



COMMERCE COMMISSION

**STANDARD TERMS DETERMINATION FOR
CHORUS' SUB-LOOP UNBUNDLED COPPER
LOCAL LOOP NETWORK SERVICES**

**SERVICE APPENDIX 3, SCHEDULE 4
SUB-LOOP BACKHAUL OPERATIONS
MANUAL**

PUBLIC VERSION

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PART 1 - DOCUMENT INFORMATION

1 INTRODUCTION

1.1 Purpose

This Sub-loop Backhaul Operations Manual (**Manual**) is part of the Sub-loop Services Terms and sets out the operational processes and procedures for supply of the Sub-loop Backhaul Service.

1.2 Relationship with the Sub-loop Services Terms

This Manual should be read in conjunction with the other documents which make up the Sub-loop Services Terms, in particular the Sub-loop Services General Terms.

1.3 Change Mechanism and Distribution

1.3.1 This Manual may be changed in accordance with the change mechanism set out in section 9 of the Sub-loop Services General Terms.

1.3.2 Chorus will make the current version of this Manual available on a secure portal accessible to the Access Seeker.

1.3.3 Chorus will review this Manual every second year on the anniversary of the determination date of the Unbundled Copper Local Loop STD¹ (7 November 2007) (or earlier if requested by the Access Seeker and an earlier review is agreed by Chorus). The change mechanism (set out in section 9 of the Sub-loop Services General Terms) will apply to any changes proposed by Chorus as a result of any review.

1.4 Definitions

References to clauses or sections are references to clauses or sections in this Manual unless expressly provided otherwise. The Glossary (Appendix A) sets out definitions for terms contained in this Manual that are not defined in the Sub-loop Services General Terms. Otherwise, the definitions set out in the Sub-loop Services General Terms apply.

2 PEOPLE AND CONTACT DETAILS

2.1 General

2.1.1 Immediately following the Access Date, the Access Seeker and Chorus must provide each other with the people and contact details set out in clause 2.2. Any change to the people or contact details must be advised in writing to the other

¹ Commerce Commission Decision 609, *Standard Terms Determination for the designated service Telecom's unbundled copper local loop network*, 7 November 2007.

party's principal point of contact. All people and contact details will remain valid until a party has advised the other in writing of a change (and provided an updated list of people and contact details). In addition to the people and contact details provided, where Chorus details are specified in the body of this Manual, the Access Seeker must use those details.

2.1.2 If for any reason a party is prevented from giving a Notice pursuant to the Sub-loop Services Terms to the relevant person or contact advised by the other party, the same notice may be given to the other party's principal point of contact. If for any reason the other party's principal point of contact is unavailable or his or her identity and contact details have not been advised, the same notice may be given by serving it either:

- (a) at the other party's contact address for giving Notice under the Sub-loop Services Terms;
- (b) personally (if the other party is a natural person); or
- (c) at the other party's registered office (if the other party is incorporated).

2.2 **People and Contact Details**

<i>Contact and detail required</i>	<i>Purpose</i>
<p><i>Both parties provide</i> Contact address for giving Notice under the Sub-loop Services Terms. (This must include a street address, email address and a fax number.)</p>	<p>This is the street address, email address and fax number that notices can be sent to under the Sub-loop Services Terms by the other party.</p>
<p><i>Both parties provide</i> Principal point of contact. (This must include the principal point of contact's email address, mobile and work telephone numbers.)</p>	<p>This is the person responsible for the overall relationship between the parties with respect to the Sub-loop Backhaul Service. For Chorus this will usually be the Account Manager for the relevant Access Seeker.</p>
<p><i>Chorus only provides</i> Service Delivery Manager. (This must include the Service Delivery Manager's email address, mobile and work telephone numbers.)</p>	<p>This is the person responsible for service delivery of the Sub-loop Backhaul Service to the Access Seeker.</p>

<p><i>Chorus only provides</i> Provisioning Manager. (This must include the Provisioning Manager's email address, mobile and work telephone numbers.)</p>	<p>This is the person responsible for the provisioning of the Sub-loop Backhaul Service to the Access Seeker.</p>
<p><i>Chorus only provides</i> Email address for submission of Sub-loop Backhaul Forecasts.</p>	<p>This is the email address to which the Access Seeker must send Forecasts.</p>
<p><i>Access Seeker only provides</i> Provisioning and Forecasting Manager. (This must include the provisioning and Forecasting Manager's email address, mobile and work telephone numbers.)</p>	<p>This is the Access Seeker's counterpart to the Chorus Provisioning Manager.</p>
<p><i>Access Seeker only provides</i> Names and email addresses of one or two people to become OO&T and OFM user administrators.</p>	<p>These people will manage the creating and disabling of Access Seeker staff accounts to access the OO&T and OFM websites.</p>
<p><i>Access Seeker only provides</i> People who are authorised to download eBill files.</p>	<p>These are the people who will be set up with access to a secure gateway from which the Access Seeker's eBills can be viewed and downloaded.</p>
<p><i>Access Seeker only provides</i> People who are authorised to download the Sub-loop Backhaul Price List file.</p>	<p>These are the people who will be set up with access to a secure gateway where the Sub-loop Backhaul Price List file can be viewed and downloaded.</p>
<p><i>Access Seeker only provides</i> Order confirmation email address.</p>	<p>This is the email address to which Chorus will send confirmation of Orders in cases where the Access Seeker has submitted a provisioning request via email.</p>

<p><i>Chorus only provides</i> Fault reporting contact details. (This must include an 0800 fault reporting service number.)</p>	<p>These are the contact details the Access Seeker must use for the reporting of faults in instances where Chorus has advised that OFM is unavailable under clause 11.1.6.</p>
<p><i>Chorus only provides</i> Business continuity email address.</p>	<p>This is the email address to send forms to under clause 8.5.4.</p>
<p><i>Chorus only provides</i> Billing team email address.</p>	<p>This is the email address to which the Access Seeker will send billing queries under clause 16.2.</p>
<p><i>Access Seeker only provides</i> Name, email address, mobile and work telephone number of person Chorus should respond to for billing queries.</p>	<p>This is the email address to which Chorus will respond in relation to billing queries.</p>
<p><i>Access Seeker only provides</i> Contact for faults. (This must include a name, email address and mobile and work telephone numbers.)</p>	<p>This is the contact Chorus will deal with in respect of faults.</p>
<p><i>Chorus only provides</i> Web address for reporting.</p>	<p>This is the web address which the Access Seeker accesses to obtain reports.</p>
<p><i>Access Seeker only provides</i> Contact for Sub-loop Backhaul Performance Reports. (This must include a name, email address and mobile and landline telephone numbers.)</p>	<p>This is the contact to whom Chorus will send the Sub-loop Backhaul Performance Reports.</p>

3 TECHNICAL MANUALS AND USER GUIDES

3.1 General

- 3.1.1 This Manual refers to various technical manuals, international standards and user guides that are not part of the Sub-loop Service Terms and that contain technical and procedural detail. Such reference is necessary for both the Access Seeker and Chorus so that:

- (a) uniform standards of best practice are set;
 - (b) the performance of Chorus' Network can be maintained;
 - (c) the health and safety of the Access Seeker's and Chorus' employees, contractors and other agents can be protected;
 - (d) systems are in place for the management of outages, faults and any work the Access Seeker or Chorus need to undertake; and
 - (e) the Access Seeker's and Chorus' employees, contractors and other agents have access to uniform technical instructions.
- 3.1.2 To the extent that this Manual creates any obligation to comply with a technical manual, international standard or user guide, the Access Seeker and Chorus must:
- (a) apply the technical manual, international standard or user guide under the Sub-loop Services Terms in good faith;
 - (b) interpret the technical manual, international standard or user guide consistently with the Sub-loop Services Terms; and
 - (c) comply with the technical and/or procedural detail the technical manual, international standard or user guide contains.
- 3.1.3 Electronic copies of all the relevant technical manuals and user guides will be made available to the Access Seeker as soon as practicable after the Access Date or following an earlier request from the Access Seeker. A list of technical manuals, user guides and standards referred to in this Manual is listed on Chorus' website (www.chorus.co.nz).

4 GOOD FAITH AND DISPUTE RESOLUTION

4.1 General

- 4.1.1 The parties will deal with each other in good faith in relation to this Manual. The parties will act co-operatively and in good faith to facilitate the processes and procedures required for supply of the Sub-loop Backhaul Service.
- 4.1.2 Any dispute, question or difference (including a dispute, question or difference arising in relation to technical manuals and user guides under section 3 above) that arises between parties must be dealt with in accordance with the Escalation Protocol in Appendix B. The parties must use all reasonable endeavours to

resolve the issue in this way before giving a Dispute Notice under section 36 of the Sub-loop Services General Terms.

- 4.1.3 In some parts this Manual provides that any Dispute in relation to a particular issue will be of a technical, operational or implementation nature which requires significant investigation of factual matters, and therefore, in the event of a Deadlock, must be resolved by an expert determination. However, nothing in this Manual will prevent the Access Seeker or Chorus from seeking any remedies available under the Act.

5 PREREQUISITES

5.1 Overview

In addition to the prerequisites set out in section 6 in the Sub-loop Services General Terms, the Access Seeker must satisfy the following operational prerequisites before ordering the Sub-loop Backhaul Service. The Access Seeker may, at its option, enter into a non-disclosure agreement with Chorus covering discussions prior to ordering the Sub-loop Backhaul Service (but neither Chorus nor the Access Seeker will be under any obligation to do so).

5.2 Operational

- 5.2.1 Prior to placing the first Forecast with Chorus, Chorus must have granted the Access Seeker, and the Access Seeker must have verified it has access to, the OSS required for the provision for the Sub-loop Backhaul Service Forecasts, namely the secure web portal (this is required in order to download soft copies of the Forecasting Template).

- 5.2.2 Prior to placing the first Order with Chorus, the Access Seeker must meet the following prerequisites:

- (a) Chorus has granted to the Access Seeker, and the Access Seeker has verified it has access to, OSS for the provision of the Sub-loop Backhaul Service, including:
 - (i) OO&T; and
 - (ii) OFM;
- (b) the Access Seeker's nominated staff (being those staff who will be directly involved in managing the Sub-loop Backhaul Service from the Access Seeker's perspective) have completed the appropriate training as set out in section 6.

- 5.2.3 On an ongoing basis after the Operational Date, the Access Seeker must be using the Sub-loop UCLL Service to supply services to at least one End User at every

Distribution Cabinet where the Access Seeker takes the Sub-loop Backhaul Service.

- 5.2.4 Prior to placing each individual Order with Chorus, the Access Seeker must ensure:
- (a) at least one Sub-loop Backhaul Connection or Sub-loop Handover Fibre is in place or ordered at the relevant Local Exchange or, where the Local Exchange is a Bundled Exchange, the Access Seeker has ordered the UCLL Backhaul Service in conjunction with the Sub-loop Backhaul Service in accordance with section 18; and
 - (b) the 'Interface' specification set out in Appendix B of the Sub-loop Backhaul Service Description is complied with in respect of each connection to the Sub-loop Backhaul Service.

In addition, the Access Seeker must ensure that the prerequisites specified in this clause 5.2.4 are complied with on an ongoing basis in respect of each connection to the Sub-loop Backhaul Service while that Access Seeker continues to receive the Sub-loop Backhaul Service.

5.3 **Time Estimates**

Chorus estimates it will take existing and new Access Seekers who seek access to the Sub-loop Backhaul Service about 30 Working Days to complete the prerequisites.

6 **TRAINING**

6.1 **General**

- 6.1.1 Chorus will provide reasonable initial set up training.
- 6.1.2 'Reasonable initial set up training' in this context consists of a workshop held at a Chorus location. The workshop will address:
- (a) overview of forms for forecasting and ordering;
 - (b) overview of forms for fault reporting;
 - (c) basic details of OO&T and OFM (including demonstration of the systems);
 - (d) overview of billing and accounts; and
 - (e) Q&A.

- 6.1.3 The Access Seeker will ensure that a reasonable number of staff (up to a maximum number of 10) attend any training provided.
- 6.1.4 Any additional training required by the Access Seeker beyond reasonable initial set up training will be charged for by Chorus in accordance with the Sub-loop Backhaul Price List.

PART 2 - FORECASTING

7 ACCESS SEEKER FORECASTING

7.1 Overview

- 7.1.1 The Access Seeker must use all reasonable endeavours to provide Chorus with accurate Forecasts of the volumes of its expected Orders as outlined in this section 7.
- 7.1.2 Access Seekers must provide BAU Forecasts of expected:
- (a) New Connection Orders;
 - (b) Change Orders; and
 - (c) Relinquishment Orders.
- 7.1.3 Access Seekers should note that while there is no requirement to forecast expected Orders for Sub-loop Backhaul Connections and Sub-loop Handover Fibres, depending on whether the equipment is available there can be a period of three to six months from Order before Sub-loop Backhaul Connections and Sub-loop Handover Fibres can be provisioned. Access Seekers should discuss anticipated requirements in respect of Sub-loop Backhaul Connections and Sub-loop Handover Fibres with their Service Delivery Managers and, if necessary, place Orders early. Chorus will use all reasonable endeavours to minimise the waiting period for completion of Orders for Sub-loop Backhaul Connections and Sub-loop Handover Fibres.
- 7.1.4 A Forecasting Template will be provided by Chorus with a separate worksheet for each Forecast type. The Forecasting Template will be published on a Chorus website and available at the time the Forecast is required. Each time the Access Seeker submits a Forecast, it must email Chorus a copy of the Forecasting Template with all information in the relevant worksheets completed in full. Chorus may update the Forecasting Template from time to time as may reasonably be necessary or appropriate for providing the Sub-Loop Backhaul Service. In the event that Chorus updates the Forecasting Template, it will email a copy of the updated Forecasting Template to the Access Seeker's provisioning and forecast manager 20 Working Days prior to the date on which forecast managers will be expected to make use of the revised Forecasting Template, and update the Forecasting Template on its website.
- 7.1.5 Where the Access Seeker fails to submit any of the required BAU Forecasts, Chorus will use all reasonable endeavours to process any relevant Orders but there will be no requirement for Chorus to meet the relevant Service Levels set

out in the Sub-loop Backhaul Service Level Terms in respect of the services or transactions to which the missing Forecast should have related.

7.2 **BAU Forecasts**

Definition

- 7.2.1 BAU Forecasts involve the ongoing normal forecasting of New Connection Orders, Change Orders and Relinquishment Orders.

Forecasting Requirements

- 7.2.2 The Access Seeker must each month submit to Chorus a BAU Forecast of its expected volumes of each of the following:

- (a) New Connection Orders;
- (b) Change Orders; and
- (c) Relinquishment Orders,

for each Distribution Cabinet Handover Point and Local Exchange Handover Point for each month in the following six month BAU Forecast period. BAU Forecasts are therefore rolling forecasts that are submitted each month.

- 7.2.3 Where an Access Seeker does not expect to place any New Connection Orders, Change Orders or Relinquishment Orders in the following six month BAU Forecast period, there is no requirement to submit a BAU Forecast. In that situation the Access Seeker will be deemed to have provided/submitted a BAU Forecast of zero Orders.

- 7.2.4 Each BAU Forecast must be provided at least one month and two Working Days before the start of the six month BAU Forecast period to which it relates. A BAU Forecast must contain all of the information indicated in the relevant worksheet of the Forecasting Template including the date it is submitted to Chorus.

- 7.2.5 The BAU Forecasts for a particular month that are submitted:

- (a) three months;
- (b) two months; and
- (c) one month,

before the first day of that particular month will be treated as firm (binding) Forecasts.

- 7.2.6 The BAU Forecasts for a particular month that are submitted:

- (a) six months;
- (b) five months; and
- (c) four months,

before the first day of that particular month will be treated as indicative (non-binding) Forecasts.

7.2.7 The Forecasting Spreadsheet allows the Access Seeker the option of extending the BAU Forecast period to twelve months by making further indicative forecasts in months twelve to seven (inclusive).

7.3 **Forecasting Submission**

7.3.1 Each Forecast will be emailed to the email address advised by Chorus from time to time.

7.3.2 The Access Seeker will ensure each Forecast is as accurate as possible.

7.3.3 The Access Seeker will ensure that each Forecast is received by the dates specified above, as applicable.

7.3.4 Chorus may make a reasonable request of the Access Seeker to provide additional information relating to a Forecast already provided. The Access Seeker must prepare the requested information with reasonable care and promptly provide it.

7.3.5 The Access Seeker's Forecast is Confidential Information for the purposes of section 31 of the Sub-loop Services General Terms.

7.4 **Underforecast/Overforecast**

7.4.1 Access Seekers can forecast any level of BAU Orders that they consider appropriate. The intent of the following provisions is to encourage Access Seekers to ensure that their Forecasts for a particular month are accurate in the three months prior to the month of Order.

7.4.2 In this clause 7.4, "All Orders" means together, New Connection Orders, Change Orders or Relinquishment Orders.

BAU Underforecast

7.4.3 Where the Access Seeker:

- (a) provides a BAU Forecast relating to any Distribution Cabinet Handover Point and Local Exchange Handover Point for any month; and

- (b) the actual total volume of New Connection Orders, Change Orders and Relinquishment Orders submitted by the Access Seeker for that Distribution Cabinet Handover Point and Local Exchange Handover Point and for that month is greater than the total volume of those Orders forecasted for that Distribution Cabinet Handover Point and Local Exchange Handover Point and for that month in any of the BAU Forecasts submitted (or deemed submitted) three months, two months and one month before the first day of that month (Underforecast),

then there will be no requirement for Chorus to meet the relevant Service Levels in the Sub-loop Backhaul Service Level Terms to the extent that any failure to meet the relevant Service Levels is attributable to the Underforecast.

BAU Overforecast

7.4.4 If the Access Seeker:

- (a) provides a BAU Forecast relating to any Distribution Cabinet Handover Point and Local Exchange Handover Point for any month; and
- (b) the actual total volume of New Connection Orders and Change Orders submitted by the Access Seeker for that Distribution Cabinet Handover Point and Local Exchange Handover Point and for that month is less than the total volume of those Orders forecasted for that Distribution Cabinet Handover Point and Local Exchange Handover Point and for that month in any of the BAU Forecasts submitted three months, two months and one month before the first day of that month (Overforecast),

then, if requested by Chorus, the Access Seeker will reimburse Chorus for its actual and reasonable Capital Carrying Costs and related administrative costs of equipment purchased by Chorus in reliance on the Overforecast but not necessary given the actual Orders. An invoice presented by Chorus will be prima facie evidence of such costs.

7.4.5 Chorus will provide the Access Seeker with information of any equipment purchases which it will need to make as a consequence of the BAU Forecast in order to meet a corresponding Firm Order.

7.4.6 The Access Seeker will be permitted to amend their BAU Forecast within 10 Working Days of receiving feedback in accordance with clause 7.4.5 in order to avoid the required equipment purchases.

7.4.7 The Capital Carrying Costs formula is:

$$CCC = r.K_0 + (K_0 - K_t)$$

Where:

CCC is the capital carrying cost

K_0 is the cost of the equipment at the order date (time = 0)

K_t is the cost of the equipment at the redeployment date (time = t)

r is the pre-tax WACC for the period of time t, and = $[1 + [R/(1 - T)]]^{t/12} - 1$

Where:

t is the time in months between order and redeployment

R is the post-tax WACC (Commission benchmark of 8.7%)

T is the company tax rate (currently 30%)

Information

7.4.8 Chorus will notify the Access Seeker of:

- (a) any Capital Carrying Costs claimed by Chorus in respect of any Overforecast; and
- (b) the extent to which it was unable to meet the Service Levels in the Sub-loop Backhaul Service Level Terms as the result of any Underforecast,

in each case, in accordance with clauses 7.4.3 and 7.4.4. Where requested, Chorus must provide the Access Seeker with such information as may reasonably be required to validate such claims. An invoice presented by Chorus will be prima facie evidence of the Access Seeker's proportion of Capital Carrying Costs. Access Seekers may claim a reasonable reduction in these Costs where the reduced actual Order volume is due to Faults, Planned Outages, Unplanned Outages, and Force Majeure Events.

Initial period

7.4.9 Until the Access Seeker has provided at least two consecutive months of monthly BAU Forecasts, Chorus will use reasonable endeavours to process any Orders but there will be no requirement for Chorus to meet the relevant Service Levels.

7.5 Early Orders

7.5.1 If Chorus identifies infrastructure Capacity constraints based on the indicative BAU Forecasts received from all Access Seekers, it may discuss with the relevant Access Seekers the option of placing Orders earlier than indicated in their BAU Forecasts in order to increase the likelihood that such Orders will not be rejected by Chorus due to infrastructure Capacity constraints.

7.5.2 Where an Access Seeker places an Order earlier than indicated in its BAU Forecasts and agrees a suitable RFS date or dates with Chorus, the Service Levels will apply subject to the agreed RFS date or dates.

7.6 **Chorus Equipment Ordering**

Chorus will base its own orders for equipment to meet Access Seeker Orders on the firm BAU Forecasts received. Chorus will use all reasonable endeavours to ensure equipment is available to meet expected volumes of Orders contained in firm BAU Forecasts. However Chorus will not allocate transmission capacity to an Access Seeker until Orders from that Access Seeker are accepted.

PART 3 - PROVISIONING

8 THE OO&T SYSTEM

8.1 OO&T

Overview

8.1.1 Subject to the provisions below relating to business continuity all Orders for the Sub-loop Backhaul Service must be placed using OO&T. Any Orders that the Access Seeker attempts to place by other means (for example, by email or by fax) will be invalid and may be disregarded by Chorus. If an Access Seeker does place an invalid Order, Chorus will use all reasonable endeavours to notify the Access Seeker if such Orders have been received.

8.1.2 OO&T allows the Access Seeker to:

- (a) submit and track the status of Orders; and
- (b) update existing Orders (up to the time they are accepted).

Terms of Provision

8.1.3 OO&T is a Chorus System provided by Chorus in accordance with the Sub-loop Services General Terms and this Manual.

B2B

8.1.4 The Access Seeker can choose to directly integrate its systems with OO&T via the OO&T Business to Business Web Services Interface (B2B). If the Access Seeker is interested in B2B it can contact its Account Manager for documentation describing the development required to interact with B2B. A trial agreement must be signed before access to a test site, after which an Integration Access Agreement is required to be executed prior to migrating to a production instance.

8.2 Access to OO&T

Description of OO&T

8.2.1 OO&T allows the Access Seeker to log on to a secure site for placing and monitoring Orders with Chorus.

Access for Authorised Personnel

8.2.2 The Access Seeker will provide Chorus with the names of one or two people to become OO&T user administrators. These people will then manage the creating and disabling of Access Seeker staff accounts to access OO&T.

8.2.3 On request from the Access Seeker, Chorus will reset, disable or alter the user administrator accounts.

Right to Restrict or Prohibit Use of OO&T

8.2.4 Subject to clause 8.2.5, Chorus reserves the right to restrict or prohibit access to OO&T if any of the Access Seeker's staff or systems:

- (a) perform malicious or unintentional actions that damage or may potentially damage OO&T; or
- (b) use OO&T in an unauthorised manner or in such a way that causes or may cause material performance issues,

provided that Chorus will restrict or prohibit access to the minimum extent practicable to protect OO&T and any related system.

8.2.5 Chorus must use all reasonable endeavours to provide the Access Seeker with reasonable prior notice of such restrictions or prohibitions. Where this is not practicable in the circumstances, Chorus will give the Access Seeker Notice of the restriction or prohibition as soon as practicable after the event.

8.3 Additional Functionalities or Enhancements to OO&T

8.3.1 Where Chorus creates any additional functionality within OO&T or makes any enhancement to it, Chorus will give Notice to the Access Seeker. The Access Seeker will modify its own provisioning systems and/or operational procedures to the extent required. Chorus must consult with Access Seekers before notifying Access Seekers of any additional functionality or enhancements to OO&T which affect OO&T in relation to the Sub-loop Backhaul Service.

8.3.2 The Access Seeker will utilise the additional functionalities or enhancements to OO&T as notified by Chorus from the date specified in Chorus' Notice (at the latest).

8.3.3 The Access Seeker is responsible for ensuring that its own systems are configured in accordance with its use of OO&T and comply with the requirements in the Chorus document entitled "Chorus Web Services Interface Software Development Kit" and the Chorus document entitled "Chorus OO&T User Guide" (reference ASD-001).

8.4 Costs

Chorus' Costs

8.4.1 Chorus will be solely responsible for Chorus' costs of designing and developing OO&T, including any modifications and enhancements.

Access Seekers' Costs

8.4.2 Access Seekers will be solely responsible for the costs of modifying their systems and processes to interface with OO&T and B2B and for participating in the consultation and implementation process.

OO&T Charges

- 8.4.3 Chorus will charge a monthly licence fee for OO&T as set out in the Sub-loop Backhaul Price List.

8.5 Terms of Use

Use of OO&T

- 8.5.1 The Access Seeker must only use OO&T for purposes authorised by Chorus.

Availability

- 8.5.2 Chorus will use reasonable endeavours to ensure that OO&T is available to Access Seekers 24 hours a day, seven days a week.

- 8.5.3 Chorus must take all reasonable steps to prevent the introduction of viruses or other destructive features to OO&T, but Chorus does not guarantee that it is free of such viruses or other destructive features.

Business Continuity

- 8.5.4 If Chorus advises the Access Seeker OO&T is unavailable the Access Seeker may submit provisioning requests by emailing the relevant form to Chorus as outlined below.

- 8.5.5 Chorus will make the following business continuity forms available to the Access Seeker:

- (a) New Connection Order form;
- (b) Change Order form;
- (c) Relinquishment Order form;
- (d) Sub-loop Backhaul Connection Order form; and
- (e) Sub-loop Handover Fibre Order form.

- 8.5.6 All business continuity forms submitted in accordance with this clause 8.5 should come from a generic mailbox. This mailbox must include the Access Seeker's name in the email subject line as below:

[Sub-loop Backhaul Form Name] - [Access Seeker Name] - [Access Seeker reference number]

- 8.5.7 Once completed, business continuity forms must be sent to the business continuity email address advised by Chorus in accordance with section 2.

9 ORDER PROCESSING

9.1 Tool

Chorus will make available, via a secure portal, a tool to assist the Access Seeker in determining the location and availability of the Sub-loop Backhaul Service.

9.2 Order Types

9.2.1 The following types of Orders may be submitted using the relevant form in OO&T:

- (a) New Connection Order;
- (b) Change Order;
- (c) Relinquishment Order;
- (d) Sub-loop Backhaul Connection Order; and
- (e) Sub-loop Handover Fibre Order.

9.2.2 These Orders will be processed as outlined below.

9.3 Mandatory Fields

For each Order that is submitted either via OO&T or by email as outlined in clauses 8.5.4 to 8.5.7, the Access Seeker must complete all of the fields on the relevant form that are marked as mandatory.

9.4 Business Hours

For the purpose of determining whether Chorus has met any relevant Service Levels as defined in the Sub-loop Backhaul Service Level Terms for dealing with Orders any Orders submitted to Chorus outside of Business Hours will be deemed to have been received by Chorus in the first Business Hour of the following Working Day.

9.5 Order Acknowledgement

For each Order that is submitted either via OO&T, or by email as outlined in clauses 8.5.4 to 8.5.7, Chorus will provide the Access Seeker with acknowledgement of receipt of that Order, subject to clause 9.6.1.

9.6 Order Validation

9.6.1 An Order will be deemed invalid and may be rejected by Chorus if:

- (a) it is not submitted in accordance with this Manual;
- (b) one or more of the rejection reasons listed in Appendix C apply; or

(c) it is otherwise defective.

9.6.2 Chorus will perform a validation check of each Order that it receives. That validation check will determine whether the Order complies with the requirements of clause 9.6.1.

9.6.3 If an Order is rejected, Chorus will advise the Access Seeker of that rejection and provide the Access Seeker with the applicable rejection reason.

9.7 **Irregularities**

Chorus will waive immaterial irregularities and process Orders where the intention is unambiguous. Examples of such irregularities include:

(a) use of different conjunctions (e.g. '&' instead of 'and');

(b) improper application or omission of apostrophes;

(c) variations in letter case;

(d) use of initials instead of first names, or vice versa; and

(e) names where letters have been accidentally transposed but the meaning is still clear (e.g. Dominoin = Dominion).

9.8 **RFS Date**

9.8.1 If an Order is accepted, Chorus will advise the Access Seeker of an expected Ready For Service (RFS) date (where applicable to the type of Order involved).

9.8.2 Chorus will use all reasonable endeavours to meet the notified expected RFS Date as provided in clause 9.8.1.

9.8.3 Where Chorus becomes aware that it will be unable to meet the expected RFS Date notified under clause 9.8.1, Chorus will advise the Access Seeker of a revised expected RFS Date. In that situation the relevant Service Levels in the Sub-loop Backhaul Service Level Terms will continue to apply to the original notified expected RFS Date, rather than the revised expected RFS Date.

9.9 **Cancelling an Order**

An Order may be cancelled at any time. Where an Order is cancelled after the RFS date is advised, Chorus may charge an Access Seeker, in accordance with the Charges set out in the Sub-loop Backhaul Price List, for costs it has incurred in processing the Order (including the costs of any truck roll and any design costs).

9.10 Updating an Order

9.10.1 The Access Seeker may change an existing Order that has been submitted using OO&T provided that changes to an existing Order by an Access Seeker can only be made within ten Working Days of the RFS Date if Chorus has given its consent in writing to the change and that consent is not unreasonably withheld.

9.10.2 If the Access Seeker changes an existing Order under clause 9.10.1:

- (a) Chorus will notify the Access Seeker of a revised expected RFS Date (where applicable to the type of Order involved); and
- (b) all of the relevant Service Levels for that Order, as defined in the Sub-loop Backhaul Service Level Terms, will be restarted and measured as from the revised RFS Date.

9.11 Confirmations

9.11.1 Chorus will provide the Access Seeker with confirmation that provisioning of an Order has been completed.

9.11.2 Order confirmations submitted to the Access Seeker outside of Business Hours will be deemed to have been received by the Access Seeker in the first Business Hour of the following Working Day.

9.11.3 Order confirmations for the Sub-loop Backhaul Service submitted to the Access Seeker will contain at least the following information:

- (a) Handover Point ID; and
- (b) Service Identifier.

9.12 Charges

Charges for all the transactions, processes and services referred to in this section 9 are set out in the Sub-loop Backhaul Price List. Charges may only be made for valid Orders following the validation provided for in clause 9.6.1.

9.13 Time Frames

The end to end time to make the Sub-loop Backhaul Service available to the Access Seeker is an accumulation of the time to complete the prerequisites set out in section 5 and the relevant standard lead times set out in Appendix 4 of the Sub-loop Backhaul Service Level Terms.

PART 4 - PROBLEM MANAGEMENT

10 OFM

10.1 Overview

10.1.1 Chorus has a web-based fault management system - OFM. OFM allows Access Seekers to:

- (a) create a new trouble ticket;
- (b) retrieve a trouble ticket;
- (c) update a trouble ticket; and
- (d) report faults.

10.2 Terms of Provision

In relation to the Sub-loop Backhaul Service, OFM is a Chorus System provided by Chorus in accordance with the Sub-loop Services General Terms, the Sub-loop Backhaul Service Level Terms and this Manual.

10.3 Access to OFM

Description of OFM

10.3.1 OFM allows the Access Seeker to log on to a secure site for reporting and monitoring faults with Chorus.

Access for Authorised Personnel

10.3.2 In accordance with section 2 the Access Seeker will provide Chorus with the names of one or two people to become OFM user administrators. These people will then manage the creating and disabling of Access Seeker staff accounts to access OFM.

10.3.3 On request from the Access Seeker, Chorus will reset, disable or alter the user administrator accounts.

Right to Restrict or Prohibit Use of OFM

10.3.4 Subject to the Notice provisions below, Chorus may restrict or prohibit access to OFM if any of the Access Seeker's staff or systems:

- (a) perform malicious or unintentional actions that damage or may potentially damage OFM; or
- (b) use OFM in an unauthorised manner or in such a way that causes or may cause material performance issues,

provided that Chorus will restrict or prohibit access to the minimum extent practicable to protect OFM and any related system.

- 10.3.5 Chorus must use reasonable endeavours to provide the Access Seeker with reasonable prior Notice of such restrictions or prohibitions. Where this is not practicable in the circumstances, Chorus will give the Access Seeker notice of the restriction or prohibition as soon as practicable after the event.

10.4 **Additional Functionalities or Enhancements to OFM**

- 10.4.1 Where Chorus creates any additional functionality within OFM or makes any enhancement to it, Chorus will give Notice to the Access Seeker. The Access Seeker will modify its own fault systems and its own operational procedures to the extent required. Chorus must consult with the Access Seekers before notifying Access Seekers of any additional functionality or enhancements to OFM which affect the use of OFM in relation to the Sub-loop Backhaul Service.

- 10.4.2 The Access Seeker will utilise the additional functionalities or enhancements to OFM as notified by Chorus from the date specified in Chorus' Notice (at the latest).

10.5 **Costs**

Chorus' Costs

- 10.5.1 Chorus will be solely responsible for Chorus' costs of designing and developing OFM, including any modifications and enhancements.

Access Seekers' Costs

- 10.5.2 Access Seekers will be solely responsible for the costs of modifying their processes to work with OFM and modifying their systems to interface with OFM (if applicable).

OFM Charges

- 10.5.3 Chorus will charge a monthly licence fee for OFM as set out in the Sub-loop Backhaul Price List.

10.6 **Terms of Use**

Use of OFM

- 10.6.1 The Access Seeker must only use OFM for purposes authorised by Chorus.

Availability

- 10.6.2 Chorus will use reasonable endeavours to ensure that OFM is available to Access Seekers 24 hours, seven days a week.

- 10.6.3 Chorus must take all reasonable steps to prevent the introduction of viruses or other destructive features to OFM, but Chorus does not guarantee that it is free of such viruses or other destructive features.

11 FAULTS

11.1 Faults within the Sub-loop Backhaul Service

Responsibility for faults

- 11.1.1 Chorus is only responsible for faults that are within Chorus' responsibility, as set out in section 21 of the Sub-loop Services General Terms. If Chorus investigates and no fault is found or no fault for which Chorus is responsible is found, Chorus will charge the Access Seeker the No Fault Found fee as set out in the Sub-loop Backhaul Price List. Where Chorus is responsible for the fault, a No Fault Found fee will not be charged.
- 11.1.2 Chorus is responsible for faults in the OFDF, but in accordance with clause 15.1.2 is not responsible for faults in a Backhaul Connection or Sub-loop Handover Fibre.

Initial Diagnosis by the Access Seeker

- 11.1.3 It is the Access Seeker's responsibility to provide the initial fault diagnosis on all faults reported to it by the End Users.
- 11.1.4 The requirements for this initial fault diagnosis are set out in section 22 of the Sub-loop Services General Terms.

Reporting Faults to Chorus

- 11.1.5 Subject to clause 11.1.6 the Access Seeker must use OFM for reporting all faults related to the Sub-loop Backhaul Service. If the Access Seeker uses any other method to report a fault, the relevant Service Levels as defined in the Sub-loop Backhaul Service Level Terms will not apply to that fault.
- 11.1.6 Where Chorus advises the Access Seeker that OFM is unavailable, the Access Seeker must submit fault reports to Chorus by calling the 0800 fault reporting service number provided by Chorus. Chorus must use all reasonable endeavours to advise Access Seekers immediately on upon becoming aware that OFM is unavailable.
- 11.1.7 Once the Access Seeker has provided initial fault diagnosis, complied with section 22 of the Sub-loop Services General Terms and determined that it requires Chorus' assistance to resolve the fault, the following information is required when reporting a fault:

- (a) confirmation that the initial fault diagnosis has been completed;
- (b) contact name and phone number of the Access Seeker staff member logging the fault;
- (c) fault type and description;

- (d) the Access Seeker's best estimate of the time the fault occurred;
- (e) address and contact details for the site of the fault (where appropriate);
and
- (f) any other known relevant information.

11.1.8 If any of the above information is not provided, the relevant Service Levels in the Sub-loop Backhaul Service Level Terms will not apply.

Hours of Operation

11.1.9 Faults can be logged 24 hours a day, seven days a week.

11.1.10 Faults that are Chorus' responsibility will be fixed by Chorus representatives during Fault Restoration Hours. If a fault is logged outside of those hours, it is possible Chorus will only start working on the fault as from 7.00 am the following day. Extended Fault Restoration Hours apply for emergency faults.

11.1.11 For the purpose of determining whether Chorus has met any relevant Service Levels for dealing with faults any faults submitted to Chorus outside of Fault Restoration Hours will be deemed to have been received by Chorus in the first Fault Restoration Hour of the following day.

Fault Report Acknowledgement

11.1.12 When a fault report is received, Chorus will advise the Access Seeker, acknowledging receipt of the fault report.

Fault Tracking

11.1.13 All faults will be logged in OFM and the Access Seeker will be given a fault reference number and an expected fault restoration time. The expected fault restoration time will be provided in accordance with Chorus' fault prioritisation systems.

11.1.14 Chorus will use all reasonable endeavours to meet the notified expected fault restoration time as provided in clause 11.1.13.

11.1.15 Where Chorus has allocated a fault restoration time to a fault and it subsequently becomes apparent that the nature of the fault means that fault restoration time cannot be met, Chorus may advise the Access Seeker of a revised fault restoration time. In that situation the relevant Service Levels in the Sub-loop Backhaul Service Level Terms will apply to the originally notified expected fault restoration time rather than the revised fault restoration time.

11.1.16 The Access Seeker will be able to check the progress of a fault via OFM. The fault reference number is to be used in all communications regarding the fault.

Chorus Contractor Work

11.1.17 If Chorus identifies the need to send a faults contractor, Chorus will update OFM.

11.1.18 The Access Seeker's helpdesk is responsible for coordinating site access and any required outage window with End Users.

Fault Closure

11.1.19 Once the fault has been resolved the Access Seeker will be notified via OFM (or other means) confirming that the fault has been resolved, confirming the fault reference number, and, where available, providing the cause of the fault and any actions taken to reach resolution.

Emergency and Core Network Faults

11.1.20 Emergency and Core Network faults reported to Chorus outside of the hours of operation set out in clause 11.1.10 will be treated on a case by case basis.

11.1.21 In the first instance, Chorus will propose a temporary solution. However, in the absence of a viable temporary solution, Chorus may schedule a callout to respond to Core Network faults, or to emergency faults relating to:

- (a) medical emergencies;
- (b) where the End User provides an essential community service (e.g. police or a doctor's residence); or
- (c) where there is a Mass Outage that impacts 200 or more End Users.

Escalation Protocol

11.1.22 The Escalation Protocol is provided in Appendix B.

PART 5 – SUB-LOOP BACKHAUL CONNECTIONS AND SUB-LOOP HANDOVER FIBRES

12 SUB-LOOP BACKHAUL CONNECTIONS

12.1 Overview

12.1.1 Access Seekers may require a Sub-loop Backhaul Connection which is a tie cable between either:

- (a) the Access Seeker Rackprints at the Distribution Cabinet and the Distribution Cabinet OFDF (or equivalent facility); and/or
- (b) the OFDF at the Local Exchange and the Access Seeker Footprints at the Local Exchange.

12.1.2 Sub-loop Backhaul Connections may be supplied either by the Access Seeker or by Chorus, but in either case must meet the relevant tie cable specification listed in Appendix E. Chorus will install Sub-loop Backhaul Connections. Installation and other charges set out in the Sub-loop Backhaul Price List will apply.

12.1.3 A diagram showing the Sub-loop Backhaul Connection is set out in Appendix A of the Sub-loop Backhaul Service Description.

13 SUB-LOOP HANDOVER FIBRES

13.1 Overview

13.1.1 Access Seekers may require one or more Sub-loop Handover Fibres which are tie cables between either:

- (a) the Distribution Cabinet OFDF (or equivalent facility) and the equipment of the Access Seeker that is remotely located and used to provide access to and interconnection with the Sub-loop UCLL Service; or
- (b) the Local Exchange OFDF and the equipment of the Access Seeker that is remotely located and used to provide access to and interconnection with the Sub-loop Backhaul Service.

13.1.2 Sub-loop Handover Fibres may be supplied either by the Access Seeker or by Chorus, but in either case must meet the relevant tie cable specification listed in Appendix E. Chorus will install the Sub-loop Handover Fibre. Installation and other charges set out in the Sub-loop Backhaul Price List will apply.

13.1.3 A diagram showing the Sub-loop Handover Fibre is set out in Appendix A of the Sub-loop Backhaul Service Description.

14 CHORUS RESPONSIBILITIES

- 14.1.1 Chorus will name all Sub-loop Backhaul Connections and Sub-loop Handover Fibres and record these in Chorus' system for managing fibre inventory. Chorus will also record the relationship between the Sub-loop Backhaul Connections and the Sub-loop Handover Fibres.
- 14.1.2 Chorus will identify the route that the Sub-loop Backhaul Connection and the Sub-loop Handover Fibre will take within the Local Exchange or Distribution Cabinet (including Chorus ducts and Distribution Cabinet Manholes or Local Exchange Manholes) and install any required cable racking to support the Sub-loop Backhaul Connection and Sub-loop Handover Fibre.
- 14.1.3 For Access Seeker-supplied Sub-loop Handover Fibre, a Chorus-specified length of fibre will be received at the Distribution Cabinet Manhole or Local Exchange Entry Point. Chorus and the Access Seeker will work together to get fibre from the Access Seeker manhole to the Distribution Cabinet Manhole or Local Exchange Entry Point with Chorus performing all work in the Distribution Cabinet Manhole or Local Exchange Manhole.
- 14.1.4 Where requested by the Access Seeker, Chorus will supply and install the Sub-loop Backhaul Connection and Sub-loop Handover Fibre.
- 14.1.5 Chorus will supply and record the necessary space on the Local Exchange OFDF and the Distribution Cabinet OFDF (or equivalent facility).
- 14.1.6 Chorus will terminate the Sub-loop Backhaul Connection and Sub-loop Handover Fibre on the Local Exchange OFDF or the Distribution Cabinet OFDF (or equivalent facility).
- 14.1.7 Chorus is responsible for the repair and/or replacement of faults in the Sub-loop Backhaul Connection and Sub-loop Handover Fibre and faulty termination at the Local Exchange OFDF or Distribution Cabinet OFDF (or equivalent facility).
- 14.1.8 Chorus is responsible for any costs incurred if Chorus requires the Access Seeker's Equipment to be relocated.

15 ACCESS SEEKER RESPONSIBILITIES

- 15.1.1 When providing the Sub-loop Handover Fibre the Access Seeker will deliver its (or a third party's) Chorus-specified length of cable to the Distribution Cabinet Manhole or Local Exchange Entry Point (with Chorus performing all work in the Distribution Cabinet Manhole or Local Exchange Manhole).

- 15.1.2 The Access Seeker will own the Sub-loop Backhaul Connection and Sub-loop Handover Fibre. The Access Seeker will be responsible for the Sub-loop Backhaul Connection and Sub-loop Handover Fibre maintenance and repair. However in relation to the part of the Sub-loop Backhaul Connection and Sub-loop Handover Fibre located within the Local Exchange or Distribution Cabinet and that part of the Sub-loop Handover Fibre between the Distribution Cabinet OFDF (or equivalent facility) and the Distribution Cabinet Manhole or Local Exchange OFDF and the Local Exchange Entry Point, the Access Seeker must request Chorus to carry out any maintenance or repair. Where the Access Seeker requests Chorus to repair a Sub-loop Backhaul Connection or Sub-loop Handover Fibre, Chorus must do so and the relevant Service Levels set out in the Sub-loop Backhaul Service Level Terms and Charges set out in the Sub-loop Backhaul Price List will apply.
- 15.1.3 The Access Seeker must maintain and be responsible for its own Sub-loop Handover Fibre inventory system. This system must be able to record the following:
- (a) the termination of each Sub-loop Handover Fibre;
 - (b) the Access Seeker's own assignments or reassignments of Sub-loop Handover Fibre; and
 - (c) changes to the Sub-loop Handover Fibre when service has been transferred (e.g. for fault resolution).

15.2 **Recording and Data Management**

Overview

- 15.2.1 Chorus requires access to certain information to manage delivery of the Sub-loop Backhaul Service and safely manage its Distribution Cabinets and Local Exchanges. The Access Seeker must comply with any reasonable request made by Chorus for information to enable Chorus to keep accurate technical records, including information about:
- (a) 'as built' records;
 - (b) connections made to the relevant distribution frame (which must be identified and coded for billing information on OSS); and
 - (c) cabling (including assignments/allocations of fibres within cable sheaths, location of cables within the Distribution Cabinet or Local Exchange and information regarding sub-ducts).

- 15.2.2 Any information provided to Chorus by the Access Seeker under this clause 15.2 will be Confidential Information for the purposes of section 31 of the Sub-loop Services General Terms.
- 15.2.3 Access Seekers must ensure that information regarding their sub-ducts and cabling is supplied to Chorus for recording. Access Seekers should check subsequent as-built records to ensure accuracy of detail. Chorus requires Access Seekers to mark or label cables/plant in the field.
- 15.2.4 All cables and closures belonging to the Access Seeker must be clearly marked to ensure the owner is correctly identified. Markings must occur every 1 metre (sufficiently clear to enable ready identification of the cable owner) and at least at either end.
- 15.2.5 All fibre closures on Chorus property must have an appropriate laser warning label that complies with IEC 60825-2 (2004) fixed in a prominent position on the outside of the closure.
- Resolution of Inconsistency*
- 15.2.6 Where Chorus' records and the Access Seeker's records differ with regard to the status of a Sub-loop Backhaul Connection or a Sub-loop Handover Fibre, the Access Seeker must confirm the accuracy of the status of the Sub-loop Backhaul Connection or Sub-loop Handover Fibre in its inventory system.
- 15.2.7 If this does not resolve the difference, the Access Seeker must liaise with Chorus' Service Delivery Manager.
- 15.2.8 After the Sub-loop Backhaul Connection or Sub-loop Handover Fibre is terminated at the Local Exchange OFDF or Distribution Cabinet OFDF (or equivalent facility) by Chorus, Chorus and the Access Seeker will jointly carry out end to end testing between the Local Exchange OFDF or Distribution Cabinet OFDF (or equivalent facility) and the Access Seeker's remote equipment location or Rackprints/Footprints.

PART 6 - BILLING

16 BILLING

16.1 Invoicing

- 16.1.1 Chorus will invoice the Access Seeker for all Charges on the basis specified in the Sub-loop Backhaul Price List. Invoices will be in an electronic bill format (eBill). eBill will replace the provision of a paper invoice, except that a printed GST summary will be provided to the Access Seeker. A hard copy paper invoice will be available to Access Seekers at the price set out in the Sub-loop Backhaul Price List.

16.1.2 The eBill must include the following information:

- (a) Service identifier;
- (b) Fault or Order identifier; and
- (c) type of charge.

16.1.3 Chorus will transmit the eBill using a secure web portal. The eBill can be accessed through a web browser. Alternatively, the Access Seeker can arrange with Chorus to write their own scripts and access the eBill through a script platform.

16.1.4 In accordance with section 2 the Access Seeker will provide Chorus with the list of people that are authorised to download the eBill file. Chorus will set up access rights for these people on a secure web portal.

16.1.5 Chorus will provide the eBill and the printed GST summary to the Access Seeker free of charge.

16.1.6 Chorus will maintain one or more separate Access Seeker accounts for services provided to the Access Seeker. Chorus may alter the account structure as it considers appropriate, however, Chorus will consult with the Access Seeker prior to doing so.

16.2 **Billing Enquiries**

16.2.1 If the Access Seeker wishes to raise a billing enquiry, it may do so by emailing the Chorus billing team in the first instance at the billing email address supplied by Chorus under section 2.

16.2.2 The email must include the following information:

- (a) a header reading 'Billing Query'; and
- (b) a completed Billing Enquiry Form.

16.2.3 Chorus will acknowledge the query and will attempt to respond within the current billing period. Any billing enquiries submitted without the use of a Billing Enquiry Form will be rejected.

16.2.4 Additional information, over and above that reasonably required to assist Access Seekers in interpreting invoices, will be charged in accordance with the Sub-loop Backhaul Price List. The Access Seeker may require Telecom to provide a quote for any such request for further information.

16.2.5 The process set out in this clause 16.2 is an informal enquiry process that does not limit the Sub-loop Services General Terms. If the Access Seeker wishes to claim an Invoice Error in an invoice, it must follow the procedure set out in section 15 of the Sub-loop Services General Terms.

PART 7 - OTHER

17 NETWORK CHANGES AND SUB-LOOP BACKHAUL SERVICE TRAFFIC

17.1.1 The locations of Distribution Cabinets and Local Exchanges are determined by Chorus taking into account various factors including:

- (a) network architecture and design requirements including network robustness and logical and physical diversity requirements;
- (b) the availability of local and national backhaul capacity;
- (c) the number of data switches required to support the required volume of End User services; and
- (d) DSLAMs and throughput capacity and the location of the DSLAMs in the network.

17.2 Sub-loop Backhaul Service traffic

17.2.1 Sub-loop Backhaul Service traffic for a Distribution Cabinet is routed to the relevant Local Exchange for that Distribution Cabinet. The relevant Local Exchange for that Distribution Cabinet will be:

- (a) determined by Chorus according to long-term efficient network planning principles; and
- (b) set out in the Distribution Cabinet Information.

17.2.2 Where the relevant Local Exchange for a Distribution Cabinet will not be the original Local Exchange (the Local Exchange from which the relevant Sub-loop MPFs were originally served), Chorus will advise Access Seekers of the relevant Local Exchange for each Distribution Cabinet before the Distribution Cabinet is Commissioned.

17.2.3 Where clause 17.2.2 applies, Chorus will provide at least 12 months' Notice to Access Seekers of the relevant Local Exchange for each Distribution Cabinet. Chorus may provide less than 12 months' Notice for any Distribution Cabinet that is subject to an existing Cabinetisation Notice and is scheduled to be Commissioned in less than 12 months from the date of Chorus' Notice under this clause 17.2.3.

17.3 Network changes

17.3.1 A list of current Distribution Cabinets and the relevant Local Exchanges will be made available to Access Seekers via the Distribution Cabinet Database.

17.3.2 Chorus may, from time to time:

- (a) make changes to the existing Distribution Cabinet or Local Exchanges (including changing the relevant Local Exchange that a Distribution Cabinet is associated with); and/or
- (b) introduce new Distribution Cabinet or Local Exchanges; and/or
- (c) remove Distribution Cabinets or Local Exchanges depending on various factors including (but not limited to) the growth of broadband services demand, any increase in broadband coverage and changes in network architecture and design requirements.

Chorus will advise Access Seekers of these changes as set out below.

17.3.3 Chorus may from time to time as its network evolves add, delete or move Local Exchanges and will provide the Access Seeker and the Commission with at least 12 months' notice of any changes to the Local Exchanges for Distribution Cabinets.

17.3.4 Chorus may from time to time as its network evolves add, delete or move Distribution Cabinets and will provide the Access Seeker and the Commission with at least 12 months' notice of any changes, except where any of the following apply to a particular Distribution Cabinet:

- (a) Chorus is not required to give notice of any changes where it is necessary in an emergency situation or where Chorus becomes aware of a material risk to any of the Sub-loop Services that requires action in order to ensure Network continuity;
- (b) Chorus is not required to give notice of any changes where it is necessary to replace the relevant part of the Sub-loop Network because it has come to the end of its life, has significantly deteriorated, or has been damaged beyond repair (and in each case this was reasonably anticipated or reasonably foreseeable at the time the applicable Cabinetisation Notice was given under the UCLL General Terms);
- (c) Chorus must provide the Access Seeker and the Commission with as much notice as is reasonably practical in the circumstances where Chorus is required to add, delete or move a Distribution Cabinet by law or government, statutory or regulatory authority, (including without limitation the Commission); or
- (d) Telecom is not required to give notice where it has given a Cabinetisation Notice under clause 38.11 of the UCLL General Terms or other notice under

clause 38.11.3 of the UCLL General Terms and the subject of the Cabinetisation Notice or other notice relates to a proposed cabinetisation for an Exchange which would typically be covered by this clause.

For the avoidance of doubt, Chorus is not required to provide the Access Seeker and the Commission with any notice of the installation or removal of DSLAMs in Distribution Cabinets.

17.3.5 Where a network change requires that the relevant Local Exchange associated with a Distribution Cabinet for the purpose of routing traffic be changed, Chorus will provide the Access Seeker and the Commission with at least 12 months' notice.

17.4 **Implementation**

17.4.1 Chorus will consult with the Access Seeker if the Access Seeker is affected by a network change as described in this section 17 and will develop an implementation plan for the Access Seeker's Sub-loop Backhaul Service.

18 **SUB-LOOP BACKHAUL TO BUNDLED EXCHANGE**

18.1.1 Where the relevant Local Exchange for a Distribution Cabinet is a Bundled Exchange, the Access Seeker may additionally require the UCLL Backhaul Service from the Local Exchange to another Exchange (in accordance with the terms and conditions set out in the UCLL Backhaul Standard Terms Determination).

18.1.2 Where clause 18.1.1 applies, the Access Seeker may combine the Sub-loop Backhaul Service from the Distribution Cabinet to the Local Exchange with the UCLL Backhaul Service from the Local Exchange to another Exchange (in accordance with the terms and conditions set out in the UCLL Backhaul Standard Terms Determination).

18.1.3 Chorus will build and configure the Sub-loop Backhaul Service from the Distribution Cabinet to the Local Exchange and the UCLL Backhaul Service from the Local Exchange to another Exchange as one point to point link.

18.1.4 Although the Access Seeker has access to the Sub-loop Backhaul Service at a bundled relevant Local Exchange, access to the UCLL Backhaul Service is available only in accordance with the terms and conditions set out in the UCLL Backhaul Standard Terms Determination. To the extent that the UCLL Backhaul Service is not so available, the Access Seeker must arrange for an alternative backhaul service from that bundled Local Exchange.

18.1.5 Installation and other charges set out in the Sub-loop Backhaul Price List and the UCLL Backhaul Service Standard Terms Determination Price List will apply.

- 18.1.6 A diagram showing the combined Sub-loop Backhaul Service and UCLL Backhaul Service is set out in Appendix D.

APPENDIX A – GLOSSARY

BAU Forecast	Means a Forecast as described in clause 7.2.
Bundled Exchange	Means an Exchange where the Access Seeker does not have access to the UCLL Service.
Capital Carrying Costs	Means the formula set out in clause 7.4.7.
Change Order	Means an Order where an Access Seeker requests a Relinquishment and New Connection in a coordinated fashion. In all cases the Access Seeker will stay the same.
Distribution Cabinet Handover Point	Means the OFDF (or equivalent facility) in the Distribution Cabinet.
Distribution Cabinet Information	Means, in respect of any Distribution Cabinet, the information specified in clause 11.3.1 of the Sub-loop Co-location Operations Manual.
Distribution Cabinet Manhole	Means the congregation point for all ducts and cables that enter the Distribution Cabinet.
DSLAM	Means Digital Subscriber Line Access Multiplexer - a device that connects many digital subscriber lines to a network by multiplexing the DSL traffic onto one or more network trunk lines.
Escalation Protocol	Means the protocol set out in Appendix B.
Ethernet	Means a common communication protocol, defined in international standard IEEE 802.3, that is used to connect multiple devices on the same Layer 2 network.
Exchange ID	Means a unique alphanumeric identifier assigned by Chorus to an Exchange.
Footprint	Means the space at any Chorus Local Exchange that is allocated to the Access Seeker as set out in the UCLL Co-location Standard Terms Determination for the installation of its equipment but excludes any space occupied by the Access Seeker's tie cables.
Forecast	Means any or all (as the context requires) of the Forecasts required to be provided by the Access Seeker in this Manual.
Forecasting Template	means the template provided by Chorus with a separate worksheet for each Forecast type.
GigE	means Gigabit Ethernet.

Handover Point	Means either a Distribution Cabinet Handover Point or a Local Exchange Handover Point or both as the context requires.
Handover Point ID	Means a unique alphanumeric identifier assigned by Chorus to a Handover Point.
Local Exchange Co-location Service Area	The space in a Chorus Local Exchange that is allocated to the Access Seeker for the installation of its equipment in accordance with the UCLL Co-location Standard Terms Determination.
Local Exchange Handover Point	Means the OFDF in the Local Exchange Co-location Service Area.
Mass Outage	Means an outage that affects the entire area served by an Exchange.
New Connection Order	Means an Order for a new Sub-loop Backhaul Service connection.
OFDF	Means Chorus' optical fibre distribution frame.
Operational Date	Is the date on which Chorus commences supply of the Sub-loop Backhaul Service to the Access Seeker in respect of a Distribution Cabinet.
Order	Means any order for the Sub-loop Backhaul Service.
Relinquishment	Means the cessation of a service.
Relinquishment Order	Means an order for the cessation of a service.
RFS Date	Means the date notified by Chorus under clause 9.8.1.
Sub-loop Backhaul Connection	Means a tie cable as described in clause 12.1.1.
Sub-loop Co-location Service Area	Means the space in a Distribution Cabinet within which Rackprints are supplied.
Sub-loop Handover Fibre	Means the tie cable as described in clause 13.1.1.

Sub-loop Tie Cable	Means a tie cable running from the Distribution Cabinet DF to a point outside and adjacent to the Distribution Cabinet Manhole.
UCLL Backhaul Service	Means the UCLL Backhaul Service as described in the standard terms determination made by the Commission under section 30M of the Act in relation to Chorus' unbundled copper local loop network backhaul (telephone exchange to interconnect point) service.

APPENDIX B – ESCALATION PROTOCOL

Rule No.	Escalation Rule	Further Explanation
1	Identify correct escalation path.	Before any issue is escalated, sufficient investigation should be undertaken to ensure that the functional group that will most likely be responsible for resolving the issue has been correctly identified.
2	Attempt to resolve issues at BAU level before escalating them.	Every effort should first be made to resolve an operational issue at the BAU level, i.e. direct communication between the originator and the recipient.
3	First escalation should be via e-mail.	In the first instance an escalation at BAU level should be received via e-mail and clearly labelled as such with the email subject line beginning with 'ESCALATION'. The email should contain the relevant history of the issue, including the escalation history and when applicable the customer name, Service Identifier/circuit numbers and fault/service order numbers.
4	Level One and Two escalations shall be peer to peer.	If an operational issue can not be resolved at the BAU level it must first be raised by the team member with their own team leader/manager. If the team leader/manager agrees that the issue warrants being escalated to the other party they shall contact their peer in the other organisation and endeavour to resolve the issue between them - this would normally be the level one escalation point. Under no circumstance should this step in the escalation path be bypassed unless every reasonable attempt to communicate with their peer in the other organisation has failed. Only then should the level one contact in party A attempt to escalate the issue to the level two contact in party B. Subject to the above, level two escalations should also be peer to peer.
5	A mutually agreed plan of action to resolve an issue shall not be interfered with by other individuals.	If a plan of action to address an escalated issue has been agreed to by both parties then no other individual from either organisation should attempt to interfere with that agreement. If another individual has a concern with an already agreed plan of action they should raise it in the first instance with the person in their own organisation that was party to the original agreement.

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| 6 | People who do not follow the above rules will be redirected to the correct point of escalation. | If, as part of an escalation, an individual is contacted by a person from the other company and it is discovered that that person has not followed the protocol described above, then that individual can at their discretion respectfully redirect that person to the correct escalation contact person. |
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APPENDIX C – REJECTION REASONS

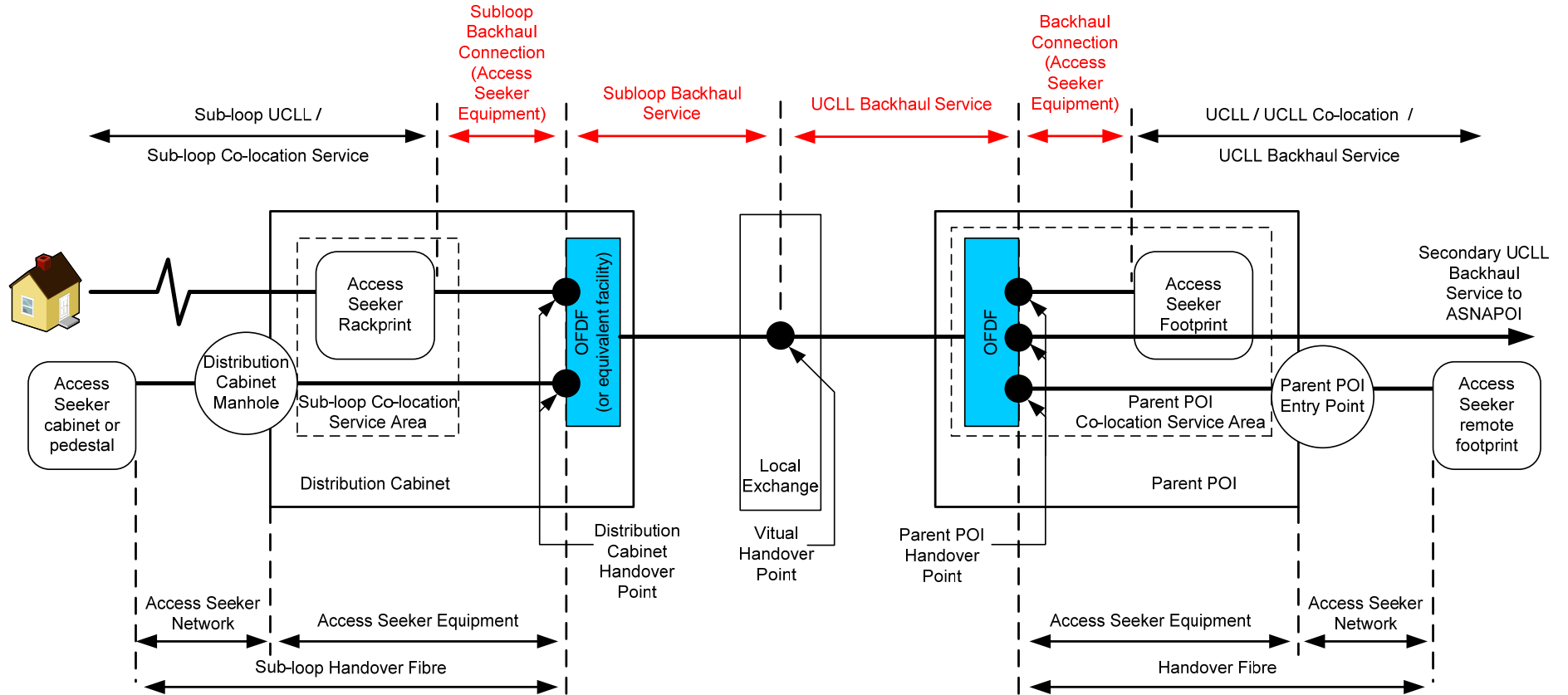
Reject Code	Description	Explanation
007	Services not covered	The request is for the supply of a service that is not covered by existing standard terms with the Access Seeker.
010	Wrong order type	The request has been provided using the wrong form.
011	Open Service Order	There is an existing open service order in relation to the relevant service/line/circuit.
014	Invalid Account Number	The account information specified is incorrect or does not match the information in Chorus' records.
015	Invalid line or address	The service identifier or address specified on the form is incorrect or does not match the information in Chorus' records.
018	Not capable of providing service	A reason explanation is provided in the Rejection comments field: There is insufficient capacity on Chorus' network Equipment/plant is temporarily unavailable. Incompatible Line Type. The line/connection/circuit/network identified is incapable of supporting the service requested.
020	Incomplete information	The form does not contain all of the required information.
021	Corrupt or unreadable	The form is wholly or partially corrupted or unreadable.
023	Other incorrect information	The form contains other information that is incorrect or that does not match the information in Chorus' records.
036	Requested service not present for deactivation	Unable to process this deactivation/relinquishment request as service does not exist/is not on the line
037	Requested service already present	The service which has been requested is already in existence.
038	Outside service area	Service requested is outside of the current service area.

SERVICE APPENDIX 3, SCHEDULE 4 - SUB-LOOP BACKHAUL OPERATIONS MANUAL

047	Contact details	No site contact or contact details.
099	Not otherwise specified	Rejection does not fit into specific codes above.
[TBA]	Service unsupportable	The line/connection/circuit/network identified is incapable of supporting the service requested.

APPENDIX D – SUB-LOOP BACKHAUL TO BUNDLED EXCHANGE DIAGRAM

Sub-loop Backhaul to a Bundled Exchange



APPENDIX E – TECHNICAL DOCUMENTS

Technical documents are now listed at Chorus' website, www.chorus.co.nz.