

Title: Public Personal Handy-Phone System : Service Specifications of  
Roaming Service

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# PHS MoU Group

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**Public Personal Handy-Phone System: Service Specifications of Roaming Service**

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## **1 General**

### **1.1 Objective**

This document provides the service description for Personal Handy-Phone System (PHS) roaming.

This document describes inter-network and intra-network aspects related to PHS roaming service.

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.

### **1.2 Scope of this specification**

Following is the scope for this specification for the PHS roaming service.

- (1) To define basic PHS roaming services concerning the inter-network interface between home and visited networks.
- (2) To define basic services provided to PHS roamer in a visited network.
- (3) To define limitations on supplementary services in the visited network.

### **1.3 Definition and terminology**

The following terminology is used in this specification.

#### **1.3.1 Authentication**

Indicates network actions to verify a public PS.

#### **1.3.2 Call**

Indicates outgoing/incoming calls related to the public PS in roaming state.

#### **1.3.3 Mobility of public PS**

Indicates network capability to provide routing to the network visited by a public PS, based on the PHS number assigned to the terminal.

#### **1.3.4 PHS roaming**

Indicates outgoing/incoming calls when the public PS moves from the subscribed network to another network and from visited network to another visited network.

#### **1.3.5 PHS number**

Indicates a number to identify the PHS service and the public PS. The PHS number has the format CC - NDC - SN which is based on ITU-T Recommendation E.164. The NDC can identify the PHS number. The PHS number can be used by one or more networks.

### **1.3.6 Location information**

Indicates the information to identify the visited network, the information to route a call within the visited network, and the information to indicate the public PS is in roaming state.

### **1.3.7 PHS roaming number**

It is a number that the visited network assigns to the roaming public PS while it is in roam. PHS roaming number is based on ITU-T Recommendation E.164. The PHS roaming number is set in a message sent in the forward direction to initiate seizure of an outgoing circuit• (e.g., IAM in the case ISUP use)• when a call is routed from a home network to a visited network.

There are two case what the PHS roaming number indicates. In the case of roaming number assignment method No.1, the PHS roaming number indicates the information to identify the visited network. In the case of roaming number assignment method No.2, the PHS roaming number indicates the information to identify the visited network and the roaming public PS.

Following is the ways in which the PHS roaming number is used. In the case of roaming number assignment method No.1, The PHS roaming number is used only to route a call to visited network.

In the case of roaming number assignment method No. 2, The PHS roaming number is used to route a call to a visited network and identify the roaming PHS public PS.

For roaming number assignment method No.1, the PHS number must be transferred together with the PHS roaming number to the visited network.

### **1.3.8 PHS roaming service profile**

Indicates the service profile required for roaming defined in correspondence with the PHS number. It only defines information related to services provided for the public PS in roaming.

### **1.3.9 Home network**

Indicates the network with the contract to provide PHS service.

### **1.3.10 Visited network**

Indicates non-home network that is visited by public PS in roaming state.

## **2 Basic concept**

### **2.1 Roaming feature development scenario**

Though it is likely to PHS roaming service should be developed with a long-term perspective in

mind, pass through several phases largely influenced by changes in market needs and technology. The development of PHS roaming service begins with a basic PHS roaming capability set and proceeds to a much more complex scenario. This document mainly describes the definitions of PHS roaming features and procedures for PHS roaming based on IN CS2 in ITU-T recommendations.

The scenario described in this document shows an efficient way to provide PHS roaming service in a visited network. It transfers a necessary set of service profiles from the home network to the visited network to provide roaming service in the visited network.

## **2.2 Summary of PHS roaming features**

PHS roaming supports the features below.

### **2.2.1 Provided services**

The services provided while the PHS is in roaming state are outgoing/incoming calls on the circuit switched mode and providing supplementary services.

### **2.2.2 Roaming features**

#### **2.2.2.1 Basic service features**

- (1) Authentication
- (2) PHS roaming service profile copying on the first location registration
- (3) PHS roaming service profile additional copying
- (4) Inter-network location registration
- (5) Location registration within visited network
- (6) Deletion of service profile copied at the previously visited network
- (7) Confirmation of home network service profile
- (8) Synchronization of visited network service profile
- (9) Call origination(10) Call termination
- (11) Roaming number assignment

#### **2.2.2.2 Supplementary service features**

- (1) Calling User Identification Presentation•
- (2) Calling User Identification Restriction•
- (3) DTMF Transmission
- (4) Handover
- (5) Subaddressing
- (6) User scrambling

## **3 Definitions of PHS roaming features**

### **3.1 Roaming features**

#### **3.1.1 Basic service features**

Basic roaming features are indispensable to realize PHS roaming service. • Basic roaming features allow visited networks and home networks to use the following basic services to provide PHS roaming service.

#### **3.1.1.1 Authentication**

This feature allows a visited network to verify a public PS that has made access to the visited network by using information copied from the home network.

#### **3.1.1.2 PHS roaming service profile copying on the first location registration when the public PS requires the first location registration in the visited network**

This feature allows a visited network to copy service provision conditions information (PHS roaming service profile) from the home network. This information also includes authentication information.

#### **3.1.1.3 PHS roaming service profile additional copying**

This feature allows a visited network to copy additional authentication information from home network when the authentication information in the visited network is lacking.

#### **3.1.1.4 Inter-network location registration**

This feature allows a visited network to register the information to identify the visited network to the home network for routing terminating call of roaming public PS to visited network. This feature is used when the public PS requires the first location registration in the visited network. This feature updates the information for terminating call routing to visited network.

#### **3.1.1.5 Location registration within visited network**

This feature allows a visited network to register the information to route a call within the visited network at the same visited network, for routing incoming call to the roaming public PS.

#### **3.1.1.6 Deletion of service profile copied at the previously visited network**

This feature allows the home network to delete the PHS roaming service profile stored in a visited network. This procedure is carried out when the information to identify the visited network stored in the home network is changed, such as when the public PS moves to another visited network or home network.

#### **3.1.1.7 Synchronization of visited network service profile**

This feature allows the home network to reflect the change of PHS roaming service profile stored in the home network to a visited network. The reflection scheme is for further study.

#### **3.1.1.8 originationCall origination**

This feature allows a visited network to originate a call from a roaming public PS.

#### **3.1.1.9 terminationCall termination**

This feature routes a terminating call to a visited network by pre-registered location information stored in the home network. And it terminates the call to roaming public PS.

#### **3.1.1.10 Roaming number assignment**

This feature allows a home network to retrieve the PHS roaming number from a visited network. This feature is executed when a call to a roaming public PS originates. In this feature, the PHS roaming number described in 1.3.7 roaming number assignment No.2 is used.

### **3.1.2 Supplementary service feature**

This feature allows a visited network to provide supplementary service to roaming public PS. Following are the features available in visited networks.

#### **3.1.2.1 Calling User Identification Presentation**

This feature allows the PHS roamer to be notified of the number of the calling user.

#### **3.1.2.2 Calling User Identification Restriction**

This feature allows the PHS roamer in a visited network to restrict notification of his number to the called user.

#### **3.1.2.3 DTMF Transmission**

This feature transmits the Dch signal from the public PS to the network, which then converts the Dch signal to DTMF and sends it to the remote user.

#### **3.1.2.4 Handover**

This feature performs handover for roaming public PS. This feature supports the handover which is provided within a limited domain. Inter-network handover is for further study.

#### **3.1.2.5 Subaddressing**

The subaddressing supplementary service allows the called (served) user to expand his addressing capacity beyond the one given by the ISDN number.

#### **3.1.2.6 User scrambling**

Functions to perform scramble processing of the original signals to prevent tapping.

## **4 PHS Roaming Service Specifications**

## **4.1 Roaming Conditions**

### **4.1.1 Subscription**

The following must be considered for PHS user roaming subscriptions.

- (1) Special subscriptions may be needed for roaming.
- (2) Subscriptions for roaming may change for individual networks.
- (3) Subscription of transit network selection may be needed for call termination to roaming public PS.

### **4.1.2 Other Conditions**

- (1) Roaming service may be restricted by the network.  
(e.g., Networks without roaming contracts)
- (2) Roaming service may be restricted by network state.  
(e.g., Network congestion)

## **4.2 Security**

The PHS service is expected to provide the public PS with options in various authentication mechanisms. The same is expected when the PHS service performs authentication for the public PS in roaming state between the home network and the visited network. However, there is the following exception for public PS authentication when roaming service is provided.

- (1) The public PS in roaming state is authenticated by the visited network, using information copied from the home network to the visited network.

## **4.3 PHS Roaming Service Profile**

PHS roaming service profiles contain the information for provision of PHS roaming. The roaming service profiles must be protected against improper access.

### **4.3.1 Structure of PHS roaming Service Profile**

Information found in the PHS roaming service profile is classified into fixed information and variable information. PHS roaming service profile information is stored in the home network. A subset of the information is copied to visited networks when the public PS is in roaming state.

Fixed information cannot be changed by a visited network. But variable information can be modified by other networks.

#### **4.3.1.1 Fixed PHS Roaming Service Profile**

Fixed PHS roaming service profile information can be classified into the following categories.

- (1) Information retrievable by the visited network.
- (2) Information unretrievable by the visited network.

Following is a list of fixed retrievable information under the administration of the home network.

- (a) PHS Number
- (b) Basic service subscribed per PHS number basis
- (c) Subscribed authentication information

A copy of this information is stored in visited network when the public PS is roaming state.

Following is a list of fixed unretrievable information under the administration of the home network.

- (d) Basic service providing conditions such as outgoing call deactivation, etc.
- (e) Network with roaming service subscription
- (f) Subscribed security option
- (g) Information of transit network selection (option)

#### **4.3.1.2 Variable PHS Roaming Service Profile Modified by Other Networks**

Variable information in PHS roaming service profile has to do with mobility. This variable information may be modified by the visited network using the following procedure.

- (1) Mobility procedure to modify mobility-related parameters.

Following is a mobility-related parameter that can be modified by a visited network.

- (a) PHS roaming number
- (2) Other procedures to modify the information are for further study.

#### **4.3.2 Access to Home Network Stored PHS Roaming Service Profile by Visited Network**

Visited networks can access PHS roaming service profiles from home networks by using the following procedure.

- (1) PHS service profile copying on the first location registration

With this procedure, a visited network can copy the subset of the PHS roaming service profile when the public PS requires the first location registration in the visited network.

- (2) PHS roaming service profile additional copying

With this procedure, a visited network can copy the authentication information when the authentication information in the visited network is lacking.

- (3) Inter-network location registration

With this procedure, a visited network can register the information to identify the visited network with the home network, when the public PS requires the first location registration in visited network.

#### **4.3.3 Access to Visited Network Stored PHS Roaming Service Profile by Home Network**

The following procedure applies to access the PHS roaming service profile of a visited network from the home network.

- (1) Deletion of service profile copied at the previously visited network

With this procedure, the home network can delete the PHS roaming service profile stored in a visited network when the roaming public PS moves to other visited networks or to the home network.

- (2) Synchronization of visited network service profile

Under further study is the procedure to update a PHS roaming service profile stored in a visited network when the PHS roaming service profile stored in the home network is changed.

#### **4.3.4 Conditions when the copy of the PHS roaming service profile is stored in a visited network**

The PHS roaming service profile is copied from the home network to a visited network when the public PS requires the first location registration in the visited network. And it is deleted when the public PS leaves the visited network and requires the location registration in other networks. Only one copy of the PHS roaming service profile exists, except when the first location registration is in progress.

In exceptional procedure state, however, two or more copies of PHS roaming service profile may exist. If this occurs, then all copies of PHS roaming service profiles which deemed unnecessary should be deleted by operational or management procedure.

### **5• PHS roaming procedures**

This section provides general descriptions for various PHS roaming procedures to support the PHS roaming features described in Section 3 and the PHS roaming procedures from the viewpoint of the PHS roaming service providing network.

PHS roaming procedures are categorized into four different procedures.

- (1) Basic procedures

Basic PHS roaming procedures are executed before other PHS roaming procedures or in conjunction with other PHS roaming procedures. Following are basic PHS roaming procedures.

- (a) Authentication
- (b) PHS roaming service profile copying on the first location registration

- (c) PHS roaming service profile additional copying
- (d) Synchronization of visited network service profile

## (2) Mobility procedures

Mobility procedures are PHS roaming procedures related to mobility of public PS. Mobility procedures are registration procedures used to identify the location for call origination and termination, and do not include an actual call origination and termination. Following are the mobility procedures.

- (a) Inter-network location registration
- (b) Location registration within visited network
- (c) Deletion of service profile copied at the previously visited network

## (3) PHS roaming call control procedures

PHS roaming call control procedures are related to actual outgoing/incoming calls. Basic procedures and mobility procedures have to be executed before these procedures. Following are the PHS roaming call control procedures.

- ( a ) Call origination
  - (b) Call termination
  - (c) Roaming number assignment
- ## (4) Supplementary service procedures for PHS roaming
- (a) Calling User Identification Presentation
  - (b) Calling User Identification Restriction
  - (c) DTMF Transmission
  - (d) Handover
  - (e) Subaddressing
  - (f) User scrambling

## 5.1 Basic procedures

Basic procedures are always carried out in conjunction with other PHS roaming procedures (e.g., call control or mobility).

### 5.1.1 Authentication

The authentication procedure may be required before, or as part of, other PHS roaming procedures. This procedure is used to confirm the roaming public PS by using the authentication data set copied from the home network during PHS roaming service profile copying on the first location registration or PHS roaming service profile additional copying. There is no interworking procedure to other networks.

### 5.1.2 PHS roaming service profile copying on the first location registration

This procedure is used to copy the PHS roaming service profile from the home network to a visited network to check the service providing condition when the public PS requires the first location registration in visited network. It also contains authentication-related information which the visited network uses to verify public PS.

### **5.1.3 PHS roaming service profile additional copying**

A visited network can make additional copies of a PHS roaming service profile in order to verify a public PS by using this procedure.

### **5.1.4 Synchronization of visited network service profile**

Under further study is how the PHS roaming profile in a visited network should be modified if the PHS roaming service profile in the home network is changed.

## **5.2 Mobility procedure**

The mobility procedure is a PHS roaming procedure related to public PS mobility across the PHS network and enables call origination and termination when the public PS is in roaming state. The mobility procedure does not include actual outgoing/incoming calls.

### **5.2.1• Inter-network location registration**

This procedure provides registration of the information indicating where to allow PHS roaming termination at the home network from a visited network.

PHS roaming service profile copying on the first location registration and authentication procedures have to be done successfully before this procedure.

### **5.2.2 Location registration within a visited network**

This procedure provides registration of public PS the information to route a call within visited network at the same visited network, for routing incoming call to the roaming public PS. The roaming public PS initiates this procedure. This procedure is carried out only when the PHS service profile is copied, before the public PS require location registration in a visited network. The authentication of the basic process must be completed before this procedure.

### **5.2.3 Deletion of service profile copied at the previously visited network**

The deletion of service profile copied at the previously visited network procedure deletes the PHS roaming service profile which is transferred from the home network to a visited network.

## **5.3 PHS roaming call control procedures**

PHS roaming call control procedures are related to call origination and termination.

### **5.3.1 Call origination**

This procedure is executed by a visited network based on the information received from the home network, and is used to originate a call from a roaming public PS.

PHS roaming service profile copying on the first location registration and inter-network location registration procedures have to be done successfully before this procedure. Inter-network related procedures do not exist in this procedure.

A call can not be made if a PHS roaming service profile is not copied to a visited network.

### **5.3.2 Call termination**

This procedure is executed by a visited network based on the information received from the home network, and is used to terminate a call to a roaming public PS. When the transit network selection option is applied, the home network shall connect to the visited network through the selected transit networks. PHS roaming service profile copying on the first location registration and inter-network location registration procedures have to be done successfully before this procedure.

Calls are routed to the home network first, then to the visited network, and are finally terminated to the public PS in roaming. Re-direction is possible if home and originate networks have the capabilities. When it routes a call to a visited network, a message sent in the forward direction to initiate seizure of an outgoing circuit• (e.g., IAM in the case ISUP use) should include information to route the call to visited network and identify the roaming public PS in the visited network. There are two cases for sending above two pieces of information. In the case of roaming number assignment method No.1, the PHS roaming number is used for the former information and the PHS number is used for the latter information. In this case, inter-network related procedures do not exist. In the case of roaming number assignment method No.2, the PHS roaming number should include both pieces of information. In this case, inter-network query for the PHS roaming number to a visited network, that is roaming number assignment procedure, exists call by call.

If the PHS roaming service profile is not copied in the visited network, the network disconnects the call without termination.

#### **5.3.2.1 Roaming number assignment**

The home network obtains the PHS roaming number, that includes both information to route the call to visited network and identify the roaming public PS in the visited network, from the visited network using this procedure. This procedure is initiated by the home network when a call to the roaming public PS is routed to the home network. This procedure is performed only in the case of roaming number assignment method No.2.

## **5.4 PHS roaming supplementary service procedure**

### **5.4.1 Calling User Identification Presentation**

This feature allows the PHS roamer in the visited network to be notified of the numbers of calling user. The ability to transfer the calling number is necessary for transit networks that

relay the call. The provision condition of this service in a visited network depends on the result of an agreement between the home network and a visited network. The detailed information is described in an APPENDIX A.

#### **5.4.2 Calling User Identification Restriction**

This feature allows the PHS roamer in a visited network to restrict notification of his number to the called user. The provision condition of this service in a visited network depends on the result of an agreement between the home network and a visited network. The detailed information is described in an APPENDIX A.

#### **5.4.3 DTMF Transmission**

This feature transmits the Dch signal from the public PS to the network, which then converts the Dch signal to DTMF and sends it to the remote user.

#### **5.4.4 Handover**

This procedure is used for the public PS in roaming state to perform handover within a visited network. Handover should be provided under the following conditions.

- (1) Handover is provided within a limited domain.
- (2) The number of handover executions depends on the number of sets of authentic information.

Originating or terminating procedures have to be finished successfully. Inter-network related procedures do not exist in this procedure.

#### **5.4.5 Subaddressing**

This feature allows the terminator in a visited network to expand his address number. The ability to transfer the subaddressing is necessary for networks that relay the call. The provision condition of this service in a visited network depends on the result of an agreement between the home network and a visited network. The detailed information is described in an APPENDIX A.

#### **5.4.6 User scrambling**

This feature provides simple scrambling between the public PS and the cell station in a visited network.

## Appendix A

### Supplementary Service Providing Conditions for a PHS Roamer

#### 1. Introduction

This Appendix A illustrates the combination patterns of the service providing conditions for a visited network user and a home network user when Calling User Identification Presentation (CUIP), Calling User Identification Restriction (CUIR) , Subaddressing are provided and show several points to consider in supplementary services provision for a PHS roamer.

#### 2. Supplementary Service Providing Conditions for a User

Table A-1/B-SV5.00 shows the MoU Service Description of the service providing conditions for a user when CUIP, CUIR, Subaddressing are provided.

**Table A-1/B-SV5.00 Supplementary Service Providing Conditions**

CUIP	<p>CUIP is a supplementary service to the called user which provides the calling user's PHS-number, possibly with subaddressing information, to the called user.</p> <p>CUIP may be provided on a subscription basis or be generally available.</p>						
CUIR	<p>CUIR is a supplementary service offered to the calling party to restrict presentation of the calling user's PHS-number and subaddress to the called user.</p> <p>CUIR can be provided on a subscription bases or be generally available.</p> <p>As a network provider option, CUIR can be offered with several subscription options.</p> <p>The options apply separately to each PHS number. Subscription options are summarized below:</p>						
CUIR	<p>CUIR is a supplementary service offered to the calling party to restrict presentation of the calling user's PHS-number and subaddressing to the called user.</p> <p>CUIR can be provided on a subscription bases or be generally available.</p> <p>As a network provider option, CUIR can be offered with several subscription options.</p> <p>The options apply separately to each PHS number. Subscription options are summarized below:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: center;">Subscription option</th> <th style="text-align: center;">Values</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">CUIR mode</td> <td>Permanent(active for all calls) Temporary(specified by user per call)</td> </tr> <tr> <td style="text-align: center;">Default (only for temporary mode)</td> <td>Presentation restricted Presentation not restricted</td> </tr> </tbody> </table>	Subscription option	Values	CUIR mode	Permanent(active for all calls) Temporary(specified by user per call)	Default (only for temporary mode)	Presentation restricted Presentation not restricted
Subscription option	Values						
CUIR mode	Permanent(active for all calls) Temporary(specified by user per call)						
Default (only for temporary mode)	Presentation restricted Presentation not restricted						

Subaddressing	<p>For calling user, provision shall be without any prior arrangement with the service provider.</p> <p>For the called user, provision may be general without any prior arrangement or by prior arrangement with the service provider.</p>
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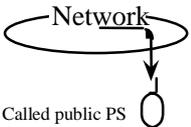
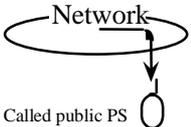
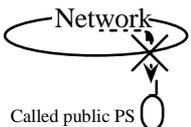
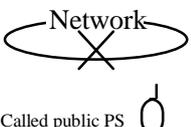
### 3. Supplementary Service Providing Conditions for a PHS Roamer

Supplementary service providing conditions in roaming state depends on the providing conditions both in the home network and in the visited network. The combination patterns where the service class or the service attribute is different in roaming state are extracted and several points to consider are shown.

#### 3.1 Calling User Identification Presentation (CUIP)

Service providing conditions for a PHS roamer can be classified into four categories as shown in Table A-2/B-SV5.00 dependent on providing conditions for CUIP.

**Table A-2/B-SV5.00 CUIP Provision**

Category	Network Capability	Contract Requirement	Contract with network	Service Provision
I	Service provision is capable	No contract is required	—	
II		Contract is required	Yes	
III			No	
IV	Service provision is incapable	—	—	

CUIP Providing Conditions for a PHS roamer can be classified into 16 patterns as shown in Table A-3/B-SV5.00 dependent on the combination of 4 categories each in the home network and in the visited network.

**Table A-3/B-SV5.00 CUIP providing conditions pattern**

Home Network \ Visited Network		Category			
		I	II	III	IV
Category	I	*1		*2	
	II				
	III	*2		*1	
	IV				

\*1  Same service class for a PHS roamer in the home network and in the visited

\*2  Different service class for a PHS roamer in the home network and in the visited

In the pattern of different service class for a PHS roamer in the visited network and in the home network, special consideration may be needed.

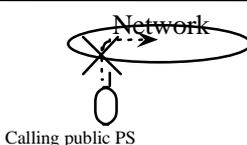
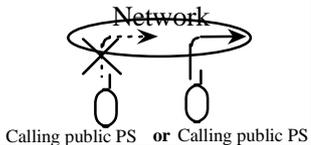
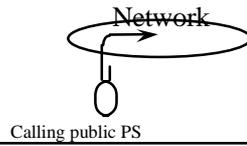
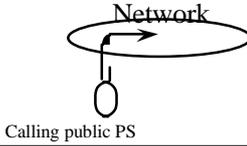
Consideration

- (1) Notification of the service class difference to a PHS roamer.
- (2) Previous contract between the home network and the visited network to avoid service class difference.

**3.2 Calling User Identification Restriction (CUIR)**

Service providing conditions for a PHS roamer can be classified into four categories as shown in Table A-4/B-SV5.00 dependent on providing conditions for CUIR.

**Table A-4/B-SV5.00 CUIR provision**

Category	Network Capability	Contract Requirement	Contract with network	Service Provision
I	Service provision is capable	No contract is required	—	
II		Contract is required	Yes	
III			No	
IV	Service provision is incapable	—	—	

CUIR Providing Conditions for a PHS roamer can be classified into 16 patterns as shown in Table A-5/B-SV5.00 dependent on the combination of 4 categories each in the home network and in the visited network.

**Table A-5/B-SV5.00 CUIR providing conditions pattern**

		Visited Network		Category			
		I	II	III	IV	IV	IV
Category	Ir	*1	*3	*2			
	II						
	III	*2		*1			
	IV						

\*1  Same service class for a roamer in the home network and in the visited network.

\*2  Different service class for a roamer in the home network and in the visited network.

\*3  Different service class for a roamer in the home network and in the visited network dependent on the subscription mode and the default value.

In the pattern of different service class for a PHS roamer in the visited network and in the home network, special consideration may be needed.

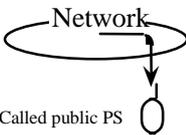
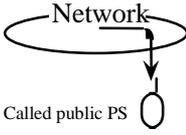
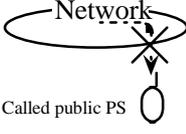
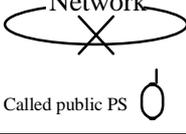
Consideration

- (1) Notification of the service class difference to a PHS roamer.
- (2) Previous contract between the home network and the visited network to avoid service class difference.

**3.3•Subaddressing**

A Calling user requires no contracts for this service provision. Service providing conditions for a PHS roamer can be classified into four categories as shown in Table A-6/B-SV5.00 dependent on providing conditions for a called user.

**Table A-6/B-SV5.00 Subaddressing Provision**

Category	Network Capability	Contract Requirement	Contract with network	Service Provision
I	Service provision is capable	No contract is required	_____	
II		Contract is required	Yes	
III			No	
IV	Service provision is incapable	_____	_____	

Subaddressing Providing Conditions for a PHS roamer can be classified into 16 patterns as shown in Table A-7/B-SV5.00 dependent on the combination of 4 categories each in the home network and in the visited network.

**Table A-7/B-SV5.00 Subaddressing providing conditions pattern**

Home Network \ Visited Network		Category			
		I	II	III	IV
Category	I	*1		*2	
	II				
	III	*2		*1	
	IV				

\*1  Same service class for a roamer in the home network and in the visited network.

\*2  Different service class for a roamer in the home network and in the visited network.

In the pattern of different service class for a PHS roamer in the visited network and in the home network, special consideration may be needed.

Consideration

- (1) Notification of the service class difference to a PHS roamer.
- (2) Previous contract between the home network and the visited network to avoid service class difference.