

Title: Public Personal Handy-Phone System : General Description of Services

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List of contents:

1. General
 - 1.1 Objective of this document
 - 1.2 Structure of service document
2. Scope of current services for public PHS network
 - 2.1 General
 - 2.2 Basic services
 - 2.3 Supplementary services
 - 2.4 Roaming services
3. Future directions

Number of pages: 4

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1. General	1
1.1 Objectives of this document	1
1.2 Structure of service document.....	1
2. Scope of current services for public PHS network	1
2.1 General	1
2.2 Basic services	2
2.2.1 Objectives	2
2.2.2 General description and definition	2
2.3 Supplementary Services	2
2.3.1 Objectives	2
2.3.2 General description and definition	2
2.4 Roaming services	4
3. Future directions	4

1. General

1.1 Objectives of this document

Personal Handy-Phone System (PHS) can provide a variety of applications such as Public Digital Cordless Telephone, Wireless Local Loop, PBX Cordless, Home Cordless and Transceiver.

This documents describes outlines of the service specifications for the Public Digital Cordless Telephone.

1.2 Structure of service document

This sub-clause describes the general information about B-SVx.xx series documents of PHS MoU group. The current B-SVx.xx series documents are structured as follows.

B-SV0.00: General description of services

This documents includes the general information and outline of the services specifications.

B-SV1.00, B-SV2.00, B-SV2.10, B-SV2.20, B-SV2.30, B-SV2.40, B-SV2.50, B-SV2.60, B-SV2.70, B-SV5.00: Service descriptions

This documents includes the general information, definition of the services, the service specifications for public PHS network.

The B-IFx.xx series documents describes the protocol specifications for realizing the services in the B-SVx.xx series documents.

The B-IWx.xx series documents will describe the interworking rules between the signalling protocols which are used each side of the interworking function for the call related signalling or the call unrelated signalling.

2. Scope of current services for public PHS network

2.1 General

This sub-clause describes the current scope of services for the Public Digital Cordless Telephone.

A PHS user can communicate with the PHS/PSTN/ISDN/PLMN users. Every PHS user is assigned an unique identification number (PSN: Personal Station Number). The numbering plan should be followed by ITU-T Recommendation E.164 in order to enable the PHS user to interconnect with PSTNs/ISDNs/PLMNs. It depends on administrations for domestic numbering plan.

The current scope of services for the Public Digital Cordless Telephone are following:

- (1) Basic services
- (2) Supplementary services

(3) Roaming services.

2.2 Basic services

2.2.1 Objectives

The basic services for the Public Digital Cordless Telephone are intended to provide basic telecommunication capabilities to the PHS users.

2.2.2 General description and definition

The basic services for the Public Digital Cordless Telephone are classified into bearer services and teleservices. The bearer services provide circuit-mode 32kbit/s and 64kbit/s bearer capabilities between PSs. 32kbit/s bearer capabilities are speech, 3.1kHz audio, 32kbit/s unrestricted digital information transfer. 64kbit/s bearer capabilities are 64kbit/s unrestricted digital information transfer. The Public PS and ISDN terminal can communicate each other by using rate adaptation function in PHS network. The teleservices are provided by low & high layer information transfer capabilities, such as digital facsimile, personal computer, and TV conference.

These Teleservices for PHS are not currently specified(For Further Study).

2.3 Supplementary Services

2.3.1 Objectives

The supplementary services for the Public Digital Cordless Telephone are intended to provide profitable capabilities added to the basic services.

2.3.2 General description and definition

The current scope of supplementary services for the Public Digital Cordless Telephone are following:

(1) Calling User Identification Presentation

Calling User Identification Presentation (CUIP) supplementary service is a service to the called user which provides the calling user's number to the called user.

(2) Calling User Identification Restriction

Calling User Identification Restriction (CUIR) supplementary service is a service to the calling user which restricts the presentation of calling user's number and subaddress to the called user.

(3) Call forwarding

Call forwarding supplementary services are services to the PHS user which diverts incoming calls to another terminal.

The Call forwarding supplementary services comprise the following services:

- Call Forwarding Unconditional (CFU)
- Call Forwarding on PS Busy (CFB)
- Call Forwarding on No Reply (CFNRy)
- Call Forwarding on PS Not Reachable (CFNRc)

The Call Forwarding Unconditional (CFU) supplementary service permits a served user to have the network send all incoming calls, or just those associated with a specific basic service, addressed user's number to another number.

The Call Forwarding on PS Busy (CFB) supplementary service permits a served user to have the network send all incoming calls, or just those associated with a specific basic service, which meet PS busy and are addressed user's number to another number.

The Call Forwarding on No Reply (CFNRy) supplementary service permits a served user to have the network send all incoming calls, or just those associated with a specific basic service, which meet PS no reply and are addressed user's number to another number.

The Call Forwarding on PS Not Reachable (CFNRc) supplementary service permits a served user to have the network send all incoming calls, or just those associated with a specific basic service, which meet PS not reachable and are addressed user's number to another number.

(4) Call barring

Call barring services are supplementary services to the PHS user which bars the outgoing/incoming calls.

The call barring supplementary services comprise the following services:

- Barring of All Outgoing Calls (BAOC)
- Barring of Outgoing International Calls (BOIC)
- Barring of Outgoing international Calls except call to Home Country (BOIC-exHC)
- Barring of All Incoming Calls (BAIC)
- Barring of Incoming Calls on roaming outside home country (BIC-roam)

The Barring of All Outgoing Calls (BAOC) supplementary service permits a served user to have the network bar all outgoing calls.

The Barring of Outgoing International Calls (BOIC) supplementary service permits a served user to have the network bar outgoing international calls.

The Barring of Outgoing International Calls except call to Home Country (BOIC-exHC) supplementary service permits a served user to have the network bar outgoing international calls except home country.

The Barring of All Incoming Calls (BAIC) supplementary service permits a served user to have the network bar all incoming calls.

The Barring of Incoming Calls on Roaming outside Home Country (BIC-roam) supplementary service permits a served user to have the network bar incoming calls on roaming outside home country.

(5) DTMF Transmission

DTMF Transmission supplementary service is a service to the user which send control signal translated from DTMF to the communicating user.

(6) Handover

Handover supplementary service is a service to the PHS user which switches his communication path from a cell station to an adjacent cell station, when he moves from the cell station cover area to the adjacent cell station cover area.

(7) Subaddressing

Subaddressing supplementary service is a service to the PHS user which delivers subaddress to the called user for selecting one specific terminal or for invoking one specific process in the called user terminal.

(8) User scrambling

User scrambling supplementary service is a service to the PHS user which scrambles the information between the personal station and the network.

(9) PHS User-to-User Signalling

The PHS User-to-User Signalling (PHS-UUS) supplementary service is a service to allow a PHS user to send/receive a limit amount of information to/from another PHS user over the communication channel in association with a call to the PHS user.

2.4 Roaming services

2.4.1 Objectives

The PHS roaming services for the Public Digital Cordless Telephone are intended to permit PHS users to utilize basic services and supplementary services when they roam among the visited PHS networks.

2.4.2 General description and definition

The PHS roamers are permitted to use basic services and supplementary services in the visited networks.

PHS roaming services are provided by the combination of appropriate network capabilities in each visited network. Roaming services provided by one service provider may be different from those of another service provider. Also the provided services may be restricted by user conditions.

3. Future directions

There are some basic services and supplementary services as subject for further study.

(1) Bearer services:

- TBD

(2) Supplementary services:

- Multi-Numbering
- Connected User Identification Presentation
- Connected User Identification Restriction
- Malicious Call Trace
- Call Waiting
- Call Hold
- Multi-Party Call
- Three Party Call
- Closed User Group
- Advice of Charge: Charging Information
- TBD

(3) Roaming services:

- Roaming service between the public PHS network and the PLMN

- TBD