

**TELECOMMUNICATIONS INDUSTRY NETWORK
CODE FOR LOCAL AND MOBILE NUMBER
PORTABILITY IN NEW ZEALAND**

“Network Code”

24 December 2004

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Explanatory Statement

The Porting arrangements for Local and Mobile Numbers in New Zealand are defined in the following Telecommunications Access Codes produced by the Telecommunications Carriers' Forum:

- Code for Local and Mobile Number Portability (LMNP Code)
- Network Code for Local and Mobile Number Portability (Network Code)

The LMNP Code details the processes that enable Customers to Port their Numbers and sets out the rights and obligations of Parties to that Code in a number portability environment. These processes are based around an Industry Portability Management System which facilitates number portability between Service Providers but relies on Carriers to configure and update their Networks and support systems to ensure voice calls to and from Ported Numbers, and short messages to and from Ported Mobile Numbers, are correctly routed.

In a number portability environment there are changes required to the traditional way in which voice calls and short messages are routed from Originating Carriers to Terminating Carriers. For Voice Services, this applies to local, national, fixed-to-mobile, mobile-to-fixed, mobile-to-mobile, incoming and outgoing international and other calls involving Local or Mobile Numbers.

This Network Code is intended to guide participating Carriers in the development of their own Network solutions and specify the optional and mandatory requirements necessary between Networks for Local and Mobile Number Portability for Voice Services and Short Message Services.

LMNP is an overall project comprising of two codes, the LMNP Code and the Network Code. Therefore, for a party to deliver an LMNP solution, this solution will have to comply with both the LMNP Code and the Network Code.

1 Purpose of this Code

1.1 Purpose

The purpose of this Code is to provide a definitive specification of the Carriers' Network requirements for Local and Mobile Number Portability for Voice Services and Short Message Services.

1.2 Network Code Status

This Code is a Telecommunications Access Code, under Schedule 2 of the Telecommunications Act 2001 for the designated multi-network services "local telephone number portability service" and "cellular telephone number portability service". The Code applies to all Carriers involved in the origination, carriage, handover and termination of voice calls to or from Ported Local Numbers and Ported Mobile Numbers and/or short messages to or from Ported Mobile Numbers.

1.3 Anticipated Benefits to Industry

This Code provides benefits to the industry by:

- 1.3.1** Standardising industry practices in relation to the inter-network aspects of LMNP for Voice Services and Short Message Services.
- 1.3.2** Ensuring that all Carriers are able to meet their voice call and short message routing responsibilities so that voice calls to and from Customers with Ported Numbers, and short messages to and from Customers with Ported Mobile Numbers are routed successfully.
- 1.3.3** Ensuring service to the Customer is maintained by specifying Service Levels.
- 1.3.4** Ensuring efficient and effective inter-Carrier operational arrangements.

2 Introduction

2.1 Number Portability for Local and Mobile Numbers

In a number portability environment, there will be changes to the traditional ways voice calls and short messages are delivered from Originating Carriers to Terminating Carriers. This applies to local, long distance, mobile, international and other types of calls. This Code details these networking arrangements for voice calls and short messages.

This Code is predicated on the understanding that the existing allocation process for blocks of local (geographic) and mobile (non-geographic) numbers to Carriers by the NAD will continue.

This Code defines the industry agreed voice call and short message handling, technical interconnection arrangements, operational arrangements and business rules and processes for Voice Services and Short Message Services related to Porting based on a model of interconnected Networks.

2.2 Industry Structure

The supply of Local and Mobile Services is currently undertaken by a number of Carriers in New Zealand. In addition, new Carriers are able to obtain Local and Mobile Numbers and establish their own services. This Code for the implementation of number portability endeavours to take account of the future market place.

2.3 References

2.3.1 Document References:

- a) LMNP Code; and
- b) NAD Number Register and Number Allocation Rules.

2.3.2 Websites References:

- a) Telecommunications Carrier Forum - <http://www.tcf.org.nz/>
- b) Number Administration Deed - www.nz.m-co.com
- c) Commerce Commission - <http://www.comcom.govt.nz/telecommunications/numberportability.cfm>
- d) ACIF - <http://www.acif.org.au/publications>

3 Scope and Objectives

3.1 Scope

- 3.1.1** The Code sets out operational standards, procedures and processes between Carriers, for the origination, carriage, handover and termination of voice calls and short messages in an environment where Local and Mobile Numbers are being Ported.
- 3.1.2** The Code is applicable to all Carriers participating in LMNP and it is not intended to impact other parties who do not have obligations under this Code.
- 3.1.3** In the event of any conflict or inconsistency between this Code and any New Zealand legislation or determinations of regulatory bodies, then such legislation or determinations will prevail.
- 3.1.4** The requirements of this Code are the default minimum industry standards and can be improved by Bilateral Agreements provided that those agreements do not impact on the ability of other Carriers to inter-work with parties to those arrangements in accordance with the minimum requirements.
- 3.1.5** The commercial arrangements for the handover of voice calls and short messages between Carriers are to be determined outside of this Code

3.2 Objectives

The objectives of the Code are to:

- 3.2.1** Set out procedures between Carriers to enable voice calls to and from Ported Numbers and short messages to and from Mobile Ported Numbers to be routed to or from the Host Carrier's Network, even though the relevant Number range containing the Number will still be held by the Donor Carrier.
- 3.2.2** Set out competitively neutral and non-discriminatory principles for the implementation and operation of LMNP in relation to Voice Services and Short Message Services.
- 3.2.3** Set out procedures to ensure Equivalent Service for Voice Services and Short Message Services.

3.3 General Network Requirements

The requirements of this Code shall:

- 3.3.1** Enable Carriers, as far as possible, to remain in control of their own switching infrastructure.
- 3.3.2** Concentrate on the information passed between Networks. Subject to the requirements for interoperability, solutions should be specified independent of specific technologies at the Network interface as far as possible.
- 3.3.3** Not preclude the use of multiple solutions within a Network, nor the use of multiple or different solutions over time.
- 3.3.4** Focus on interconnect in relation to Porting (inter-Network, or inter-operability) standards rather than intra-Nnetwork solutions.
- 3.3.5** Encourage efficient use of Network resources in relation to Porting.

4 Conventions in this Code

4.1 Interpretations

In the Code:

- 4.1.1** Sections, clauses and other headings are for ease of reference only and will be ignored in construing this Code.
- 4.1.2** Unless the context otherwise requires, references to sections, clauses and appendices are references to sections and clauses of, and appendices to, this Code.
- 4.1.3** Any reference in this Code to a statute, statutory instrument, regulation or order will be construed as a reference to such statute, statutory instrument, regulation or order as amended or re-enacted from time to time.
- 4.1.4** Any references to a “party”, is to a party of this Code (unless otherwise specifically provided) and will be deemed to include its successors and permitted assigns.
- 4.1.5** A reference to a “person” includes an individual, firm, company, corporation, unincorporated body of persons, state or government or agency thereof, and any other body or entity (in each case whether or not having separate legal personality).
- 4.1.6** Any reference in this Code to any gender includes all genders and a reference to the singular includes the plural and vice versa.
- 4.1.7** If a period of time is specified and dates from a given day or the day of an act or Event, it is to be calculated exclusive of that day; and
- 4.1.8** A reference to a day is to be interpreted as the period of time commencing at midnight and ending 24 hours later.

4.2 Definitions

In this Code, unless the context requires otherwise:

Term	Definition
Bilateral Agreement	Means an agreement between a Carrier who is obliged to comply with this Code and another person (who may also be obliged to comply with this Code).
Billing Relationship	Means a relationship where the Service Provider has a bona fide right to charge the Customer for any chargeable activity relating to the Local Services or Mobile Services provided to that Customer.
Business Day	Means a day on which registered banks are open for normal banking business, excluding Saturdays, Sundays and nationwide public holidays. Regional public holidays are considered to be Business Days.
Bypass Carrier	Please refer to clause 7.2.8 for this definition.
Carrier	Means an entity that operates a public switched telephone network (or a functionally equivalent system) that originates, transmits or terminates voice calls or short messages. The same person may be both a Carrier and a Service Provider. If a party to this Code has more than one Network, it can be classified as more than one Carrier.
Code	Means this document, including its appendices.
Contracted Service Deliverer	Please refer to clause 7.2.4 for this definition.
Customer	Means a person who has a bona fide Billing Relationship with a Service Provider in respect of a Local Service or Mobile Service.
Donor Carrier	Please refer to clause 7.2.5 for this definition.
Enforcement Agency	A person appointed by the TCF, whose role is to monitor and, if necessary, measure Equivalent Service compliance in accordance with clause 14.4.
Equivalent Service	Please refer to clause 14.1 for this definition.
Event	Means an instance of one of the agreed set of processes that can arise from a specific Customer action, for which a specific Process exists.
Hand-off Code or HOC	Please refer to clause 13 for this definition.
Host Carrier	Please refer to clause 7.2.6 for this definition.
Industry Portability Management System or IPMS	Means the system described in the LMNP Code.
Local and Mobile Number Portability or LMNP	Means Local Number Portability and Mobile Number Portability.
Local Calling Area	Means that geographic area defined by the Donor Carrier within which Customers have access to a Local Service with a consistent set of attributes.
Local Number	Means an 8 digit number, in the form: area code + NXXXXXX where area code equals 3,4,6,7 or 9 and "N" equals digits 2 to 9 (excluding 50AB).
Local Number Portability or LNP	Means, as defined in the Act, a service that enables an end-user of a fixed telephone Network service to change providers of that service but to retain the same telephone number within a Local Calling Area.
Local Service	Means the service associated with a Local Number.
Mobile Number	Means a number in the form 02N + XXXXXXX where "N" equals

Term	Definition
	1,5,7 or 9 and other cellular numbers allocated by the NAD, or recognised by the NAD as having been allocated.
Mobile Number Portability or MNP	Means, as defined in the Act, a service that enables an end-user of a cellular telephone Network service to change providers of that service but to retain the same telephone Number (including the same cellular network access code).
Mobile Service	Means the service associated with a Mobile Number.
Network	Means a system comprising telecommunication links to permit telecommunications.
Non-participating Carrier	Please refer to clause 7.2.7 for this definition.
Number	Means a Local Number, a Mobile Number or both, as the case requires.
Numbering Administration Deed or NAD	Means the organisation established under the Numbering Administration Deed dated 20 December 1998, or any such successor organisation or agreement that may be formed.
Operational and Support Manual for LMNP	Means a multilateral agreement between Carriers that covers operational issues that are not covered by the Network Code.
Originating Carrier	Please refer to clause 7.2.1 for this definition.
PLMN SME (Public Land Mobile Network Short Message Entity)	Means a mobile device connected to a mobile Network.
Port or Porting	Means a process which achieves LMNP.
Ported Calls	Means those calls made in respect to establishing connections to Ported Numbers.
Ported Number	Means a Number that is currently hosted by any Carrier other than the Donor Carrier.
Service Levels	Means the requirements for Equivalent Service and the service levels as prescribed in the Operational and Support Manual for LMNP.
Service Provider or SP	Means any person providing a Local Service or Mobile Service to a Customer who has the Billing Relationship with the Customer for that service. The same person may be both a Carrier and a Service Provider.
Short Message Originating Carrier	Please refer to clause 8.2.1 for this definition.
Short Message Service	Alpha numeric messaging mechanism between two PLMN SME.
Short Message Terminating Carrier	Please refer to clause 8.2.2 for this definition.
TCF Management Committee	Means the TCF Board (as defined by the TCF Rules) or a subcommittee of the Board as set out in clause 4.8 of the TCF Handbook plus either case a non-voting representative of the Telecommunications Commissioner.
The Act	Means the Telecommunications Act 2001
Transit Carrier	Please refer to clause 7.2.3 for this definition.
Terminating Carrier	Please refer to clause 7.2.2 for this definition.
Voice Services	Means those voice services and associated features provided or initiated during call setup or call duration, for which interconnection agreements are common between parties to the Code as at the date this Code comes into force.

5 Business Rules

5.1 Non-discrimination

In implementing and operating the Code, all parties to the Code must act in a competitively neutral and non-discriminatory manner and will facilitate Porting through principles and processes that are consistent with Section 18 of the Act.

5.2 Privacy and Use of Information

A Carrier or Service Provider which receives any type of information relating to the Porting of a Number may only use this information in accordance with the Privacy Act 1993, the Telecommunications Information Privacy Code 2003, and this Code. If there is any inconsistency between this Code, the Privacy Act 1993, and the Telecommunications Information Privacy Code 2003, the Privacy Act and the Telecommunications Information Privacy Code prevail.

5.3 Good Faith

All parties will act co-operatively and in good faith in implementing this Code.

5.4 Bilateral and other Agreements

5.4.1 All Carriers that are covered by this Code will comply with the provisions of the documents listed from time to time in Schedule 1. A manual, the Operational and Support Manual for LMNP, covering the operational issues not included in the Network Code, is attached to this Code. The terms of the Operational and Support Manual for LMNP are to be agreed by the Carriers. The Operational and Support Manual for LMNP may include, amongst other things:

- a) Changes or enhancements to the call handover arrangements;
- b) Fault handling procedures;
- c) Operational procedures such as forecasting, contact details, escalation procedures, support arrangements and testing plans;
- d) Implementation arrangements for Carriers who will be participating at cutover and for those who will join later;
- e) Migration arrangements for those Customers who have a Ported Number today; and
- f) Other Number Portability related issues that are currently covered by Bilateral Agreements between Carriers.

5.4.2 Carriers may also enter into Bilateral Agreements for the provision of services and service information that is required to facilitate and support the origination, carriage, handover and termination of voice calls and short messages in an efficient and expeditious manner.

5.4.3 Carriers may agree in their Bilateral Agreement higher Service Levels for standards and practices than those set out in this Code, in which case the Bilateral Agreement will prevail over this Code and the documents listed in Schedule 1 with respect to the relevant service level, standards and practices. In all other circumstances, if there is a conflict between this Code, any of the documents listed in Schedule 1, or a Bilateral Agreement, the order of precedence will be (1) this Code, (2) the documents set out in Schedule 1, and (3) the Bilateral Agreement.

5.4.4 For the avoidance of doubt, Carriers may set out more detailed standards and practices in their Bilateral Agreements than outlined in this Code, provided that the more detailed standards and practices are consistent with, or provide for higher Service Levels than, the standards and practices set out in this Code.

6 Carrier Responsibilities

It will be the responsibility of each Carrier to ensure that they meet the required Service Levels. Each Carrier is free to determine how it handles voice calls and short messages, either within its own Network or with the assistance of another Carrier. Where this document refers to the responsibility of a Carrier, they can contract this out to a third party, however the primary responsibility under this Code remains with the Carrier.

6.1 Carrier Rules

- 6.1.1** Each Carrier will make the necessary changes, additions or deletions to its Network to give effect to the instructions issued by the IPMS
- 6.1.2** The routing of voice calls to or from Ported Numbers, and of short messages to or from Ported Mobile Numbers, must comply with this Code to ensure voice calls and short messages are correctly routed;
- 6.1.3** Parties will act in good faith to facilitate Porting in each particular instance of Porting;
- 6.1.4** The Network solution adopted by Carriers must be capable of satisfying the requirements for Equivalent Service for Voice Services and Short Message Services; and
- 6.1.5** Carriers are responsible for maintaining the integrity of their own Networks in relation to Porting and there is an obligation on Carriers to work together to maintain this integrity.

6.2 Compliance with Service Levels

Each party subject to this Code must comply with the Service Levels, including the requirements for Equivalent Service for Voice Services and Short Messages services (See clause 14). The details of the Service Levels are in the Operational and Support Manual for LMNP.

6.3 Network Planning and Design

It is the responsibility of each Carrier to undertake reasonable forward network planning and design in order to reasonably cater for the expected Porting activity. The arrangements for forecasting expected activity will be agreed in the Operational and Support Manual for LMNP and/or in Bilateral Agreements. Each Carrier may use its own standard procedures for the planning and design of their own Network to meet this requirement.

6.4 Network Performance

It is the responsibility of each Carrier to plan, design, and operate its porting solution in a way that will meet reasonable industry standards of network performance. Each Carrier is free to use its own standard procedures in the planning, design, and operation of their own Network to meet this requirement.

6.5 Non-Participating Carriers

To the extent that a Carrier offers Ported voice calls and short messages to or accepts Ported voice calls or short messages from a Non-participating Carrier, it shall use reasonable endeavours to ensure that the general technical and performance issues as

described above are reflected in any Bilateral Agreement between the Carrier and the Non-participating Carrier.

6.6 Emergency Voice Calls

It is the responsibility of each Carrier to ensure that voice calls originating in their Network to the 111 Emergency Service are not adversely impacted by LMNP in accordance with clause 14.

6.7 [Terminating International Short Messages

Short message traffic destined for a New Zealand Network from a foreign operator may be delivered to a national Network based upon the number allocations by the NAD. It will be the Donor Networks Carriers responsibility to determine if the destination mobile has been ported. It will then be the Donor Carriers responsibility to determine if the short message will be terminated on their Network, transited to an alternate national Network Carrier or to discard the short message.]

7 Carrier Relationships and Network Model for Voice Services

7.1 Carrier Relationships for calls made to Ported numbers.



Note: Carrier may also provide Contracted Service Deliverer function
Various combinations of these relationships may occur.

7.2 Network Model

The following Carrier entities may exist in an environment where Numbers are Ported. Their relationships are shown in the diagram above. Note that any given Carrier may be a mix of more than one of the entities.

7.2.1 Originating Carrier

Means the Carrier on whose Network a voice call originates.

7.2.2 Terminating Carrier

Means the Carrier which terminates a voice call to a Customer connected to its Network.

7.2.3 Transit Carrier

Means a Carrier that transits a voice call on behalf of an Originating Carrier or a Bypass Carrier between that Originating Carrier or Bypass Carrier and the Host Carrier. In delivering the voice call, the Transit Carrier takes no action to determine whether or not the called Number is Ported, and on-routes the voice call on the basis of the received Number.

7.2.4 Contracted Service Deliverer

Means a Carrier that is contracted by another Carrier to provide a service that identifies whether a Number has been ported, and if so, that Carrier identifies the Host Carrier of the Ported Number, and on-routes accordingly. When on-routeing to a Number that is not Ported, that Carrier will on-route on the basis of the received Number.

7.2.5 Donor Carrier

Means the Carrier that has been allocated the Number by the NAD, or recognised by the NAD as having been allocated.

7.2.6 Host Carrier

Means the Carrier on whose Network the Ported Number is connected.

7.2.7 Non-participating Carrier

Means a Carrier which is not participating in the Porting of Local Numbers or Mobile Numbers and which routes voice calls to Ported Numbers to the Donor Carrier or a Contracted Service Deliverer in accordance with a Bilateral Agreement with that person.

7.2.8 Bypass Carrier

Means a Carrier which provides a call bypass service for a Customer, normally for national, international and fixed-to-mobile voice calls.

7.3 Handover of Ported Voice Calls

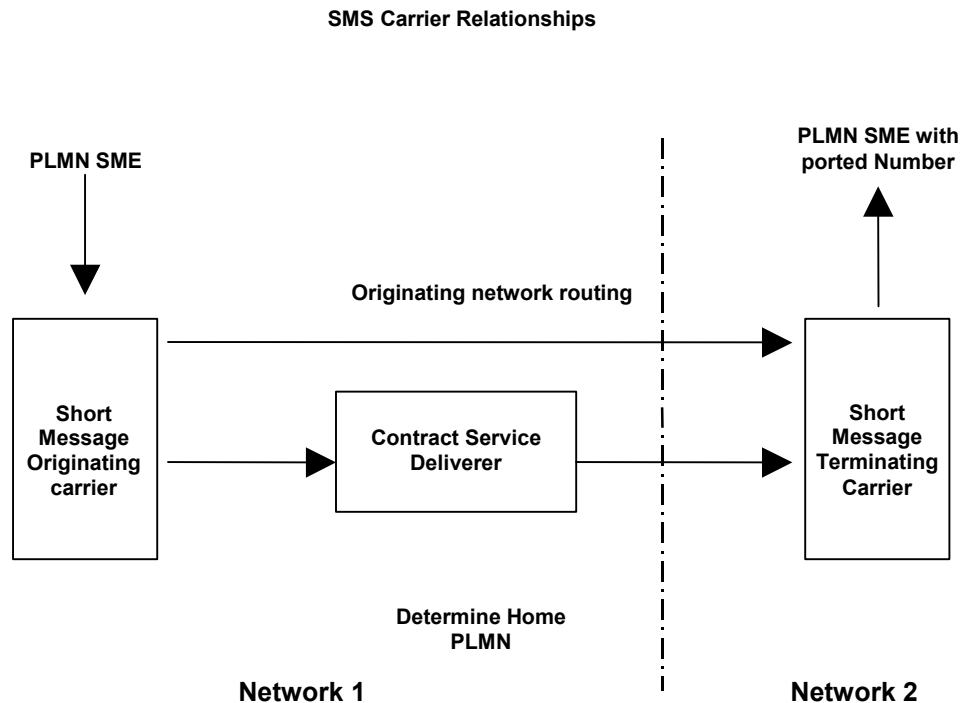
7.3.1 The handover of Ported Voice Calls takes place at a point of interconnection with other Carriers which is located on the trunk side of a Carrier's exchange. The interface will generally use non-proprietary technical standards. Interconnection arrangements will be set out in Bilateral Agreements between the relevant Carriers.

7.3.2 The information flows that relate to Porting across the point of interconnection shall provide, and comply, with the following:

- a) Compliance with industry standards and practices outlined in this Code;
- b) Compliance with all requirements relating to Service Equivalence including those for emergency service calls (see clause 6.6),
- c) Protection of the confidentiality of communications in accordance with clause 5.2 and the confidentiality provisions of the relevant Bilateral Agreement;
- d) Compliance with requirements for non-code access and code access; and
- e) Compliance with the NAD numbering plan.

8 Carrier Relationships and Network Model for Short Message Services

8.1 Carrier Relationships for Short Messages to Ported numbers



8.2 Network Model

The following Carrier entities may exist in an environment where Numbers are Ported. Their relationships are shown in the diagram above. Note that any given Carrier may be a mix of more than one of the entities.

8.2.1 Short Message Originating Carrier

Means the Carrier on whose Network a short message originates.

8.2.2 Short Message Terminating Carrier

Means the Carrier which terminates a short message to a Customer connected to its Network.

8.3 Handover of Ported Short Messages

8.3.1 The handover of Ported Short Messages takes place at a point of interconnection with other Carriers which is located on the trunk side of a Carrier's exchange. The interface will generally use non-proprietary technical standards. Interconnection arrangements will be set out in Bilateral Agreements between the relevant Carriers.

- 8.3.2** The information flows that relate to Porting across the point of interconnection shall provide, and comply, with the following:
- a) Compliance with industry standards and practices outlined in this Code;
 - b) Compliance with all requirements relating to Service Equivalence;
 - c) Protection of the confidentiality of communications in accordance with clause 5.2 and the confidentiality provisions of the relevant Bilateral Agreement;, and
 - d) Compliance with the NAD numbering plan.

9 Donor and Originating Carrier Re-routeing for Voice Services

9.1 Re-routeing Responsibilities

The Originating Carrier is responsible for routeing voice calls to Ported Numbers to the correct Host Carrier. A Contracted Service Deliverer may provide this service, should the Originating Carrier have such a contract with an appropriate Service Provider.

It is anticipated that the necessary routeing and call handling arrangements would be constituted under Bilateral Agreement between Carriers. These would likely be additions to existing interconnect agreements.

- 9.1.1** By way of example, and subject to Bilateral Agreement, when routeing voice calls to a Ported Number, the Originating Carrier or Contracted Service Deliverer may:
- a) Route the voice call directly to the Host Carrier (assuming they have the capability to identify the Host Carrier of the Ported Number); or
 - b) Route the voice call to the Donor Carrier who will identify the Host Carrier. The Donor Carrier may:
 - (i) Re-route the voice call to the Host Carrier; or
 - (ii) In the case where a query on release or redirection agreement exists with the Originating Carrier, may release the voice call with an appropriate signalling parameter indication.

For the purposes of this Code, option a) and option b)(ii) above is termed Originating Carrier Re-routeing, and option b)(i) is termed Donor Carrier Re-routeing. Either of these options is available to the Originating or Donor Carrier, or the Contracted Service Deliverer.

9.2 Re-routeing Rules

- 9.2.1** A Carrier may wish to use a mixture of Originating and Donor Carrier Re-routeing depending on their capability and their Bilateral Agreements with other Carriers.
- 9.2.2** A Non-participating Carrier will be required to agree bilaterally with a Carrier to route voice calls to the Donor Carrier or the Host Carrier on their behalf.
- 9.2.3** Donor Carriers will ensure that they have the capability to re-route all voice calls to the correct Host Carrier on behalf of other Carriers with which they have a Bilateral Agreement for Donor Carrier Re-routeing for Ported Numbers in their Number ranges.
- 9.2.4** The query method used in a Carrier's Network is independent of the re-routeing method used by that Carrier.

9.3 Call Diagrams

Diagrams 1 to 5 below are voice call model charts that illustrate the generality of Donor Carrier Re-routeing, Originating Carrier Re-routeing, hybrid routeing (Originating and Donor Carrier Re-routeing), 2nd Port routeing; Bypass Carrier routeing; and Bypass Carrier routeing where they provide the Contracted Service Deliverer function. The following diagrams are intended to be illustrative, rather than exhaustive or prescriptive, and are not intended to limit the use of other routeing arrangements. However, the actual voice call outcomes, as shown in the diagrams, are to be complied with.

In particular, these charts show:

- the call handover point between Carriers (the “point of interconnection”)
- the subsequent routing of the voice call to the Ported Number Customer.

Diagram 1; Donor Carrier Re-Routing

(for the initial Port)

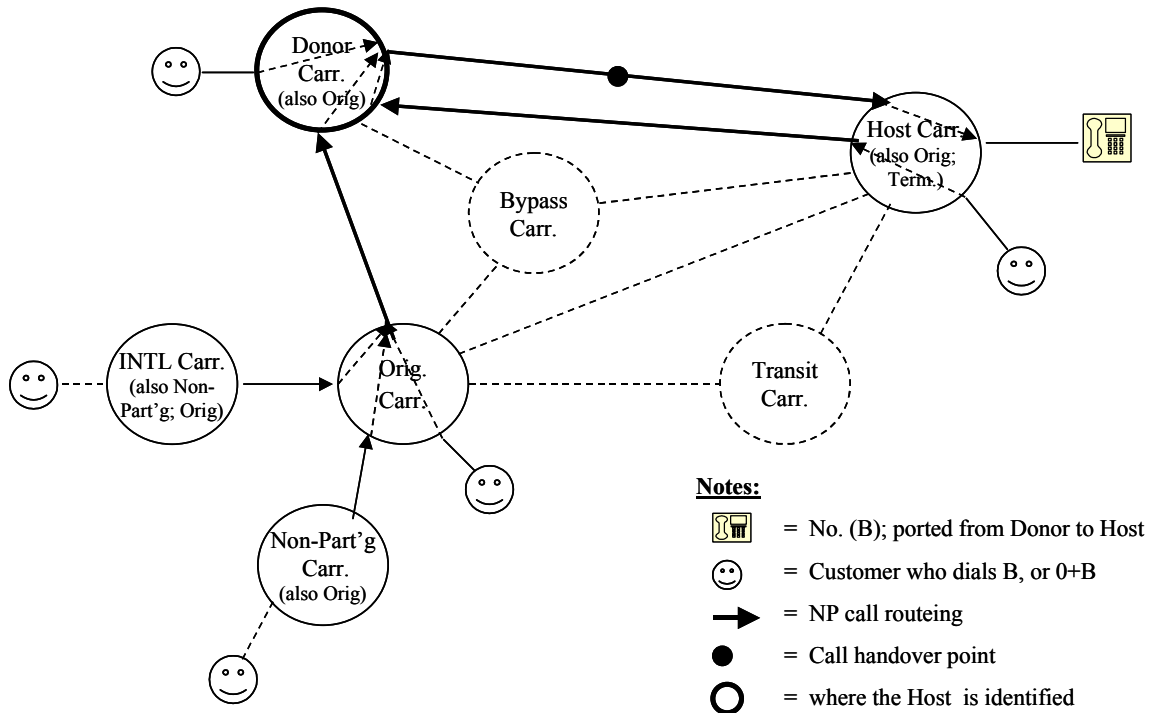


Diagram 2; Orig Carrier Re-Routing

(for the initial Port)

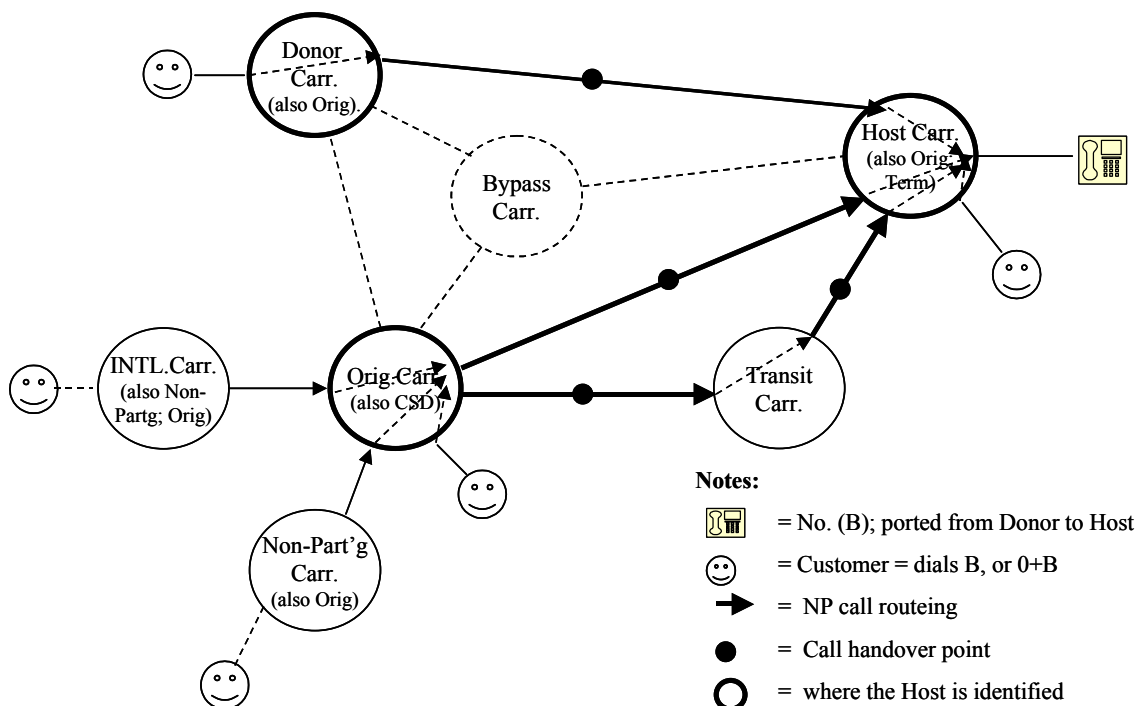


Diagram 3; Hybrid Donor/Orig Carrier Re-Routing

(for the initial Port)

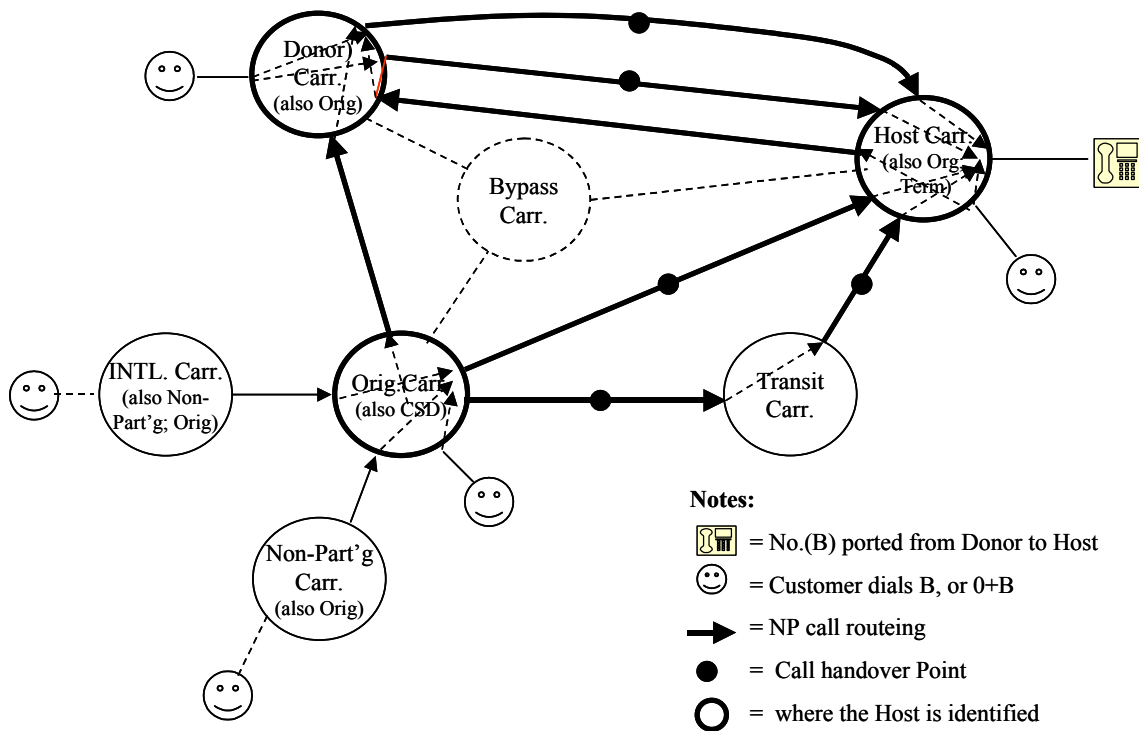


Diagram 4; 2nd Port Scenario (Hybrid Donor/Orig Carrier Re-Routing)

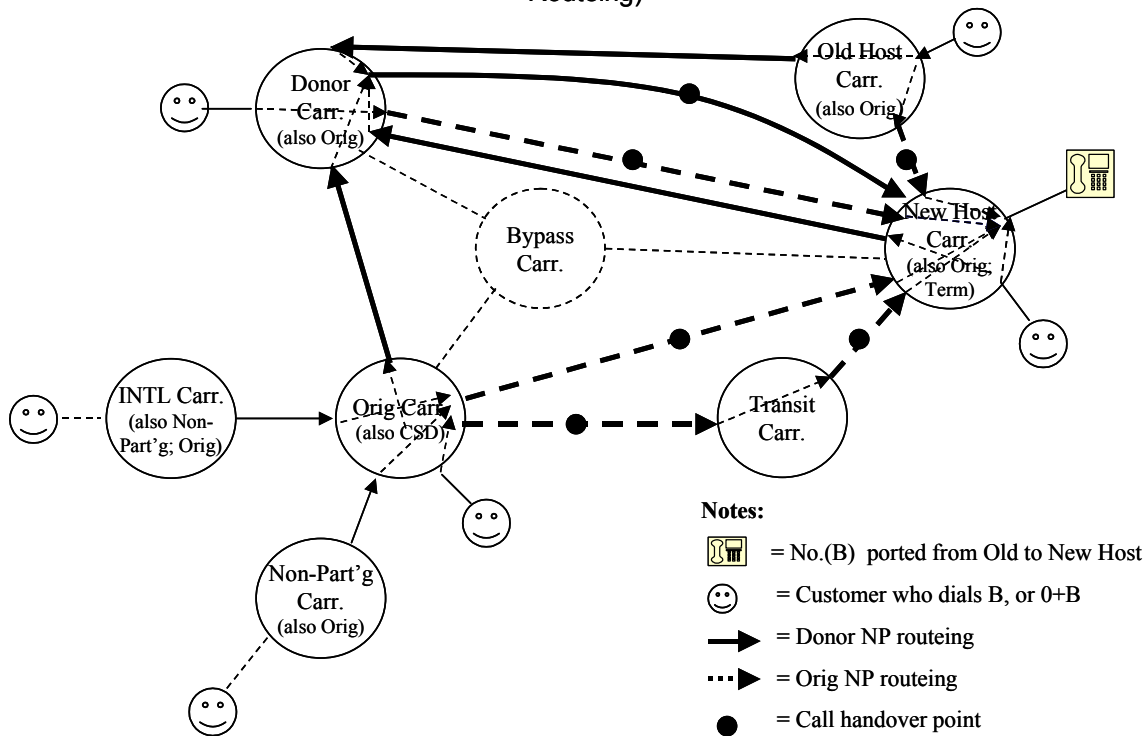
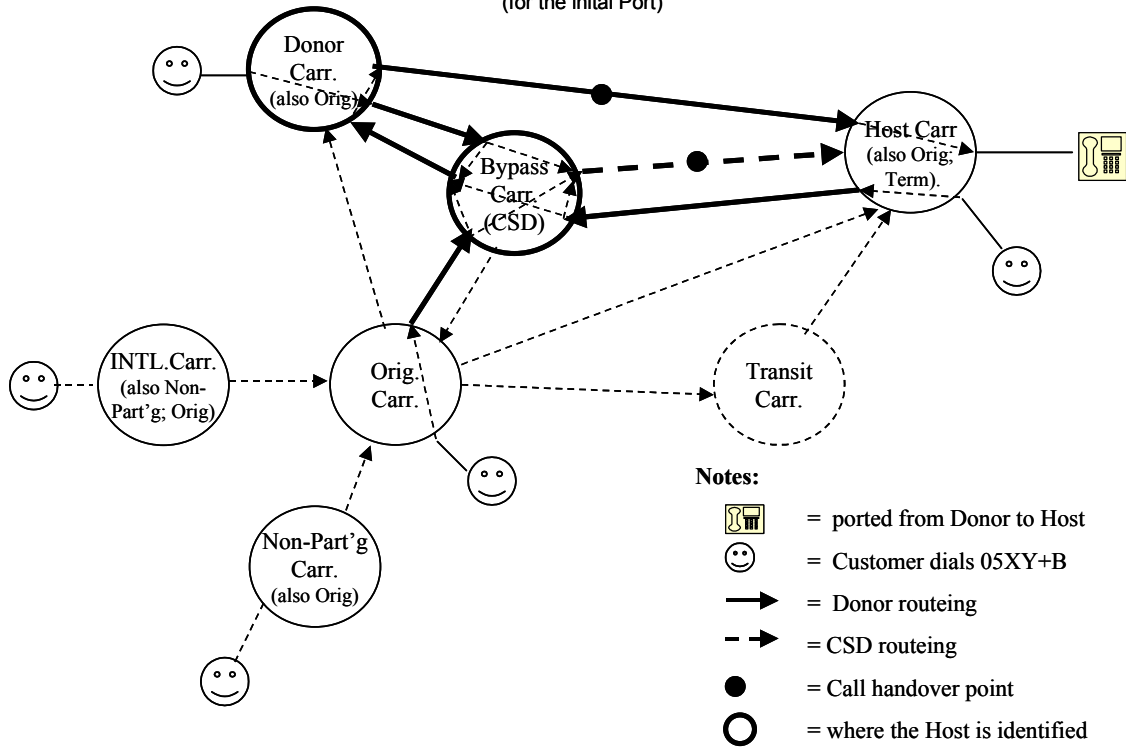


Diagram 5; Bypass Scenario (Donor or CSD Carrier Re-Routeing)
(for the initial Port)



10 Voice Call Handling Rules

10.1 Voice Call Handling Solution

Carriers that support LMNP will keep the following management information for each Number within its allocated blocks:

- a) If the Number is Ported; and
- b) The Host Carrier.

Originating Carriers have a responsibility to route voice calls to Ported Numbers to the Host Carrier, noting that Non- Participating Carriers may utilise the Donor Carrier or a Contracted Service Deliverer to perform the routing in accordance with a Bilateral Agreement. In such cases, the determination of whether a Number is Ported or not (and any subsequent voice call routing), is undertaken by the Donor or Contracted Service Deliverer.

The routing and handover of voice calls must be done in a way that prevents the misrouting (including circular routing) of voice calls to the greatest extent possible.

The following diagrams are intended to be illustrative, rather than exhaustive or prescriptive, and are not intended to limit the use of other routing arrangements. However, the actual voice call outcomes, as shown in the diagrams, are to be complied with.

Diagram 6

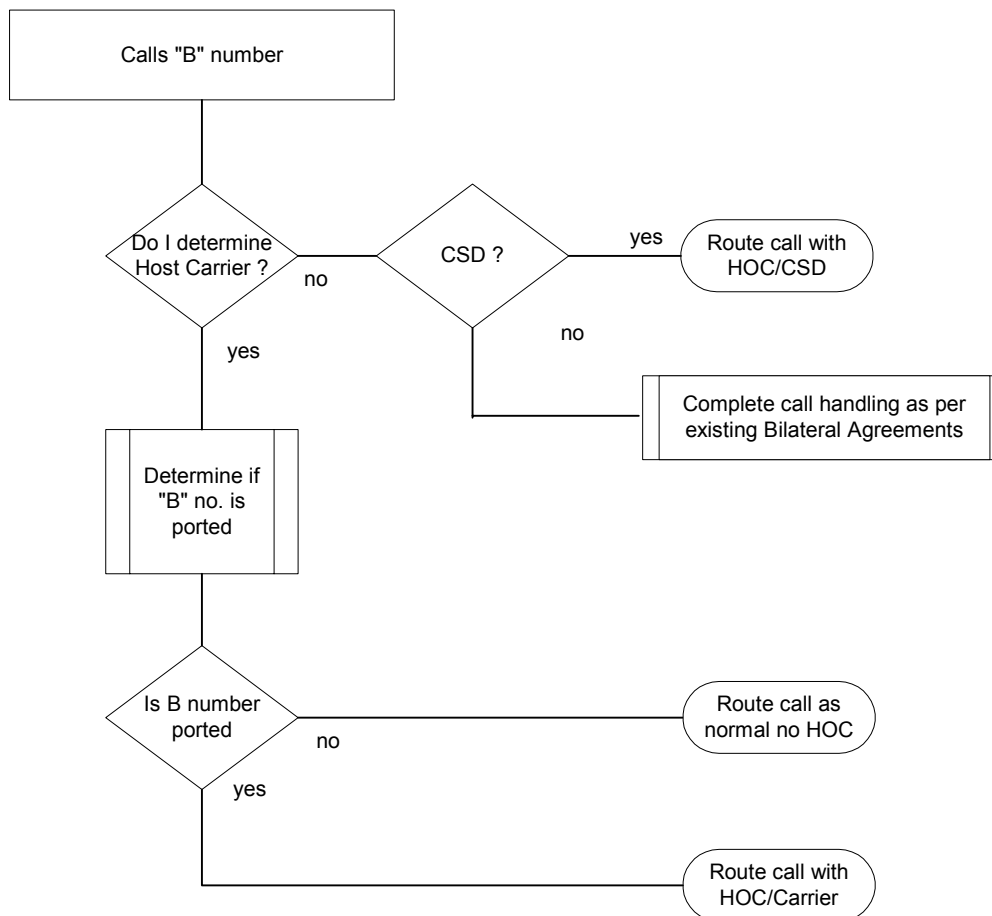


Diagram 7

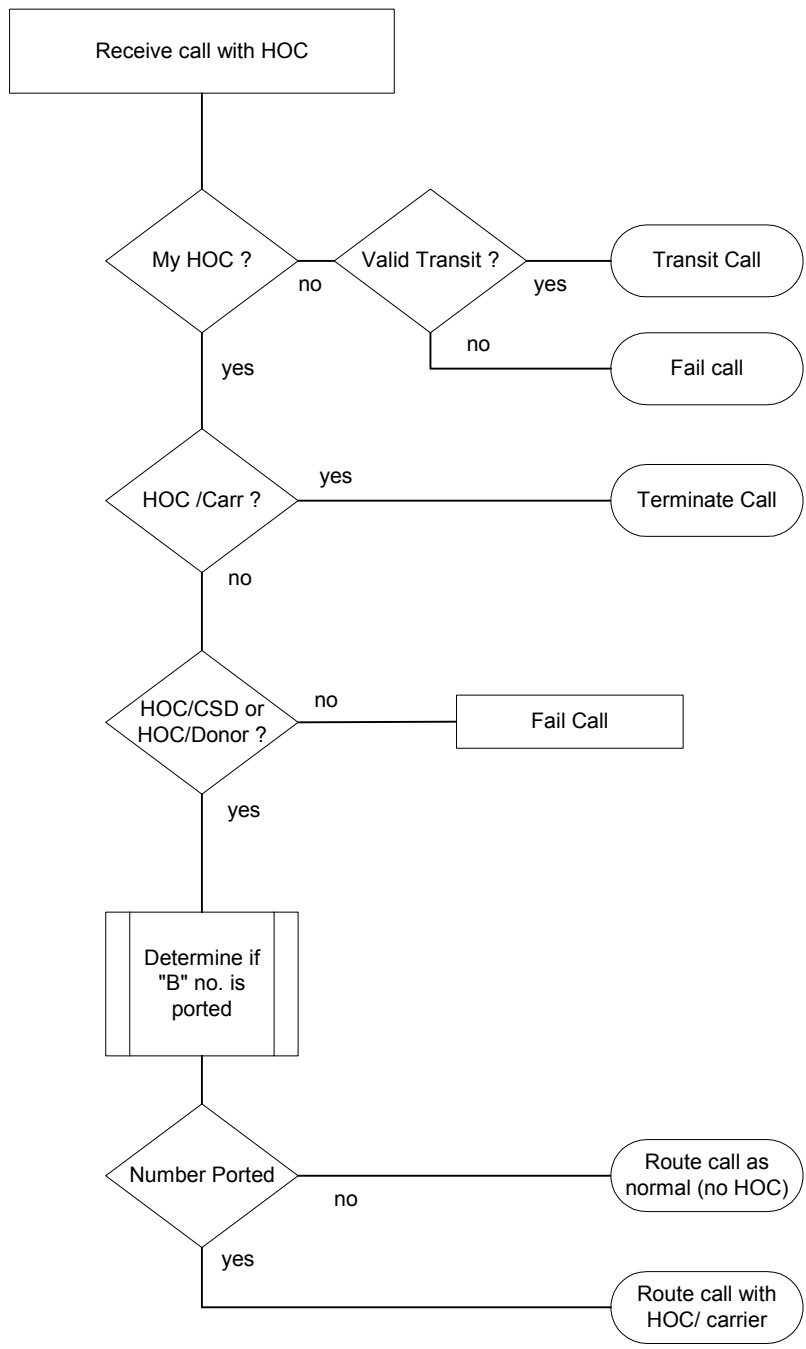
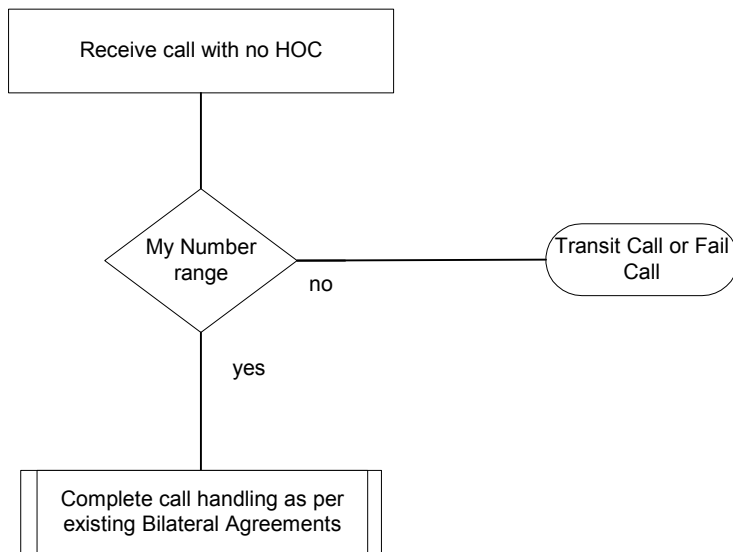


Diagram 8



11 Short Message Handling Rules

11.1 Short Message Handling Solution

Carriers that support LMNP will keep the following management information for each Number within its allocated blocks:

- a) if the Number is Ported; and
- b) The Host Carrier.

Originating Carriers have a responsibility to route messages to Mobile Ported Numbers to the Host Carrier, noting that Non-participating Carriers (e.g. International Carriers) may utilise the Donor Carrier or a Contracted Service Deliverer to perform the routing in accordance with a Bilateral Agreement. A Short Message Service Provider may also be represented as a Contracted Service Deliverer. In such cases, the determination of whether a Number is Ported or not is undertaken by the Donor or Contracted Service Deliverer. The routing and handover of messages must be done in a way that prevents the misrouting (including circular routing) of messages to the greatest extent possible.

The following diagrams are intended to be illustrative, rather than exhaustive or prescriptive, and are not intended to limit the use of other routing arrangements. However, the actual short message outcomes, as shown in the diagrams, are to be complied with.

Diagram 9

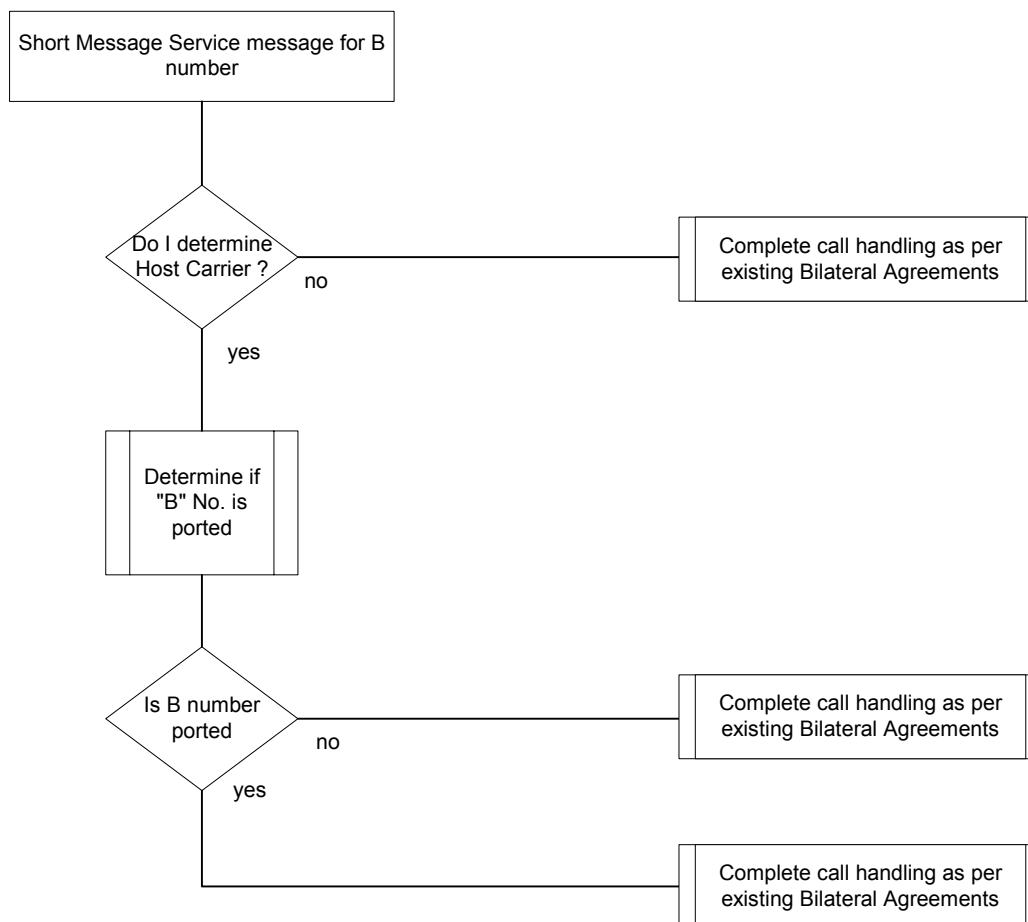
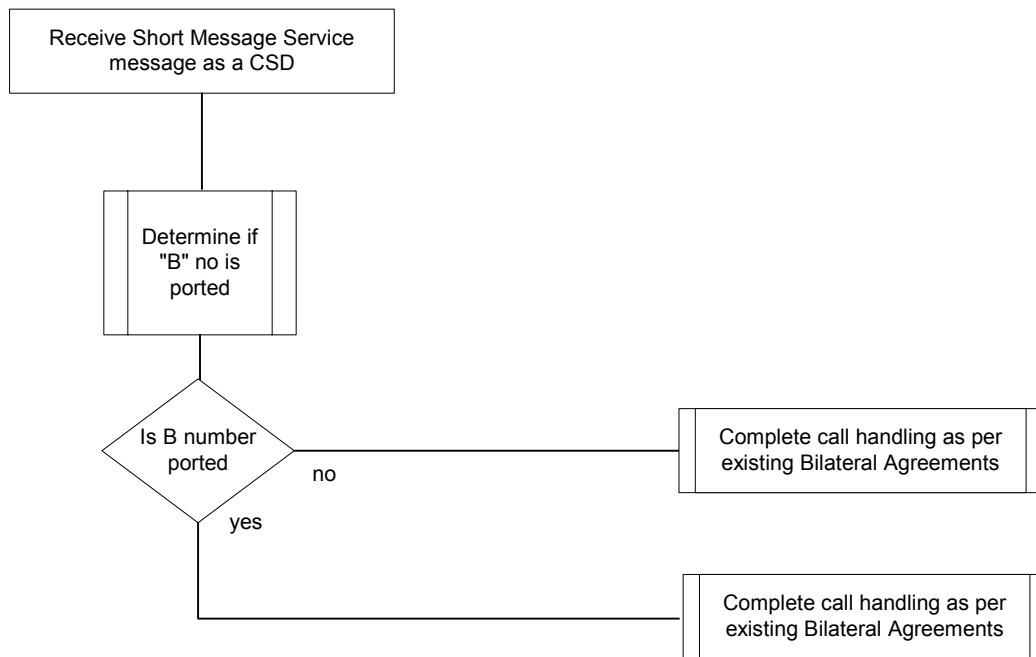


Diagram 10



12 Technical Call Handover and Signalling for Voice Services

12.1 General Inter-Network Signalling Standards

Inter-network call control signalling aligns with the relevant ITU/ETSI No.7 signalling standards; noting that the current Network interconnection signalling arrangements generally use these standards in the context of bilateral interconnection agreements.

12.2 General Signalling Capabilities

12.2.1 Delivering voice calls to Ported Numbers

In the context of the above standards, there are several alternative arrangements that can be used to determine the required routing information and to deliver voice calls to ported Numbers. This Code allows, without limitation, for the following alternative arrangements to be used. These arrangements may be used in combination with one another, or alone, depending on the specific call scenario and according to Bilateral Agreement between participating Networks.

a) Originating Network Re-routing

In this scenario, the Originating Carrier determines the routing required to directly route the voice call to the Host Carrier (without routing to the Donor Carrier), and routes the voice call accordingly. Three alternative methods have been identified, without limitation, for achieving this. In each case the speech path established for the voice call does not traverse the donor Network, although methods (ii) and (iii) make use of information held in the donor Network in order to establish the voice call.

(i) All Call Query (ACQ) Method

(ii) Query On Release (QoR) Method

(iii) Redirection Method

Each method shall comply with the Equivalent Service provisions.

b) Donor Network Re-routing

In this scenario, the Originating Carrier routes the voice call to the Donor Carrier.

On receiving the call, the Donor Carrier determines the required onward routing to the Host Carrier, and routes the call accordingly

c) Contracted Service Deliverer

By Bilateral Agreement, a Contracted Service Deliverer may perform the Originating Carrier's role of identifying the Host Carrier and the subsequent routing of voice calls to the Host Carrier.

12.2.2 Delivering voice calls from Ported Numbers

In general, voice calls originated from Ported Numbers in the Host Carrier's Network use identical signalling procedures to voice calls originated by non-Ported Numbers.

12.2.3 Other Inter-Network Signalling Standards

Some current interconnection agreements are based on the R2 MFC signalling standard. To the extent that this signalling standard does not support Number portability, Carriers using R2 MFC may be required to establish arrangements with other Carriers for the handling of voice calls to Ported Numbers.

Future network technologies and systems may offer alternative inter-network signalling standards that can support Number Portability, and this Code does not preclude these from being used in the future. In cases where such standards are used, the general requirements of this Code are to apply.

12.3 Definition of Signalling Terms

In general, capitalised terminology in this section aligns with ITU No. 7 signalling standards.

12.3.1 The Customer Number terminology used in this section is:

- **A:** the directory number of the Customer originating a voice call, generally known as the Calling-Party-Number.

In the context of Porting, **A** may be:

- the Number of a Customer calling a Ported Number; or
- the Number of the ported Customer when they originate a call.

- **B:** the directory number of the Customer to which a call is terminated, generally known as the Called-Party-Number.

In the context of Porting, **B** may be:

- the Number of a Customer being called by a Ported Number; or
- the Number of the ported Customer when a call terminates to them.

- **C:** a Number that can be used by a Host Carrier to terminate a call to a Ported Number in their Network. A **C** Number is usually a Number from the Number range associated with the Host Carrier's switch.

12.3.2 Number Format

The full form of the A, B, and C Numbers as used in the inter-network signalling (as distinct from the Numbers actually dialled by the calling Customer), are generally in the form of the ITU E.164 NSN, and under the NZ NAD numbering regime, are:

- Geographic Service Codes: Area Code+ DN (eg; 99124200; 48019000; etc); and
- Non-geographic Service Codes: Service Code+DN (eg; 219876543; 274567890; etc).

12.3.3 Network Routeing Numbers

To enable the correct inter-network and onward routeing of calls that terminate to a Ported Number, Carriers may need to use, or choose to use, a Network Routeing Number (**NRN**) in the signalling. This **NRN** is generally used as the Called-Party-Number as in clause 12.4 (1) below), although the exact structure and content of the **NRN** may vary between the two signalling standard alternatives. The possible structure and content options of an **NRN** are:

- **HOC+B**; or
- **HOC+C**; or
- **HOC** (may be relevant in the case of the Industry standard with enhancements - see clause 12.4 below), or
- **B** (if the Host Carrier agrees to this usage)

Where the **HOC** is a Hand-Off Code as described in clause 13.

For example; the **NRN** used for routeing a call to a Ported Local Number could have the contents of the Called-Party-Number as:

11934+99124200

12.4 Signalling for Calls to and from Ported Numbers

Contents of the Initial Address Message (IAM) Signalling Message

(1) Calling-Party-Number; Called Party Number; and the **NRN**

For calls delivered to a Host/Transit Carrier, terminating to Numbers ported to the Host Carrier:

Current Industry Standard (as per current Interconnection Agreements):

- Calling-Party-Number: = **A**
- Called-Party-Number: = **NRN** (e.g.; **HOC+B**) (or optionally, **HOC+C**); or **B**

Industry Standard with enhancements:

- Calling-Party-Number: = **A**
- Called-Party-Number: = **NRN** (e.g., **HOC**)
- Called-Directory-Number: = **B** (or optionally, **C**)

Note: these Industry Standard enhancements may also support other Number Portability signalling features such as:

- The provision of Number Portability call indicators; and
- QoR Cause-value information, indicating that a Number has been Ported

(2) CLI Information

For calls to Ported Numbers:

Calling Party CLI and CLIP/CLIR integrity is to be maintained – viz:

Calling-Party-Number: = **A**

CLIP/CLIR: = as set by the customer

13 Hand-Off Codes

Carriers may agree bilaterally on the method of handing over calls between their Networks. The method may include the use of separate routes for calls to Ported Numbers and/or the use of HOC's. If HOC's are to be used, the provisions of this section will apply.

13.1 HOC Allocation and Format

HOC's are codes used in Network and billing systems to identify certain characteristics of calls that are routed between Networks to Ported Numbers. HOC's are allocated to eligible Carriers according to rules specified by the NAD.

Details of HOC allocations can be found in the NAD Number Register (<http://www.nz.m-co.com>).

The HOC format is 011XNT where:

- a) X is currently digits 6 or 9 but may be any other digits allocated by the NAD;
- b) N identifies the Host Carrier Network;, and
- c) T identifies the service (LNP or MNP).

These codes are used in the format 011XNTnnn~nnn, where nnn~nnn is the dialled number in National Significant Number (NSN) format.

The proposed inter-network call handover arrangements in this Code envisage new uses of these HOC's (e.g. to cater for requesting CSD functionality). Although the current NAD HOC regime can accommodate these requirements, the actual allocation of these new special HOC's will require them to be obtained from the NAD using the standard NAD allocation processes.

13.2 HOC Forwarding

The Host Carrier will be able to check inbound calls for the HOC and route accordingly. Calls that are determined by a Carrier to be calls to Ported Numbers are to have a HOC added by the Carrier and passed on to the Host Carrier (either directly or indirectly). If the Carrier has an agreement to pass all calls to the Donor Carrier, based on the Numbers allocated to them by the NAD, they may be forwarded with or without a HOC attached, subject to Bilateral Agreements.

In general, attaching a HOC to a call indicates that a Carrier has identified a call to a Ported Number and that the Carrier is aware of the correct Host Carrier. Note that the special use of HOC's as described in 13.3.2 is an exception to this.

13.3 HOC Trapping

In order to prevent the misrouteing (including circular routeing) of calls, which is possible if Carriers' records do not match each other, the following approach must be followed:

13.3.1 A Carrier may transit calls received with a HOC for a third-party Carrier, where this is covered by an agreement with the third party Carrier.

13.3.2 Carriers will not change or remove the HOC on a transit call. Note however, that in the case of CSD or Donor HOC's, the Carrier undertaking the CSD (or Donor Re-route) function is permitted to change the HOC (or to remove the HOC), as a result of the outcome of determining whether or not the Number is ported.

- 13.3.3** Carriers receiving a call with their HOC to a number that is not on their Network will fail the call.
- 13.3.4** A Carrier may add a HOC and forward calls that have been received without a HOC attached, if this is a service being provided to a Carrier under a Bilateral Agreement.

14 Equivalent Service

14.1 Definition

A service provided in relation to a Ported Number is an Equivalent Service, if (and only if) any differences in quality, reliability, services or features between it and a similar service provided in relation to a non-Ported Number:

- a) will not be apparent to a Customer; or
- b) if they are apparent to a Customer - will not affect the Customer's choice of Service Provider.

In accordance with this definition, Service Providers when entering into agreement with Carriers must ensure that the technical solution deployed offers Customers with Ported Numbers Equivalent Service for Voice Services and Short Message Services offered to Customers with non-Ported Numbers on the same Network.

In implementing this Code and operating in accordance with it, all parties to this Code are required to act in good faith to satisfy the requirements for Equivalent Service.

The criteria listed or referred to in clause 14.2 and 14.3 of this Code are those that must be used by participating Carriers to assess whether a technical solution it will deploy would constitute Equivalent Service for Voice Services and Short Message Services (where appropriate) in accordance with the definition above.

14.2 Equivalent Service Criteria for LMNP for Voice Services

The technical solution deployed by Carriers participating in LMNP in New Zealand shall provide an Equivalent Service for Voice Services in accordance with the following criteria:

14.2.1 Criterion 1 – Post Dialling Delay

There may be an increase in post dialling delay for a call to a Customer with a Ported Number compared to a similar call to a non-Ported Number. This may vary with the routing and call set up involved. The notion of a 'similar' call requires that comparisons should involve the same call types (for example, long distance, local, calls from mobile phones, and calls from the same origin exchange made at the same time to Ported and non-Ported Numbers at the same destination exchange).

The respective post dial delay Equivalent Service criteria for LNP and MNP scenarios are as follows:

LNP Equivalent Service	MNP Equivalent Service
Increase of not more than 1 second compared with a similar call to a Customer with a non-Ported Number in 99.9% of all call cases.	Increase of not more than 3 seconds in 98% of all call cases and not more than 5 seconds in 99.9% of all call cases compared with a similar call to a Customer with a non-Ported Number.

14.2.2 Criterion 2 – Call Failure

The rate of call failure because of congestion or malfunction for calls to Ported Numbers on either local or mobile Networks must be no greater than 1 in 100 calls higher than for calls to non-Ported Numbers.

14.2.3 Criterion 3 – Services and Features

The LNP and MNP solution deployed by a Carrier must not prevent Customers with Ported Numbers from being offered the same services and features as those provided to Customers on its Network without Ported Numbers.

This requirement applies to both incoming and outgoing call services and to non-call related features.

14.3 Equivalent Service Criteria for MNP for Short Message Services

The technical solution deployed by Carriers participating in MNP in New Zealand shall provide an Equivalent Service for Short Message Services in accordance with the following criteria:

14.3.1 Criterion 1 – Services and Features

The MNP solution deployed by a Carrier must not prevent Customers with Ported Numbers from being offered the same services and features as those provided to Customers on its Network without Ported Numbers.

This requirement applies to both incoming and outgoing short messages.

14.4 Equivalent Service Compliance

Each Carrier has an obligation to provide LMNP Equivalent Service as defined in this Code.

Each affected Carrier will be required to provide a one-off certification that its Network complies with the Equivalent Service criteria based upon its design and implementation. However, the Enforcement Agency may require specific measurements to be undertaken by certain Carriers when the Enforcement Agency considers this is necessary as part of an investigation by it following a complaint(s). Where a systematic problem is identified, the Enforcement Agency may require regular network testing.

14.5 Enforcement Agency Audits

If the Enforcement Agency considers that it has reasonable grounds to do so, it may conduct audits of Carriers' documentation supporting compliance with the Equivalent Service criteria.

The detail of the Enforcement Agency audit powers and processes are to be set out in the Operational and Support Manual.

[The parties have agreed that the consequences of failing an audit need to be addressed. In the interests of time and in order not to hold up the joint application for determination in relation to designated multi-network Number portability services, the parties have agreed to continue to discuss this matter to see if agreement can be reached by 18th February 2005. If agreement is reached by the 18th February 2005, the parties will provide the Commission with the proposed wording for the Code. If agreement is not reached by 18th February 2005, the parties will submit their views to the Commission and seek that the Commission determine this matter.]

Notwithstanding this, the cost of any audit will be allocated in accordance with the following principles:

14.5.1 If the audit report states that the Audit Carrier:

(a) has complied with the Equivalent Service criteria set out in this Code, then:

(i) if the audit was undertaken due to a request from another Carrier, then the Audit Costs will be payable to the Enforcement Agency by that other Carrier and, upon receipt of payment of that sum, the Enforcement Agency will reimburse the aAudit Carrier its costs as set out below;

(ii) if the audit was undertaken otherwise than due to a request of a Carrier each of the Enforcement Agency and the Audit Carrier will bear their own costs; or

(b) has not complied with the Equivalent Service criteria set out in this Code, then the Audit Costs will be payable by the aAudit Carrier.

14.5.2 For the purposes of this section 1, “Audit Costs” means the aggregate of:

(a) Enforcement Agency reasonable direct costs in respect of the audit (including auditing and legal fees); and

(b) such costs of the aAudit Carrier in respect of time involved in assisting the audit as are submitted by the aAudit Carrier to the Enforcement Agency which the Enforcement Agency determines are fair and reasonable.

15 Process for Relaxation of Compliance with the Obligations contained in the Network Code

This process allows a Carrier to apply to the TCF Management Committee or the Telecommunications Commissioner for a relaxation from specific obligations placed on it by this Code and sets out procedures that the TCF Management Committee must follow in deciding whether or not to grant a relaxation.

[This process may be used by Carriers to seek relaxations in respect of specific obligations under this Code for a specified period but cannot be used to allow a Carrier to avoid providing Local and Mobile Number Portability in its entirety.]

15.1 Applications to the TCF Management Committee for Relaxations

15.1.1 A Carrier that expects not to be able, or considers it should not be required, to meet some of its obligations under this Code until a later date may give the TCF Management Committee an application in writing for a relaxation from the obligations for a specified period.

15.1.2 The application must be sent to the TCF Management Committee and a copy sent to the Telecommunications Commissioner no less than 40 Business Days before the relaxation is expected to commence (the “action date”).

15.1.3 The application must include a statement of:

- a) The period for which the Carrier would like the relaxation to be granted;
- b) The obligations for which the Carrier would like the relaxation to be granted;
- c) The reasons (supported by documented evidence, if practicable) why the Carrier is unable, or should not be required, to meet its obligations by the action date;
- d) The actions the Carrier took to try to meet its obligations by the action date (if applicable);
- e) The exchanges or geographic areas for which the relaxation is requested (if applicable); and
- f) The time by which the Carrier believes it can complete any Network or other requirements to meet its obligations, including a list of proposed key dates before that time.

15.2 TCF Management Committee to Notify Parties of Applications and Invite Submissions

Upon receiving an application for relaxation, or a copy of an application, the TCF Management Committee must, within 5 Business Days, notify all parties to this Code of the application and where they can obtain a copy of the application, and invite them to comment to the TCF Management Committee within 10 Business Days of being notified of the application.

15.3 TCF Management Committee may Grant Relaxations

15.3.1 [The TCF Management Committee may, in writing, grant relaxations for a Carrier. A relaxation may exempt a Carrier, from any requirement in this Code for a specified period.]

15.3.2 All voting on the granting of a relaxation will be governed by the same rules as the TCF Board and set out in the TCF Rules and Handbook, and a unanimous vote (of those members present and voting) will be required for the granting of a relaxation, except where this Code provides otherwise.

15.3.3 A relaxation may apply for a specified period, and

- a) For specified purposes; or
- b) For a specified Customer or class of Customers; or
- c) Subject to specified conditions.

15.4 Deciding an Application for Relaxation

15.4.1 Where an application for a relaxation is made to the TCF Management Committee it must adopt a procedure that in its opinion is in accordance with this Code and is the most simple and expeditious procedure possible in the circumstances, and in any case subject to clause 15.4.2 must use reasonable endeavours to decide on the application within 40 Business Days of receiving it.

15.4.2 The 40 Business Days does not include any period:

- a) Starting when the TCF Management Committee asks the applicant for further information to allow it to consider the application; and
- b) Ending when it receives the information.

15.4.3 Before making a decision, the TCF Management Committee must, unless otherwise unanimously agreed by the members of the TCF Management Committee present and voting on the matter, and the applicant Carrier, consult with, and have regard to the opinion(s) of, at least one but no more than two independent expert(s). The independent expert(s) must be agreed to by the applicant Carrier and the TCF Management Committee (or, if agreement on an independent expert cannot be achieved within 10 Business Days of the TCF Management Committee receiving the application for relaxation, appointed by the president of the New Zealand Law Society or his/her nominee. The independent expert(s) may be internationally based, and between them must have experience and expertise in telecommunications and preferably also dispute resolution procedures.

15.4.4 The TCF Management Committee must also have regard to any submissions received from parties to this Code within the timeframe set out in clause 15.2 above.

15.4.5 No independent expert will have any formal decision-making function.

15.4.6 The TCF Management Committee must not adopt inquisitorial processes.

15.4.7 Once the TCF Management Committee has reached an agreement on whether it will grant the application sought or not, it must inform the Telecommunications Commissioner of its intended response to the application.

15.4.8 The TCF Management Committee must grant a relaxation only if it receives written agreement to the decision from the Telecommunications Commissioner, and is satisfied that:

- a) It is not practicable for the applicant to meet its obligations under the Code; and
- b) It would be to the long-term benefit of end-users of telecommunication services in New Zealand.

15.4.9 An approval or rejection of a relaxation must:

- a) Be in writing; and if it is an approval,
 - (i) Describe which obligations the applicant Carrier is exempted from;
 - (ii) Specify the period of the exemption;
 - (iii) Include any conditions to which the approval is subject; and
- b) Outline the reasons for the decision of the TCF Management Committee.

For the avoidance of doubt, the TCF Management Committee may impose any conditions or limitations it deems are appropriate in any approval of a relaxation made by it having regard to the matters set out in 15.4.8 above.

15.5 Compliance with the Code after Applying for a Relaxation

If a Carrier gives the TCF Management Committee an application for a relaxation, the Carrier must continue to comply with the requirements of this Code until such time that the TCF Management Committee notifies the Carrier in writing of its decision to grant a relaxation.

15.6 Notice of Decision about Relaxation

15.6.1 The TCF Management Committee must, as soon as practicable after making a decision on an application for relaxation, cause to be published in the New Zealand Gazette, a notice stating:

- a) That it has made a decision on an application for a relaxation; and
- b) How a copy of the text of the decision can be obtained.

15.6.2 If the TCF Management Committee decides to grant the relaxation, it must give a copy of the relaxation to any person whom it believes may have an interest in the decision.

15.7 Applications to the Telecommunications Commissioner for Relaxations

15.7.1 A Carrier that expects not to be able, or considers it should not be required to meet some of its obligations under the Code may choose not to submit its application for relaxation to the TCF Management Committee, but instead submit it in writing directly to the Telecommunications Commissioner for determination under either:

- a) S58 of the Act; or
- b) S59 of the Act.

15.8 Right of Carrier to Appeal a Decision of the TCF Management Committee to the Telecommunications Commissioner

15.8.1 A Carrier may appeal a decision of the TCF Management Committee in relation to an application for relaxation to the Telecommunications Commissioner by

re-submitting its application to the Telecommunications Commissioner under either s58 and s59 of the Act.

15.9 Confidentiality of Information

15.9.1 It is anticipated that parties to this Code may choose to disclose confidential or commercially sensitive information in the course of preparing or commenting on an application for relaxation that is submitted to the TCF Management Committee. The parties to this Code agree that in this context, it will be appropriate for parties to require similar protection of this information to that afforded to the confidential and commercially sensitive information of parties involved in investigations carried out by the Telecommunications Commissioner under the Telecommunications Act 2001.

15.9.2 The parties agree to use reasonable endeavours to agree on a confidentiality regime, analogous to that used by the Telecommunications Commissioner, for use in relation to applications for relaxations. It is anticipated that the documents that record this regime could be added to Schedule 1.

15.10 Applicant Carrier to bear TCF Management Committee Costs

The applicant Carrier is to bear all costs reasonably incurred by the TCF due to the Carrier's application.

16 Administrative Issues

16.1 Expiry Revocation and Amendment of the Code

The expiry, revocation or amendment of the Code is subject to Clauses 11-15 of Schedule 2 of the Act. For the avoidance of doubt, and in accordance with section 9 of the Telecommunications Carriers' Forum's Handbook any Forum Member may put a Project Proposal to the Forum Board (at any time) for the amendment or revocation of the Code.

16.2 Dispute Resolution

16.2.1 Dispute

For the purposes of these dispute resolution procedures, a "dispute" is any matter relating to this Code about which any of the parties to the Code disagree or are unable to agree where a matter requires their agreement and which:

- (a) Is substantially a dispute of fact of a technical nature (technical dispute), including a service level default, but is not a complex dispute as defined in sub-clause (b); or
- (b) Is a dispute (complex dispute) being a dispute that:
 - (i) May, in the opinion of a party to the dispute and the Code have significant commercial implications for that party; or
 - (ii) Includes a substantial issue of fact of a non-technical nature or a substantial issue of law.

If a dispute is not a technical dispute, then it is to be resolved as a complex dispute.

16.2.2 Telecommunications Act 2001

No party to the Code is prevented by these dispute resolution procedures from exercising any rights under the Telecommunications Act 2001 (Act), including but not limited to:

- (a) Applications for determinations, price reviews, clarifications, reconsiderations to the Commerce Commission under Part 2 of the Act;
- (b) Appeals against and enforcement of determinations to the High Court under subpart 5 of Part 2 of the Act; and
- (c) Investigations by the Commission under subpart 6 of Part 2 and Schedule 3 of the Act.

If there is a dispute about the extent of a party's rights under the Act, then that dispute may be resolved in accordance with the procedures in the Act and these dispute resolution procedures will not apply to such a dispute.

If a dispute has not been resolved by the end of the negotiation period (and, if applicable, the mediation period), a party to the dispute may choose to resolve the dispute by pursuing any applicable rights under the Act or, in the alternative, by submitting a technical dispute for expert determination under clause 16.2.5 or by submitting a complex dispute for arbitration under clause 16.2.6.

Once a party (the "Initiator"):

- (a) has commenced a process under the Act; or
- (b) has submitted a dispute for expert determination or arbitration,

then subject to clause 16.2.7 below it cannot commence an alternative process, unless the process that has been commenced is held by the decision maker of that process not to apply to the resolution of the dispute in question.

However, if the Initiator submits a dispute for expert determination or arbitration, that will not preclude the other parties to the dispute from pursuing any rights under the Act.

16.2.3 Good Faith Negotiation

Any party to the Code may at any time give notice describing a dispute to any other party (or parties) to the Code who are involved in the dispute (relevant party). The party who gave notice of the dispute and the relevant parties are together referred to as the “parties to the dispute”.

If a party gives notice of a dispute, then during a negotiation period of 10 Business Day from the date notice of the dispute was given, the authorised representatives of the parties to the dispute must attempt in good faith to negotiate a resolution of the dispute.

If the authorised representatives are unable to resolve the dispute within the 10 Business Day period, the parties to the dispute may agree to refer the dispute to the respective Managing Directors, in the case of complex disputes, or Operational Managers, in the case of technical disputes, who must attempt in good faith to resolve the dispute within a further 10 Business Days. If the parties agree to this further negotiation period, then for the purposes of the final paragraph of this clause 16.2.3, and for clauses 16.2.2, 16.2.4, 16.2.5 and 16.2.6 the “negotiation period” includes this further 10 Business Day period.

If by the end of the negotiation period the parties to the dispute are unable to agree whether the dispute is a technical dispute or a complex dispute then, for the purpose of these dispute resolution procedures, the dispute shall be regarded as a complex dispute, and subject to clause 16.2.2 resolved under these dispute resolution procedures as such.

16.2.4 Mediation

At any time during the negotiation period, the parties to a dispute may agree to refer the dispute to mediation. The mediator will be appointed by agreement between the parties to the dispute, but failing agreement within 5 Business Days of the parties agreeing to refer the dispute to mediation, will be selected by the Chairperson of LEADR (Lawyers Engaged in Alternative Dispute Resolution) New Zealand Inc (or his or her nominee). Unless otherwise agreed in writing, the then current model mediation agreement issued by LEADR New Zealand Inc must be used and the mediation must be completed within 20 Business Days of the mediator’s appointment. The costs of the mediator will be paid by the parties to the dispute equally.

16.2.5 Determination of Technical Disputes by an Independent Expert

If a technical dispute has not been resolved by the end of the negotiation period (and, if applicable, the mediation period), a party to the dispute may give written notice to the relevant parties requiring the dispute to be determined by an independent expert.

The independent expert will be appointed by agreement between the parties to the dispute, but failing agreement within 5 Business Days from the date the notice was given under this clause, will be appointed at the request of the Initiator by the Chairperson of the Board of the Telecommunications Carriers’ Forum.

To be eligible for appointment, the expert must be independent and impartial, and must be experienced in telecommunications and will preferably be experienced in dispute resolution procedures. They must not have performed any duties, whether as an

employee, consultant or contractor, for any of the parties to the dispute or any related party during a 12-month period prior to the date the notice of the dispute was given.

The expert will act as an independent expert and not as an arbitrator. The dispute will be resolved as soon as possible in accordance with the procedure determined by the expert, but in accordance with the principles of natural justice. It is acknowledged that where the independent expert has primarily technical qualifications, the expert may need to seek independent legal advice regarding the appropriate procedures for resolution of the dispute.

The parties to the dispute agree to be bound by the decision of the independent expert, in the absence of manifest error. The costs of the independent expert (including the costs of any independent legal advice sought by the expert in accordance with these dispute resolution procedures) will be shared equally by the parties to the dispute. Reference to the independent expert will not be a submission to arbitration for the purposes of the Arbitration Act 1996 and that Act will not apply to or govern the dispute's resolution.

16.2.6 Arbitration of Complex Disputes

If a complex dispute has not been resolved by the end of the negotiation period (and, if applicable, the mediation period), a party to the dispute may then give notice referring any part of the dispute to arbitration. Subject to clause 16.2.2, this Code and the notice will be a submission by the parties to the dispute of the dispute to arbitration and each party to the dispute agrees to confirm this submission if requested by any other party to the dispute. Unless otherwise agreed in writing:

- (a) The arbitration will be subject to the Arbitration Act 1996 and its Schedules;
- (b) The parties to the dispute will endeavour to appoint a single arbitrator within 10 Business Days of notice being given;
- (c) The arbitrator must have experience and expertise in telecommunications and competition issues;
- (d) If the parties to the dispute fail to agree on a single arbitrator within the 10 Business Day period, then the President of the New Zealand Law Society (or his or her nominee) shall appoint the arbitrator at the request of any of the parties to the dispute;
- (e) The arbitrator must adopt a procedure which, in the arbitrator's opinion, is expeditious. If feasible in the circumstances the arbitrator will endeavour to complete the arbitration within 2 months of the arbitrator's appointment (or such lesser period as is appropriate);
- (f) The arbitrator may determine the dispute without a hearing unless any party gives notice requiring one, in which case the arbitrator must treat that as a material consideration in assessing costs;
- (g) The arbitrator must not adopt inquisitorial processes;
- (h) The arbitration must take place in Wellington or Auckland (at the arbitrator's discretion);
- (i) The arbitrator must determine the dispute under New Zealand law;
- (j) Any party may appeal to the High Court on any question of law arising from an award; and
- (k) The arbitrator may commission assistance or any reports from any expert or other person which, in his or her opinion, would assist him or her in making the award. The cost of this assistance or report is:

- (i) To be a cost of the arbitration; and
- (ii) Unless the arbitrator orders otherwise, to be shared equally between the parties to the dispute.

The arbitrator is:

- (iii) To provide copies of any assistance or report to the parties to the dispute;
- (iv) To allow each party to make submissions in response to that assistance or report;
- (v) To allow each party to produce evidence on any issue raised in that assistance or report; and
- (vi) To allow each party to make submissions in response to any evidence produced by any party.

16.2.7 Court Proceedings

Notwithstanding the above dispute resolution procedures, a party to the Code may at any time commence court proceedings relating to any dispute if that party seeks urgent interlocutory or interim relief. Otherwise, and except where a party to the dispute chooses to pursue any of its rights under the Act as contemplated by clause 16.2.2, the dispute resolution procedures in this Code are mandatory and parties to the Code contemplate that they will not resort to court proceedings. If they do, a relevant party should be entitled to obtain a stay of court proceedings in favour of an appropriate dispute resolution procedure under this Code.

16.2.8 Continuance of Obligations

Except where the dispute renders it impossible to do so, the parties to the dispute will continue performing their respective obligations under the Code while the dispute is being resolved or is subject to expert determination, arbitration or court proceedings, or a party is pursuing its rights under the Act. Each party to the Code must use all reasonable endeavours to ensure that where a dispute is reasonably foreseeable, it is dealt with at a sufficiently early stage to ensure that there is a minimum effect on the ability of any party to perform its obligations under the Code.

16.2.9 Use or Disclosure of Information

No party to the dispute may use, other than to attempt to resolve the dispute, any information disclosed by any other party to the dispute in the course of negotiation, expert determination, mediation or arbitration under the dispute resolution procedures. Any such information remains the property of the party supplying it and remains confidential to that party. Disclosure in the course of negotiation, expert determination, mediation or arbitration under the above procedures is not a waiver of confidentiality.

Neither party may disclose any such information to anyone other than an adviser or independent witness who has entered into a deed undertaking:

- (a) not to disclose any of the information, or any analysis of the information, other than to the parties to the dispute, an independent expert, a mediator, an arbitrator or court, except as compelled by law; and
- (b) to return all material on which such information is recorded on completion of the adviser's or independent witness's services.

16.2.10 Bilateral Agreements

The dispute resolution procedures above apply to the extent they are not inconsistent with the dispute resolution procedures in a Bilateral Agreement that incorporates this Code in full or in part for a dispute under the Bilateral Agreement relating to the subject matter of this Code.

Schedule 1