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History of Revised Versions

Version	Date	Outline
01	17 April 1996	Established
02	17 Dec. 1996	Document No. is changed. (Formerly IF0.00) Document title is changed. (Formerly General Description of Personal Handy-Phone System Interface Specifications) Clause 3 is changed.

Public Personal Handy-Phone System:
General Description of Interface Specifications

Contents

1. General

This chapter describes the general information and principles about B-IFx.xx series Interface specifications of Personal Handy-Phone System. The current B-IFx.xx series interface specifications are constructed with follows.

B-IF0.00 : Public Personal Handy-Phone System: General Description of Interface Specifications

This document includes the general information, typical network model and interface reference points.

B-IF1.00 : Public Personal Handy-Phone System: General Description of Interface Specifications between Personal Station and Public Cell Station (Common Air Interface)

This document includes the general information and the common principals of B-IF1.0X series.

B-IF1.01 : Specifications of Interface between Personal Station and Public Cell Station (Common Air Interface)

This document is based on ARIB Standard RCR STD-28.

B-IF2.00 : Public Personal Handy-Phone System: General Description of Interface Specifications between Public Cell Station and ISDN-based PHS Switching Center

This document includes the general information and the common principals of B-IF2.0x series.

B-IF2.01 : PHS Service Control Procedures
This document is based on ITU-T Recommendation Q.932.

B-IF2.02 : Layer 3 specification
This document is based on ITU-T Recommendation Q.931.

B-IF2.03 : Layer 2 specification
This document is based on ITU-T Recommendation Q.921.

B-IF2.04 : Layer 1 specification of Basic Rate Interface
This document is based on ITU-T Recommendation I.430.

B-IF2.05 : Layer 1 specification of Primary Rate Interfaces
This document is based on ITU-T Recommendation I.431.

B-IF2.06 : Digital Transmission System on Metallic Local Line for ISDN Basic Rate Access
This document is based on ITU-T Recommendation G.961.

Other B-IFx.xx series interface specification will be defined in near future.

You can directly read the target PHS specifications to select above, if you need specific information immediately.

2. Principles

All of PHS interface specification documents have following principles.

I) PHS networks are able to be applied any network topologies.
ii) PHS networks are able to be constructed from Multi-vendor equipment.
iii) Any operator can use the common one Network as PHS base network.
iv) Any operator can develop unique-supplementary services by oneself.
v) All of PHS interface specifications can protect each operator' subscriber profile.
vi) PHS interface specifications have capabilities for PHS network to connect any kind of current networks.
vii) PHS interface specifications can support the functional expansion of Switch, Database and PHS Public Cell Station.

3. Network Model and Reference Points

This clause indicates the typical PHS network model and reference points, PHS numbering plan. These explanations are in sub-clauses.

3.1. Network Model and Reference Points

Typical PHS network model and reference points are described in figure 1-1. Figure 1-1 indicates the over view of typical PHS network model, it's means that more detail network model is described as the part of network model in the General Description B-IFx.x0 of each interface defined document.

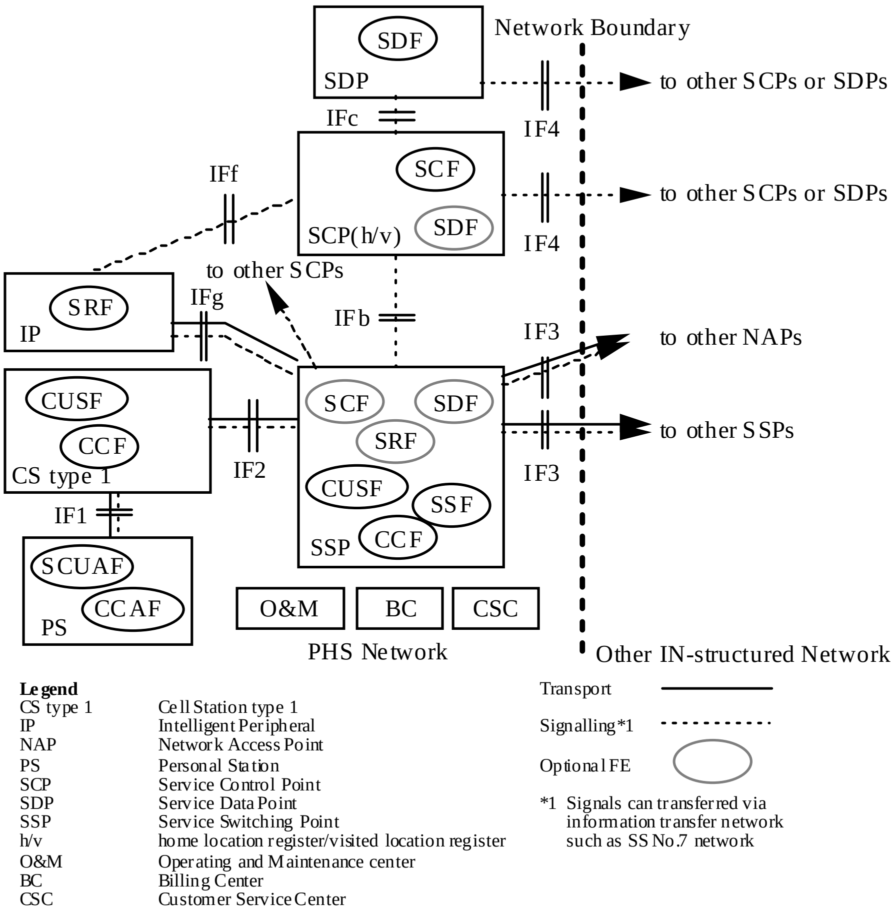

Figure 1-1/B-IF0.00 Typical PHS Network Model and Reference points

In Figure 1-1, each reference point is explained as follows.

IF 1 : PHS Common Air Interface

PHS uses the PHS common air interface. The specifications are described in B-IF1.00 document.

IF 2 : Public Cell Station - Network Interface

IF 2 is the reference point of interface between Public Cell Station and PHS Switching Network. The current IF 2 specification is specified as Interface between Public CS - ISDN. In this case, Network is Integrated Services Digital Network(ISDN). This interfaces are divided into 2 reference points. These reference points are "T" and "U" reference point. Basic Rate Interface and Primary Rate Interface are prepared for "T" reference point in accordance with access rate. This interface specification is described in B-IF2.0X specifications.

In the future, IF 2 will also include the other types, Non-ISDN interface, be defined in B-IF2.xx series interface specification documents.

IF 3: Network - Network Interface for Call Control

IF 3 is the reference point of the SSP-SSP (CCF-CCF) interface between Networks. In the current PHS network, ISUP of Signaling System No.7 is being used. The coming description of the specification will be ISUP. The other interface specifications are further study .

IF 4: Network - Network Interface for SCP Exchange

IF 4 is the reference point of the SCP/SDP-SCP/SDP (SCF-SDF or SDF-SDF) interface between Networks. In the current PHS network, INAP of Signaling System No.7 is being used. The coming description of the specification will be INAP. The other interface specifications are further study .

IFb, IFc, IFf, IFg: These interfaces are for further study.

Table 1-1/B-IF0.00 List of Reference Points on typical PHS networks

Reference Points	description
IF 1	PHS Common Air Interface between PS and CS
IF 2	Interface between Public C S and the PHS switching network
IF 3	The SSP-SSP (CCF-CCF) Interface between networks
IF 4	The SCP/SDP-SCP/SDP (SCF-SDF or SDF-SDF) Interface between networks

3.2. PHS Service Numbering Plan

PHS number is based on ITU-T Recommendation E.164. ITU-T Recommendation E.164 number structure is indicated in figure 1-2. General Description of Numbering Plan is in B-NW0.00 document.

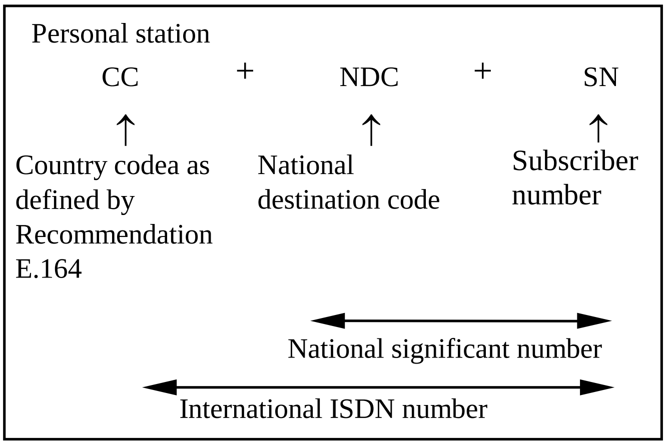

Figure 1-2/B-IF0.00 E.164 Number structure (source: ITU-T Recommendation E.164)

4. Further Study Items

4.1 Roaming

The Interface specification about roaming function will be described in IF 3 and IF 4 interface specification documents. General Description of Roaming is in B-SV1.00 document.

4.2. Supplementary Services

PHS supplementary services are specified for each operator can define fully and uniquely. The following items are decided for further study items. The other items will be set for further study.

i) Short Message Service
ii) Call Waiting
iii) Three Party Call

4.3. "V" reference point Interfaces

Further Study

4.4. Bearer service (64kbit/s unrestricted digital)

Further Study

4.5. Operation and Maintenance

Further Study

4.6. Billing

Further Study

4.7. Glossary

Further Study