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# **ND1203:2000/05**

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**PNO-ISC/SER/003**

**Geographic Number Portability**

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**PNO-ISC SERVICE DESCRIPTION NUMBER 003**

**GEOGRAPHIC NUMBER PORTABILITY**

NETWORK INTEROPERABILITY CONSULTATIVE COMMITTEE  
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## **0.2 Normative information**

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## 0.4 History

Revision	Date of Issue	Updated By	Description
Issue 1	May 2000	Simon Sporton	First published version

## 0.5 Issue control

PAGE	ISSUE	DATE
All	Issue 1	May 2000

## 0.6 References

- [1] "Outline Functional Specification for Number Portability", OFTEL, 11 February 1994, Draft Issue 3.
- [2] "Cost-Benefit Analysis of Number Portability", OFTEL, January 1994.
- [3] "Numbering Conventions And Specified Numbering Schemes", OFTEL, March 1994.
- [4] ETSI Number Portability Architectures NA 10064
- [5] End-to-End Process Manual for Geographic Number Portability

## 0.7 Glossary of terms

### 0.7.1 Definitions

Call Duration	The time, measured in seconds ( $\pm 0.5$ second) of a call from the time that the call is answered (CSA received by the recording network) to the time the call is cleared down (first forward release or clear message received by the recording network).
Call Record	A call record is a record of the characteristics of a call including the date and time of origination, call duration, and called number.
Call Record Processing	Call record processing takes new call records and uses them to debit and credit customer accounts.
Donor Network	The Network from which the number has been transferred.
Network	The telecommunications system operated by the licensed entity under the terms of the OFTEL licence.
Operator	The licensed entity as defined by the OFTEL Licence.
Recipient Network	The Network which has gained the ported number.
Third Party	An Operator involved in carrying a 'ported' call between Donor Network and Recipient Network, but who is not either Donor nor Recipient Network.

### 0.7.2 Abbreviations

CLI	Calling Line Identity
CPE	Customer Premise Equipment
DDI	Direct Dialling In

DN	Directory Number
ENPTF	ETSI Number Portability Task Force
IN	Intelligent Network
ISDN	Integrated Services Digital Network
NAC	Numbering Area Code
NSM	Numbering Scheme Manager
OFTEL	Office of TELEcommunications
PBX	Private Branch Exchange (CPE)
PNO-ISC	Public Network Operators Interconnect Switching Committee
POC	Point Of Connect
POTS	Plain Old Telephony Service
QoR	Query on Release
SCP	Service Control Point
SSP	Service Switching Point

## 0.8 Scope

GNP, as defined in the Number Portability Functional Specification as issued by OFTEL from time to time, is the function whereby a customer may transfer provision of his telecommunications service to another licensed operator, without change of E.164 number (telephone number).

The GNP function shall be made available between pairs of operators within a defined area in which they are both licensed to serve.

GNP as addressed in this document is restricted to fixed telecommunications services with geographically significant E.164 numbers. All types of numbers, e.g. including Centrex and DDI number ranges are encompassed by this Service Description. However, GNP is defined as NUMBER and not Service or Feature Portability.

Whenever a ported number is relinquished for whatever reason, the number shall be returned to the Donor Network.

This document is the Service Description for Geographic Number Portability (GNP) as deployed and for future deployment within the UK. It is not intended as a definition or deployment guide, as these are areas in which each operator may choose their own implementation that conforms to all the requirements of this Service Description.

This Document presents the requirements for the call control functionality necessary to support GNP.

Operation and Maintenance aspects of GNP are described in the End-to-End Process Manual [5].

Specifications of support for GNP in the various interconnect signalling systems are provided by the PNO-ISC.

## 1 GENERAL GNP CONSIDERATIONS

### 1.1 Requirements

#### 1.1.1 General Requirements

GNP implementations adopted by one Operator shall not affect any other operator's implementation.

The means by which the Routeing Number is determined is outside the scope of this document and is left to the individual operators. However, it is anticipated that this will be accomplished by using either:

- The data decoding capabilities of the individual switches (onward routeing)
- The result of a query to a database.

Regardless of the individual method used to achieve portability, when a number is ported from one operator to another, the operators will be required to be able to pass the following information across the POC:

- Called Directory Number (Full National Number)
- Destination Information (Routeing Number Prefix)

If available and upon request, the Operators will also be required to provide the following additional information across the POC:

- Calling Directory Number (The original calling party's CLI)
- Malicious Call Intercept
- CLI Display Restrictions

The Routeing Numbers used will not be treated as Routeing Numbers if dialled by customers. Routeing Numbers are codes which uniquely identify the recipient exchange. The structure of the Routeing Numbers and their allocation are subject to control by the UK Number Plan Administrators (Currently OFTEL).

#### 1.1.2 Requirements of Networks

All network operators wishing to port numbers must be able to fulfil all the requirements of both the Donor Network and the Recipient Network, as set out below. That is, a reciprocal service must be possible, though it need not be technically symmetrical nor be implemented simultaneously in each direction.

The CLI Code of Practise will be adhered to. That is, calls transferred across the POC from the Donor Network to the Recipient Network shall have the Calling Line Identity (CLI) set to the originating caller, where possible, or to set to the 'Number Unavailable' setting if not. The CLI must not be transferred unless the status of Presentation Restriction is maintained. Transmission of the CLI and associated information shall not be impaired by the implementation of GNP.

Calls transferred from the Donor Network to the Recipient Network will use any appropriate and feasible routeing which avoids undue post dialling delay.

To avoid misrouteing, in particular circular routeing, networks should not modify or remove the Routeing Number other than at the recipient exchange. If a call containing a Routeing Number cannot be completed the appropriate failure indications shall be returned.

A model comprising four network roles is used to describe GNP functionality. The network roles in the functional model are:

**the Originating Network** -the network where the call is originated from;

**the Donor Network** - the network to which the number range has been allocated;

**Transit Network(s)** - a network that carries calls between other networks;

**the Recipient Network** - the network where a number is located after being ported.

A network may perform the functions of one or more network roles, with the exception that the roles of Donor and Recipient Network must be performed by different networks.

### 1.1.3 Requirements of Originating Networks

Unless the Originating Network is carrying out any GNP functions, there are no specific requirements imposed by GNP.

### 1.1.4 Requirements of Donor Networks

Calls originating in the Donor Network and calls received by the Donor Network from other networks which are destined for the ported number shall be passed to the Recipient Network over one or more pre-determined POC.

\*\*\* This assumes Onward Routeing \*\*\*

The Donor Network operator will maintain an administrative record of numbers ported and thereby ensure that any such number is not reallocated to another customer of the Donor Network operator unless and until the number is relinquished.

### 1.1.5 Requirements of Transit Networks

Any exchange that has a call presented to it with a Routeing Number shall route the call based on that number.

### 1.1.6 Requirements of Recipient Networks

The Recipient Network will perform the call termination functions.

The Recipient Network will ensure that all calls for the ported number originating in the Terminating Local Exchange shall be directly connected without being presented over a POC to the Donor Network, unless agreed with the Donor Network and appropriate means of separately accounting for such calls being in place.

All calls originated by the ported number shall have the Calling Line Identity set to that number and not to any additional number that may be being used for completing incoming calls.

The Recipient Network operator will keep operators informed of any change in the circumstances of the service provided to the ported number that may impact affected Network's ability to transfer calls effectively between the two networks. This includes, *inter alia*: 1) transfer of the number to another exchange in the Recipient Network, 2) change in the size of circuit group e.g. from single line to PBX.

## 1.2 GNP Functions

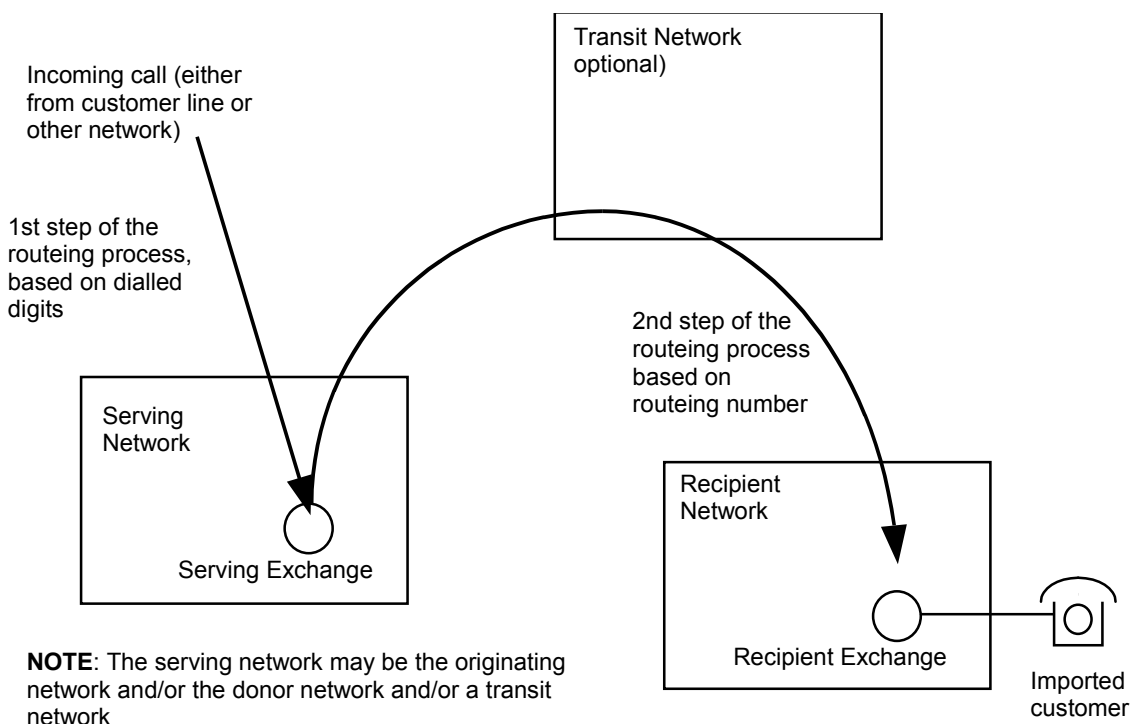


Figure 1 – Conceptual Framework for calls to a ported number

The following functions are performed:

**1.2.1 Call Trap Function**

The function whereby a mechanism is employed to determine whether a number may have been ported (hence determining whether a Database Query Function is required).

**1.2.2 Routeing Number Determination Function**

The function whereby a database is accessed in order to ascertain whether a number is ported, and if it is, a Routeing Number is obtained that is subsequently used to route the call to a destination entity. (The database could form part of an IN implementation, could be embedded within the switch, or could be some form of other off-switch database.)

**1.2.3 Routeing Number Addition Function**

The function which identifies a recipient and adds the appropriate routeing number.

## 2 SOLUTIONS FOR GEOGRAPHIC NUMBER PORTABILITY

### 2.1 Overview of GNP Solutions

Within the UK, three generations of GNP solutions are defined. This is to allow cost effective deployment given various levels of penetration of ported numbers.

A guiding principle is that GNP solutions are fully compatible so as to facilitate migration and phased introduction by operators.

The three generations of solution are:

- short term: Onward Routeing
- medium term: Backward RN Indication (“Call Dropback”)  
or Backward ‘ported’ Indication (“Query on Release”)
- long term: All Call Query

The short term solution has been designed with the intention of allowing rapid implementation, and has been widely deployed. It is the only fully specified solution.

The long term solution is expected to be cost effective only when a large proportion of numbers are ported. No evolution beyond the long term solution is planned.

Given the period of time before the long term solution is expected to be cost effective, it is appropriate to identify a medium term solution to alleviate the majority of the inefficient routeing. Two possible medium term solutions are described here. One (or potentially both) of these solutions will be abandoned at a future date.

In all solutions the only mandatory requirements relate to information passed across network boundaries. Actions within a network are operator specific and are not subject to any constraints, provided the interconnect requirements are met. To aid clarity of explanation, typical call routeing scenarios within networks are used when describing solutions. However, this should not be taken to imply a preferred network implementation.

### 2.2 Short Term: Onward Routeing

The short term GNP solution is an Onward Routeing type solution, with an enhancement to avoid inefficient routeing for calls originating in the recipient exchange.

With the exception of calls originating in the recipient exchange, calls are routed on the basis of the dialled number to the donor network. There the routeing number is determined and added to the call details. The call is then routed onwards on the basis of the routeing number to the recipient network.

In determining and adding the routeing number the characteristics of the call are not to be modified. For this reason, call forwarding in the donor exchange is not a suitable mechanism for achieving these functions. Preferable is digit manipulation during digit analysis in the donor exchange. Hence, this solution has also been referred to as the data decode solution. However, donor operators are free to choose the mechanism used to determine and add the routeing number within their network.

For calls originating in the recipient exchange the call is to be routed to the called line without the call leaving the recipient network. This does not apply to calls originating elsewhere in the recipient network, even if those calls transit through the recipient exchange. (However, a recipient is free to choose to so route such calls.)

The mapping of GNP functions to networks for the onward routeing solution is as follows:

GNP Function	Performing Network
Call Trap Function	Donor Network
Routeing Number Determination	Donor Network
Routeing Number Addition	Donor Network

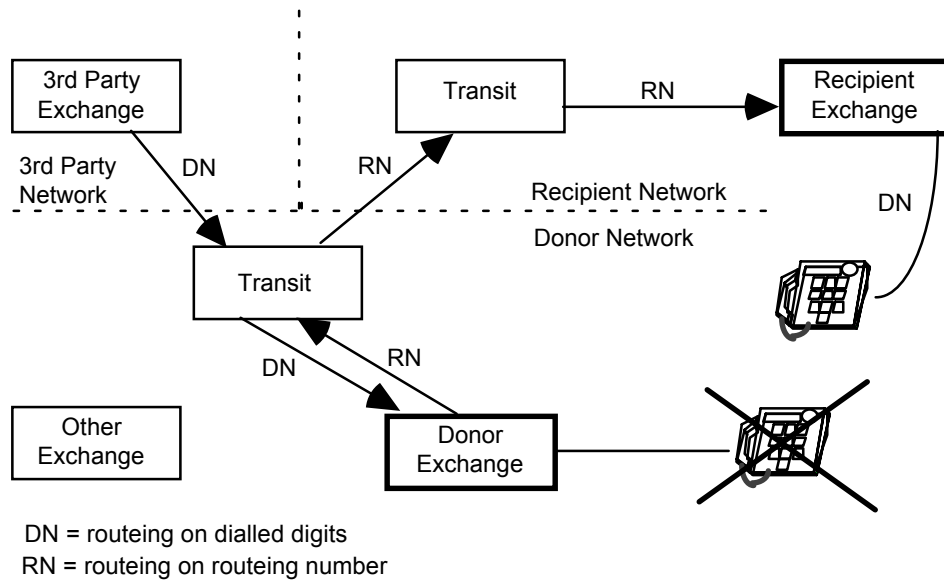
**Table 1** – Onward Routeing function mapping, call not originated in recipient exchange

GNP Function	Performing Network
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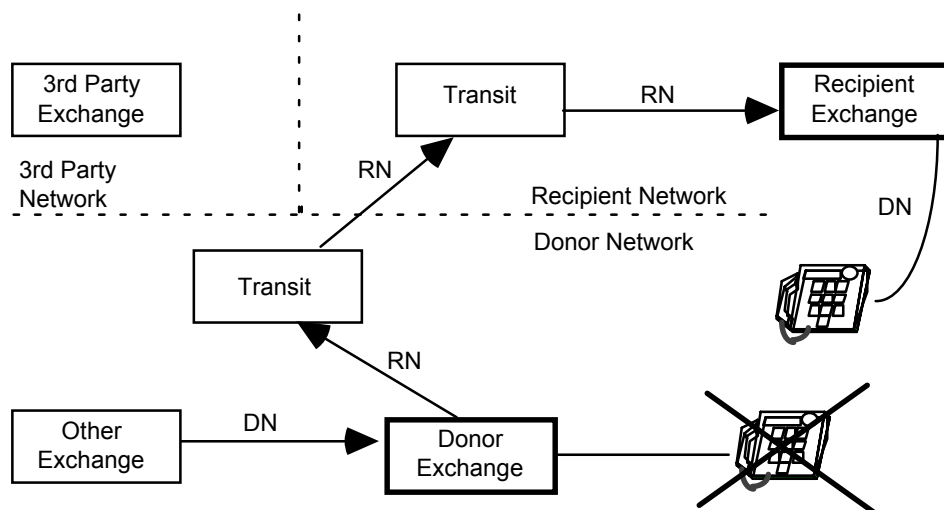
Call Trap Function	Recipient Network
Routing Number Determination	Recipient Network
Routing Number Addition	Recipient Network

**Table 2 – Onward Routeing function mapping, call originated in recipient exchange**

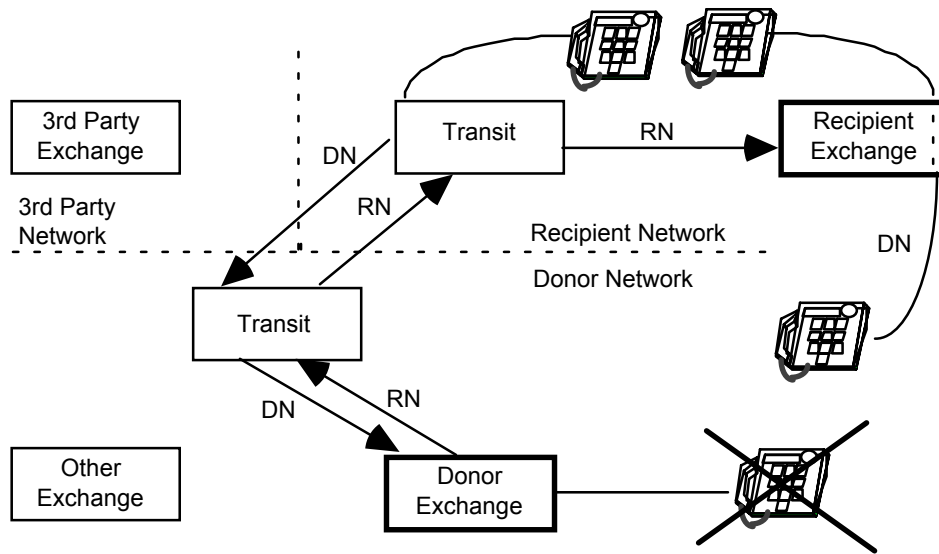
Typical call flows are illustrated below. These are representative call flows to aid understanding only. In practise, for example, transit exchanges may not be present, or dropback may be used to avoid inefficient routing. Also, a network may determine and add the routing number at a location other than the donor exchange (for example using a database inquiry at an interconnect switch).



**Figure 2 – Onward Routeing, call originates in 3rd party network**



**Figure 3 - Onward Routeing, call originates in donor network**



**Figure 4 – Onward Routeing, call originates in recipient network**

The Onward Routeing solution was designed with the objective of allowing rapid implementation and deployment. It was not designed with the intention of allowing particularly efficient call routing. Even where the donor operator implements some form of call dropback to limit the degree of tromboning within the donor network, significant levels of traffic may trombone via the donor network from OLOs.

For this reason, evolution beyond the short term solution may be desirable.

### 2.3 Medium Term: Call Dropback

In the Call Dropback medium term solution the routing number is determined by the donor network but is added to the call details by a previous network, usually the originating network.

**NOTE:** The term 'call dropback' is used to label the solution; use of the term does not imply any preferred implementation

All calls are routed on the basis of the dialled number to the donor network. There the routing number is determined. Call legs are then released with the routing number being returned in the process. A previous network, generally the originating network, adds the routing number to the call details and the call is then routed onwards on the basis of the routing number to the recipient network.

A mechanism must be available to allow a network to make a decision whether to dropback a call leg into a previous network, or whether to route the call onwards using the routing number.

This may be achieved on a static basis, for example where a network has information on the dropback capabilities of previous networks, or on a per call basis, for example as indicated by a parameter in a forward call setup message.

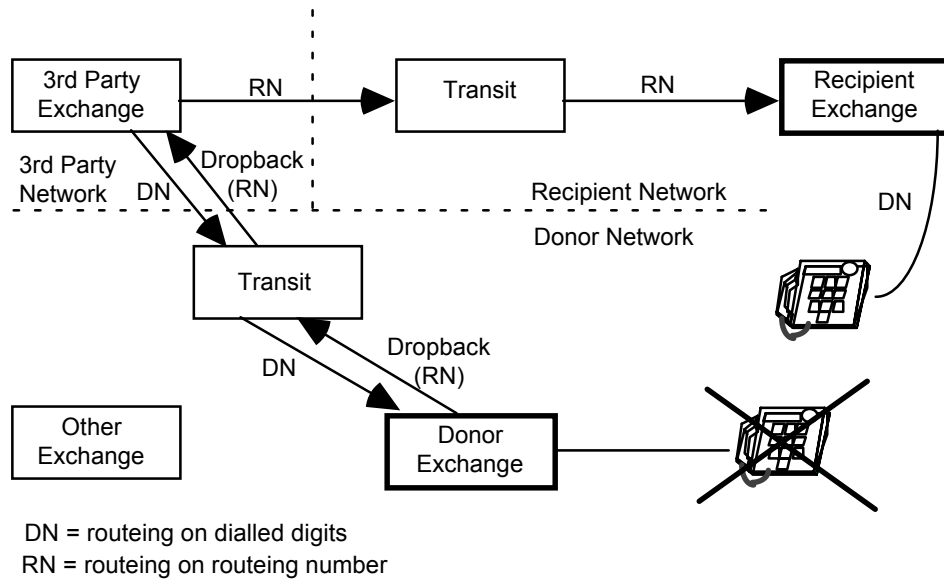
The mapping of GNP functions to networks for the call dropback solution is as follows:

GNP Function	Performing Network
Function Function	Donor Network
Routing Number Determination	Donor Network
Routing Number Addition	Originating Network (note)

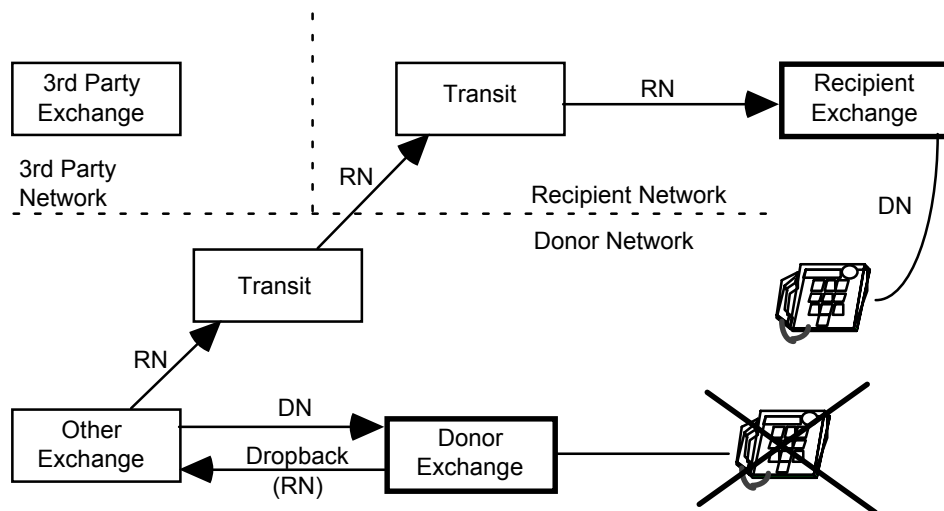
**Table 3 – Call Dropback function mapping**

**NOTE:** This function is typically performed by the originating network, but may be performed by any previous network or the donor network.

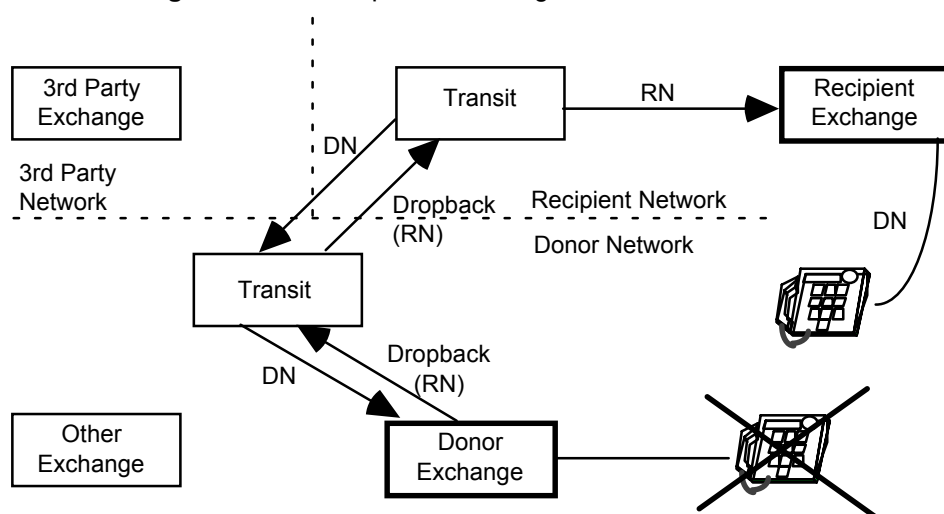
Typical call flows are illustrated below. These are representative call flows to aid understanding only.



**Figure 4 – Call Dropback, call originates in 3rd party network**



**Figure 5 – Call Dropback, call originates in donor network**



**Figure 6 – Call Dropback, call originates in recipient network**

**Note:** It has been assumed that all calls are initially routed to the donor network, including those calls which originate in the recipient exchange.

### 2.3.1 Advantages of Call Dropback

Call Dropback (potentially) optimises call routing.

Circuits are not held in the donor network for the call duration.

A natural development from the short term onward routing.

The porting process established for onward routing continues to be largely applicable: the porting process for an individual number involves only donor and recipient operators (although other operators must be aware of how to route routing numbers).

### 2.3.2 Disadvantages of Call Dropback

Post dial delay to ported numbers is larger than post dial delay to non-ported numbers.

The donor network is involved in routing calls to ported numbers, and must maintain data for each ported number.

Principles of interconnect charges for calls which utilise dropback are not understood.

The migration from call dropback solution to the long term all call query solution is involved.

## 2.4 Medium Term: Query on Release

In the Query on Release medium term solution the fact that a number is no longer hosted by the donor network is detected by the donor network. The determination and addition of the routing number is performed by a previous network, usually the originating network.

**NOTE:** The term 'query on release' is used as a label for the solution; use of the term does not imply any preferred implementation.

All calls are routed on the basis of the dialled number to the donor network. The donor network determines that it no longer hosts the ported number and the call is released. Two variants exist: either the release indicates 'spare number', or the release indicates 'ported number'. Call legs are then released.

A previous network, generally the originating network, then determines the routing number, typically by referring to a database. The routing number is added to the call details and the call is then routed onwards on the basis of the routing number to the recipient network.

A mechanism must be available to allow a network to make a decision whether to release a call leg into a previous network, or whether to determine and add the routing number.

This may be achieved on a static basis, for example where a network has information on the database query capabilities of previous networks, or on a per call basis, for example as indicated by a parameter in a forward call setup message.

The determination of routing number will involve a query to a database. Since the dialled number may potentially be any UK geographic number the database will contain a large number of numbers, and hence it is expected that the database will be held external to any exchange. For instance, the database may be held in an SCP and accessed using IN mechanisms. However, the actual implementation is a network specific matter.

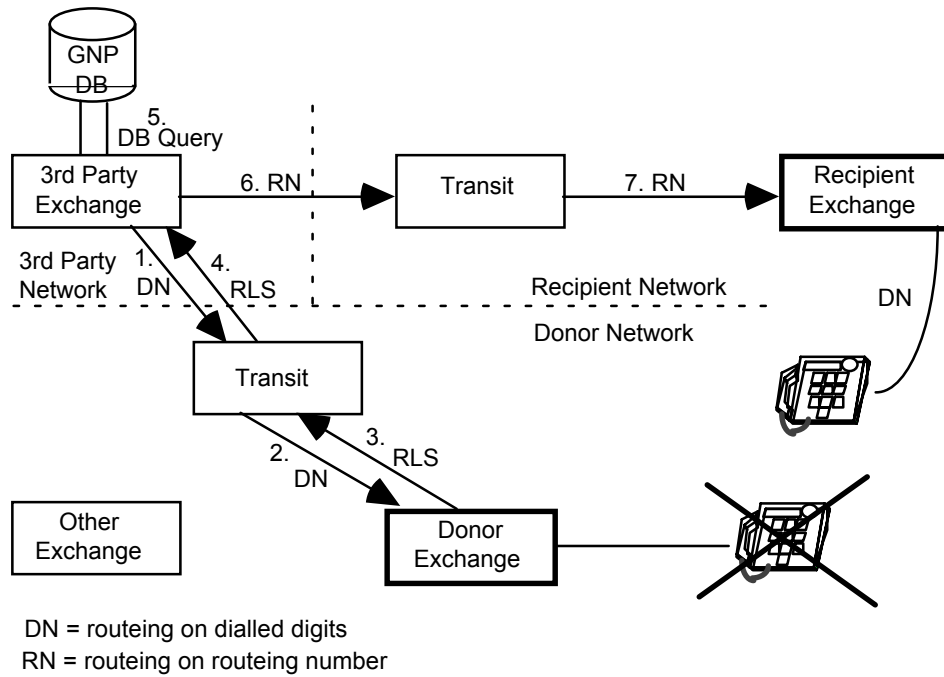
The mapping of GNP functions to networks for the query on release solution is as follows:

GNP Function	Performing Network
Call Trap Function	Donor Network
Routing Number Determination	Originating Network*
Routing Number Addition	Originating Network*

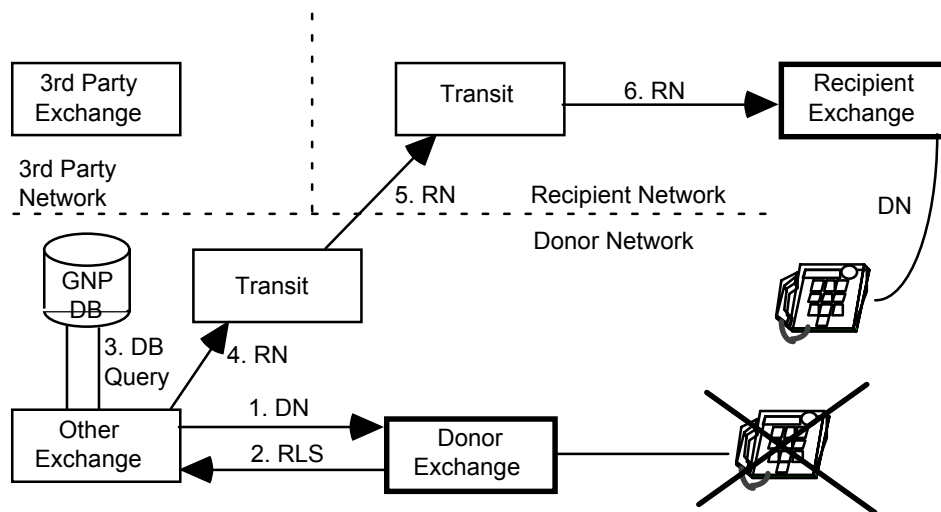
**Table 4 – Call Dropback function mapping**

**NOTE:** This function is typically performed by the originating network, but may be performed by any previous network or the donor network.

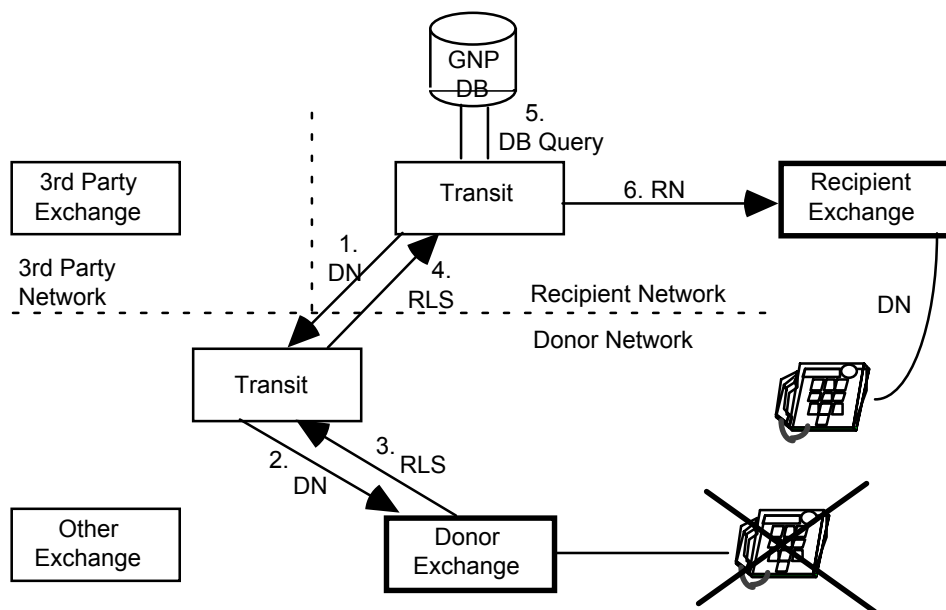
Typical call flows are illustrated below. These are representative call flows to aid understanding only.



**Figure 7 – Query on Release, call originates in 3rd party network**



**Figure 8 – Query on Release, call originates in donor network**



**Figure 9 – Query on Release, call originates in recipient network**

**NOTE:** It has been assumed that all calls are initially routed to the donor network, including those calls which originate in the recipient exchange.

#### 2.4.1 Advantages of Query on Release

Query on release (potentially) optimises call routing.  
Circuits are not held in the donor network for the call duration.

The donor network need not access data for calls to a ported number.  
(Some qualification is required: the donor network does need to maintain data for each exported number. If the donor supports only onward routing this data will typically be in the donor exchange. If the donor network utilises query on release this data will typically be external to any exchange. In either case if a previous network supports query on release then it is not necessary for the donor network to access the data. If no previous network supports query on release, or if the donor is the originating network, then the data must be accessed.)

The migration from the query on release solution to the long term all call query solution is relatively straight forward.

#### 2.4.2 Disadvantages of Query on Release

- Post dial delay to ported numbers is larger than post dial delay to non-ported numbers.
- The donor network is involved in routing calls to ported numbers.
- Principles of interconnect charges for calls which utilise query on release are not understood.
- The porting process established for onward routing is largely inapplicable: the porting of an individual number will affect all participating operators.
- The cost of implementing a GNP database is large.
- Cost of entry for new operators is large.

### 2.5 Long Term: All Call Query

In the All Call Query long term solution the originating network, or possibly a transit network acting on its behalf, determines and adds the routing number. The call is then routed on the basis of the routing number to the recipient network.

The determination of routing number will involve a query to a database. Since the dialled number may potentially be any UK geographic number the database will contain a large number of numbers, and hence it is expected that the database will be held external to any exchange. For instance, the database may be held in an SCP and accessed using IN mechanisms. However, the actual implementation is a network specific matter.

Optionally, networks may access the database only for dialled numbers in ranges known to contain ported numbers.

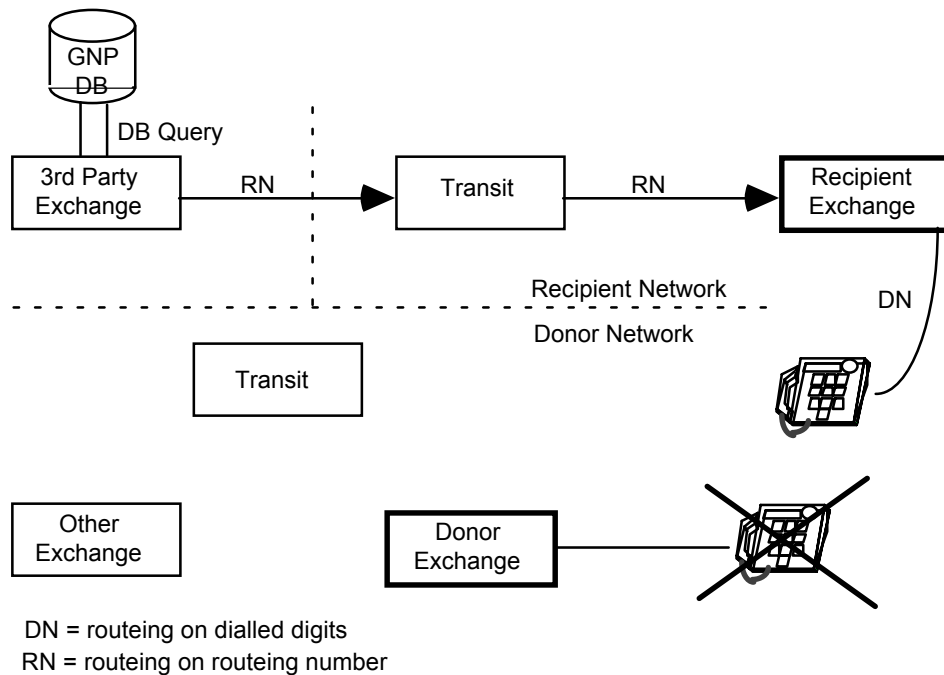
The mapping of GNP functions to networks for the all call query solution is as follows:

GNP Function	Performing Network
Call Trap Function	Originating Network (note)
Routeing Number Determination	Originating Network (note)
Routeing Number Addition	Originating Network (note)

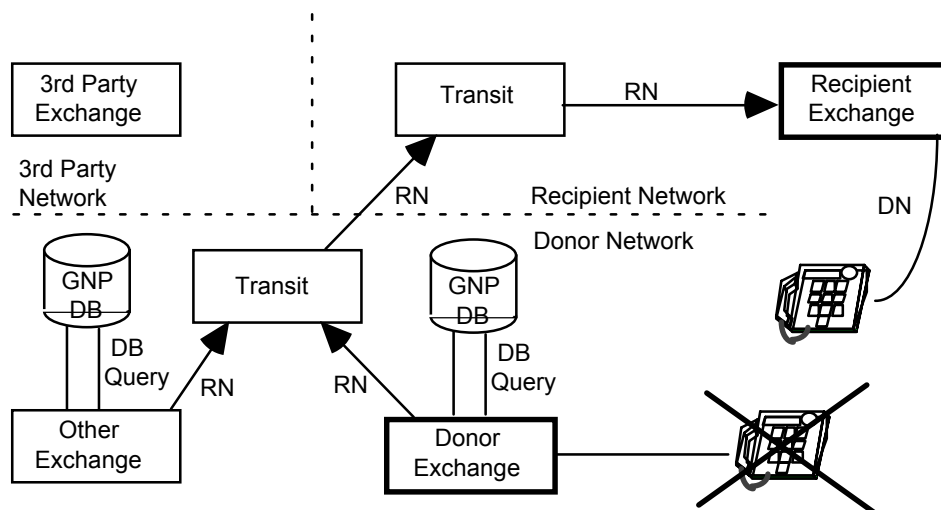
**Table 5 – All Call Query function mapping**

**NOTE:** This function is typically performed by the originating network, but may be performed by any previous network or the donor network.

Typical call flows are illustrated below. These are representative call flows to aid understanding only.



**Figure 10 – All Call Query, call originates in 3rd party network**



**Figure 11 – All Call Query, call originates in donor network**

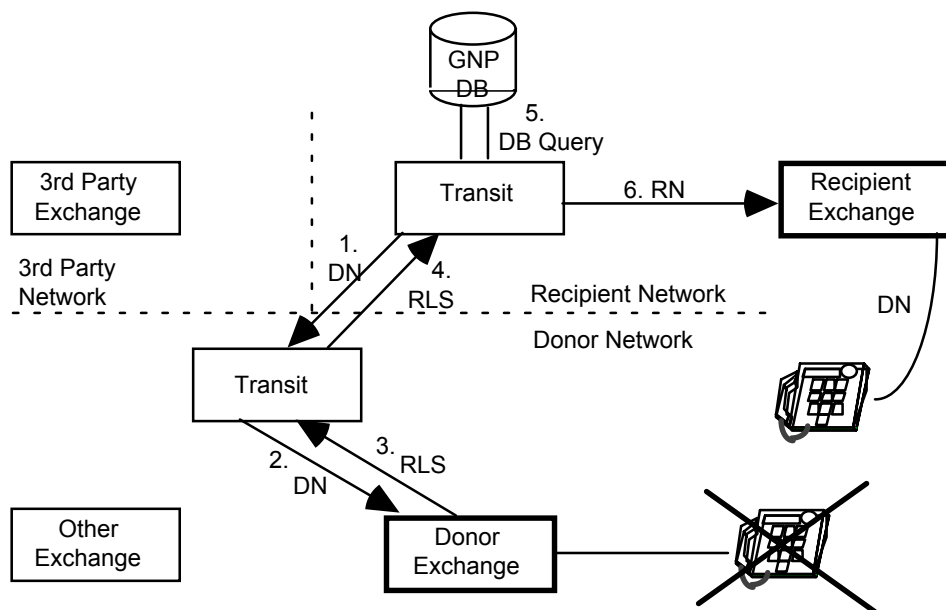


Figure 12 – All Call Query, call originates in recipient network

### 2.5.1 Advantages of All Call Query

All call query optimises call routing.

The donor network is not involved in calls to ported numbers.

Post dial delay for calls to ported numbers is no greater than post dial delay to non-ported numbers.

### 2.5.2 Disadvantages of All Call Query

The porting process established for onward routing is largely inapplicable: the porting of an individual number will affect all participating operators.

The cost of implementing a GNP database is large.

The cost of querying a database for all calls is large.

### 3 INTERWORKING OF NUMBER PORTABILITY SOLUTIONS

#### 3.1 Starting Point - The Onward Routeing Solution

The starting point for the interworking of Number Portability Solutions in the UK is Onward Routeing. All networks supporting Number Portability will initially use the Onward Routeing Solution. In the Onward Routeing Solution the call is always routed from the Originating Network to the Donor Switch and then is onward routed from this switch to terminate on the Recipient Switch. This creates a switch path from the Originating Switch through the Donor Network to the Recipient Switch.

#### 3.2 Introduction of Dropback Number Portability Solution with Onward Routeing

Calls can only drop back across networks if the Donor Network and at least one other network before it in the call chain has the Dropback Solution. As the Donor Network has no control on the solutions used in preceding networks, the Donor Network must still provide the Onward Routeing Solution as well as the Dropback Solution.

The Dropback Number Portability Solution interworks with Onward Routeing Solution as follows:

Are Networks Dropback Capable?			Effect
Originating Network	Transit before Donor Network	Donor Network	
No	No	No	Onward Routeing solution
No	No	Yes	Onward Routeing solution
No	Yes	No	Onward Routeing solution
No	Yes	Yes	Call drops back to Transit Network
Yes	No	No	Onward Routeing solution
Yes	No	Yes	Call drops back to Originating Network
Yes	Yes	No	Onward Routeing solution
Yes	Yes	Yes	Call drops back to Originating or Transit Network

Table 6 – Interworking between dropback and onward routing

#### 3.3 Introduction of Query on Release (QoR) Number Portability Solution with Onward Routeing

Calls can only release and re-route across networks if the Donor Network and at least one other network before it in the call chain has the QoR Solution. As the Donor Network has no control on the solutions used in preceding networks, the Donor Network must still provide the Onward Routeing Solution as well as the QoR Solution.

The QoR Number Portability Solution interworks with Onward Routeing Solution as follows:

Are Networks QoR Capable?			Effect
Originating Network	Transit before Donor Network	Donor network	
No	No	No	Onward Routeing solution
No	No	Yes	Onward Routeing solution
No	Yes	No	Onward Routeing solution
No	Yes	Yes	Call releases to Transit Network
Yes	No	No	Onward Routeing solution
Yes	No	Yes	Call releases to Originating Network
Yes	Yes	No	Onward Routeing solution
Yes	Yes	Yes	Call releases to Originating or Transit Network

Table 7 – Interworking between QoR and onward routing

### 3.4 Introduction of All Call Query (ACQ) Number Portability Solution with Onward Routing

Call processing stops when a query to the database is made. The query result dictates the subsequent routing. Therefore at the first instance in the call chain of the All Call Query Solution the routing then conforms this Number Portability Solution. The Donor network can cease to support the Onward Routing Solution once it has adopted the All Call Query Solution at the recipient switches.

The introduction of the All Call Query Number Portability Solution interworks with Onward Routing Solution as follows:

Are Networks ACQ Capable?			Effect
Originating Network	Transit before Donor Network	Donor network	
No	No	No	Onward Routing solution
No	No	Yes	ACQ solution from the Donor Network
No	Yes	No	ACQ solution from the Transit Network
No	Yes	Yes	ACQ solution from the Transit Network
Yes	No	No	ACQ solution from the Originating Network
Yes	No	Yes	ACQ solution from the Originating Network
Yes	Yes	No	ACQ solution from the Originating Network
Yes	Yes	Yes	ACQ solution from the Originating Network

**Table 8 – Interworking between All Call Query and onward routing**

The All Call Query Number Portability Solution redirects the call flow following the database query. Therefore this solution is independent of the solutions that are implemented in the call path had the call proceeded to the Donor Switch. The above table is valid if these other networks have implemented Onward Routing Number Portability Solution (as Shown) or Dropback Number Portability Solution or Query on Release Number Portability Solution.

## 4 NUMBERING FORMAT

### 4.1 Background

The Specified Numbering Scheme which is utilised in the UK is of the format SABCDEXXX(X), where the 'S' digit identifies the category of service. For geographic numbers assigned to fixed lines, 'S' is '1' or '2', with 'S' equals '3' being reserved for future geographic use. A trunk access prefix of zero is used when dialling nationally, i.e. the format of the dialled number is 0SABCDEXXX(X).

The maximum number length is ten digits, i.e. eleven digits including the trunk access prefix. Most geographic numbers are of this length, however a minority are of nine digits (i.e. ten digits with the trunk access prefix).

The breakdown between National Destination Code (NDC, also known as National Area Code) and Subscriber Number (SN) varies. For S=1, the NDC is between three (i.e. 0 SAB) and five digits long (i.e. 0 SABCD); for S=2, the NDC is always two digits long (i.e. 0 SA). Subscriber Numbers are between five and seven digits long for S=1 number ranges, eight digits long for S=2 number ranges.

In order to route calls to the appropriate terminating operator, analysis of the first six digits of the UK telephone number (excluding the trunk prefix) is required. In exceptional circumstances, further analysis may be required to route calls to a particular exchange in the terminating network.

Signalling systems used within the UK impose limitations upon the number length that can be carried; the lowest common denominator that can be assumed is that called party address field requirements should not exceed 18 digits.

### 4.2 Requirements

The generic approach to number portability set out in Section XX requires that a Routeing Number be used. The Routeing Number will be added by the exchange carrying out the Routeing Number Addition Function and this will subsequently be used to route the call to the recipient exchange.

No additional numbers shall be allocated from the Specified Numbering Scheme in order to implement number portability, i.e. the Routeing Number should not be taken from the space available for service provision.

The format of the Routeing Number should not cause it to exceed the maximum number length specified in Section XX, or require networks to analyse any further digits than specified in Section XX.

### 4.3 Routeing Number Format

The Routeing Number shall consist of a Routeing Prefix and the Called Party Number.

The Routeing Prefix shall be six digits long, with the first digit being '5'. The subsequent digits of the Routeing Prefix shall identify the recipient exchange.

#### 4.3.1 C7 signalling using Interconnect User Part (IUP)

In IUP the Routeing Number shall be a concatenation of the Routeing Prefix, trunk access code and the Called Party Number. As the trunk access prefix is carried within C7 Interconnect User Part (IUP), this means that the leading '5' of the Routeing Prefix (hence Routeing Number) is sufficient to identify it as a Routeing Number as against;

- a call to a non-ported number, which will have a leading digit of '0'
- a call utilising an access code, which will have a leading digit of '1'
- a call utilising the Targeted Transit service, which will have a leading digit of '7'
- a call to emergency services, which will have a leading digit of '1' (112) or '9' (999)

#### 4.3.2 Other signalling systems

In other signalling systems, the trunk access prefix may not be carried. In this case, indication will be required that the call is to a ported number, and hence a Routeing Number is being used.

#### **4.4 Administration**

In accordance with the OFTEL Numbering Conventions, Operators wishing to implement number portability shall apply to the Numbering Scheme Manager for an allocation of Routeing Prefixes.

Operators shall maintain records of utilisation of Routeing Prefixes, which in accordance with the OFTEL Numbering Conventions shall be available for inspection by the Numbering Scheme Manager.

**End of PNO-ISC/SER/003**