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Operational and support Manual for Local and Mobile Number Portability in New Zealand

2 March 2005

DRAFT

Table Of Contents

1	Explanatory Statement	
2	Scope and Objectives	
3	Amendments to the Manual	
4	Definitions	
5	Network Design Guidelines	
5.1	Call Hand-over Arrangements:.....	7
5.2	HOC Allocation, Format, and Usage:.....	8
5.3	Number Portability Development.....	10
6	Fault handling and testing procedures	
6.1	LMNP Fault Management Procedures.....	12
6.2	Standard Testing.....	12
6.3	Additional Tests for Complex Ports.....	13
6.4	LMNP Fault Reporting.....	13
7	Capacity forecasting procedures	
8	Support arrangements and escalation procedures	
8.1	Management of Outages.....	16
8.2	Escalation procedures.....	17
9	New entrant procedures	
9.1	Contracted Service Deliverer.....	19
9.2	Transit or Bypass Carrier.....	19
9.3	New Network Operator.....	20
10	Equivalent Service requirements	
10.1	Existing services.....	21
10.2	New services.....	21
10.3	TCF Enforcement Agency.....	21
11	Audit Process	
11.1	Audit for initial certification.....	22
11.2	Audit by the Enforcement Agency.....	22

DRAFT

1 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 the LMNP Code in a Local and Mobile Number Portability environment.

The 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.

The purpose of this Operational and Support Manual is for the support and assurance of Local and Mobile Number Portability in New Zealand ("Manual") and to provide guidelines for call handling and operational procedures that carriers will need to implement to assure and support the processes defined in the Network Code.

DRAFT

2 Scope and Objectives

The operational procedures outlined in this Manual are:

- a) Network design guidelines.
- b) Fault handling and testing procedures
- c) Capacity forecasting procedures
- d) Support arrangements and escalation procedures
- e) New entrant procedures
- f) Equivalent Service requirements
- g) Audit processes
- h) Contact details

It is anticipated that the processes and functions set out in the LMNP code could be required to support the above operational procedures.

Given the inter-active nature of number portability, it is essential that all new entrants and new components be fully tested in order to assure seamless operation. Untested entrants or components could cause call blockage and revenue loss due to unauthorized or inefficient use of Network elements.

This Manual sets out minimum operational procedures and may be improved by Bilateral Agreements. To the extent of any inconsistency between this Manual and a Bilateral Agreement, the Bilateral Agreement will prevail.

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3 Amendments to the Manual

The purpose of the section is to describe the procedure for amending the Manual and at the same time making sure it stays consistent with the LMNP Code and the Network Code.

Any party to the Network Code and the Manual can request an amendment to the Manual by providing to the TCF Board reasonable information and justification for an amendment.

A party shall request an amendment (and the matter will be voted on) pursuant to section 9 of the TCF's handbook: the Process for Project Proposals except that any amendment requires a 75% majority of the TCF Board.

DRAFT

4 Definitions

All capitalised terms in this Manual have the meaning assigned to those terms by the Network Code. In addition, unless the context otherwise requires, the following terms are defined as follows:

Term	Definition
Audit	Means an audit conducted by the Enforcement Agency in relation to Equivalent Service.
Complex Port	Refer to the definition set out in the LMNP code (section 3.2 (“Definitions”)).
During Porting Fault	Means those faults which occur from activation through to closure of the Porting Process.
Fault Reporting Centre	Means a published primary point of contact within an organisation for Network faults related to LMNP
Gaining Carrier	Refer to the definition set out in the LMNP code (section 3.2 (“Definitions”)).
Losing Carrier	Refer to the definition set out in the LMNP code (section 3.2 (“Definitions”)).
Planned Outage	Means an outage that is scheduled.
POI	Points of Interconnection.
Ported Number Register	Refer to the definition set out in the LMNP code (section 3.2 (“Definitions”)).
Post Porting Faults	Means those faults which occur after the Porting Process is closed.
Standard Tests	Means the test steps as outlined in section 6.2 of this document
Toll ByPass	Means a service enabling customers to select their carrier for long distance calls.
Unplanned Outage	Means an outage that is not scheduled.

DRAFT

5 Network Design Guidelines

The purpose of this section is to provide guidelines to enable Carriers to plan, design, and operate Local and Mobile Number Portability inter-Network call hand-over arrangements.

The network design guidelines in section 5. are recommendations, not requirements – other arrangements can be agreed between Carriers, as long as all relevant requirements (eg; the Network Code) are complied with.

5.1 Call Hand-over Arrangements:

This section covers the general call routing outcomes for inter-Network call handover for calls to and from Ported Numbers.

The special requirements of number portability call routing are generally implemented by the use of Hand-off Codes (HOC's) – these are covered in detail under section 5.2.

- (a) **Routes for calls to Ported Numbers**
 - normal interconnection routes (toll or local, or other) may be used, or special interconnect routes dedicated to number portability traffic
- (b) **Routes for calls from Ported Numbers**
 - normal interconnection routes (Toll or Local, or other) may be used, or special interconnect routes dedicated to number portability traffic
- (c) **Points of Interconnection (“POI’s”) for Calls to Ported Numbers**
 - normal POI’s (toll or local or other) may be used (a case for special POI’s for number portability)
 - note that the type of porting solution (originating, or donor) can impact the POI used. Donor solutions normally do call hand-over at the POI serving the donor switch, while originating solutions normally do call hand-over at the POI serving the originating switch. This can give rise to different call outcomes (ie, different POI’s) for toll calls to Ported Numbers, as compared to toll calls to non-ported Numbers.
- (d) **POI’s for Calls from Ported Numbers**
 - normal POI’s (toll or local or other) may be used (a case for special POI’s for number portability)
- (e) **Routing for Special calls (111, Toll Bypass; etc)**
 - In general, normal routing should apply
 - 111 calls should be routed as per 111 calls from non-ported Numbers
 - Toll Bypass calls should be routed “as is” to the required carrier, prior to any number portability routing determination
 - note that there are some unresolved call functionality issues arising from some calls to/from Ported Numbers (eg; geographic, and network based call routing). These are covered in more detail in section 4.3
- (f) **Calls to/from other Networks involving Ported Numbers (Intl, etc)**
 - normal number portability call routing should apply
- (g) Linkage/impacts on existing routing agreements

DRAFT

5.2 HOC Allocation, Format, and Usage:

5.2.1 General

In the context of Local and Mobile Number Portability, HOCs are special Network routing codes used in Networks to identify and route calls to Ported Numbers, and to activate various special Local and Mobile Number Portability functions (such as calls using donor re-routing and the Contracted Service Deliverer (CSD) function).

5.2.2 Allocation

HOCs are allocated to eligible Service Providers according to rules specified by the NAD (specifically, the Telecommunications Numbering Plan – Number Allocation Rules; Schedule 1; section 2).

5.2.3 Format

The general HOC format is of the form 011XNT where:

- X is currently digits 6 or 9 but may be any other digits allocated by the NAD
- N identifies the Carrier to which the call is to be sent
- T identifies the number portability “service” required (eg; carr; donor; or CSD)

These HOC’s are usually followed by the dialled Number in National Significant Number (NSN) format - eg; 011902+9+9124200 for a call to a Local Number.

5.2.4 HOC Usage

This section contains a definition of each generic HOC type, and it’s intended usage.

HOC Type	Usage
HOC-Carr	Used by a Carrier to route a call to the Host Carrier once it has been determined that the called Number has been ported to that Carrier.
HOC-donor	Used by a Carrier to route the call to another Carrier, in the context that the other Carrier will undertake donor network re-routing
HOC-CSD	Used by a Carrier to route the call to another Carrier, in the context that the other Carrier will undertake the CSD function for the Originating Carrier

DRAFT

5.2.5 HOC Rules

The following rules and guidelines for the use of HOC's have been taken from the Network Code:

- *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 (2) below is an exception to this.

- *HOC Trapping*

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

(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.

(2) Carriers will not change or remove the HOC on a transit call. Note however, that in the case of CSD or donorDonor 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.

(3) Carriers receiving a call with their HOC to a Number that is not on their Network will fail the call.

(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.

5.2.6 Detail of Proposed HOC's (examples)

It is proposed that new HOC's (in addition to those already in use for the current form of Local and Mobile Number Portability – ie call re-address) be established using the 0116NT group along the following lines: (note that these will required to be established by application to the NAD):

- each of the spare "N" digits 5 to 9 be allocated to one of the carriers
- the following spare "T" digits be allocated for these uses:
 - 7 = a HOC-Carr
 - 8 = a HOC-donor
 - 9 = a HOC-CSD

For example, if Telecom was allocated the spare N Digit = 5, and Vodafone was allocated the spare N Digit = 6; the three HOC combinations for Telecom would be:

- HOC-Carr = 011657
- HOC-donor = 011658
- HOC-CSD = 011659

DRAFT

Similarly, the three HOC's for Vodafone would be:

- HOC-Carr = 011667
- HOC-donor = 011668
- HOC-CSD = 011669

Note that it may be necessary or useful for a carrier to use more than one "N" digit for its call handover – for example, to enable separate call routing for its fixed and cellular networks.

5.2.7 Capacity and Growth of HOC's

At a minimum, one HOC would be required per Carrier (ie, the HOC-Carr). At a maximum, there could be about three HOC's per carrier. Assuming a possible five carriers, with two HOC's each on average, there could be a total of about ten unique HOC's required.

The current spare capacity inside the 0116NT group would cater for up to seven carriers, each with the three HOC types. This would appear to be able to cater for the HOC demand, at least initially. If additional HOC's were required (the most likely case would be to cater for more carriers), then it would be necessary to open up a new 011XNT code group. Currently, both 0114NT and 0115NT are spare, and could be used.

5.3 Number Portability Development

5.3.1 General

It is expected that there will be an ongoing requirement to change, enhance, and develop existing and new Network functionality to support the current and any future number portability regime.

The nature of these developments will range from small-scale enhancements or fixes to the current functionality, through to large-scale developments that are required to support major new number portability capabilities.

5.3.2 Process

As required, the parties to the Network Code shall meet to:

- identify and document any technical/network issues that may need to be addressed;
- agree on the relevance and priority of the issue with respect to Local and Mobile Number Portability;
- establish a team to study the issue, and to make a recommendation as how it can be resolved;
- reach agreement on the implementation or not of the recommendation;
- undertake an agreed programme of work to implement the recommendation;
- update the relevant Code where necessary.

In undertaking this technical development work, the parties/team shall have regard to:

- reaching consensus between all affected parties;
- alignment with relevant international, national, and industry standards;
- alignment with Bilateral Agreements;
- the delivery the required functionality in a cost effective and timely manner;
- the impact on the relevant codes, and Network and operational systems supporting the codes

DRAFT

5.3.3 Current Issues

The current known development issues are:

- geographic and location identity for call routing of calls originated by ported Customers; and
- Network identity for the management of various special service calls.

The problem statements for these issues are in Appendix 2

The following additional issues have been identified as potentially requiring further technical development, and need to be explored in greater detail to confirm:

- Number integrity for various miscellaneous CLI-based services: and
- Short Message Services routing.

The problem statements for these issues are also in Appendix 2

DRAFT

6 Fault handling and testing procedures

The purpose of this section is to provide processes and requirements for the management and resolution of faults involving number portability.

The primary responsibility for handling and resolving customer fault enquiries lies with the Service Provider of that customer service. The Service Provider shall work with the Carrier providing Network services to resolve the fault. It is anticipated that the necessary business process relating to fault handling in general between Service Providers and their Carriers will already exist.

The specific inter-carrier process for number portability fault handling and resolution should be developed by participating Carriers by way of amendments to existing Bilateral Agreements regarding fault handling.

Access to, and use of, the information in the industry number portability databases shall be restricted to those required for operational purposes, such as for routing of calls and fault handling. Carriers shall not make use of the information obtained from these databases for any other purposes.

Each Carrier will progress its own fault handling within its own Network. Procedures for joint investigation or the co-ordination of fault handling, as agreed between the Carriers, shall be used, as for any other co-ordinated interconnect faults.

Each Carrier, together with the relevant Service Provider is responsible for its own Customer base and as such will have control of any service fault reports. Fault handling for the Ported Numbers is to be under the control of the Gaining/Host Carrier, although additional co-ordination may be required with the Losing/Donor Carrier. The Gaining/Host Carrier will work closely with the Losing/Donor Carrier and the other Carriers to resolve any fault reports, as for any other interconnect faults.

6.1 LMNP Fault Management Procedures

The following general procedures shall be implemented in regards to the resolution of LMNP faults:

- a. The Gaining/Host Carrier is to manage the investigation of faults reported on Ported Numbers during and after Porting.
- b. If a customer with a Ported Number reports a fault relating to their service to a Carrier other than the Gaining/Host Carrier for that service, then that Carrier must advise the Customer to contact its Gaining/Host Carrier to report the fault.
- c. If a Customer calling a Ported Number reports a fault to their Gaining/Host Carrier, then that Carrier must investigate and resolve the fault as per their normal fault management procedures

6.2 Standard Testing

Before reporting a fault to another Carrier, the Gaining/Host Carrier must verify that the:

- a. Activation time for Porting has expired;
- b. Customer equipment is correctly terminated;
- c. Dial tone or an outgoing call capability is available on the Gaining/Host Carrier's Network;
- d. Test calls from within the Gaining/Host Carrier's Network are successful; and
- e. Test calls from other Carriers Network are unsuccessful.

DRAFT

Each Carrier while diagnosing a fault must use sufficient analysis to identify which Carrier Network may be causing the fault and then direct the fault report to the identified Carrier in the first instance.

6.3 Additional Tests for Complex Ports

In the case of a Complex Port, the Gaining/Host Carrier must conduct the Standard Tests, however the Gaining/Host Carrier does not need to test all Numbers if there are more than 10 Numbers associated with a service which are in a sequential number range.

6.4 LMNP Fault Reporting

6.4.1 During Porting Fault

Each participating Carrier must maintain a nominated contact point (or points) at its Fault Reporting Centre that must be used by participating Carriers for the direct reporting of faults occurring during Porting ("**During Porting Fault**").

6.4.2 Post Porting Fault

Post Porting Faults are to be reported using existing fault reporting methods.

6.4.3 Fault Clearance During Porting, or Immediately Post Porting

If the Gaining/Host Carrier becomes aware of a such a fault, the Gaining/Host Carrier may call the Losing/ Donor Carrier's contact point(s) to report the fault after the Gaining/Host Carrier has completed the Standard Tests

If the Losing/ Donor Carrier receives a call from the Gaining/Host Carrier it should check the status and validity of the Port Request associated with the fault identified by the Gaining/Host Carrier. If the Port Request is invalid or the Port Activation is not yet closed then the fault report can be held, pending resolution of the state of the Port.

If the Port Request is valid and the Porting has apparently been completed, testing must be initiated by the Losing/ Donor Carrier. (or by any other Carrier that reported the fault?)

If testing does not identify the existence of a fault then the Losing/Donor Carrier must: advise the Gaining/Host Carrier accordingly.

If testing does identify the existence of a fault, then the Losing/Donor Carrier must initiate the rectification of the fault.

6.4.4 Fault Reporting requirements

Each day, any Carrier that has had the responsibility for clearing a fault related to number portability, must advise the Carrier that first reported the fault, and any other Carrier directly impacted by the fault, of the rectification, clearance, or otherwise of the fault. Where it was found that the fault either did not exist, or the fault was not related to number portability, that outcome shall be also included in the fault report.

DRAFT

6.4.5 Guide to LMNP Fault Management Timetable

The following table summarises the resolution targets that apply to fault resolution

Event	Resolution Target timeframe
Resolution of During Porting Faults	On the initial phone call or no longer than four (4) hours
Time for the Gaining Carrier to test that a Port has been successfully completed	Four (4) hours from the commencement of the Port but before 5pm
Time for the Losing Carrier/Donor Carrier to respond to a During Porting Fault	Two (2) hours
Immediate Post Porting Faults	End of the first full Business Day
Resolution of Special Investigations	Three (3) Business Days

NOTE: *All resolution targets may be improved by Bilateral Agreement.*

DRAFT

7 Capacity forecasting procedures

The purpose of this section is to assist Local and Mobile Number Portability participants to build and provision adequate capacity on their Network.

1. Each Carrier shall be required to provide forecast volumes of porting call volumes for agreed periods at agreed times. Forecasts are provided by the Carrier in the context of reasonable endeavours, and in good faith, and no Carrier is liable to any other Carrier, as a result of the accuracy or content of any forecast.
2. Carriers shall liaise as required, in order to resolve any issue as to the understanding or accuracy of any forecast. In particular if a Carrier becomes aware, during a period for which a forecast has been provided, of any material change to that forecast, (whether transient, or ongoing), it must promptly give any other impacted Carrier notice of the change.

DRAFT

8 Support arrangements and escalation procedures

The purpose of this section is to provide the details for processes to allow for:

- management of Planned Outages
- management of Unplanned Outages
- escalation procedures
- plans for disaster recovery/roll-back

when these events are relevant to number portability.

8.1 Management of Outages

8.1.1 Planned Outages

Every effort must be made to ensure that Planned Outages that may affect LMNP do occur between 1am and 3am.

In the event that a carrier identifies that they require a Planned Outage that party must advise all involved parties (using the contact list) via phone call and email at least 5 Business Days before the Planned Outage.

If there is any change to the Planned Outage date or time the change must be advised to all parties via phone call and email as soon as possible.

Details of all Planned Outages will be provided on the TCF website and updated when there is a change.

8.1.2 Management of Unplanned Outages

In the event that a carrier identifies that it is experiencing an Unplanned Outage, it must as soon as practicable:

(a) notify all involved parties (using the TCF website contact list) via phone call and email. The back up method is fax notification to those parties on the contact list; and

(b) confirm receipt of notification from each party.

Information to be included in notification:

- (a) Nature of problem;
- (b) Location of problem
- (c) Impact of problem
- (d) Estimated time of resolution.
- (e) Next update time

The party that had the outage must notify of the conclusion of the outage to all parties identified on the TCF website contact list via phone call and email or fax (as a back up) as soon as practicable. To the extent that parties may have ceased porting transactions during an Unplanned Outage, they can initiate queued porting transactions once confirmation is advised by the IPMS management that those transactions can be completed.

DRAFT

8.2 Escalation procedures

If a fault is specific to Local and Mobile Number Portability traffic and does not impact other traffic types and if Bilateral Agreements do not provide specific arrangements for escalation procedures in the context of Local and Mobile Number Portability, then parties shall use the following procedure:

In a Local and Mobile Number Portability environment, the Service Provider that owns the relationship with the Customer who originates the fault call is also responsible for coordination and escalation of the fault resolution process.

The escalation procedure is to be used as a mean of bringing unresolved issues to the attention of Carriers at all levels responsible for, or having authority to, expedite corrective action. To that end all LMNP participants must ensure that they nominate relevant contact points for the escalation of Porting issues.

In the case that any Porting activity outlined in the Manual is not resolved within the specified time frame or is resolved unsatisfactorily, any LMNP participant may escalate this matter to the next escalation point nominated by the other party.

Unless otherwise specified, that escalation point will have the relevant amount of time to investigate, resolve and respond as specified for that point of escalation.

The escalation procedure is to be initiated when an issue that requires resolution has been reported to an LMNP participant for remedial/corrective action, and after a given period, either:

- no response had been provided in relation to the issue raised; or
- the issue raised has not been resolved; or
- an unsatisfactory reason is given for the delay in remedial/corrective action to resolve the issue raised.

Prior to initiating the escalation procedure, the affected LMNP participant should conduct preliminary enquires within their own organisation in an attempt to resolve any issues raised. At this point, the relevant party should identify if the issue is the result of a known problem. Where it is identified that the problem is associated with an existing unresolved problem (and all other conditions have been met) then the affected LMNP participant can raise an escalation.

Once the above steps have been undertaken, the relevant party should initiate the escalation procedure as follows:

- Advise the nominated escalation contact point.
- If the issue cannot be resolved at the first level, advise that Carrier's or Carrier Service Provider's second level escalation of the affected parties for resolution.

At each level, the relevant escalation contact points must:

- supply adequate facilities for contact and commit to maintenance of that contact and when necessary provide an alternate point of contact; and
- acknowledge receipt of information provided by the other escalation contact point as soon as possible.

DRAFT

The levels of escalation and standard timeframes to escalate to the next level are:

Escalation level	Description	Standard timeframe for contacting next escalation level
<ul style="list-style-type: none"> • Business Usual As Usual 	Represents the handover point for initial fault investigation and repair.	
<ul style="list-style-type: none"> • Level One 	Escalation level where service level agreements are assessed as being “in danger of” being compromised or are not met	2 hours
<ul style="list-style-type: none"> • Level Two 	Escalation level where service level agreements are impacted and Level One escalation has not affected a satisfactory resolution. Also may be invoked where multiple customers’ services are affected by the same problem.	4 hours
<ul style="list-style-type: none"> • Level Three 	Level Two escalation has not affected a satisfactory resolution. Serious process or infrastructure integrity failure.	8 hours

In the event a major fault occurs, there should not be a “by pass” of any escalation level but the standard timeframes can be shortened as the initiator request. The ultimate remedy to resolve an urgent fault will be a conference call between appropriate representatives and technical experts.

9 New entrant procedures

This purpose of this section is to provide details and information for new entrants such as:

- processes and steps to follow
- contacts
- lists of pre-work (Ported Number Register loading),
- list of testing obligations and scenario
- and pre go-live activities

3 types of new entrants may be considered:

1. Contracted Service Deliverer;
2. Transit or By Pass Carrier; or
3. Network operator.

9.1 Contracted Service Deliverer

A Contracted Service Deliverer can perform LMNP database lookups on behalf of other Network operators. They may also provide interconnection services to other donor/host carriers, (ie, also has a Transit Carrier role), if so, the requirements under Transit/Bypass Carrier may also be applicable. A Contracted Service Deliverer must:

- be familiar, and have complied with the obligations required under the LMNP and Network Codes;
- be familiar with the call handling procedures laid down in the Network Code;
- complete a connection to IPMS and all relevant commissioning testing;
- ensure that the PNR (Ported Number Register) is updated with current data; and
- provide contact details for support and escalation to all interested parties.

9.2 Transit or Bypass Carrier

A Transit or ByPass Carrier is purely an intermediary carrier in the call delivery process. They play no active part in database lookups or route determination. A Transit or ByPass Carrier must ensure that:

- interconnection Agreements between the new entrant and other Network operators to whom the new entrant will connect are in place;
- interconnect Network testing between Networks to ensure satisfactory transiting of LMNP related signalling messages is complete. The exact detail and requirements of this testing will vary between Network operators; and
- contact details for support and escalation purposes have been provided to all interested parties.

DRAFT

9.3 New Network Operator

A new Network operator is a new carrier on the NZ market that has it's own Local and/or Mobile Number ranges, and has direct access to Customers. A new entrant can be a Donor, Host or both.

A new entrant Network operator (Donor Carrier) will have to ensure all items in sections 9.1, and 9.2 are considered and in addition, must:

- ensure it has valid assignment of geographic/ non-geographic numbers and HOC codes;
- complete Network testing successfully, including call origination and delivery to the interconnection points; and
- provide contact details for support and escalation purposes to all interested parties.

DRAFT

10 Equivalent Service requirements

The purpose of this section is to set out details for Equivalent Service requirements and the processes for adding services as part of the Equivalent Service scope.

Equivalent Services criteria relate to a set of specific and measurable functional service levels relating to the ported number. For example a wireline service might have attributes such as “post dial delay” and a “dead air” period before dial tone. Wireless might have “post dial delay” relating to voice services and equivalent feature requirements relating to Short Message Services.

Equivalent Service does not apply to services which are not covered by a Bilateral Agreement.

10.1 Existing services

Any participant to Local and Mobile Number Portability has to ensure that the Network design solution they implement will comply with the provisions specified in Clause 14 of the Network Code.

10.2 New services

Under clause 16.1 of the Network Code, any party to the Code will be able to initiate a process to ask for an additional service to be included as part of the Equivalent Service criteria and any additional criteria related to that service.

So that the TCF Management Committee is able to consider the inclusion of new or additional services that carriers may wish to have included as Equivalent Services, Carriers shall provide to the TCF Management Committee:

- A functional description of the Ported Number service;
- Relevant Network design specifications and documents;
- Relevant technical interconnect scenarios and proposals for this service; and
- Proposed Equivalent Service levels.

The TCF Management Committee shall review the Carrier submissions and take necessary actions for the inclusion of new or additional services.

As part of these actions, the TCF Management Committee will notify of any decisions or additional information required before the service is included with the relevant Local and Mobile Number Portability scenario.

10.3 TCF Enforcement Agency

Contact details of the Enforcement Agency and Management Committee to be advised by the TCF from time to time

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11 Audit Process

11.1 Audit for initial certification

As specified in clause 14.4 of the Network Code, each 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.

- a) Certification must be carried out by an independent company and each Carrier shall bear its own costs for the certification.

11.2 Audit by the Enforcement Agency

The Enforcement Agency may, if it has reasonable grounds, conduct an Audit.

If the Enforcement Agency is requested to undertake an Audit of another Carrier, the Carrier requesting an Audit must provide evidence to the Enforcement Agency establishing the reasonable grounds upon which the Enforcement Agency may undertake an Audit. The parties agree to pay any Audit costs pursuant to the principles set out in clause 14.5 of the Network Code.

If the Enforcement Agency decides to audit any Carrier then:

- (a) the Enforcement Agency will give at least 5 Business Days prior written notice of the decision to undertake an Audit to the Carrier to be audited ("Audit Carrier") and advise who is to undertake the Audit;
- (b) the Audit Carrier shall have five Business Days to agree to the Audit or submit in writing to the Enforcement Agency why the Audit should not be undertaken;
- (c) the Enforcement Agency will consider any submission made in good faith and will then advise the Audit Carrier within 5 Business days whether or not an Audit will be undertaken. If no submission is received from the Audit Carrier, or the Audit Carrier advises that it agrees to the Audit, the Enforcement Agency may, but is not required to, undertake the Audit;
- (d) If the Enforcement Agency decides to undertake an Audit then the Audit will be undertaken in the following manner:
 - i. The Enforcement Agency will provide, to the Audit Carrier, not less than five Business Days notice of the date of the commencement of the Audit ;
 - ii. The Audit will be conducted in a manner so as to provide minimal disruption to the day to day business activities of the Carrier;
 - iii. The Audit Carrier will co-operate fully with the Enforcement Agency or nominated auditor to facilitate a timely audit process.
- (e) The Enforcement Agency will give the Audit Carrier 5 Business Days to comment on any Audit report before a final Audit report is issued.

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APPENDIX 1 List of contacts for escalation

To be completed by any participants before final determination by the Commerce Commission.

1. Local Number Portability – Contacts and Escalation

(a) Telecom contacts:

	Business Usual	As Usual	Level One	Level Two	Level Three
Name					
Role					
Physical Address					
Postal Address					
Phone Number					
Mobile Number					
Email Address					

(b) TelstraClear Contacts:

	Business Usual	As Usual	Level One	Level Two	Level Three
Name					
Role					
Physical Address					
Postal Address					
Phone Number					
Mobile Number					
Email Address					

(c) Vodafone Contacts:

	Business Usual	As Usual	Level One	Level Two	Level Three
Name					
Role					
Physical Address					
Postal Address					
Phone Number					
Mobile Number					
Email Address					

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(d) WorldXchange Contacts:

	Business As Usual	Level One	Level Two	Level Three
Name				
Role				
Physical Address				
Postal Address				
Phone Number				
Mobile Number				
Email Address				

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2. Mobile Number Portability – Contacts and Escalation

(a) Telecom contacts:

	Business Usual	As	Level One	Level Two	Level Three
Name					
Role					
Physical Address					
Postal Address					
Phone Number					
Mobile Number					
Email Address					

(b) TelstraClear Contacts:

	Business Usual	As	Level One	Level Two	Level Three
Name					
Role					
Physical Address					
Postal Address					
Phone Number					
Mobile Number					
Email Address					

(c) Vodafone Contacts:

	Business Usual	As	Level One	Level Two	Level Three
Name					
Role					
Physical Address					
Postal Address					
Phone Number					
Mobile Number					
Email Address					

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(d) WorldXchange Contacts:

	Business As Usual	Level One	Level Two	Level Three
Name				
Role				
Physical Address				
Postal Address				
Phone Number				
Mobile Number				
Email Address				

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APPENDIX 2 Current Development Issues

Issues (1) and (2) are current issues, while issues (3) and (4) are potential issues that need further study.

(1) Geographic and location identity for call routing of calls originated by ported Customers

When a Customer with a Ported Number changes geographic location (in addition to changing their Network access point) the traditional linkage between the ported Customer's Number and the Customer's geographic location may be broken. This can impact the call routing outcomes for some services that require geographic-based call routing.

- possible solutions

- do nothing
- special routing
- dummy calling-party-Numbers
- use of location Numbers in signalling
- IN-based location lookup

(2) Network identity for the management of various special service calls

Porting means that the calling party Number and the called party Number will not necessarily uniquely identify the Network to which the Customer is connected. Some call scenarios (e.g. operator services) use these Numbers to manage call setup between Networks, and this may impact the call routing outcomes for some services ..

- possible solutions

- do nothing
- special routing
- dummy Network identities
- use of Location Numbers in signalling to carry Network identities
- IN-based identity lookup

The plan and tentative timetable for the resolution of issues (1) and (2) are:

- **early March 2005:** form a small industry group, and start the definition of the exact nature and extent of the issues
- **late March 2005:** start development of the possible solution(s)
- **May 2005:** recommendation of the proposed solution(s) and agreement of the parties
- **May 2005+:** the development and implementation of the solution(s) – in-service timing not known at this stage

(3) Number integrity for various miscellaneous CLI-based services

Various services such as COLP (Connected-Line-Presentation) and DNIS (Dialled-Number-Information Service) rely on the integrity of the relevant Customer Number as it is carried in the signalling. If this Number is other than the "true" Number – e.g. it has a HOC or other Numbers attached, then the integrity of the service is compromised.

This needs further study to more fully define the impacts.

(4) Short Message Services routing

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For further study.