			
	4. End call	Confirm location of telephone	■										
		Replace receiver in cradle				■	■						

■ Design consideration

Objective	Operation	Steps	Sensory			Physical					Cognitive		Allergy
			Seeing	Hearing	Touch	Dexterity	Strength	Single hand	Wheelchair	Voice	Intellect/memory	Cultural/language differences	Contact
Send a fax	1. Check orientation of original	Check that original is facing the right way up and in the right direction	■										
	2. Align guides to paper size	Identify insertion slot	■									■	
		Identify guides	■										
		Align guides to paper size	■			■	■				■		■
	3. Insert original into machine	Insert original into machine	■										
		Check that original is correctly inserted			■								
	4. Dial recipient's fax number	Identify keypad	■										
		Press number keys				■	■						■
		Check number keys			■								■
		Confirm that number is entered correctly	■										
	5. Press start button	Identify start button	■									■	■
		Press start button				■	■						■
		Check that start button has been pressed			■								■
		Check that fax transmission is in progress	■									■	
	6. End transmission	Confirm transmission report	■									■	
		Remove original				■	■						
Receive a fax	1. Fax machine rings	Confirm ring tone		■									
	2. Pick up receiver	Identify receiver	■										
		Remove receiver from cradle				■	■						■
		Identify incoming facsimile	■	■								■	
	3. Press start button	Identify start button	■									■	
		Press start button				■	■						■
		Check that start button has been pressed			■								■
	4. Replace receiver	Identify receiver cradle	■										
		Replace receiver in cradle				■	■						■
	5. Confirm successful reception	Confirm end of reception	■									■	
		Identify output paper	■										
		Remove output paper				■	■						

■ Design consideration

Objective	Operation	Steps	Sensory			Physical					Cognitive		Allergy
			Seeing	Hearing	Touch	Dexterity	Strength	Single hand	Wheelchair	Voice	Intellect/memory	Cultural/language differences	Contact
Make a copy	1. Check orientation of original	Check that original is facing the right way up and in the right direction	■										
	2. Align guides to paper size	Identify insertion slot	■										
		Identify guides	■										
		Align guides to paper size	■			■	■				■		■
	3. Insert original into machine	Insert original into machine	■			■	■						
		Check that original is correctly inserted			■								
	4. Insert blank paper	Identify blank paper holder	■									■	
		Insert blank paper				■	■						
		Check that blank paper is correctly inserted			■								
	5. Press copy button	Identify copy button	■									■	
		Press copy button				■	■						
		Check that copy button has been pressed			■								■
	6. End copying process	Confirm end of copying process	■									■	
		Identify original	■										
		Remove original				■	■						
		Identify copy	■										
		Remove copy				■	■						
Replace the ink cartridge	1. Raise locking lever	Identify locking lever	■								■		■
		Raise lever			■	■	■						■
	2. Open cover	Identify where to hold cover	■								■		
		Lift cover up				■	■						■
		Check that cover is fully open		■	■						■		■
	3. Remove old ink cartridge	Identify position of ink cartridge	■								■	■	
		Remove old ink cartridge				■	■						
	4. Insert new ink cartridge	Identify insertion position	■								■	■	
		Insert new ink cartridge				■	■						
		Check that new ink cartridge is correctly inserted			■								■
	5. Close cover	Identify where to hold cover	■								■		■
		Push cover down				■	■						■
		Check that cover is fully closed		■	■								
	6. Check operation of new ink cartridge	Confirm on LCD	■								■	■	
		Identify button	■									■	
		Press button				■	■						■
		Check that button has been pressed			■								■
		Check that 'New' is selected	■									■	
		Identify button	■									■	
		Press button				■	■						■
		Check that button has been pressed			■								■
		Check change of screen	■								■	■	

■ Design consideration

Objective	Operation	Steps	Sensory			Physical					Cognitive		Allergy
			Seeing	Hearing	Touch	Dexterity	Strength	Single hand	Wheelchair	Voice	Intellect/memory	Cultural/language differences	Contact
Make a telephone call	1. Take out phone	Identify phone	■		■								■
		Grasp phone and bring to face			■	■	■	■					■
	2. Check that phone is on (press and hold power button)	Check that phone is on	■										
		Locate and depress power button	■		■	■	■	■					■
	3. Check battery level	Check battery level (on-screen icon)	■										
	4. Check signal strength and area	(Extend antenna)				■	■	■					■
		Check signal strength (on-screen icon)	■										
	5. Select destination number												
	• Enter telephone number directly	Enter telephone number using keypad	■			■	■	■					
	• Search phone book	Select from list	■			■		■			■	■	■
	• Use speed dial	Enter via speed dial	■			■		■			■		■
	• Select from recently dialed numbers history	Select from list	■			■		■			■	■	
	6. Confirm destination number	Confirm remote party	■								■		
	7. Send	Locate and depress send button	■		■	■		■					■
	8. Talk	Hold phone to ear and talk into microphone		■		■		■		■			■
	9. Adjust volume	Adjust volume during call	■	■	■	■		■					■
	10. End call	Locate and depress end button	■		■	■		■					■
	11. Check that call has ended successfully	Check that call has ended successfully	■										
	12. Turn on keylock/flip closed	Turn on keylock to prevent accidental operation or flip cover closed	■			■	■	■					■
	13. Replace phone	Replace phone in cradle or holder	■			■		■					■
Receive a telephone call	1. Recognize incoming call	Confirm incoming call/tone		■									
	2. Take out phone	Identify phone	■			■	■						
		Grasp phone and bring to face			■	■							■
	3. Confirm caller	Confirm caller from screen display	■	■							■	■	
	4. Press YES or TALK button	Press YES or TALK button	■		■	■		■					■
	5. Begin conversation	Hold phone to ear and talk into microphone		■		■		■		■			■
	6. Adjust volume	Adjust volume during call	■	■	■	■		■			■		■
	7. End call	Locate and depress end button	■		■	■		■					■
	8. Confirm that call has ended successfully	Check that call has ended successfully	■										
	9. Turn on keylock	Turn on keylock to prevent accidental operation or flip cover closed	■			■	■	■					■
	10. Replace phone	Replace phone in cradle or holder	■			■		■					■

■ Design consideration

Objective	Operation	Steps	Physical and mental abilities/disabilities										
			Sensory			Physical					Cognitive		Allergy
			Seeing	Hearing	Touch	Dexterity	Strength	Single hand	Wheelchair	Voice	Intellect/memory	Cultural/language differences	Contact
Store new number in phone book	1. Navigate to new number screen	Use phone book and menu buttons to navigate to new number screen	■		■	■					■	■	■
		Confirm telephone number and procedure for storing	■								■	■	
	2. Enter numerals and text	Locate/select/convert/confirm input text	■			■	■	■			■	■	■
		Enter using QR code (2-D barcode)	■			■	■	■			■	■	■
	3. Correct any mistakes	Locate and depress the delete/clear key	■		■	■		■			■	■	■
	4. Check entered information	Check information such as telephone number and email address	■			■					■	■	
	5. Store new number	Locate and depress store button	■		■	■					■	■	■
Recharge phone	1. Check battery level	Check battery level (on-screen icon)	■										
	2. Connect recharger	Connect recharger to power point	■		■	■	■	■					■
		Connect recharger to phone	■		■	■	■	■			■		■
	3. Confirm recharging status	Confirm that phone is recharging	■										
	4. Confirm that phone is fully recharged	Confirm that phone is fully recharged	■										
	5. Remove recharger	Remove phone from recharger cradle	■		■	■							■
		or disconnect recharger	■		■	■		■					■
Receive a message	1. Select Messages	Go to main menu	■		■	■					■	■	■
		Select Messages from main menu	■		■	■					■	■	■
		Confirm that Messages is selected	■			■					■	■	
		Press the Messages button	■		■	■					■	■	■
		In the event of error, press the Back key	■		■	■					■	■	■
	2. Select Incoming Messages	Select Incoming Messages from main menu	■		■	■					■	■	■
		Check that Incoming Messages is selected	■			■					■	■	
	3. Select Incoming Messages List	Select incoming messages list from Incoming Messages menu	■		■	■					■	■	■
		Select message to read	■		■	■					■	■	■
	4. Read message	Select message from list	■		■	■					■	■	■
		Read message on screen	■								■	■	
	5. Reply to or forward message	Select Reply To or Forward	■			■					■	■	
		Locate recipient, confirm and press send button	■		■	■					■	■	■
	6. Store message	Select Store and confirm	■		■	■					■	■	■
	7. Delete message	Select Delete and confirm	■		■	■					■	■	■
	8. End	Return to main menu screen	■		■	■					■	■	■

■ Design consideration

Objective	Operation	Steps	Physical and mental abilities/disabilities										
			Sensory			Physical					Cognitive		Allergy
			Seeing	Hearing	Touch	Dexterity	Strength	Single hand	Wheelchair	Voice	Intellect/memory	Cultural/language differences	Contact
Send a message	1. Select Messages	Go to main menu	■		■	■	■	■			■	■	■
		Select Messages from main menu	■		■	■	■	■			■	■	■
		Confirm that Messages is selected	■										
		(Press the Messages button)	■		■	■	■	■					■
		In the event of error, press the Back key	■		■	■	■	■			■		■
	2. Select Send Message	Select Create/Send Message from main menu	■		■	■	■	■			■	■	■
		Confirm that Create/Send Message is selected	■										
	3. Enter subject	Select/confirm message subject	■		■	■	■	■				■	■
		Enter text directly using keypad	■		■	■	■	■			■		■
		Convert kanji characters using Convert key	■		■	■	■	■			■		■
		Select from templates	■		■	■	■	■			■		■
		Check over text and confirm	■									■	■
	4. Enter address	Select recipient and confirm	■		■	■	■	■				■	■
		Enter address directly using keypad	■		■	■	■	■			■		■
		Use address from address book	■		■	■	■	■					■
		Locate recipient in address book	■		■	■	■	■					■
		Locate recipient from previously received message	■		■	■	■	■					■
		Confirm recipient address	■										
	5. Enter message text	Select message text field	■		■	■	■	■			■		■
		Enter message text directly using keypad	■		■	■	■	■			■		■
		Convert kanji characters using Convert key	■		■	■	■	■			■		■
		Select from templates	■		■	■	■	■			■	■	■
		Check over text and confirm	■										
	6. Send message	Check over message and confirm	■		■	■	■	■			■		■
		Press the Send button	■		■	■	■	■			■		■
	7. End	Return to main menu	■		■	■	■	■			■	■	■

■ Design consideration

Objective	Operation	Steps	Sensory			Physical					Cognitive		Allergy
			Seeing	Hearing	Touch	Dexterity	Strength	Single hand	Wheelchair	Voice	Intellect/memory	Cultural/language differences	Contact
Browse the internet	Press the menu button (internet services button)	Identify menu button	■								■	■	
		Press menu button	■		■	■	■	■					■
		Check outcome	■										
	Use the + cursor (or equivalent) to navigate through internet menus and services	Identify highlighted item	■								■	■	
		Identify Shift button	■		■								
		Press Shift button	■		■	■	■	■					■
		Check outcome	■										
	Press the Confirm button	Identify Confirm button	■		■							■	
		Press Confirm button	■		■	■	■	■					■
		Check outcome	■										
	Check internet services	Check internet service status icon	■									■	
	Navigate to web page by choosing from list	View content (preset menus as well as history, links, favorites, etc.)	■										
		Identify highlighted item	■										
		Identify Shift button	■		■								
		Press Shift button	■		■	■	■	■					■
		Check outcome	■										
		Identify Confirm button	■		■								
		Press Confirm button	■		■	■	■	■					■
		Check outcome	■										
		Identify access keys for link items (options) in content	■		■						■	■	
		Press corresponding number key	■		■	■	■	■			■		■
		Check outcome	■										

■ Design consideration

Objective	Operation	Steps	Physical and mental abilities/disabilities										
			Sensory			Physical					Cognitive		Allergy
			Seeing	Hearing	Touch	Dexterity	Strength	Single hand	Wheelchair	Voice	Intellect/memory	Cultural/language differences	Contact
Browse the internet	Navigate to web page by entering URL directly	Select URL direct entry from menu and enable text entry	■		■	■	■	■			■		■
		text input/editing) Identify [http://] as already entered, and check the text entry cursor position	■								■		
		text input/editing) Identify text on operation number keys	■								■		
		text input/editing) Press number keys for text entry	■		■	■	■	■			■		■
		text input/editing) Identify text displayed on screen	■								■		
		text input/editing) [Delete Character] Identify character at current cursor position	■								■		
		text input/editing) [Delete Character] Identify character delete button	■								■		
		text input/editing) [Delete Character] Press character delete button	■		■	■	■	■			■		■
		text input/editing) [Delete Character] Confirm outcome	■								■		
		once text input is complete) Identify button to end text input	■								■		
		Press button to end text input	■					■			■		■
		Confirm outcome of text input	■		■								
		Identify Connect button	■		■								
		Press Connect button	■			■	■	■					■
	Display during access	Identify display that appears during access or data download	■								■		
		(depending on device and settings) Identify access completed (sound or display)	■	■							■		
	Web page displayed	Identify new web page	■										
	End internet session	Identify button for ending internet session (such as power off key)	■		■						■	■	
		Press button for ending internet session (such as power off key)	■		■	■	■	■					■
		Confirm outcome from screen or lamps	■										

4. Disability design considerations for basic video telephone operations

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Objective	Operation	Steps	Sensory			Physical						Cognitive		Allergy
Transmit	1. Check camera	Check picture to be sent to remote party	▓											
	2. Dial destination telephone number	Identify keypad	▓									▓		
		Press number keys			▓	▓	▓							▓
		Check that number keys have been pressed			▓	▓								
		Confirm telephone number entered	▓											
	3. Press talk/videophone button	Identify button	▓									▓		
		Press button			▓	▓	▓							▓
		Check that button has been pressed			▓	▓								
		Check during cal	▓											
	4. End call	Identify End button	▓									▓		
		Press End button			▓	▓	▓							▓
		Check that End button has been pressed			▓	▓								
Receive	1. Incoming call	Confirm incoming call		▓										
		Identify type of call (voice or video)	▓									▓		
	2. Check camera	Check picture to be sent to remote party	▓											
	3. Press talk/videophone button	Identify button	▓									▓		
		Press button			▓	▓	▓							▓
		Check that button has been pressed			▓									
		Check during call	▓											
	4. End call	Identify End button	▓									▓		
		Press End button			▓	▓	▓							▓
		Check that End button has been pressed			▓									
	5. Auto receive function enabled	Select auto receive for voice/video calls	▓									▓		
Operations during call	1. Local/remote camera control	Switch between local and remote control	▓									▓		
		Press the pan and tilt buttons			▓	▓	▓							▓
	2. Switch hands free operation on/off	Identify the hands free button	▓									▓		
		Press the hands free button			▓	▓								▓
		Check that the hands free button has been pressed			▓									
	3. Adjust volume during call	Press the volume adjustment button		▓	▓	▓	▓							▓
	4. Switch to handset	Pick up handset	▓	▓	▓	▓								▓
	5. Frame rate required for sign language	Minimum 15 fps	▓											
	6. Camera can be used to capture scenery other than speaker		▓			▓	▓		▓					

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5. Postings on the Info-Communication Access Council website

Where a product is judged to have good accessibility design in the evaluation process, the evaluation findings should be released publicly in order to ensure the product is known to as many users as possible, including but not limited to older persons and persons with disabilities.

Evaluation findings are normally posted on the Info-Communication Access Council website at http://www.ciaj.or.jp/access, and can also be posted on the websites of the product developers and in other forums.

The procedure for posting evaluation findings on the Council's website is given below:

1. Text is prepared in the form of a Word document
2. Text file is sent together with a request by email to the Secretariat of the Info-Communication Access Council at the address below
3. File is processed by the Secretariat
4. Provisional server upload (checked by requester)
5. Posted on website

Details

1. Company name
2. Product name
3. Photograph of product
4. Overview of product
5. Description of accessibility features
6. Evaluation checklist*
7. Address of website for additional information
8. Contact details for inquiries (contact name, department, telephone and fax number, email address)

* The checklist should be compiled from the considerations stated in the Guidelines, based on the sample shown in Section 6, Sample Accessibility Evaluation Checklist for Fixed Line Telephones.

Note: In the event that information on a product on the Council website is no longer relevant (for instance, when the product is no longer sold), the following procedure applies.
1. The company contacts the Secretariat by email stating that the information should be deleted;
2. The Secretariat confirms that the information is to be deleted;
3. The Secretariat deletes the information.

Contact details for submitting files and obtaining information on procedures and methods are given below.

Secretariat of the Info-Communication Access Council (Communications and Information Networks Association of Japan CIAJ)

Mr. Shimizu
Mail: shimizuh@ciaj.or.jp
Tel: 03-3231-8768
Fax: 03-3231-3110

Ms. Ogata
Mail: ogata@ciaj.or.jp
Tel: 03-3231-8770
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6. Sample accessibility evaluation checklist for fixed line telephones (1/2)

Function	Considerations	Incorporated Y/N	Remarks
Packaging	Packaging should be easy to open, of suitable size and shape, and made from appropriate materials.		
	Product should be easy to remove from the packaging or bag.		
	Packaging and binding tape used for transportation should be easy to locate and remove.		
Overall form	No risk of injury from handling.		
Materials	Materials with known allergic risks should be avoided.		
Installation and setup	Product should be easy to assemble and install following a logical procedure.		
	Product should be designed for simple installation (such as simple cable connections).		
	Normal operation of the product should not cause it to move or fall from its installed position.		
	Power cord and cables should be easy to connect and should not come loose during normal use.		
	Accessories such as batteries should be easy to install; the product design should in itself prevent incorrect installation.		
	Automatically connects to telephone line.		
	Simple procedure for entering details such as time, telephone number and station name.		
Layout of operation keys	Display and key layout design should be designed on the basis of user thought processes and operation procedures.		
	Appropriate row length and information content on display.		
	Display and keys should be adequately spaced to enable easy operation.		
	The direction in which switches and buttons are used should be intuitively aligned with the operation of the equipment.		
	Operation keys should be grouped in functional groups by shape, location or color to facilitate visual and tactile identification.		
Operation procedure	Information should be displayed in simple language; operation procedures should be tailored to the thought processes of the user.		
	Operation procedures should be consistent and based on user thought processes.		
	Product should be designed to support low-speed data entry.		
	Product should provide visual and auditory warning before automatically changing modes when the input time limit expires.		
Keypad	Key shape designed to facilitate visual as well as tactile identification.		Shape specifications
	Keys can be readily distinguished from other keys and buttons either visually or by touch.		Identifier lug on 5 key: Position, diameter, height, etc.
	Keys provide tactile response when depressed.		Click
	Key input can be confirmed both visually and by auditory response.		Beep or synthesized voice alert
	Key size, shape and layout is designed to prevent accidental operation of adjacent keys.		Shape, size, spacing, etc.
	Product can be set to prevent double key mistakes.		
	Product can be set to prevent key repeat mistakes.		
	Numbers (and other information) on keys are printed in easily distinguishable, large, high-contrast type.		Font, character height, brightness difference
	Keys can be operated using self-help aids such as artificial limbs and mouse sticks as well as hands and		Concave button
	Touch panel software keys can be operated without looking at the product.		Guides or other alternative methods
Other keys and buttons	Shape designed to facilitate both visual and tactile identification.		
	Keys and buttons provide tactile response when depressed.		
	Visual and auditory response when depressed.		
	Size, shape and layout designed to prevent accidental operation of adjacent keys/buttons.		
	Product can be set to prevent double key mistakes.		
	Product can be set to prevent key repeat mistakes.		
	Numbers (and other information) on keys are printed in easily distinguishable, large, high-contrast type.		Font, character height, brightness difference
	Keys can be operated using self-help aids such as artificial limbs and mouse sticks as well as hands and		
	Touch panel software keys can be operated without looking at the product.		
Handset	Easy-to-hold, non-slip design with good weight balance.		Serrated surface; non-stick materials
	Handset orientation and position is readily identifiable.		
	Features to enable use of product without holding handset.		Speakerphone feature; earphone and microphone terminals

6. Sample accessibility evaluation checklist for fixed line telephones (2/2)

Function	Considerations	Incorporated Y/N	Remarks
Receiver tones	Volume adjustment.		In … dB increments up to maximum of … dB
	Auto reset for volume adjustment.		
	Volume can be adjusted during a call.		
	Visual confirmation of current volume.		Volume level indicated by display icon
	Other forms of adjustment to suit auditory capacity of user.		Sound quality adjustment, bone conduction, voice speed conversion
	Does not generate noise in hearing aid or artificial ear.		
	Compatible with hearing aid induction coil (T-mode) systems.		
	Side tone provided.		
	Equipped with external output terminal (earphone jack).		
Incoming call ring	Incoming ring volume adjustment.		Maximum … dBspl
	Visual confirmation of incoming call.		Lights flash while ringing
Display	Easy to see characters.		Character height and contrast
	Text size enlargeable.		Maximum character height
	Displayed information is color-independent.		
	Reflection-resistant display.		
	Brightness and contrast adjustment.		
	Displayed information does not disappear too quickly.		Example: display speed, time, history feature
	Easy to see in low-light conditions.		Backlight feature
Printed information	Easy to distinguish characters and symbols at actual viewing distance in ambient light conditions.		For fixed telephones?
	Size, shape and contrast designed to make characters and symbols easy to read.		Examples of smallest and largest characters? Gothic font, character height, brightness difference
	Displayed information is independent-independent.		
	Information is displayed in close proximity to the feature it describes.		
Terminology, icons and symbols	Terminology, icons and symbols are easy to understand.		
Alert tones	Volume and frequency designed to be easily distinguishable in noisy environment.		Conforms to JIS S0014:2003
	Volume adjustment.		
	Mute feature provided.		
Voice guidance system	Appropriate volume and voice quality.		
	Voice speaks slowly; pauses provided.		
	Volume and speed adjustment.		
	Clearly spoken.		
	Plain, everyday speech; procedure designed on the basis of user thought processes.		
	Voice guidance information is also displayed for visual confirmation.		
	Mute feature provided.		
Operation confirmation	Visual confirmation of line status to complement tones.		
	Where calling number display feature is provided, caller details can also be spoken.		Voice read out via voice synthesis
Support services	Instruction manual is easy to understand.		
	Instruction manual also provided in electronic version.		For instance, PDF file can be downloaded from website

7. Ministry of Posts and Telecommunications Notification No. 515

Guidelines for improving accessibility to telecommunications services for older persons and persons with disabilities are described below.

October 30, 1998

Seika Noda, Minister for Posts and Telecommunications

Guidelines on Accessibility to Telecommunications Services for Older Persons and Persons with Disabilities

1. Objectives

These Guidelines set out indicators of features and other aspects of telecommunications equipment designed to improve accessibility to telecommunications services for older persons and persons with disabilities, thereby promoting equality of access to information for all.

2. Definitions

1. In these Guidelines, "telecommunications equipment" refers to any machine, device, line or other electrical equipment used for telecommunications purposes.

2. In these Guidelines, "accessibility" refers to initiatives designed to enable older persons and persons with disabilities to utilize telecommunications services with ease.

3. Required accessibility features

1. Functionality to enable input regardless of disability

Where possible, the following functionality should be incorporated into telecommunications equipment to allow older persons and persons with disabilities to perform the necessary input operations.

(1) Input method not solely reliant on visual confirmation

(2) Input method does not require the user to distinguish between colors

(3) Input method not solely reliant on auditory confirmation

(4) Input method suitable for users with limited mobility

(5) Input method compatible with the use of artificial limbs

(6) Input method not subject to time limits

(7) Input method does not require the user to speak

2. Functionality to enable utilization of output results regardless of disability

Where possible, the following functionality related to the output and display of information necessary for operation should be incorporated into telecommunications equipment to facilitate utilization by persons with limited visual and/or auditory capacity.

(1) Visual data can be utilized without need for visual confirmation

(2) Video images can be stopped if necessary

(3) Auditory data can be utilized without need for visual confirmation

3 Functionality to facilitate use of telecommunications equipment regardless of disability

(1) Input keys and buttons used for input/output operations are located in readily identifiable positions

(2) Basic communication settings can be entered in a single operation.

(3) During operation, the user has the option to revert to a default or optional status at any time.

(4) The process of connecting with the network and remote party can be represented on the display if required.

(5) Connection to at least one designated destination can be achieved via a single operation.

(6) Contact details such as telephone number or email address, once entered, remain available for subsequent reuse or storage in memory.

(7) A customizable user interface is provided.

(8) The user is able to select from several different input and output methods.

4. Connectivity with aids

Where the telecommunications equipment cannot be provided with the functionality described in 3 above, it should be designed to support connection to or usage in conjunction with common communication aids used by older persons and persons with disabilities.

5. Other considerations

1. Design, development and evaluation

Accessibility and connectivity should be evaluated at the design and development stages of telecommunications equipment, and the results of such evaluation should be incorporated into the design and development processes as efficiently as possible.

2. Specifications information and user manual

As far as possible, specifications information and user manuals for telecommunications equipment should be released into the public domain and made available in accessible form (such as on a website).

3. Maintaining accessibility and connectivity

Telecommunications equipment should continue provide the accessibility and connectivity functionality described in these Guidelines after updating.

8. About the Info-Communication Access Council

Info-Communication Access Council

Chairman   Tadao Saito, Emeritus Professor of Tokyo University

Acting Chairman   Yoshio Hayashi, Emeritus Professor of Keio University

Representative of Suppliers Subcommittee

Representative of Users Subcommittee

  Release of voluntary industry standards

(inaugurated November 19, 1998)

Suppliers Subcommittee

Chairman   Kenzo Ito
      Professor, Software
      Informatics Department,
      Iwate Prefectural University

Member groups
    Telecommunications Carriers
    Association (TCA)
    Telecom Service Association
    Telesa
    Association of Radio Industries
    and Businesses (ARIB)
    Communications and Information
    Network Association of Japan
    (CIAJ)

Investigating means of achieving the
accessibility standards outlined in the
Guidelines

Users Subcommittee

Chairman Takemasa Matsuo
    Managing Director, Japanese
    Council of Social Welfare

Member groups
    Japanese Federation of the Deaf
    All Japan Association of Hard of
    Hearing People
    Japan Federation of Disability Groups
    (Nissenren)
    Japan Federation of the Blind
    Japanese Society for Rehabilitation
    of Persons with Disabilities
    Japan Council on Disability (JD)
    Koto Senior Network Club

Coordinating proposals from member
groups

(inaugurated November 19, 1998)

Internet Accessibility Subcommittee

Chairman Yoshio Hayashi, Emeritus Professor of
      Keio University

Member groups
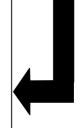
    Internet accessibility academics and consultants

    Academics from the Suppliers and Users
    Subcommittees

Developing internet (content) accessibility initiatives

(inaugurated September 4, 2000)

Coordination and Liaison Group

Chairman   Yoshio Hayashi, Emeritus Professor of
      Keio University

Member groups   Nominated representatives from
      other subcommittees

Investigating and coordinating proposals from all
subcommittees; reporting to the Supplier and User
Subcommittees

(inaugurated November 19, 1998)

Secretariat (Communications and Information Network Association of Japan)

**Ministry of Internal Affairs and Communications, Ministry of Health, Labour and Welfare,
Ministry of Economy, Trade and Industry (observer status)**

Secretariat to the Info-Communication Access Council: the Communication and Information Network Association of Japan (CIAJ)