

Telecommunications Carriers' Forum

Code for the Transfer of Telecommunications Services ("The Customer Transfer Code")

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A. PURPOSE

1. The purpose of this code is to improve the experience of New Zealand Telecommunications [End](#) Customers and Service Providers by facilitating the Transfer of Telecommunications Services in New Zealand through practices that are consistent with the purposes and provisions of the Telecommunications Act.
2. This Code will take effect 9 months from the date the regulated Code is approved by the Commerce Commission (in the case of the regulated code) or endorsed by the TCF (in the case of the non-regulated code).

B. DEFINED TERMS

In this Code, unless the context otherwise requires:

“Access ~~Service Deliverer~~ (ASD Network Provider (ANP))” means the [Carrier Party](#) to whose network an access line is directly connected and over which services are supplied. Note that an ASDANP may also be an Access Service Wholesaler and/or a Retail Service Provider.

“Account Number

“Access Service Wholesaler (ASW)” means the unique reference number used by a Service Provider for a given Customer, which should appear on all invoices. Party who purchases access network services from the Access Network Provider.

“Bilateral Agreement” means an agreement between a Party who is obliged to comply with the terms of this Code and another party (who might or might not also be a party to this Code).

“Billing Relationship” means a relationship where the Service Provider has a bona fide right to charge the [End](#) Customer for any chargeable activity relating to the provision of Telecommunications Services.

“Broadband Line” means the underlying access network infrastructure (bitstream or physical line) that supports the delivery of broadband internet service.

“Business Day” means a day on which registered banks are open for normal banking business, excluding Saturdays, Sundays and nation-wide public holidays. Regional public holidays are considered to be Business Days.

“Carrier” means an entity that operates:

- (a) a public switched telephone network (or a functionally equivalent system) that originates, transits or terminates calls; and/or
- (b) a public data network.

A Person may be both a Carrier and a Service Provider. If a Party has more than one network, it can be classified as more than one Carrier.

“Clause” refers to a clause in this Code.

“Communication” can be oral, in writing, and via electronic means.

“Complex Customer” means an End Customer that has more than five Telecommunication Services supplied by their Retail Service Provider at one premise or any number of Telecommunication Services supplied by their Retail Service Provider at multiple premises.

“Complex Dispute” has the meaning ascribed in clause ~~70.266.273.2~~.

~~“Complex Transfer” means a Transfer which involves Exceptional Services or a Transfer which the GSP and LSP agree is to be treated as a Complex Transfer.~~

~~“Customer” means a person who has a bona fide Billing Relationship with a Service Provider in respect of a Telecommunications Service.~~

“Customer Account Name” means the name that is on the End Customer’s bill.

“Customer Account Number” means the unique reference number used by a Retail Service Provider for a given End Customer, which should appear on all End Customer invoices.

“Customer Authorisation” means a valid authorisation for a Transfer by the End Customer or the End Customer’s duly appointed agent that meets the requirements of section E of this Code.

“Data Line” means the underlying network infrastructure (bitstream, analogue or physical line) that supports the delivery of Data service.

“Effective Date of the Transfer” means the point in time when ~~aan~~ End Customer’s Telecommunications Services are completely transferred to the GSP/Gaining RSP and the GSP/Gaining RSP is entitled to start billing the End Customer.

“Enforcement Agency” means a person(s) nominated by the Telecommunications Carriers’ Forum (as listed on the TCF website Contact Us page) and approved by the Commerce Commission, or if the Telecommunications Carriers’ Forum fails to nominate a person, a person appointed by the Commerce Commission whose role is to monitor and enforce compliance of the obligations set out in this Code.

~~“Exceptional Services” are those services that the ASD considers complex when delivering them to itself, including Centrex and the Transfer of multiple~~ “End Customer” means a person who is consuming Telecommunications Services from a Retail Service Provider and has a bona fide Billing Relationship with that Retail Service Provider in respect of those Telecommunications Services.

~~“Gaining Access Fixed Wireless Service Deliverer” means the Access Service Deliverer to which the those Telecommunications Service (from a Customer point of view) is moving to, or has already moved to.~~

~~“Gaining Service Provider (GSP)” means Services that have a geographic structure and a geographic number, but are delivered over a wireless network. For the avoidance of doubt, Fixed Wireless Services do count towards the Service Provider number of Telecommunication Services when determining whether an End Customer is Simple or Complex.~~

“Gaining” means the Party to which the Telecommunications Service is moving to or has already moved to (from the End Customer point of view) ~~is moving to, or that the provision of the Telecommunications Service has already moved to~~ (for example, ‘Gaining ASW’ and ‘Gaining ANP’).

“Internal Transfer” means a Transfer of the service between two End Customers where there is no change of Access Network Provider, Access Service Deliverer and no change of Wholesaler, Virtual Wholesaler or Retail Service Provider.

“Invalid Transfer” occurs when there is a processing error (for example, the incorrect End Customer is transferred) or when there is an invalid Customer Authorisation as defined in clause 52.

~~“Inter-network Transfer” means a Transfer where the underlying network changes.~~

“Losing Service Provider (LSP)” means the Service Provider/Party that is losing, or has lost,

the Telecommunications Service (from the End Customer point of view).

“) or that the provision of the Telecommunications Service has moved from (for example, ‘Losing Access Service Deliverer’ means the Access Service Deliverer that is losing the Telecommunications Service (from a Customer point of view) ASW’ and ‘Losing ANP’).

“**Non-Code Access**” means a Service provided by a Carrier that results in one of the other Carrier’s Toll Access Codes being automatically prefixed to a call made by an End Customer of the first Carrier, where the call is dialled:

- in the format “0 + area code” (the single digit 3, 4, 6, 7 or 9) or “00 + country code”; or
- using one of the non-geographic service codes for mobile telecommunications services allocated under the provisions of the Number Administration Deed.

“**Notification**” means a set of information contained in a message and exchanged between two parties in a form agreed by both parties (e.g. systems transactions, email).

“**Number Administration Deed**” means the deed (dated 20 December 1998) signed by various telecommunication companies for the provision of number administration services and number portability.

“**Party**” means a Person bound by this Code under the Telecommunications Act or a Person signed up to this Code.

“**Person**” means a legal person and includes a company and any other legal entity.

“**POTS**” means Plain Old Telephone Service.

“**Retail Service Provider (RSP)**” means any person providing a Telecommunication Service to an End Customer and who has the Billing Relationship with the End Customer for that service. The same person may be both an ASDASDW and a RSP; or both a VW and a RSP; or both an ANP and a RSP (except in the case of Telecom NZ Limited).

“**Simple Customer**” means an End Customer who has five or less Telecommunication Services supplied by their Retail Service Provider.

~~“**Simple Transfer**” means a Transfer which the GSP and the LSP agree is to be treated as a Simple Transfer, a single premise.~~

“**Supply Chain Information**” means that set of information listed in clause 16.

“**Technical Dispute**” has the meaning ascribed in clause 70.1.

“**Telecommunications Act**” means the Telecommunications Act 2001 as amended from time to time.

“**Telecommunications Carriers’ Forum**” or “**TCF**” means the Telecommunications Carriers’ Forum Incorporated Society of New Zealand.

“**Telecommunication**” is the conveyance by electromagnetic means from one device to another of any encrypted or non-encrypted sign, signal, impulse, writing, image, sound, instruction, information, or intelligence of any nature, whether for the information of any person using the device or not; but excluding any conveyance that constitutes broadcasting.

“**Telecommunication(s) Service**” means any good, service, equipment and/or an end to end Broadband Line, Voice Line, Data Line or facility that enables Fixed Wireless Service delivered to a customer premise. For the avoidance of doubt, where two or facilitates Telecommunication.

more Telecommunications Services share the same physical or bitstream infrastructure, they are considered to be separate Telecommunications Services.

“Transfer” means the transfer of all or part of a-an End Customer’s Telecommunications Service(s) from one Retail Service Provider to another Retail Service Provider as authorised by the End Customer.

“Transfer Request” means a request from a GSP Gaining RSP to a gaining VW, ASDW or ANP, or from a Gaining ASW to an ASDANP, to Transfer a-an End Customer’s Telecommunications Service(s), which contains the information set out in relevant Bilateral Agreements and in addition, in the case of a Simple TransferCustomer, the information set out in clausessection 27 and 28H.

~~“Unique Service Identifier (USI)” means a unique number to which Telecommunications Services are associated, as allocated by the ASD in its internal systems from time to time. In the case of fixed line telephone~~

~~“Virtual Wholesaler” (VW) means a party who purchases services this will be the telephone number from an ASW (or another Virtual Wholesaler) for the purposes of selling to a RSP (or another VW).~~

~~“Validation Request~~

~~“Voice Line” means a communication from the GSP to underlying access network infrastructure (bitstream, analogue or physical line) that supports the LSP to validate a Customer Authorisation-delivery of POTS service.~~

C. OBJECTIVES AND SCOPE

3. This Code governs the Transfer of a-an End Customer’s Telecommunications Services between Retail Service Providers to ensure a seamless experience for all parties involved in the Transfer process. It sets out practices that Access Network Providers, Access Service DeliverersWholesalers, Virtual Wholesalers and Retail Service Providers must comply with whenever a-an End Customer requests a Transfer of Telecommunications Services. All parties will act co-operatively and in good faith to facilitate this Code.

4. Objectives

The Code’s high-level objective is to provide a seamless transition of a-an End Customer’s Telecommunications Services between Retail Service Providers so that the End Customer continues to receive high quality, uninterrupted service. This objective will be achieved by:

- 4.1 Outlining the necessary End Customer Authorisation and consent procedures to ensure a-an End Customer’s Telecommunications Service(s) are only transferred when they want them to be;
- 4.2 Encouraging appropriate Retail Service Provider etiquette;
- 4.3 Facilitating a seamless billing changeover;
- 4.4 Increasing the transparency of the Transfer process, so that the End Customer is in control of the process at all times;
- 4.5 Ensuring normal support from the Losing Retail Service Provider until the Transfer is completed;
- 4.6 Requiring processes that ensure a prompt and timely Transfer process, as well as the correction of any problems that occur as a result of the Transfer process;
- 4.7 Adopting competitively neutral and non-discriminatory practices that provide consistent treatment for End Customers; and,
- 4.8 Requiring compliance with all relevant legislation including the Privacy Act and the Telecommunications Information Privacy Code 2003.

5. Telecommunications Services covered by this Code

The Code applies to [Retail Service Providers](#), [Virtual Wholesalers](#), [Access Service Wholesalers](#) and Access ~~Service Deliverers (ASDs)~~ [Network Providers](#) for the Transfer of all Telecommunications Services (except as listed in clause 6) and in the Code approved by the Commerce Commission includes the following determined Telecommunications Services:

- 5.1 ~~designated~~ [Designated](#) access services determined under the Commerce Commission's Decision 497 (Determination on the TelstraClear Application for Determination for Wholesale Designated Access Services);
- 5.2 ~~designated~~ [Designated](#) access services determined under the Commerce Commission's Decision 525 (Determination on the TelstraClear Application for Determination for Residential Wholesale Designated Access Services);
- 5.3 ~~other~~ [Other](#) designated access services or specified services determined by the Commerce Commission in the future.

6. Exclusions from Scope

- 6.1 This Code does not apply to the Transfer of Telecommunications Services from one cellular network to another cellular network.
- 6.2 Section G does not apply to the Transfer of Non-Code Access services. For the avoidance of doubt, all other provisions in this Code do apply to Non-Code Access services.
- 6.3 This Code does not cover the porting of local, mobile or toll-free numbers. Local and mobile numbers are covered by the Local and Mobile Number Portability Terms and Network Terms (LMNP) forming part of the Commerce Commissions Number Portability Determination. To the fullest extent possible this Code aims to be consistent with these LMNP Terms. Toll Free Numbers are covered by the Toll Free Database Access Agreement. Nothing in this Code exempts any Party from obligations contained in the LMNP and Network Terms or the Toll Free Access Database Agreement.
- 6.4 This Code does not apply to Internal Transfer of Telecommunications Services.

D. COMPLIANCE

7. The Code is applicable to all ~~Service Providers~~ [RSPs](#), [VWs](#), [ASWs](#) and ~~Access Service Deliverers~~ [ANPs](#) who participate in the Transfer of Telecommunications Services. This Code is not intended to impact on other parties who do not have obligations under this Code.
8. All ~~Service Providers~~ [RSPs](#), [VWs](#), [ASWs](#) and ~~ASDs~~ [ANPs](#) must Transfer [End Customers'](#) Telecommunications Services in accordance with this Code and any relevant legislation or Commerce Commission determinations.
9. [Each RSPs, VWs, ASWs and ANPs must provide the TCF with contact details for appropriate personnel in relation to issues of compliance.](#)
10. If one Party defaults in the performance of any of its obligations under this Code, the defaulting Party will use its best endeavours to remedy the default as soon as possible and to prevent a recurrence of the default. This provision applies as long as the default does not prevent other parties to the Code complying with their obligations. [In the event that a default does prevent other parties from complying with their obligations then the default of compliance outlined in Clause 11 below should be followed.](#)
11. [Notification of Default in Compliance](#)

- 11.1 [In the event where a Party has reason to believe that another Party to this Code is in default of any of its obligations of performance under this Code then that Party should contact the defaulting Party's Compliance person with the following details.](#)
 - 11.1.1 [Company and Contact details of Complainant](#)
 - 11.1.2 [TCF Code which has been allegedly breached \(in this case, the Customer Transfer Code\)](#)
 - 11.1.3 [Which Code clauses were breached](#)
 - 11.1.4 [Date\(s\) the breach/breaches occurred](#)
 - 11.1.5 [Any other relevant information \(e.g. a request to sight the customer authorisation consent as defined in clause 23.2\)](#)
- 11.2 [The alleged defaulting party, must acknowledge the non-compliance Communication within three \(3\) business days of receipt and provide a timeframe for when the non-compliance issue will be investigated](#)
- 11.3 [If the issue of breach is not resolved to the satisfaction of either party then the non-compliance issue may be escalated to the Enforcement Agency. Refer to section N.](#)
12. In the event of any inconsistency between this Code, any relevant legislation, any Bilateral Agreement and any Commerce Commission determinations, this inconsistency will be resolved in the following (descending) order of precedence:
 - 12.1 Any legislation;
 - 12.2 Commerce Commission Determinations;
 - 12.3 Any contractual document entered into before the approval of this Code by the Commerce Commission (in the case of the regulated code) or endorsed by the TCF (in the case of the non-regulated code);
 - 12.4 Any provision in a Bilateral Agreement relating to the Transfer Code entered into after the approval of this code that improve on the provisions in this Code;
 - 12.5 The Transfer Code;
 - 12.6 Any provision in Bilateral Agreements relating to the Transfer Code entered into after the approval of this Code.
13. This Code contains the minimum requirements regarding a Customer Transfer. While parties may enter into Bilateral Agreements concerning matters covered by this Code, such arrangements must not diminish or otherwise affect any requirements contained in this Code; impact on the ability of other parties to interact with Parties of this Code (subject to clause 14); or impact on the ability of other participants to interwork with parties to those arrangements in accordance with the minimum requirements.
14. This Code does not alter, vary or restrict any rights or obligations contained in any contract between Service Providers, or any contract between any other Person and a Service Provider which is binding on a Service Provider when that Service Provider first becomes bound by the Code provided that such contracts were entered into prior to the date the Code was first approved by the Commission (in the case of the regulated code) or endorsed by the TCF (in the case of the non-regulated code). In all other respects, however, the Service Provider must comply with the Code.

E. [END CUSTOMER SUPPLY CHAIN INFORMATION](#)

15. [The objective of this section is to outline the information that must be provided to an End Customer by their Retail Service Provider, so that in the event of the End Customer wishing to transfer some or all of their Telecommunications Services to another Retail Service Provider, this information can be provided and a seamless transition of the End Customer's Telecommunications Services between Retail Service](#)

Providers can occur.

16. The Supply Chain Information to be provided is:
 - 16.1 The RSP Customer Account Number or, where the RSP does not assign account numbers to customers, the full and correct RSP Customer Account Name; and
 - 16.2 Either the RSP Service ID or Billing ID for each Telecommunications Service provided by the RSP (for example; phone number, broadband user ID, customer email address); and
 - 16.3 The RSP Access Service Configuration;
 - 16.3.1 Access Network Provider (ANP) ID (for example, ASID); and
 - 16.3.2 Access Service Wholesaler (ASW) ID (for example; phone number, Telecom's Fictitious Billing Number (FBN), TCF endorsed ASW Carrier ID).
17. For a Simple Customer, Retail Service Providers must make the Supply Chain Information referred to in clause 16 available to its End Customers by:
 - 17.1 providing the Supply Chain Information specified in Clause 16 on, or with, the End Customer's regular monthly bill; or
 - 17.2 making the End Customer's Supply Chain Information available via some other format (e.g. web portal), provided that the Retail Service Provider provides clear instructions on the End Customer's regular monthly bill where and how to access this information without the End Customer needing to phone the Losing RSP and recognising that not all End Customers will have internet access
18. For a Complex Customer, Retail Service Providers must make the Supply Chain Information referred to in clause 16 available to its End Customers by making the End Customer's Supply Chain Information available via a system (for example; a web portal, or a standardised certificate that is requested from a TCF endorsed generic email address and returned by email), provided that:
 - 18.1 the RSP clearly states on the End Customer's regular monthly bill where and how to access this information; and
 - 18.2 the End Customer can access this information without needing to phone the Losing RSP, within one (1) business day or longer if mutually agreed between the Losing and the Gaining RSP.
19. The format for how the supply chain information must be provided is specified in Annexure 2.

F. CUSTOMER AUTHORISATION

20. The objective of this section is to, through a robust Customer Authorisation (i.e. consent) process, provide a level of protection to ~~customers~~End Customers against the unauthorised Transfer of services.
21. **Obtaining Customer Authorisation and Supply Chain Information**
 - 21.1 The Gaining ~~Service Provider~~RSP bears sole responsibility for ensuring that prior to commencing a Transfer it has a valid and complete Customer Authorisation and also obtains the End Customer's Supply Chain Information to affect the Transfer.
 - 21.2 A Customer Authorisation must contain, at a minimum, the following:
 - 21.2.1 -The End Customer's details, including name or business name, and contact name and the phone number of authorised representative,

where applicable;

- 21.2.2 [List of services to be transferred;](#)
 - 21.2.3 [The RSP Service ID, or Billing ID, for each service to be transferred \(for example; phone number, broadband user ID, customer email address supplied by RSP](#) Acknowledgement from the person communicating that they are either the [End](#) Customer or the authorised representative and so entitled to request a Transfer in respect of the services referred to in the Customer Authorisation;
 - 21.2.4 The [End](#) Customer's agreement to the Transfer to the [GSPGaining RSP](#);
 - 21.2.5 The date of the Customer Authorisation;
 - 21.2.6 The [End](#) Customer's acknowledgement that they have been informed by the [GSPGaining RSP](#) of, and accept the information set out in clause 22; and,
 - 21.2.7 Confirmation from the [End](#) Customer that the information provided by the [End](#) Customer to the [GSPGaining RSP](#) is true and correct.
- 21.3 [Whilst Customer Authorisation is being obtained, the Gaining RSP will also obtain the End Customer's Supply Chain Information, which can be accessed by the End Customer as a result of Retail Service Providers' obligations in section E.](#)

22. Informed Customer Authorisation

- 22.1 In the process of obtaining the Customer Authorisation, a [GSPGaining RSP](#) must inform the [End](#) Customer:
 - 22.1.1 -That the [End](#) Customer is Transferring a Telecommunications Service or Services from their existing Service Provider to the [GSPGaining RSP](#);
 - 22.1.2 That the [End](#) Customer might continue to have outstanding obligations to the [LSP Losing RSP](#) and it is the [End](#) Customer's responsibility to check the terms and conditions of its existing contracts relating to the services being Transferred;
 - 22.1.3 -Any terms and conditions, and the costs associated with the Transfer, and where the ~~customer~~[End Customer](#) may find the full terms and conditions;
 - 45.1.4 That by Transferring the [End](#) Customer's Telecommunications Services:
 - 22.1.4 ~~The Telecommunications Service(s) associated with that Unique~~[each RSP Service Identifier or Billing ID transferred](#) might be disconnected from the [ANP](#), Losing [ASDASWD](#) or [LSP Losing RSP](#) and might result in finalisation of the [End](#) Customer's account for that service; and,
 - 22.1.5 There may be services that might not be able to be supported by the Gaining [ASDANP](#), [ASWD](#) or [GSPGaining RSP](#) (if applicable).
- 22.2 [In the process of obtaining Customer Authorisation, a Gaining RSP must not inform the End Customer that:](#)
 - 22.2.1 [The Gaining RSP will cancel the Customer's account and billing with the Losing RSP; and/or,](#)
 - 22.2.2 [The End Customer does not have to do anything.](#)

23. Customer Authorisation validity period

- 23.1 Unless agreed otherwise with ~~an~~ [End](#) Customer, to be valid, a Transfer Request must be made within ~~thirty (30)~~[sixty \(60\)](#) days of the date of the Customer Authorisation.
- 23.2 A [LSP Losing RSP](#) may request a copy of the Customer Authorisation, provided such request is made within twelve (12) months of the completion of the Transfer. The [GSPGaining RSP](#) must provide a copy of the relevant Customer Authorisation to the [LSP Losing RSP](#) within five (5) Business Days, if requested

by the LSP Losing RSP for the purpose of resolving aan End Customer complaint.
16.3 The GSP Gaining RSP must retain all Customer Authorisations for a period that allows them to meet their obligations in 23.2-

F. CATEGORY OF TRANSFER

~~17. The objective of this section is to set out the need to classify the different types of Transfer as the processes differ.~~

~~18. The GSP must initially nominate a category to be used to Transfer a Customer's Telecommunication Services. These categories are:~~

~~18.1 Simple Transfer; or~~

~~18.2 Complex Transfer.~~

~~19. There is no need for an extra formal notification from the GSP to the LSP in the advent of a Simple Transfer, as it will be clear from the Validation Request sent as per clause 23.~~

~~20. If the LSP disagrees with the category of the Transfer nominated, the GSP and LSP will endeavour to resolve this disagreement in good faith. If the GSP and LSP cannot resolve such disagreement within 10 days, that Transfer shall be treated as a Complex Transfer.~~

G. VALIDATION BETWEEN SERVICE PROVIDERS FOR SIMPLE TRANSFERS

~~21. The objective of this section is to ensure standard processes between the LSP and the GSP when agreeing the validation request of Service(s) to perform a Simple Transfer.~~

~~22. This section G does not apply to the Transfer of Non-Code Access services or to Complex Transfers. The process for Complex Transfers is set out in section I.~~

23. Validation Request

~~23.1 The GSP must provide to the LSP the following information in a Validation Request:~~

~~23.1.1 The LSP Unique Service Identifier; and~~

~~23.1.2 One of the following: LSP Account Number or full and correct LSP Customer Account name~~

~~23.3 If the LSP is also the ASD then the Validation Request can be combined with the Transfer Request provided to the ASD in section .~~

G. NOTIFICATION BETWEEN SERVICE PROVIDERS

~~24. The objective of this section is for the Gaining RSP to advise the Losing RSP of a planned End Customer transfer of Telecommunication Services, so that the Losing RSP is aware of this should the End Customer contact them to discuss service migration/cancellation, and avoid having the service cancelled, thus invalidating the Transfer.~~

25. RSP Notification

~~25.1 The RSP Notification should be sent to the Losing RSP at least one (1) business day before the service is scheduled to transfer and as soon as practicable after the transition date is known.~~

~~25.2 The Gaining RSP must provide to the Losing RSP the following information in the Notification:~~

- 25.2.1 The Losing RSP Customer Account Number or, where the Losing RSP does not assign account numbers to customers, the full and correct Losing RSP Customer Account Name;
- 25.2.2 Either the Losing RSP Service ID or Billing ID for each Telecommunications Service provided by the RSP (for example; phone number, broadband user ID, customer email address) being transferred to the Gaining RSP; and
- 25.2.3 The Losing RSP Transfer ID for each service being transferred;
- 25.3 The format for how the supply chain information must be provided to the Losing RSP is specified in Annexure 3.
- 26. Each Service Provider must provide the TCF with contact details for appropriate personnel in relation to RSP Notifications. In addition each Service Provider must provide a generic, organisation group email address for the receipt of Customer Transfer Notifications e.g. Customer.transfer@rsp.co.nz.
- 27. For the avoidance of doubt, this is a Notification only for the Losing RSP and the Losing RSP should not cease billing or discontinue services as a result of this Notification.)

H. PROCESSING OF TRANSFER REQUESTS

- 28. The objective of this section is to outline the process that should occur between all the parties in the End Customer's Supply Chain in order to affect a seamless Transfer, which could be all, or a subset, of: the Gaining RSP, the VW, the ASW and the ANP.

For the purposes of Consultation a process overview diagram showing this process is provided in Annexure 4.

- 29. Initiation of the Transfer
 - 29.1 Following completion of the Customer Authorisation procedure outlined in section F below. For the avoidance of doubt clause and on receipt of the supply chain information for the services to be transferred, the Gaining RSP will initiate the Transfer as follows:
 - 29.2 The Gaining RSP must provide to the Gaining VW, ASW, or ANP (dependent on how the End Customer's Supply Chain is structured), the necessary information to process the Transfer Request, as covered in Bilateral Agreements and in the format specified in Annexure 3.
 - ~~23.2~~The Party that has been provided the information in clause 29.2 will not apply.

~~23.3~~Each Service Provider must provide the TCF with contact details for appropriate personnel in relation to validation requests. The TCF shall maintain a contact list of these personnel on the TCF's website.

24.Rejection Advice

~~24.1~~The LSP has one (1) Business Day from the receipt of the Validation Request above to advise, in a verifiable format, the GSP that the LSP believes, on reasonable grounds, that the Transfer would be an Invalid Transfer. The LSP must, at the same time, provide all the reasons for the rejection as defined in Annex 1.

- 29.3 Upon receipt of a rejection of a Validation Request in accordance with clause (the Gaining VW, ASW or ANP) has two (2) Business Days from the receipt of the Transfer Request to advise, in a verifiable format, the Gaining RSP that they believe on reasonable grounds that there is an error with the Transfer Request. A reason for the rejection as set out in Annex 1 must be provided.

~~29.4 The Gaining RSP can re-submit the Transfer Request once the Gaining RSP believes the reason for the rejection is no longer applicable.~~

~~30. Processing of the Transfer Request by the VW or the ASW~~

~~30.1 If the information to initiate the Transfer in clause 29.2, the GSP may follow up with the Customer and submit another Validation Request to the LSP as per clause above did not go directly to the ANP from the Gaining RSP, then the party that the Gaining RSP provided the information to (either the Gaining VW or the Gaining ASW, dependent on the parties present in the End Customer's Supply Chain), must provide to the next party in the Supply Chain (either the Gaining ASW or the Gaining ANP) the necessary information to process the Transfer Request, as covered in Bilateral Agreements.~~

~~24.2 The Party that has been provided the information in clause 30.1-~~

~~30.2 Where the LSP does not advise the GSP within one (1) Business Day that the Transfer would be Invalid, the GSP may send the Transfer Request to the ASD as per the requirements in section above (either the Gaining ASW or the Gaining ANP) has two (2) Business Days from the receipt of the Transfer Request to advise, in a verifiable format, that they believe on reasonable grounds that there is an error with the Transfer Request. A reason for the rejection as set out in Annexure 1 must be provided.~~

~~30.3 The Gaining VW or ASW can re-submit the Transfer Request once they believe the reason for the rejection is no longer applicable.~~

~~24.3 This clause 30-~~

~~**H-ASD PROCESSING OF SIMPLE TRANSFER REQUEST**~~

~~25. The objective of this section is to ensure standard processes between the GSP, LSP, and the ASD when processing Transfer Requests for a Simple Transfer and notifying other parties of Transfer Request completion.~~

~~26. This section H does not apply to Complex Transfers. The process for Complex Transfers is set out in section I.~~

~~27. Where the underlying network remains the same:~~

~~27.1 The GSP must provide to the ASD the necessary information to process the Transfer Request, as covered in Bilateral Agreements.~~

~~27.2 The ASD has two (2) Business Days from the receipt of the Transfer Request to advise, in a verifiable format, the GSP that the ASD believes on reasonable grounds that there is an error with the Transfer Request. The ASD must provide a reason for the rejection as covered in Bilateral Agreements.~~

~~27.3 The GSP can re-submit the Transfer Request to the ASD once the GSP believes the reason for the rejection is no longer applicable.~~

~~28. In the case of Inter-network Transfer:~~

~~28.1 The GSP must provide to the Gaining ASD (where the GSP is not the Gaining ASD) the necessary information to set up a new Customer on the ASD's network, as covered in Bilateral Agreements.~~

~~28.2 The LSP must inform the Losing ASD (where the LSP is not the Losing ASD) of the Customer's Transfer away from the LSP and therefore from the Losing ASD, as covered in Bilateral Agreements.~~

~~30.4 For the avoidance of doubt, where the GSP is the Gaining ASD and/or the LSP is the Losing ASD, then the requirements contained in clauses relates to transfer situations where the ANP remains the same. For those situations where the ANP changes, see clause ~~32~~ and/or.~~

~~31. Processing of the Transfer Request by the ANP where the ANP does not change~~

~~28.3 If the information for the processing of the Transfer Request in clause 3030 are not required.~~

29. Notification to GSP

~~Where the underlying network remains the same, the ASD (and in the case of Inter-network Transfer, the Gaining ASD) must advise the GSP, in a verifiable format, within one (1) Business Day of Transfer completion:~~

- ~~31.1 above went to the Gaining ASW, then the Gaining ASW must provide to the ANP the necessary information to process the Transfer Request, as covered in Bilateral Agreements.~~
- ~~31.2 The ANP has two Business Days from the receipt of the Transfer Request to advise, in a verifiable format, that they believe on reasonable grounds that there is an error with the Transfer Request. A reason for the rejection as set out in Annex 1 must be provided.~~
- ~~31.3 For the avoidance of doubt, where the ASW remains the same, the ANP is not involved in the Transfer.~~

32. Processing of the Transfer Request by the ANP where the ANP changes

- ~~32.1 The Gaining ASW must provide to the Gaining ANP (where the Gaining ASW is not the Gaining ANP) the necessary information to set up a new End Customer on the Gaining ANP's network, as covered in Bilateral Agreements.~~
- ~~32.2 The Gaining ANP will inform the Losing ANP of the Customer's Transfer away from the Losing ANP.~~
- ~~32.3 The Losing ANP must inform the Losing ASW of the Customer's Transfer away from the Losing ASW, as covered in Bilateral Agreements.~~
- ~~32.4 The Losing ASW must inform the next party in the supply chain (either the Losing VW or the Losing RSP) of the Customer's Transfer away from the next party in the Supply Chain, as covered in Bilateral Agreements.~~
- ~~32.5 Where the Gaining ASW is the Gaining ANP and/or the Losing ASW is the Losing ANP, then the requirements contained in clauses 32.1 and/or 32.3 are not required.~~
- ~~32.6 For the avoidance of doubt, where the ASW remains the same, the ANP is not involved in the Transfer.~~
- ~~32.7 Where the change of ANP includes porting of a telephone number LMNP regulation applies and is deemed out of scope as per section 6.2 of this document.~~

33. Notifications to Gaining Parties

- ~~33.1 Each Party in the End Customer's Supply Chain will be responsible for notifying their customer upon Transfer completion within one (1) business day upon receipt of relevant information:~~

~~33.1.1 That the Transfer was successful;~~

~~29.2 The Effective Date of the Transfer; and,~~

~~29.3 If the ASD's wholesale customer is not the LSP, the wholesale customer shall be solely responsible for ensuring that the LSP receives notification that the Transfer was successful.~~

30. Notification to LSP

~~30.1 Where the underlying network remains the same, the ASD will advise, in a verifiable format, the ASD's wholesale customer (which may or may not be the LSP) within one (1) Business Day of Transfer completion:~~

~~30.1.1 That the Transfer was successful;~~

~~33.1.2 Of the Effective Date of the Transfer; and~~

~~30.1.3 If the ASD's wholesale customer is not the LSP, the wholesale~~

~~customer shall be solely responsible for ensuring that the LSP receives notification that the Transfer was successful.~~

~~30.2 In the case of Inter-network Transfer, the GSP will advise, in a verifiable format, the LSP within one (1) Business Day of the Transfer once it is confirmed as completed by the Gaining ASD:~~

~~30.2.1 That the Transfer was successful; and~~

~~30.2.2 Of the Effective Date of the Transfer.~~

~~33.1.3 The Supply Chain information for the services transferred.~~

~~For example, dependent on the parties involved in the End Customer's Supply Chain, the ANP will notify the Gaining ASW, the Gaining ASW will notify the Gaining VW, and the Gaining VW will notify the Gaining RSP.~~

~~33.2 Where the ANP changes, the Gaining ANP will advise the Gaining ASW.~~

~~33.3 Where the ASW remains the same, the ANP will not be involved in the Transfer and therefore will have no parties to notify; and where the VW stays the same, the ASW will have no parties to notify.~~

34. Notifications to Losing Parties

~~34.1 Each Party in the End Customer's Supply Chain will be responsible for notifying their customer upon Transfer completion within one (1) business day:~~

~~34.1.1 That the Transfer was successful;~~

~~34.1.2 Of the Effective Date of the Transfer;~~

~~34.1.3 The Supply Chain information for the services transferred.~~

~~For example, dependent on the parties involved in the End Customer's Supply Chain, the Gaining ANP will notify the Losing ANP, the Losing ANP will notify the Losing ASW, the Losing ASW will notify the Losing VW, and the Losing VW will notify the Losing RSP.~~

~~34.2 Where the ASW remains the same, the ANP will not be involved in the Transfer and therefore will have no parties to notify; and where the VW stays the same, the ASW will have no parties to notify.~~

~~34.3 The format for how the Notifications must be provided is specified in Annexure 3.~~

35. Storage of Notifications

All parties must keep the ~~notifications~~Notifications sent and received in clauses 33 and 34 for twelve (12) months.

32. ASD Processing

~~The ASD must process at least 90% of all valid Transfer Requests received per month (excluding Inter-network Transfers) within 10 Business Days from the date of receipt by the ASD of the Transfer Request. 90% of valid transfers shall be completed with 100% accuracy in accordance with the information provided to the ASD from the GSP (i.e. no more than 100 errors on 1000 transfers).~~

I. COMPLEX TRANSFERS

~~33. The objective of this section is set out the specific arrangements to apply in relation to Complex Transfers. This section does not apply to Simple Transfers.~~

~~34. Where the LSP advises the GSP pursuant to clause 18 that a Transfer is a Complex Transfer, the GSP and LSP must co-operate to the extent required to permit compliance with the Customer's requirements.~~

~~35. Complex Transfers require a specific project plan to be developed between the GSP, LSP and ASD when processing Transfer Requests.~~

~~36. The processes to apply for Complex Transfers:~~

- ~~a) between the LSP and the GSP when agreeing the validation request of Service(s) to perform a Complex Transfer; and~~
- ~~b) between the GSP, LSP and ASD when processing Transfer Requests for a Complex Transfer; and~~
- ~~c) to notifying other parties of Transfer Request Completion,~~

~~will give the Customer at least as much protection as applies within the Code in relation to Simple Transfers and will be set out in Bilateral Agreements.~~

~~37. The provisions in the Bilateral Agreements referred to in clauses 35 and 36 must enable the LSP's and GSP's compliance with clause 34 of this Code.~~

I. APPROPRIATE End CUSTOMER CONTACT AND ACCESS TO AND USE OF INFORMATION

36. The objective of this section is to facilitate best practice in terms of Service ProviderRSP etiquette and how End Customer information is accessed and used.

37. Privacy and Use of Information

37.1 Information relating to Customer Transfer will be kept confidential at all times by the parties to the Code except as set out in this clause or as required by law. Information provided as part of the Transfer process can only be used or disclosed for the purpose of Customer Transfers, in association with the delivery of Telecommunications Services, and for End Customer and network fault management and complaint handling. Information provided in the Transfer Process must not be used for any other purpose (including winback and marketing purposes).

37.2 ~~A Service Provider~~An RSP, ASW, VW or ASDANP, which receives any type of information relating to the Transfer of an End Customer, may only use or disclose such information in accordance with Privacy Act 1993, the Telecommunications Information Privacy Code 2003, and any Bilateral Agreement in place between the parties.

37.3 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.

38. Contact with the End Customer

38.1 No Party to this Code will undertake telemarketing, direct mail marketing, face to face marketing or other marketing activities specifically targeted at the relevant End Customer where those activities are based on, and are in direct response to, the LSPLosing RSP receiving a Validation RequestNotification or the ASDVW, ASW or ANP receiving a Transfer Request.

38.2 The ASDANP, ASW or VW may contact the End Customer about any processing/technical issues but may not use this opportunity to attempt to win the End Customer back or refer the End Customer to any other personnel within ~~the ASD~~their organisation that engages in retail sales activity.

38.3 The Losing RSP may contact the End Customer if the Losing RSP becomes aware that the functions of the End Customer's current Telecommunications Services, or those Telecommunications Services that remain with the Losing RSP following the Transfer, will be broken if a Transfer proceeds, and only then to inform the End Customer of the functional implications of the Transfer.

- 38.4 The Losing RSP may also contact the End Customer to confirm any outstanding obligations that that End Customer has to the Losing RSP under the terms and conditions of their existing contracts with the Losing RSP for the provision of the services being transferred, and only then to inform the End Customer of the commercial implications of the Transfer.
- 38.5 For the avoidance of doubt nothing in clause 38.1 will prevent the LSP Losing RSP from undertaking marketing activities, which are based on or utilise retail billing or End Customer information generated within the LSP Losing RSP.
- 38.6 For the avoidance of doubt, the GSP Gaining RSP may contact the End Customer at any time.

39. **End Customer Initiated contact**

- 39.1 If the End Customer contacts the GSP Gaining RSP or the LSP Losing RSP, there are no restrictions on the Communication that either Service Provider RSP can have with the End Customer. However, if the End Customer has a complaint, then the Service Provider RSP must comply with the provisions of the Telecommunications Carriers' Forum Consumer Complaints Code.
- 39.2 If the End Customer contacts the ASD VW, ASW, or ANP about the Transfer, and the ASD none of these parties is not the GSP Gaining RSP, then the ASD End Customer must refer the Customer to the GSP referred to the Gaining RSP.

40. Conduct of Parties to this Code

When interacting with any End Customer:

- 40.1 All Parties and their representatives will act in a professional and courteous manner;
- 40.2 No Party may make any comment or statement about any other Party that would or may be likely to bring the other Party's reputation into disrepute, particularly where that Party does not know the complete facts to the situation (for instance when there has been an Invalid Transfer);
- 40.3 Parties must ensure that their representatives, if referring to another Party's Telecommunications Service(s):
- 40.3.1 Do not mislead End Customers in any form or manner or engage in any conduct that is likely to mislead;
- 40.3.2 Refer only to comparisons that are relevant to the Transfer being made or attempted.
- 40.4 Parties must ensure that their representatives do not:
- 40.4.1 Harass or coerce an End Customer; or
- 40.4.2 Engage in unconscionable conduct.

J. COMMUNICATION BETWEEN SERVICE PROVIDERS

41. The Gaining RSP can request reasonable assistance from the Losing RSP for any given Transfer where additional information is required beyond the Supply Chain information already supplied during the Customer Authorisation process. This would typically be for a Complex Customer Transfer.
42. Each RSP will have a published contact point as per the Transfer Notifications section (e.g. customer.transfer@serviceprovider.co.nz). Where email is used, the email should have a standardised subject line commencing with "Assistance Required".
43. The Losing RSP must respond within one (1) business day of the email or phone call being received, either with the requested information or by initiation of collaborative

working as appropriate.

44. If the Losing RSP finds they are being asked to provide excessive assistance to a Gaining RSP, and have been unable to resolve the matter directly then they may use the Dispute Resolution procedures outlined in Section O.

K. CUSTOMER BILLING

45. The objective of this section is to achieve a seamless billing changeover for the End Customer for the services that are being transferred. Each Service Provider RSP, VW, ASW and ANP must provide the TCF with contact details for appropriate personnel in relation to requests relating to billing handover. The TCF shall maintain a contact list of these personnel on the TCF's website.

No change in ANP

46.1 When the Transfer does not involve a change in network ASW:

46.1.1 The GSP Gaining RSP should not commence billing the End Customer for the transferred services until it receives the notification in accordance with clause 33 ~~(in the case of Simple Transfers) and the notification set out in the Bilateral Agreement (in the case of Complex Transfers)~~ with an Effective Date of Transfer from the ASDASWD; and,

46.1.2 The LSP Losing RSP should not stop billing the End Customer for the transferred services until it receives the notification in accordance with clause 34 ~~(in the case of Simple Transfers) and the notification set out in the Bilateral Agreement (in the case of Complex Transfers)~~ with an Effective Date of Transfer from the ASDASWD, unless the LSP's Losing RSP's contract with the End Customer deems otherwise.

46.2 In the case ~~of Inter-network Transfer~~ where there is a change in ASW:

46.2.1 The GSP Gaining RSP should not commence billing the End Customer for the transferred services until it ~~has provided~~ receives the notification in accordance with clause 34 ~~(in the case of Simple Transfers) and the notification set out in the Bilateral Agreement (in the case of Complex Transfers) to the LSP~~; and,

46.2.2 The LSP Losing RSP should not stop billing the End Customer for the transferred services until it receives the notification in accordance with clause 34 ~~(in the case of Simple Transfers) and the notification set out in the Bilateral Agreement (in the case of Complex Transfers)~~ from the GSP Losing ASW unless the LSP's Losing RSP's contract with the End Customer deems otherwise.

When the Transfer involves a change in ANP:

47.1 The Gaining RSP should not commence billing the End Customer for the services transferred until it has received the notification in accordance with clause 33; and,

47.2 The Losing RSP should not stop billing the End Customer for the services transferred until it receives the notification in accordance with clause 34.

L. FAULT REPORTING/RESOLUTION AT TIME OF TRANSFER

48. The objective of this section is to ensure that the resolution of End Customer faults

around the time of Transfer is as smooth and efficient as possible:

- 48.1 Service Providers must ensure that their fault personnel are aware of clause 40.
- 48.2 Each Service Provider must provide the TCF with contact details for appropriate personnel in relation to faults and faults escalation. The TCF shall maintain a contact list of these personnel on the TCF's website.

49. Fault resolution during Transfer

49.1 During the period that the End Customer's service is being transferred to the GSP:Gaining RSP:

49.1.1 the LSP: Losing RSP is responsible for any faults in relation to the End Customer's Telecommunications Service until the Effective Date of Transfer. Both the LSP: Losing RSP and GSP:Gaining RSP need to deal with all faults reporting and resolution procedures in their End Customer contracts along with service level commitments.

49.1.2 After the Effective Date of Transfer, then the GRSP must log the fault and attempt to resolve it.

49.1.3 If the End Customer contacts the GSP, ~~the GSP can either take the fault or refer the Customer to the LSP for resolution.~~ Losing RSP and:
~~45.1.3 If the Customer contacts the LSP and:~~

~~40.1.3.1~~

49.1.3.1 The ASW underlying network is not changing, the LSP: Losing RSP must log the fault and attempt to resolve it, and keep the Gaining RSP informed as to the progress being made on this fault; or,

49.1.3.2 ~~40.1.3.2~~ The Customer is involved in an Inter-network Transfer where the ASW or ANP is changing and the fault occurs after the Effective Date of Transfer, the LSP: Losing RSP must refer the End Customer to the GSP:Gaining RSP for resolution.

50. Fault resolution once Transfer is complete

50.1 Once the Transfer is complete (for the avoidance of doubt this is when a notification has been received by the GSP:Gaining RSP in accordance with clause 33-~~in~~):

~~46.1 the case of Simple Transfers or the Bilateral Agreement in the case of Complex Transfers:~~

50.1.1 ~~the GSP:Gaining RSP~~ will communicate with the End Customer and provide relevant information on how to lodge a fault now that they have been transferred to the GSP:Gaining RSP; and,

~~46.1.2~~ The LSP: Losing RSP may either:

50.1.2 provide the GSP:Gaining RSP with information on any outstanding faults in relation to the End Customer; ~~or,~~

~~continue to resolve the fault adhering to clause 42.~~

M. ADDRESSING AND REVERSING INVALID TRANSFER

51. The objective of this section is to ensure that if an End Customer's Telecommunications Service(s) are invalidly transferred between Service Providers RSPs that the situation is quickly rectified so that the End Customer is not

disadvantaged in any way.

52. Invalid Transfer occurs when:

52.1 There is a processing error (for example, the Telecommunications Services of an End Customer are mistakenly Transferred); or

52.2 There is an invalid Customer Authorisation.

53. If the GSP Gaining RSP is able to provide Customer Authorisation for the Transfer, then it is considered a valid Transfer for reporting and monitoring purposes.

54. Identification of Invalid Transfer

54.1 An Invalid Transfer can may be identified at any stage of the Transfer process where the Transfer is unable to be cancelled by any relevant Party, including scenarios where:

Where the

50.1.1 The End Customer highlights service issues that may substantiate an Invalid Transfer (e.g. they receive billing from a Service Provider RSP other than their perceived Service Provider);

54.1.1 Where, upon receipt of a Validation Request, and the current Service Provider (the potential LSP RSP concerned cannot provide sufficient evidence of Customer Authorisation);

54.1.2 Losing RSP) has doubts based on reasonable grounds regarding its validity;

54.1.3 Where the GSP The Gaining RSP establishes that the Transfer is invalid after submission of the Transfer Request. This may include such scenarios as transferring some or all relevant Telecommunications Services incorrectly.

54.2 All parties must immediately raise the fact they may have detected an Invalid Transfer (regardless of their role, or even if they have no role, in the particular Transfer).

51. If the Customer contacts the GSP to which they have been Invalidly Transferred, or the ASD, the GSP or ASD must refer the Customer to the Service Provider that the Customer wishes to be with.

54.3 If the party is notified of the Invalid Transfer by the End Customer, the End Customer should be referred to the Service Provider the End Customer wishes to be with.

54.4 If the party that discovers the Invalid Transfer is the Gaining RSP, the Gaining RSP should advise the End Customer to contact the RSP the End Customer wishes to be with.

54.5 Where the End Customer does not wish to manage the Invalid Transfer to another RSP the current RSP can notify the End Customer's desired RSP (as per the Notification process in section G that the End Customer wishes to return.

54.6 If the party that discovers the Invalid Transfer is the Losing RSP, the Losing RSP should request a copy of a Valid Customer Authorisation from the Gaining RSP. If the Gaining RSP cannot produce the Valid Customer Authorisation, the Losing RSP must arrange for the transfer to be reversed as per Section M.

54.7 If the party that discovers the Invalid Transfer is the VW, ASW or ANP, they must notify the Gaining RSP. The Gaining RSP must then take action as per section M.

55. If the End Customer contacts the Gaining RSP to which they have been Invalidly Transferred, or the VW, ASW or ANP, the End Customer must be referred to the RSP that the End Customer wishes to be with.

- 55.1 [If the End Customer decides to be with the Gaining RSP, the Gaining RSP should provide the Losing RSP with a copy of a Valid Customer Authorisation in line with Section F.](#)
- 55.2 [If the End Customer decides to be with the Losing RSP, transfer reversal must be initiated without delay.](#)
 - 55.2.1 [To facilitate the transfer reversal, the Losing RSP should place a service order to retrieve the services back from the Gaining RSP. If the End Customer has not received the first bill from the Gaining RSP containing the required Validation Request information, the Losing RSP should contact the Gaining RSP to retrieve the information. The Losing RSP must be able to provide a Valid Customer Authorisation to the Gaining RSP.](#)
 - 55.2.2 [If any of the parties involved in the transfer reversal do not comply, steps to enforce compliance should be taken in line with Section D.](#)
 - 55.2.3 [Where the End Customer does not wish to manage the invalid transfer to a RSP and the current RSP has been notified \(as per clause 25.2\) inclusion of the necessary Losing RSP details to facilitate the transfer to the customer desired RSP is required.](#)
- 56. [Disputes regarding the allocation of costs incurred due to an invalid transfer](#)
 - 56.1 [Any dispute regarding the allocation of disconnection or reconnection costs incurred due to an invalid transfer should be referred:](#)
 - 56.1.1 [To the Telecommunications Dispute Resolution Service if the dispute is raised by the End Customer concerned, in accordance with the Customer Complaints Code.](#)
 - 56.1.2 [According to Section O if the dispute is raised by any party to this Code.](#)

N. MONITORING AND ENFORCEMENT OF TRANSFER CODE OBLIGATIONS

- 57. Without limiting each Party's obligations under clause 1.1 and 35, parties to this Code must keep information they deem necessary to show their compliance with this Code, should it be required.
- 58. [If a Service Provider or ASD any Party](#) does not meet the obligations contained in this Code, the Enforcement Agency [_](#) may issue that Party with a written:
 - 58.1 Caution Notice of Breach;
 - 58.2 Warning Notice of Breach; or
 - 58.3 Public Censure Notice.
- 59. The Enforcement Agency must consider the seriousness of the non-compliance of the Party, and the Party's past conduct with respect to compliance with the Code's obligations when making a determination whether to issue a notice under clause ~~55~~58. The Enforcement Agency must first issue a Caution Notice of Breach and then a Warning Notice of Breach to the Party in relation to the particular breach in question before making a determination to issue a Public Censure Notice relating to the Party.
- 60. The Enforcement Agency will provide a copy of any Caution Notice of Breach, Warning Notice of Breach or Public Censure Notice issued to all Parties to the Code and, at the same time, to the Commerce Commission. Parties to the Code who receive a copy of a Caution Notice of Breach or Warning Notice of Breach shall keep such notice confidential.
- 61. **Caution Notice of Breach**

61.1 The written Caution Notice of Breach to the Party will include a request that one or more of the following actions be undertaken by that Party:

- 61.1.1 rectification of the breach;
- 61.1.2 specific corrective actions; and
- 61.1.3 an internal review of the Party's state of compliance with the obligation.

61.2 The Caution Notice of Breach will specify a timetable within which the action is required to be completed, with duration dependent upon the nature and complexity of the action. The Enforcement Agency will also seek confirmation from the Party of receipt of the Caution Notice of Breach.

62. Warning Notice of Breach

62.1 The written Warning Notice of Breach to a Party is a more severe version of the Caution Notice of Breach, and may be appropriate for situations where the Party has failed to undertake voluntarily the actions requested by the Caution Notice of Breach, within the timetable specified therein. The Warning Notice of Breach to the Party will include an order that one or more of the following actions be undertaken by the Party:

- 62.1.1 rectification of the breach;
- 62.1.2 specific corrective actions;
- 62.1.3 arrange for an independent audit of its compliance procedures in relation to the Code's obligations. The auditor must be approved by and report to the Enforcement Agency on compliance with the Code's obligations. The Party will be required to implement recommendations of the audit; and
- 62.1.4 that the Party conduct relevant education of its relevant staff to address knowledge inadequacies that may have led to the breach.

62.2 The Warning Notice of Breach will nominate a timetable within which the action is required to be completed, and the steps needed to be taken by the Party to address the action required by the Warning Notice of Breach, with duration dependent upon the nature and complexity of the action. The Enforcement Agency will also seek confirmation from the Party of receipt of the notice.

63. Public Censure Notice

63.1 In the event of a refusal or failure on the part of the Party to undertake to the Enforcement Agency's satisfaction any actions required by a Warning Notice of Breach within the timetable specified therein, the Party will promptly be formally advised by the Enforcement Agency that a Public Censure Notice is to be prepared for widespread publication. The Party will be sent an advance copy of the intended Public Censure Notice, which will:

- 63.1.1 identify the Party by name;
- 63.1.2 give details of the breach;
- 63.1.3 list all requests/orders previously made of the Party;
- 63.1.4 report on whether an independent audit has been ordered and, if so, state the results of the audit;
- 63.1.5 state that at the date of publication, the requests of the Caution Notice(s) of Breach and the orders of the Warning Notice(s) of Breach have not been complied with;
- 63.1.6 specify a final timetable by which any corrective action must be completed by the Party.

63.2 The Party will also be advised that publication of the Public Censure Notice

will not occur until a specified time period has elapsed from the date the advance copy of the public censure notice is sent, (the period of time is at the discretion of the Enforcement Agency). If the Enforcement Agency is fully satisfied that the Party has fully complied as ordered prior to the date the Public Censure Notice is due to be published, then the Public Censure Notice shall not be published.

63.3 If the Public Censure Notice is proceeded with, it will be published in the New Zealand Gazette, the TCF's newsletter, and at the Enforcement Agency's discretion, may be published in any relevant industry newsletter or magazine, in the national newspapers or in Consumer bulletins.

63.4 If the audit report states that the Party has complied with the Code then:

63.4.1 if the audit was undertaken due to a request from another ~~Service Provider and/or ASD~~ Party to this Code, then the Audit Costs will be payable to the Enforcement Agency by that other ~~Service Provider or ASD~~ Party and, upon receipt of payment of that sum, the Enforcement Agency will reimburse the Party its costs;

63.4.2 if the audit was undertaken otherwise than due to a request of a ~~Service Provider or ASD~~ Party to this Code, the Service Provider shall bear its own costs and the costs of the Enforcement Agency shall be reimbursed to it by the party that initiated the audit; or

63.5 If the audit report states that the Party has not complied with the Code ~~has not complied with the Code~~ then the Audit Costs will be payable by that Party.

63.6 For the purposes of clauses ~~64~~63.4.1 and ~~65~~63.4.2, "Audit Costs" means the aggregate of:

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

63.6.2 ~~such~~Such costs of the audited Party in respect of time involved in assisting the audit as are submitted by the Party to the Enforcement Agency which the Enforcement Agency determines are fair and reasonable.

64. Section 61

For the avoidance of doubt, the procedures set out in Sections (N) and (O) are additional to, and not exclusive of, any other rights a Party may have under the Telecommunications Act, at law or in equity and nothing in Sections (N) and (O) will prevent any Party from exercising its right to enforce compliance with the Code's in accordance with section 61 of the Telecommunications Act.

O. DISPUTE RESOLUTION

65. The objective of this section is to detail the dispute resolution procedures should a dispute arise from anything in this Code.

66. Dispute

For the purposes of these dispute resolution procedures, a "dispute" is any matter relating to this Code about which the Parties disagree or are unable to agree on and which:

66.1 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 subclause ~~70.2~~66.2; or

66.2 Is a Complex Dispute that;

66.2.1 may, in the opinion of a Party to the dispute and the Code have significant commercial implications for that Party; or

66.2.2 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 if it is a Complex Dispute.

67. Telecommunications Act 2001

No Party to the Code is prevented by these dispute resolution procedures from exercising any rights under the Telecommunications Act including but not limited to:

67.1 Applications for determinations, price reviews, clarifications, reconsiderations to the Commerce Commission under Part 2 of the Telecommunications Act;

67.2 Appeals against Commerce Commission determinations and proceedings for enforcement of Commerce Commission determinations to the High Court under subpart 5 of Part 2 of the Telecommunications Act; and

67.3 Investigations by the Commission under subpart 6 of Part 2 and Schedule 3 of the Telecommunications Act.

68. 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 that Act and these procedures will not apply to such a dispute.

69. If a dispute has not been resolved by the end of the Negotiation Period as defined below (and, if applicable, the Mediation Period as defined below), a Party to the dispute may choose to resolve the dispute by pursuing any applicable rights under the Telecommunications Act or, in the alternative, by submitting a Technical Dispute for expert determination under clause 74 or by submitting a Complex Dispute for arbitration under clause 75.

70. Once a Party (the "Initiator"):

70.1 Has commenced a process under the Telecommunications Act; or

70.2 has submitted a dispute for expert determination or arbitration, then, subject to clause 76 below, the Initiator 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.

71. 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 they may have under the Telecommunications Act.

72. Good faith negotiation

72.1 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 (a Relevant Party). The Party who gives notice of the dispute and the Relevant Parties are together referred to as the "parties to the dispute".

72.2 If a Party gives notice of a dispute, then during a negotiation period of 10 Business Days from the date when notice of the dispute is given (**Negotiation Period**), the authorised representatives of the parties to the dispute must attempt in good faith to negotiate a resolution of the dispute.

72.3 If the authorised representatives are unable to resolve the dispute within that

10 Business Day period, the parties to the dispute may agree to refer the dispute to their respective Chief Executives (or equivalent officer of his or her nominee), in the case of a Complex Dispute, or operational manager, in the case of a Technical Dispute, 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 clause ~~7279~~.4, and for clauses ~~7467~~ to ~~7571~~, and ~~7380~~ to ~~7582~~ (inclusive) the “Negotiation Period” includes this further 10 Business Day period.

- 72.4 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 clauses ~~6457~~ to ~~63.565~~ (inclusive) resolved under these dispute resolution procedures as such.

73. 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 five (5) Business Days of the parties agreeing to refer the dispute to mediation, will be selected by the Chairperson of LEADR (Leading Edge Alternative Dispute Resolvers) 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 (Mediation Period). The costs of the mediator will be paid by the parties to the dispute equally.

74. Determination of Technical Disputes by an independent expert

- 74.1 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.
- 74.2 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 at the request of the Initiator be nominated by the Chairperson of the Board of the Telecommunications Carriers’ Forum and approved by the Commerce Commission.
- 74.3 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. He or she 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.
- 74.4 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 guidelines determined by the expert, but in accordance with the principles of natural justice. Where the independent expert has primarily technical qualifications, he or she expert may seek independent legal advice regarding the appropriate procedures for resolution of the dispute.
- 74.5 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 resolution of the dispute.

75. 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. The notice will, subject to clauses [7467](#) to [7571](#) (inclusive) 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:

- 75.1 the arbitration will be subject to the Arbitration Act 1996 and its Schedules;
- 75.2 the arbitrator must have experience and expertise in telecommunications and competition issues;
- 75.3 the parties to the dispute must endeavour to appoint a single arbitrator within 10 Business Days of notice being given;
- 75.4 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;
- 75.5 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 two (2) months of the arbitrator's appointment (or such lesser period as is appropriate);
- 75.6 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;
- 75.7 the arbitrator must not adopt inquisitorial processes;
- 75.8 the arbitration must take place in Wellington or Auckland (at the arbitrator's discretion);
- 75.9 the arbitrator must determine the dispute under New Zealand law;
- 75.10 either Party may appeal to the High Court on any question of law arising from an award; and
- 75.11 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:
 - 75.12 to be a cost of the arbitration; and
 - 75.13 unless the arbitrator orders otherwise, to be shared equally between the parties to the dispute.
- 75.14 The arbitrator must:
 - 75.14.1 provide copies of any assistance or report to the parties to the dispute;
 - 75.14.2 allow each Party to make submissions in response to that assistance or support;
 - 75.14.3 allow each Party to produce evidence on any issue raised in that assistance or report; and
 - 75.14.4 allow each Party to make submissions in response to any evidence produced by any party.

76. 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 rights it may have under the Telecommunications Act as contemplated by clauses [7467](#) to [7571](#) (inclusive), the dispute resolution procedures in this Code are mandatory and parties to the Code contemplate that they will not resort to court

proceedings. If court proceedings other than court proceedings contemplated by clauses ~~7467~~ to ~~7571~~ (inclusive) are commenced, a relevant Party shall be entitled to seek a stay of court proceedings in favour of an appropriate dispute resolution procedure under this Code. All the provisions in this section (M) as to dispute resolution shall apply, irrespective of whether any Party to the determination of which they form part has filed the determination in the High Court as provided for in section 61 of the Telecommunications Act.

77. 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 any Party pursuing its rights under the Telecommunications 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.

78. Use or disclosure of information

No Party to a dispute may use, other than to attempt to resolve the dispute, any information disclosed to them 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 shall not constitute 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:

- 78.1 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
- 78.2 to return all material on which such information is recorded on completion of the adviser's or independent witness's services.

79. Bilateral Agreements

The dispute resolution procedures set out in this section O apply to the extent that 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 the Customer Transfer Code.

P. CUSTOMER COMPLAINTS

- 80. Any complaints received from End Customers regarding their experience while transferring between Retail Service Providers shall be dealt with under the TCF Consumer Complaints Code for those Customers who are within the scope of that Code and the CustomersEnd Customer's contract with the GSPGaining RSP for all other End Customers.

Q. EXPIRY, REVOCATION AND AMENDMENT OF THE CODE

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

Annexure 1: LSPVW, ASW and ANP Rejection Codes

<u>013</u> <u>Rejection Code</u>	<u>Name Mismatch</u> <u>Description</u>	<u>The Customer name provided is incorrect or does not significantly match the information in the LSP's records.</u> <u>Explanation</u>
<u>014009</u>	<u>Invalid Account Number</u> <u>Unable to direct supply</u>	<u>The Customer Account Number provided is incorrect or does not significantly match the information in the LSP's record.</u> <u>The transfer form requests the direct supply of a service that cannot be direct supplied by Provider/Wholesaler</u>
<u>015010</u>	<u>Invalid Unique Service Identifier</u> <u>Wrong order type</u>	<u>The Unique Service Identifier provided is incorrect or does not significantly match the information in the LSP's record.</u> <u>The request has been provided using the wrong form.</u>
<u>020011</u>	<u>Incomplete Information</u> <u>Open Service Order</u>	<u>The request does not contain all of the required information</u> <u>There is an existing open service order in relation to the relevant service/line/circuit.</u>
<u>021012</u>	<u>Corrupt or unreadable</u> <u>Disconnection pending</u>	<u>The request is wholly or partially corrupted or unreadable.</u> <u>A disconnection of the relevant service / line / circuit is pending</u>
<u>013</u>	<u>Name Mismatch</u>	<u>The customer name specified on the form is incorrect or does not match the information in Telecom's records</u>
<u>014</u>	<u>Invalid Account Number</u>	<u>The account information specified is incorrect or does not match the information in Provider/Wholesaler records.</u>
<u>015</u>	<u>Invalid line or address</u>	<u>The customer line number or address specified on the form is incorrect or does not match the information in Provider/Wholesaler records</u>
<u>017</u>	<u>Unavailable segment or Zone</u>	<u>The Service requested for transfer/resale supply is not available in the applicable customer segment or zone</u>
<u>018</u>	<u>Not capable of providing service</u>	<u>There is insufficient network capacity or equipment/plant is temporarily unavailable</u>
<u>020</u>	<u>Incomplete information</u>	<u>The form does not contain all of the required information such as Supply Chain Information for End Customer</u>
<u>021</u>	<u>Corrupt or unreadable</u>	<u>The form is wholly or partially corrupted or unreadable</u>
<u>023</u>	<u>Other incorrect information</u>	<u>The form contains other information that is incorrect or that does not match the information in Provider/Wholesaler records</u>
<u>033</u>	<u>Already Assigned</u>	<u>The residential line requested for reassignment has already been reassigned to requesting service provider/wholesaler</u>
<u>034</u>	<u>Customer Cancellation</u>	<u>Customer has advised that they no longer want to proceed with this request</u>
<u>038</u>	<u>Outside service area</u>	<u>Broadband service requested is outside of the current service area.</u>
<u>039</u>	<u>Bundled Service</u>	<u>The customer has a bundled service that cannot be broken</u>
<u>041</u>	<u>Wrong Service Type</u>	<u>Requested as a residential customer when it is business and vice versa</u>
<u>043</u>	<u>Number not compatible</u>	<u>Number provided is not the main service ID/phone number for the customer's line</u>
<u>045</u>	<u>Not Provider/Wholesaler Line</u>	<u>Customer has their voice access lines with another service provider</u>
<u>048</u>	<u>Incompatible Service</u>	<u>Customer has an existing service/feature that is incompatible with the Service/feature requested</u>
<u>049</u>	<u>No Broadband.</u>	<u>Broadband Transfer request but customer does not</u>

		currently have Broadband.
099	Not otherwise specified	Rejection does not fit into specific codes above.

Annexure 2: Standard Format for Supply Chain Information

The Supply Chain Information set out in Clause 16 is to be provided in a standard format by all parties to the Code.

The Supply Chain Information is comprised of three (3) pieces of information:

<u>Item</u>	<u>Description</u>
<u>1. Service Type</u>	The type of Product or Service being supplied to the End Customer (e.g. broadband, phone).
<u>2. Billing ID</u>	The RSP Service or Billing ID for each service being supplied to the End Customer.
<u>3. Transfer ID</u>	A unique Transfer ID for each service being supplied to the End Customer that identifies the chain of supply for that service (e.g. who the ASW and ANP is). This Transfer ID should have a 'XFR' prefix, to allow the End Customer to easily locate and identify the Transfer related information when presented on the End Customers bill.

Format for the Transfer ID

The Transfer ID is comprised of the following information:

<u>Item</u>	<u>Description</u>
<u>XFR</u>	Field Identifier
<u>ANP</u>	The unique identifier for the core network component the services are delivered over.
<u>ANP Carrier ID</u>	Three digit code identifying the carrier
<u>ASW</u>	The ASW's unique identifier for the relevant service being delivered.
<u>ASW Carrier ID</u>	Three digit code identifying the carrier
<u>VW Carrier ID</u>	Three digit code identifying the carrier
<u>Checksum</u>	The Checksum is an algorithm. Each digit in the reference is factored and summed as per the modified luhn-algorithm and the total is divided by ten (10). The remainder is the checksum. This picks up errors whereby digits are mis-keyed or typed in an incorrect order.

Presentation of Supply Chain Information on End Customer Bill

The Supply Chain information when presented on the End Customers bill would look like this:

Phone 09654321 XFR_1621234591_001_1687654321_101_000_2
XFR |-----ANP-----| |-----ASW-----| |VW| CHECKSUM

Product/Service Billing ID Transfer ID

An example of the above information is shown on page 36 on a sample End Customer invoice.

For Pair Bonded Inverse Multiplex Lines

Pair bonded lines are two physical lines that are bonded into one (1) service point and can have one (1) or more services established on it. GRSPs must have the facility to capture the additional ANP information when provided.

Formatting should be displayed line by line:

<u>Broadband</u>	<u>IPS_414414</u>	<u>XFR_1621234567_001_1687654321_101_202_2</u> <u>XFR_1621234577_001_1687654321_101_202_2</u>
<u>Phone</u>	<u>09123456</u>	<u>XFR_1621234589_001_1687654321_101_000_2</u> <u>XFR_1621234597_001_1687654321_101_000_2</u>
<u>Phone</u>	<u>09654321</u>	<u>XFR_1621234591_001_1687654321_101_000_2</u> <u>XFR I-----ANP-----I I-----ASW-----I I VW I CHECKSUM</u>
<u>Product/Service</u>	<u>Billing ID</u>	<u>Transfer ID</u>

The below information is provided as part of the public Consultation process to provide guidance for technical staff on how the algorithm above may be implemented.

Check Sum Algorithms

The check digit algorithm, a hybrid of the luhn algorithm, is from the open source software OPENMRS - http://openmrs.org/wiki/Check_Digit_Algorithm and the following is derived from that page:

What is the Luhn algorithm?

This algorithm used by credit card companies to generate the final digit of a credit card.

Given an identifier, let's say "139," you travel right to left. Every other digit is doubled and the other digits are taken unchanged. All resulting digits are summed and the check digit is the amount necessary to take this sum up to a number divisible by ten. Eg.

$$\begin{array}{l} 9 \times 2 = 18 \\ 3 = 3 \\ 1 \times 2 = 2 \end{array}$$

Now sum all of the *digits* (note '18' is two digits, '1' and '8'). So the answer is '1 + 8 + 3 + 2 = 14' and the check digit is the amount needed to reach a number divisible by ten. For a sum of '14', the check digit is '6' since '20' is the next number divisible by ten.

This formula is a mathematical means to capture miskeying of digits and having digits in the wrong order.

Here's how we handle non-numeric characters

For the second-to-last (2nd from the right) character and every other (even-positioned) character moving to the left, we just add 'ASCII value - 48' to the running total. Non-numeric characters will contribute values >10, but these digits are *not* added together; rather, the value 'ASCII value - 48' (even if over 10) is added to the running total. For example, "M" is ASCII 77. Since '77 - 48 = 29', we add 29 to the running total – *not* '2 + 9 = 11'.

For the rightmost character and every other (odd-positioned) character moving to the left, we use the formula '2 * n - 9 x INT(n/5)' (where INT() rounds off to the next lowest whole number) to calculate the contribution of every other character. If you use this formula on the numbers 0 to 9, you will see that it's the same as doubling the value and then adding the resulting digits together (e.g., using 8: '2 x 8 = 16' and '1 + 6 = 7'. Using the formula: '2 x 8 - 9 x INT(8/5) = 16 - 9 x 1 = 16 - 9 = 7') – identical to the Luhn algorithm. But using this formula allows us to handle non-numeric characters as well by simply plugging 'ASCII value - 48' into the formula. For example, "Z" is ASCII 90. '90 - 48 = 42' and '2 x 42 - 9 x INT(42/5) =

84 - 9 x 8 = 84 - 72 = 12'. So we add 12 (*not* '1 + 2 = 3') to the running total.

So, here's how we would use the Luhn algorithm for the identifier "139MT"

T (ASCII 84) -> 84 - 48 = 36 -> 2 x 36 - 9 x INT(36/5) = 72 - 9 x 7 = 72 - 63 = 9

M (ASCII 77) -> 77 - 48 = 29

9 x 2 = 18 -> 1 + 8 = 9 or 9 => 2 x 9 - 9 x INT(9/5) = 18 - 9 x 1 = 18 - 9 = 9

3 = 3

1 x 2 = 2 or 1 => 2 x 1 - 9 x INT(1/5) = 2 - 9 x 0 = 2

Summing the results we get '9 + 29 + 9 + 3 + 2 = 52'. The next number divisible by ten is 60. So, our check digit (the difference) is 8.

Code examples

Source: http://openmrs.org/wiki/Check_Digit_Algorithm

VBA:

Function checkdigit(idWithoutCheckDigit)

 uclWithoutCheckdigit = UCase(idWithoutCheckDigit)

 total = 0

 For i = Len(uclWithoutCheckdigit) To 1 Step -2

 digit = Asc(Mid(uclWithoutCheckdigit, i, 1)) - 48

 total = total + (2 * digit) - Int(digit / 5) * 9

 If (i > 1) Then

 digit = Asc(Mid(uclWithoutCheckdigit, i - 1, 1)) - 48

 total = total + digit

 End If

 Next i

 total = Abs(total) + 10

 checkdigit = (10 - (total Mod 10)) Mod 10

End Function

Java

public int checkdigit(String idWithoutCheckdigit) {

 // allowable characters within identifier

 String validChars = "0123456789ABCDEFGHIJKLMNPOQRSTUVWXYZ_";

 // remove leading or trailing whitespace, convert to uppercase

 idWithoutCheckdigit = idWithoutCheckdigit.trim().toUpperCase();

 // this will be a running total

 int sum = 0;

 // loop through digits from right to left

 for (int i = 0; i < idWithoutCheckdigit.length(); i++) {

 //set ch to "current" character to be processed

 char ch = idWithoutCheckdigit

 .charAt(idWithoutCheckdigit.length() - i - 1);

 // throw exception for invalid characters

 if (validChars.indexOf(ch) == -1)

```

    throw new InvalidIdentifierException(
        "\"" + ch + "\" is an invalid character");

    // our "digit" is calculated using ASCII value - 48
    int digit = (int)ch - 48;

    // weight will be the current digit's contribution to
    // the running total
    int weight;
    if (i % 2 == 0) {

        // for alternating digits starting with the rightmost, we
        // use our formula this is the same as multiplying x 2 and
        // adding digits together for values 0 to 9. Using the
        // following formula allows us to gracefully calculate a
        // weight for non-numeric "digits" as well (from their
        // ASCII value - 48).
        weight = (2 * digit) - (int) (digit / 5) * 9;
    } else {

        // even-positioned digits just contribute their ascii
        // value minus 48
        weight = digit;
    }

    // keep a running total of weights
    sum += weight;
}

// avoid sum less than 10 (if characters below "0" allowed,
// this could happen)
sum = Math.abs(sum) + 10;

// check digit is amount needed to reach next number
// divisible by ten
return (10 - (sum % 10)) % 10;
}

```

Example of supply chain information shown on simple End Customer Bill:

Tax Invoice Copy GST No. 73564212	<h1>RSP Limited</h1>		
Herne Bay Auckland 1022 New Zealand	Account Number: Login: Invoice #: Invoice Date: Customer Service:		23 Apr 2009 0800 13 14 15
Current charge detail			
Broadband			
Homeline			
Subtotal: Tax/GST charged: INVOICE TOTAL (including Tax/GST):			
Service Transfer IDs			
Broadband	IPS_414414	XFR_1621234567_001_1687654321_101_202_2	
Phone	09123456	XFR_1621234589_001_1687654321_101_000_2	
Phone	09654321	XFR_1621234591_001_1687654321_101_000_2	

Annexure 3: Standard Format for Notifications

The purpose of standardizing the format of notifications is to provide a common language for Service Providers to use and to support automation for those Service Providers who would like to automate the process.

Transfer Notifications

The information supplied in the RSP Notification should be supplied in the following format:

	<u>Field</u>	<u>Example of format</u>
1	<u>Subject Line</u>	RSP Notification - <LRSP Customer Account Number> or <LRSP Customer Account Name>
2	<u>RSP Customer Account Number</u>	<12345456>
3	<u>Full and correct RSP Customer Account Name</u>	<Robert J Jones>
4	<u>Current Proposed Transfer Date</u>	<YYYY-MM-DD>
5	<u>Supply Chain Information for each service to be transferred.</u>	As specified in Annexure 2
6	<u>Notes</u>	Free text field

Reject Notifications

The information supplied in the Invalid Notification should be supplied in the following format:

	<u>Field</u>	<u>Example of format</u>
1	<u>Subject Line</u>	Reject Notification - <LRSP Customer Account Number> or <LRSP Customer Account Name>
2	<u>RSP Customer Account Number</u>	<12345456>
3	<u>Full and correct RSP Customer Account Name</u>	<Robert J Jones>
4	<u>Reject Code</u>	<009> As per Annexure 1: VW, ASW and ANP Reject Codes
5	<u>Description</u>	< Unable to direct supply> As per Annexure 1: VW, ASW and ANP Reject Code Description
6	<u>Notes</u>	Free text field

Invalid Transfer Notifications

The information supplied in the Invalid Notification should be supplied in the following format:

	<u>Field</u>	<u>Example of format</u>
1	<u>Subject Line</u>	Invalid Transfer- <Previous LRSP Customer Account Number> or <Previous LRSP Customer Account Name>
2	<u>RSP Customer Account Number</u>	<12345456>
3	<u>Full and correct RSP Customer Account Name</u>	<Robert J Jones>
4	<u>Transfer Completed Date</u>	<YYYY-MM-DD>
5	<u>Supply Chain Information for each service to be transferred</u>	As specified in Annexure 2
6	<u>Notes</u>	Free text field

Cease Billing Notifications

ANP to LASW

The information supplied in the Cease Billing Notification should be supplied in the following format:

	<u>Field</u>	<u>Example of format</u>
1	<u>Subject Line</u>	<u>Cease Billing Notification - <LRSP Customer Account Number> or <LRSP Customer Account Name></u>
2	<u>RSP Customer Account Number (or full and correct RSP Customer Account Name)</u>	<u><12345456> or <Robert J Jones></u>
3	<u>Effective Transfer Date</u>	<u><YYYY-MM-DD></u>
4	<u>Physical Address</u>	
5	<u>Service Order reference number</u>	
6	<u>Supply Chain Information for each service to be transferred</u>	<u>As specified in Annexure 2</u>
7	<u>Notes</u>	<u>Free text field</u>

LASW to LVW & LVW to LRSP

The information supplied in the Cease Billing Notification between Losing parties should be supplied in the following format:

	<u>Field</u>	<u>Example of format</u>
1	<u>Subject Line</u>	<u>Cease Billing Notification - <LRSP Customer Account Number> or <LRSP Customer Account Name></u>
2	<u>RSP Customer Account Number (or full and correct RSP Customer Account Name)</u>	<u><12345456> or <Robert J Jones></u>
3	<u>Effective Transfer Date</u>	<u><YYYY-MM-DD></u>
4	<u>Physical Address</u>	
5	<u>Service Order reference number</u>	
6	<u>Supply Chain Information for each service to be transferred</u>	<u>As specified in Annexure 2</u>
7	<u>Notes</u>	<u>Free text field</u>

LASW to LRSP

The information supplied in the Cease Billing Notification between Losing parties should be supplied in the following format:

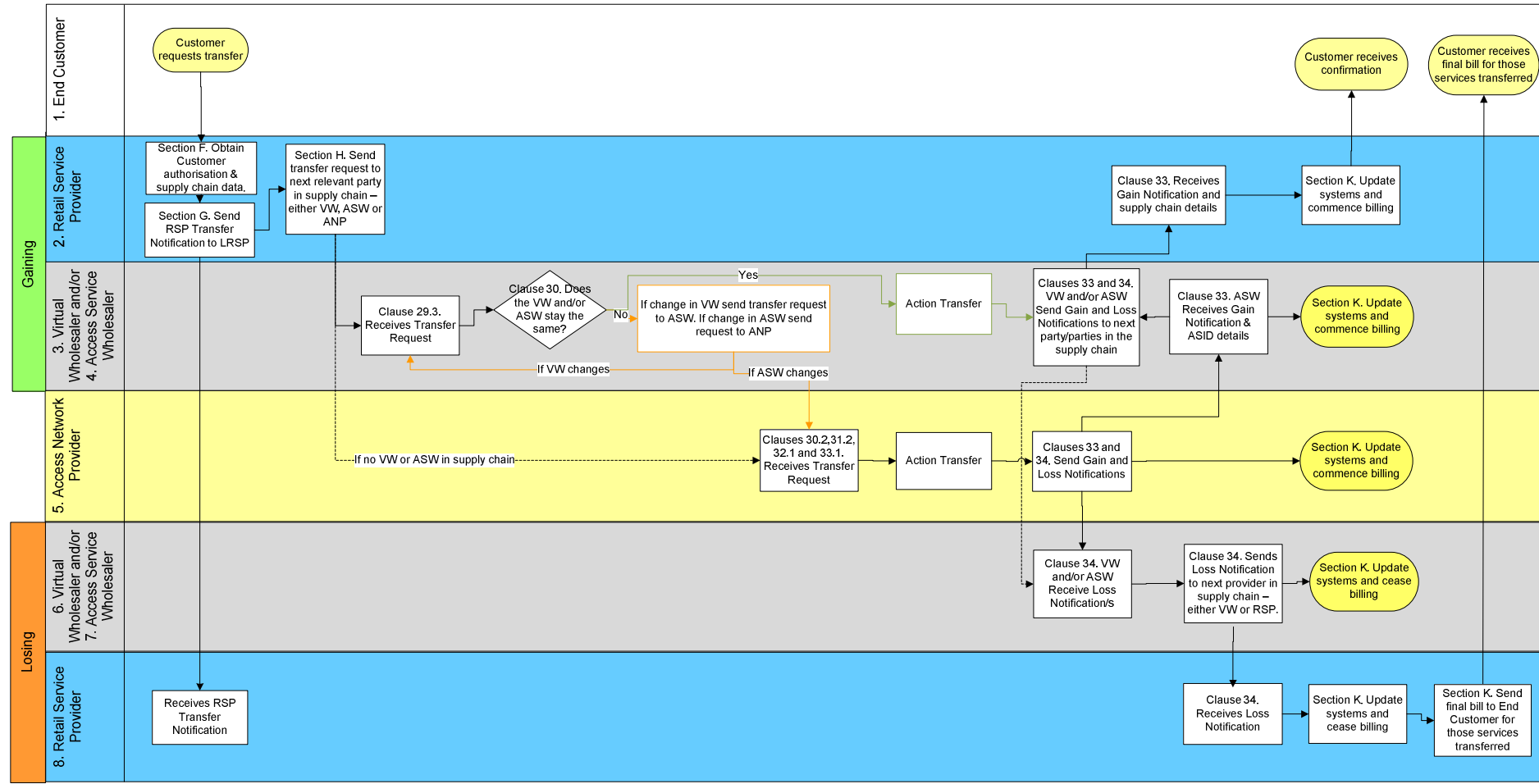
	<u>Field</u>	<u>Example of format</u>
1	<u>Subject Line</u>	<u>Cease Billing Notification - <LRSP Customer Account Number> or <LRSP Customer Account Name></u>
2	<u>RSP Customer Account Number (or full and correct RSP Customer Account Name)</u>	<u><12345456> or <Robert J Jones></u>
3	<u>Effective Transfer Date</u>	<u><YYYY-MM-DD></u>
4	<u>Physical Address</u>	
5	<u>Service Order reference number</u>	
6	<u>Supply Chain Information for each service to be transferred</u>	<u>As specified in Annexure 2</u>
7	<u>Notes</u>	<u>Free text field</u>

Annexure 4: Customer Transfer Code Process Overview

No change in ANP

TCF Draft Customer Transfer Process Overview Diagram

- Where the ANP stays the same.
- Dashed lines show optional steps.
- For simplicity, the accept/reject decision points have been excluded from this diagram.



Where the ANP changes

TCF Draft Customer Transfer Process Overview Diagram

- Where there is a change in ANP.
- Dashed lines show optional steps.
- For simplicity, the accept/reject decision points have been excluded from this diagram.

