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# STANDARD TERMS DETERMINATION FOR TELECOM'S SUB-LOOP UNBUNDLED COPPER LOCAL LOOP NETWORK SERVICES

# SERVICE APPENDIX 2, SCHEDULE 4 SUB-LOOP CO-LOCATION OPERATIONS MANUAL

## PUBLIC VERSION

**20 October 2010**

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# PART 1 – DOCUMENT INFORMATION

## 1 INTRODUCTION

### 1.1 Purpose

This Sub-loop Co-location Operations Manual (**Manual**) is part of the Sub-loop Services Terms and sets out the operational procedures for supply of the Sub-loop Co-location 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 and the Sub-loop Co-location Access 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 Telecom will make the current version of this Manual available on a Telecom website accessible by the Access Seeker.

1.3.3 Telecom will review this Manual every second year (with the first review commencing on the second anniversary of the Determination Date or earlier if requested by the Access Seeker and an earlier review is agreed by Telecom). The same change mechanism (set out in section 9 of the Sub-loop Services General Terms) will apply to any changes proposed by Telecom as a result of any review.

### 1.4 Definitions

References to clauses or sections are references to clauses and 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 Telecom must provide each other with the people and contact details set out in clause 2.2. Any change to the people and contact details must be advised in writing to the other 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 Telecom 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 any 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; or

(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

| ***Contact and detail required*** | ***Purpose*** |
|---|---|
| *Both parties provide*<br>Contact address for giving Notice under the Sub-loop Services Terms. (This must include a street address, email address and a fax number.) | This is the street address, email address and fax number that Notices under the Sub-loop Services Terms can be given by the other party. |
| *Both parties provide*<br>Principal point of contact. (This must include the principal point of contact's email address, mobile and work telephone numbers.) | This is the person responsible for the overall relationship between the parties with respect to the Sub-loop Co-location Service. For Telecom this will usually be the account manager for the relevant Access Seeker. |
| *Telecom only provides*<br>Service Delivery Manager. (This must include the Service Delivery Manager's email address, mobile and work telephone numbers.) | This is the person responsible for service delivery of the Sub-loop Co-location Service to the Access Seeker. |
| *Telecom only provides*<br>Provisioning manager. (This must include the provisioning manager's email address, mobile and work telephone numbers.) | This is the person responsible for the provisioning of the Sub-loop Co-location Service to the Access Seeker. |

| | |
|---|---|
| *Access Seeker only provides*<br>Names and email addresses of one or two people to receive confirmation that a New Distribution Cabinet will be installed six months before its scheduled installation date under the Cabinetisation Notice. | These people are responsible for managing an Access Seeker's Preliminary Orders for New Distribution Cabinets. |
| *Both parties provide*<br>Sub-loop Co-location project manager. (This must include the Sub-loop Co-location project manager's email address, mobile and work telephone numbers.) | This is the person who will liaise with the other party in relation to the Rackprint Preparation and the Access Seeker Build. Each party may nominate a separate co-location project manager for each Distribution Cabinet. |
| *Access Seeker only provides*<br>Names and email addresses of one or two people to become OO&T and OFM user administrators. | These people will manage the creating and disabling of Access Seeker staff accounts to access the OO&T and OFM websites. |
| *Telecom only provides*<br>Email address for the Access Seeker to send Sub-loop Co-location Forecasts. | This is the email address to which the Access Seeker will send the Sub-loop Co-location Forecasts described in section 8 below. |
| *Access Seeker only provides*<br>People who are authorised to download eBill files. | These are the people who will be set up with access to Telecom's secure gateway from which the Access Seeker's eBills can be viewed and downloaded. |
| *Access Seeker only provides*<br>People who are authorised to download the Sub-loop Co-location Price List File. | These are the people who will be set up with access to Telecom's secure gateway from which the Sub-loop Co-location Price List File can be viewed and downloaded. |
| *Telecom only provides*<br>Business continuity email address. | This is the email address to send forms to under clause 9.5.6. |
| *Telecom only provides*<br>Billing team email address. | This is the email address to which the Access Seeker will send billing queries under clause 29.2.1. |
| *Telecom only provides* | This is the web address which the Access |

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|---|---|
| Web address for reporting. | Seeker accesses to obtain reports. |

## 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 Telecom so that:

(a) uniform standards of best practice are set;

(b) the performance of the Sub-loop Network is maintained;

(c) the health and safety of the Access Seeker's and Telecom's 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 Telecom needs to undertake; and

(e) the Access Seeker's and Telecom's 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 or user guide, the Access Seeker and Telecom 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 or user guide consistently with the Sub-loop Services Terms; and

(c) comply with the technical and/or procedural detail the technical manual 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 attached as Appendix C.

# 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 procedures required for supply of the Sub-loop Co-location 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 the 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 Telecom from seeking any remedies available under the Act.

# 5 PREREQUISITES

## 5.1 Overview

5.1.1 In addition to the prerequisites set out in section 6 of the Sub-loop Services General Terms, the Access Seeker must satisfy the following operational prerequisites in relation to the Sub-loop Co-location Service. The Access Seeker may, at its option, enter into a non-disclosure agreement with Telecom covering discussions prior to placing an Order for the Sub-loop Co-location Service (but neither Telecom nor the Access Seeker will be under any obligation to do so)..

## 5.2 Operational prerequisites

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

5.2.2 Prior to either making an Order for a Site Audit or making a Preliminary Order in relation to any Distribution Cabinet, the Access Seeker must meet the following prerequisites:

(a) Telecom has granted to the Access Seeker, and the Access Seeker has verified it has access to, OSS for the provision of the Sub-loop Co-location Service, including:

(i) OO&T; and

(ii) OFM; and

(b) the Access Seeker's nominated staff (being at least those staff who will be directly involved in managing the Sub-loop Co-location Service from the Access Seeker's perspective) have completed the appropriate training as set out in section 6.

5.2.3 Prior to making a Firm Order, the Access Seeker must have accepted Telecom's Quote.

5.2.4 Prior to commencing the Access Seeker Build in a Distribution Cabinet, the following prerequisites must be met:

(a) the Access Seeker has accepted the Rackprint Preparation;

(b) Telecom has granted to the Access Seeker, and the Access Seeker has verified it has access to, Telecom's Permit to Work web portal;

(c) the Access Seeker has an approved Permit to Work in respect of the Access Seeker Build; and

(d) the Access Seeker has met the accreditation, approval and security requirements for each person who will require unescorted access to the Distribution Cabinet to complete the Access Seeker Build.

5.2.5 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 Co-location Service.

5.2.6 Before the Operational Date and on an ongoing basis, the Access Seeker must have met the accreditation, approval and security requirements for each person who will require unescorted access to the Distribution Cabinet to operate and maintain the Access Seeker Equipment on an ongoing basis.

5.2.7 Prior to placing a Firm Order and on an ongoing basis, the Access Seeker must have satisfied the relevant requirements of section 14 in relation to any Distribution Cabinet subject to a Land Occupation Arrangement.

5.3 **Time Estimates**

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

# 6 TRAINING

## 6.1 General

6.1.1 Telecom 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 Telecom 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 Telecom in accordance with the Sub-loop Co-location Price List.

# 7 OVERVIEW OF THE SUB-LOOP CO-LOCATION SERVICE

## 7.1 Overview

This section 7 outlines the Sub-loop Co-location Service and the procedures for its supply. A diagram illustrating the Sub-loop Co-location Service is attached as Appendix A in the Sub-loop Co-location Service Description. More detailed information is set out in subsequent sections of this Manual.

## 7.2 The Sub-loop Co-location Service

7.2.1 The Sub Loop Co-location Service is described in the Sub-loop Co-location Service Description. The basic elements of the Sub-loop Co-location Service are:

(a) the supply of one or more Rackprints in a Distribution Cabinet within which the Access Seeker can install approved Access Seeker Equipment for the purpose of providing access to and interconnection with the Sub-loop UCLL Service. Note:

(i) "Access Seeker Equipment" configurations must be type approved in accordance with all the requirements of this Manual, including the relevant technical specifications in Appendix C;

(ii) "Access Seeker Equipment" includes the equipment of any person other than the Access Seeker if that equipment is being used to support the provision of backhaul for the Access Seeker; and

(iii) the Sub-loop Co-location Service includes access to and the use of, space in, on and around the Distribution Cabinet for the purposes of installing and maintaining approved Access Seeker Equipment within its Rackprint. The inclusion of access to and use of space on and around the Distribution Cabinet is only to the extent Telecom has existing rights to access and use, and to grant rights to access or use, space on and around the Distribution Cabinet;[1]

(b) connection of the Access Seeker Equipment in the Distribution Cabinet to HDP block(s) on the Distribution Cabinet DF using an Intra-Distribution Cabinet Tie Cable;

(c) connection of the Access Seeker Equipment in the Distribution Cabinet using a Sub-loop Co-location External Tie Cable to either the Access Seeker's pedestal (or equivalent facility), Access Seeker's or a third party's backhaul network, or ancillary backhaul equipment outside the Distribution Cabinet;

(d) connection of the Access Seeker Equipment in the Distribution Cabinet using an Inter-Rackprint Tie Cable to another Rackprint in the Distribution Cabinet that is supplied to the Access Seeker, Telecom or an Other Service Provider;

(e) the Rackprint Preparation, which may be necessary before the Access Seeker Equipment can be installed;

(f) the supply of Distribution Cabinet Services so that the Access Seeker Equipment can be operated; and

(g) controlled access for accredited and approved representatives of the Access Seeker to maintain and operate the Access Seeker Equipment.

7.2.2 On or before the relevant Operational Date for each Access Seeker Build, the Access Seeker will be responsible for having its tie cables (including Intra-Distribution Cabinet Tie Cables, Sub-loop Co-location External Tie Cable and

[1] The space on and around the Distribution Cabinet may not be within Telecom's control and this does not preclude an Access Seeker from building its own cabinet or pedestal adjacent to a Distribution Cabinet.

Inter-Rackprint Tie Cable) correctly terminated at the Access Seeker Equipment within its Rackprint.

7.2.3 On an ongoing basis after the relevant Operational Date:

(a) the Access Seeker will be fully responsible for maintaining and fixing faults in the Access Seeker Equipment within its Rackprint; and

(b) the Access Seeker will be fully responsible for maintaining and fixing faults in the Access Seeker Equipment outside its Rackprint, but must pay for a Telecom representative to undertake this work on its behalf.

7.2.4 The Sub-loop Co-location Service will be supplied as co-mingled Rackprints where the Access Seeker's Rackprints are inter-mixed directly with those of Other Service Providers within a shared rack.

7.3 **Procedure for supply of the Sub-loop Co-location Service**

The procedure for supply of the Sub-loop Co-location Service can be summarised in the following steps:

| ***Access Seeker action*** | ***Telecom action*** |
|---|---|
| The Access Seeker expresses interest in a Distribution Cabinet by submitting a Sub-loop Co-location Forecast. This could be either for space within a new Distribution Cabinet or for additional space within an existing unbundled Distribution Cabinet. If new Access Seeker Equipment or a new Access Seeker Equipment configuration, Access Seeker submits Access Seeker Equipment or Access Seeker Equipment configuration for type approval. | |
| | Telecom prioritises the Rackprint Preparation within different Distribution Cabinets based on Sub-loop Co-location Forecasts and the prioritisation rules. |
| The Access Seeker may request a Site Audit. | |
| | If requested by the Access Seeker, Telecom will undertake and make available to the Access Seeker a Site Audit. A Site Audit allows the Access Seeker to undertake detailed design work before making a Preliminary Order. |
| The Access Seeker submits a Preliminary | |

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| Order for its preferred amount of space and configuration. | |
| | Telecom follows the space allocation rules under section 15 to determine whether to:<br>• provide the Access Seeker with a Quote, which details:<br>o what space can be supplied;<br>o the configuration of that space;<br>o the cost of the Rackprint Preparation; and<br>o a timeframe for the Rackprint Preparation, or<br>• reject the Preliminary Order. |
| The Access Seeker makes a Firm Order by accepting the Quote. | |
| | The Rackprint Preparation is carried out. |
| The Access Seeker accepts the Rackprint Preparation. | |
| | Telecom hands over the Rackprint immediately following acceptance of the Rackprint Preparation and allows access to accredited representatives of the Access Seeker. |
| The Access Seeker Build is undertaken and the Access Seeker Equipment installed. A Certificate of Compliance is issued to Telecom on completion. The Certificate of Compliance confirms that the Access Seeker Equipment has been installed correctly and complies with all of the Access Seeker's obligations under the Sub-loop Services Terms. | |

## PART 2 - FORECASTING

## 8 FORECASTING

### 8.1 Access Seeker Forecasting

8.1.1 The Access Seeker must use all reasonable endeavours to provide Telecom with aggregated, non-binding quarterly forecasts (**Sub-loop Co-location Forecasts**) for the next 18 months (i.e. a rolling 18-month forecast for the next six quarters which is updated quarterly). Each Sub-loop Co-location Forecast must include:

(a) a committed forecast, by quarter, for the first 12 months; and

(b) an indicative forecast for quarters five and six.

8.1.2 Each Sub-loop Co-location Forecast is required to forecast the Access Seeker's quarterly demand for:

(a) Rackprints within new Distribution Cabinets that have been notified in Telecom's cabinetisation forecast that is required under the UCLL and UCLL Co-location Standard Terms Determination General Terms;

(b) Rackprints within existing Distribution Cabinets;

(c) Rackprints within proposed new but not yet notified Distribution Cabinets (this will require 18 months notice to comply with the notification requirements in the UCLL and UCLL Co-location Standard Terms Determinations General Terms);

(d) changes to Rackprints within Distribution Cabinets where the Access Seeker already has a presence; and

(e) Site Audits; and

(f) Migrations.

8.1.3 In respect of Site Audits only, demand must be forecast on a month by month, as well as a quarterly, basis.

8.1.4 In respect of any proposed Migration relating to the delivery of the Sub-loop UCLL Service, the Access Seeker must also submit to Telecom a revised Migration Forecast at least one month and two Working Days prior to the first day of the month in which the Access Seeker requests the Migration to commence. All of these revised Migration Forecasts must contain:

(a) all of the information indicated in the Migration Forecast worksheet of the Forecasting Template and must include the date the Migration is to take place; and

(b) the number of proposed Sub-loop MPF Transfer Orders and proposed Other Service to Sub-loop MPF Transfer Orders that are relevant to the proposed Migration at each Distribution Cabinet for each week in the month in which the Access Seeker requests the Migration to commence.

In addition, the Access Seeker must submit revised and updated Sub-loop Co-location Forecasts where the proposed Migration forecasted under this clause results in changes to the Sub-loop Co-location Forecast.

8.1.5 A Forecasting Template will be provided by Telecom with a separate worksheet for each Forecast type. The Forecasting Template will be published on a Telecom website and available at the time the Forecast is required. Each time the Access Seeker is required to submit a Forecast, it must email Telecom a copy of the Forecasting Template with all information in the relevant worksheet or worksheets completed in full.

8.1.6 Each Sub-loop Co-location Forecast will be emailed to the email address advised by Telecom from time to time. The Access Seeker will ensure that each Sub-loop Co-location Forecast is received by Telecom on or before the last Working Day of the month before the period to which it relates. Telecom will acknowledge it has received each Sub-loop Co-location Forecast by reply email to the address from which it was sent.

8.1.7 Each quarter to be forecast will commence on the first Working Day of February, May, August and November of each rolling 18-month period comprising a Sub-loop Co-location Forecast.

8.1.8 The Access Seeker's Sub-loop Co-location Forecast and the Migration Forecast (where required) is Confidential Information for the purposes of section 31 of the Sub-loop Services General Terms.

8.1.9 Where the Access Seeker fails to submit any of the required Sub-loop Co-location Forecasts, Telecom will use all reasonable endeavours to process any relevant Orders but there will be no requirement for Telecom to meet any Service Levels under the Sub-loop Co-location Service Level Terms in respect of the services or transactions to which the missing forecasts should have related.

8.2 **Feedback**

8.2.1 Telecom will review each Sub-loop Co-location Forecast and determine whether any bottlenecks or foreseeable problems exist that would affect the timing of Telecom's ability to deliver the Sub-loop Co-location Service.

8.2.2 The Access Seeker must comply with any reasonable request made by Telecom to provide additional information relating to a Sub-loop Co-location Forecast.

8.2.3 If bottlenecks or foreseeable problems exist, Telecom will give feedback to the Access Seeker and may propose an amended Sub-loop Co-location Forecast. Following any feedback, the Access Seeker and Telecom will work together to improve the accuracy of the Sub-loop Co-location Forecast, however, the Access Seeker has no obligation to re-submit a Sub-loop Co-location Forecast as a consequence of receiving feedback.

8.2.4 If the Access Seeker does re-submit a Sub-loop Co-location Forecast in response to feedback, that Sub-loop Co-location Forecast will be accepted by Telecom and used for any subsequent prioritisation during the quarter to which it relates (i.e. a re-submitted Sub-loop Co-location Forecast under this clause 8.2.4 will not be regarded as being either out of time or a change that has no effect until the following quarter).

8.2.5 The Access Seeker must notify Telecom's provisioning manager and principal point of contact of any material change to a Sub-loop Co-location Forecast as soon as the Access Seeker becomes aware of that change.

## PART 3 – PROVISIONING

# 9 THE OO&T SYSTEM

## 9.1 OO&T

*Overview*

9.1.1 Subject to the provisions below relating to business continuity, all Orders for the Sub-loop Co-location 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 Telecom. If an Access Seeker does place an invalid Order Telecom will use all reasonable endeavours to notify the Access Seeker if such Orders have been received.

9.1.2 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 Use*

9.1.3 OO&T is a Telecom System the use of which is subject to the Sub-loop Services General Terms and this Manual.

*B2B*

9.1.4 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.

## 9.2 Access to OO&T

*Description of OO&T*

9.2.1 OO&T allows the Access Seeker to log on to a secure website for placing and monitoring Orders with Telecom.

*Access for Authorised Personnel*

9.2.2 The Access Seeker will provide Telecom 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.

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

*Right to Restrict or Prohibit Use of OO&T*

9.2.4 Subject to clause 9.2.5, Telecom 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;

(b) use OO&T in an unauthorised manner or in such a way that causes or may cause material performance issues,

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

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

9.3 **Additional functionalities of or enhancements to OO&T**

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

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

9.3.3 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 Telecom document entitled "Telecom Web Services Interface Software Development Kit" and the Telecom document entitled "Chorus OO&T User Guide" (reference ASD-001).

9.4 **Costs**

*Telecom's Costs*

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

*Access Seekers' Costs*

9.4.2 The Access Seeker will be solely responsible for the costs of modifying its systems to interface with OO&T and B2B and for participating in the consultation and implementation process.

*OO&T Charges*

9.4.3 Telecom will charge a monthly fee for OO&T as set out in the Sub-loop Co-location Price List.

9.5 **Terms of use**

*Use of OO&T*

9.5.1 The Access Seeker must only use OO&T for purposes authorised by Telecom.

*Availability*

9.5.2 Telecom will use all reasonable endeavours to ensure that OO&T is available to Access Seekers 24 hours a day, 7 days a week.

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

*Business Continuity*

9.5.4 If Telecom advises the Access Seeker that OO&T is unavailable the Access Seeker may submit provisioning requests by emailing the relevant form to Telecom (available on the secure Telecom web portal).

9.5.5 All business continuity forms submitted in accordance with this clause 9.5 should come from a generic mailbox. This mailbox must include the Access Seeker's name in the email subject line as follows:

[Sub-loop Co-location Form Name] - [Access Seeker Name] - [Access Seeker reference number].

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

## 10 ORDER PROCESSING

### 10.1 OO&T Order processing

10.1.1 Telecom will use all reasonable endeavours to ensure that all Orders entered into OO&T by Access Seekers outside of Business Hours on any Working Day are processed in the first Business Hour on the next Working Day. For the purpose of determining whether Telecom has met any relevant Sub-loop Co-location Service Level Terms for dealing with Orders, any Orders submitted to Telecom

outside of Business Hours will be deemed to have been received by Telecom in the first Business Hour of the following Working Day.

10.1.2 When an Order is received, Telecom will advise the Access Seeker, acknowledging receipt of the Order, subject to clause 10.1.1.

10.1.3 For each Order that is submitted, the Access Seeker must complete all of the fields on the relevant form that are marked as mandatory.

10.1.4 An Order will be deemed invalid and may be rejected by Telecom if it is not submitted in accordance with this Manual.

10.1.5 Telecom will perform a validation check of each Order that it receives. The validation check will determine whether the Order complies with the requirements of this Manual.

10.1.6 If an Order is rejected, Telecom will advise the Access Seeker of that rejection and provide the Access Seeker with the reason.

### 10.2 Irregularities

10.2.1 Telecom 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).

## 11 DISTRIBUTION CABINET INFORMATION

### 11.1 Overview

11.1.1 Distribution Cabinet Information is a service that enables the Access Seeker to obtain relevant information relating to Distribution Cabinets.

### 11.2 Information Supplied

11.2.1 The Access Seeker will supply the Cabinet ID(s) of the relevant Distribution Cabinet(s). Telecom will make available a list of the Distribution Cabinets where the Sub-loop Services can be requested, and the Cabinet IDs for those Distribution Cabinets, on a publicly available Telecom website.

### 11.3 Information Returned

11.3.1 The Distribution Cabinet Information returned by OO&T will include:

(a) the Cabinet ID;

(b) the physical location of the Distribution Cabinet in New Zealand Map Grid (NZMG) projection with NZGD 49 datum;

(c) the Cabinet type (a list of types is attached as Appendix D);

(d) the identifier for the Exchange where the copper feeder to that Distribution Cabinet is terminated (if applicable); and

(e) the Local Exchange where the fibre feeder to that Distribution Cabinet is terminated.

### 11.4 Request for Site Audit

11.4.1 If the Access Seeker requires information in respect of any Distribution Cabinet in addition to that returned through the Distribution Cabinet Information, the Access Seeker may request a Site Audit of that Distribution Cabinet under section 12.

## 12 SITE AUDITS

### 12.1 Overview

12.1.1 The Access Seeker may request Telecom to undertake a Site Audit to assess the Capacity (including Available Rack Units) of any Distribution Cabinet for the Sub-loop Co-location Service.

12.1.2 Any request for a Site Audit must be made using OO&T.

12.1.3 A Site Audit is only current as at the day it is supplied to the Access Seeker.

### 12.2 Site Audit

12.2.1 A Site Audit provides additional detailed information so that specific design work can be undertaken.

12.2.2 A Site Audit may be Ordered at any time and, in addition to the information set out in the Distribution Cabinet Information, will provide:

(a) plans of the Distribution Cabinet and the Rackprint locations available;

(b) information on the Capacity (including Available Rack Units) of the Distribution Cabinet;

(c) an estimate of the time taken to provision a Rackprint in that Distribution Cabinet;

(d) details on cable routes and distances from the Rackprints to the Distribution Cabinet DF; and

(e) plans and details of manholes and external access points for feeder cables.

12.2.3 As part of a Site Audit the Access Seeker may request an escorted inspection of the Distribution Cabinet with the Telecom representative managing the Site Audit.

12.3 **Transfers**

12.3.1 As part of any Site Audit Telecom may also provide an indication of the number of Sub-loop MPF transfers possible per day based on space contentions. This will only be an indication of what might be possible, and actual volumes will be confirmed when bulk transfer planning of the Sub-loop UCLL Service occurs.

12.4 **Site Audits to occur on a "first come, first served" basis**

12.4.1 Orders for Site Audits will be met by Telecom on a "first come, first served" basis.

## 13 PRELIMINARY ORDER

13.1 **Overview**

13.1.1 A Preliminary Order is required to enable Telecom to undertake the design work necessary to issue a Quote. Preliminary Orders can be placed for different parts of the Sub-loop Co-location Service, including:

(a) one or more new Rackprints at a Distribution Cabinet where the Access Seeker has no existing Sub-loop Co-location presence;

(b) one or more additional Rackprints at a Distribution Cabinet where the Access Seeker has a Sub-loop Co-location presence;

(c) the supply of additional services to an existing Rackprint at a Distribution Cabinet where the Access Seeker has a Sub-loop Co-location presence but requires upgraded services or an altered configuration (for instance an increased power rating);

(d) one or more Rackprints on a Distribution Cabinet for the installation of ancillary backhaul equipment;

(e) the installation of HDP block(s), with or without Splitters; and

(f) ancillary services such as tie cables.

13.2 **Placing Preliminary Orders**

13.2.1 A Preliminary Order for the Sub-loop Co-location Service must be made using OO&T.

13.2.2 A Preliminary Order must include sufficient detailed information, including:

(a) identifier/name of the Distribution Cabinet;

(b) number of Rack Units required in a Rackprint and whether those Rack Units need to be contiguous;

(c) number of copper tie cable pairs required for each Rackprint;

(d) whether Telecom or the Access Seeker will supply the necessary tie cables;

(e) whether an Intra-Distribution Cabinet Tie Cable, Inter-Rackprint Tie Cable or Sub-loop Co-location External Tie Cable will need to be installed;

(f) number of tie cables required for each Rackprint, or between Access Seekers' Rackprints;

(g) whether Telecom or the Access Seeker will supply the necessary tie cables;

(h) whether the Access Seeker requires HDP block(s) be installed with Splitters;

(i) all power requirements (i.e. fuse/circuit breaker rating etc);

(j) a list of the Access Seeker Equipment that will be installed (including the intended function of the Access Seeker Equipment), and details of existing Access Seeker Equipment that will be removed and replaced with new Access Seeker Equipment;

(k) preferred hand over date (for the Access Seeker Build to commence); and

(l) any other information Telecom needs to know to undertake the detailed design work necessary to issue a Quote.

13.2.3 The Access Seeker will comply with any reasonable request made by Telecom for additional information relating to a Preliminary Order. The Access Seeker and Telecom will work together to resolve any difficulties with a Preliminary Order.

## 14 LANDLORD APPROVALS

### 14.1 Overview

14.1.1 The Access Seeker must follow the requirements and processes set out in this section 14 in relation to obtaining any relevant Landlord consents or giving any notifications that are necessary before supply of the Sub-loop Co-location Service to the Access Seeker can commence. Where Telecom is not provided with the evidence required under this section 14 that the Access Seeker has obtained the relevant consents or given the appropriate notification within a reasonable timeframe it may reject the relevant Order.

### 14.2 Telecom's obligations

14.2.1 Where a Site Audit or Preliminary Order is for a Distribution Cabinet which is subject to a Land Occupation Arrangement, Telecom will:

(a) assess whether the Land Occupation Arrangement sets out any restrictions or preconditions relating to supply of the Sub-loop Co-location Service;

(b) advise the Access Seeker if there are no restrictions or preconditions relating to supply of the Sub-loop Co-location Service. If, following its assessment under clause 14.2.1(a), Telecom determines there are restrictions or pre-conditions in any Land Occupation Arrangement that would require the Access Seeker to obtain Landlord consent, Telecom will use its best endeavours to provide the Access Seeker with all relevant documentation and any other additional information relating to or evidencing the Land Occupation Arrangement, that is reasonably necessary for the Access Seeker to obtain the Landlord's consent;

(c) notify the Access Seeker if Telecom believes that a copy of the document evidencing the Land Occupation Arrangement is not required or needs to be withheld, including the reasons for its decision;

(d) provide the Access Seeker with all necessary contact details for the Landlord, to enable the Access Seeker to obtain the Landlord's consent or written acknowledgement for Sub-loop Co-location Service;

(e) use best endeavours to assist the Access Seeker in obtaining the Landlord's consent; and

(f) in the event that Telecom and the Access Seeker cannot resolve an issue as to whether Landlord Consent is required, either may follow the Dispute Resolution procedure under section 36 of the Sub-loop Services General Terms.

14.2.2 Notwithstanding clause 14.2.1, Telecom is not required to provide the Access Seeker with any documentation, part of any documentation, or other information relating to or evidencing the Land Occupation Agreement to the extent (and only to the extent) that such documentation, part of documentation or other information is subject to an obligation of confidentiality for the benefit of the Landlord (and any such information is deemed to be Telecom's Confidential Information under section 31 of the Sub-loop Services General Terms) provided that Telecom uses its best endeavours to obtain a waiver of the obligation of confidence from the Landlord.

14.2.3 Telecom will use best endeavours when entering into new Land Occupation Arrangements or renewing existing Land Occupation Arrangements to agree terms:

(a) that ensure that the Land Occupation Arrangements do not contain any material terms that are confidential between Telecom and the Landlord; and

(b) with the Landlord that enables Access Seekers to access the relevant site without necessarily requiring the Access Seeker to obtain Landlord's consent.

14.2.4 Telecom will not be subject to any relevant Service Levels in the Sub-loop Co-location Service Level Terms in relation to an Order where the Access Seeker does not fulfil the Access Seeker's obligations under clause 14.3 in sufficient time to allow Telecom to meet any relevant Service Levels.

14.3 **Access Seeker's obligations**

14.3.1 As soon as reasonably practical after Telecom provides the Land Occupation Arrangement, the Access Seeker must:

(a) where provisioning the Sub-loop Co-location Service requires the consent of the Landlord for the grant of a sub-lease or sub-licence, obtain the written consent of the Landlord;

(b) where the Land Occupation Arrangement may permit Telecom to grant a sub-lease or sub-licence without the express written consent of the Landlord, provide written notification to the Landlord of the intended grant of sub-lease or sub-licence;

(c) bear all costs arising in relation to obtaining the Landlord's written consent or written acknowledgement; and

(d) provide a copy of the Landlord's written consent to Telecom, or provide a copy of the notice sent to the Landlord.

14.3.2 The Access Seeker is solely responsible for obtaining the Landlord's written consent or written acknowledgement except to the extent that Telecom is required under clause 14.2.1(e) to use its best endeavours to assist the Access Seeker in obtaining the Landlord's consent.

14.3.3 The Access Seeker must provide Telecom with Notice of a revocation of any Landlord's consent required under this section 14 occurring at any time the Access Seeker is receiving the Sub-loop Co-location Service.

14.3.4 When consulting and negotiating with the Landlord pursuant to this section 14, the Access Seeker must:

(a) conduct itself in a way that will maintain and preserve a mutually beneficial relationship between Telecom and the Landlord;

(b) seek to resolve in good faith any issues that may arise, and to work towards a fair and reasonable outcome for all parties concerned; and

(c) not make any claims, representations or warranties on behalf of Telecom, and the Access Seeker will have no authority to, and must not, bind Telecom in any way, unless the Access Seeker has first obtained Telecom's prior written consent to do so.

## 15 ASSESSMENT AND ALLOCATION OF SPACE IN THE CO-LOCATION AREA

### 15.1 General provisions for allocation of Rackprints

15.1.1 Distribution Cabinets include space allocated for uses other than locating telecommunications equipment (for instance cable termination frames). For the avoidance of doubt, Telecom will have no obligation to change the use of such spaces or take them into account when making any assessment of space restrictions in accordance with this Manual, other than in regard to Grooming and "Use it or Lose it" requests.

15.1.2 For the avoidance of doubt, any and all co-location of Access Seeker Equipment under this section 15 is subject to section 42. Configuration testing in accordance with section 42 may occur contemporaneously, in accordance with clauses 15.2.10 to 15.2.13, with the application of the space allocation rules in clause 15.2, however, no allocation of space may occur, or Rackprint preparation may commence, for untested configurations.

15.1.3 Where Telecom locates part or all of the Sub-loop Co-location Service Area in a new or additional Pedestal, then the Rack Units in the new or additional Pedestal will be included in determining the Available Rack Units for the Distribution Cabinet that is associated with that new or additional Pedestal.

15.1.4 For the avoidance of doubt, Rack Units in a distribution cabinet or pedestal that is not owned or controlled by Telecom will not be included in determining the Available Rack Units for any Distribution Cabinet that is associated with that distribution cabinet or pedestal.

15.1.5 The Rackprints offered by Telecom in a Quote in relation to a Preliminary Order will not be finally allocated to the Access Seeker until a Firm Order has been placed.

15.1.6 Reference in this section 15 to any Other Service Provider obligation and/or procedure in respect of determining assessment and allocation of space in the Sub-loop Co-location Area, including, without limitation:

(a) allocation of Rackprints;

(b) Market Share Assessment;

(c) good faith negotiations; and

(d) configuration testing,

includes an obligation on Telecom, as the Access Provider, to use all reasonable commercial endeavours to ensure equivalent terms and/or procedures apply in respect of any commercial co-location arrangements Telecom has with Other Service Providers that are not Access Seekers for the purposes of the Sub-loop Co-location Service.

***Configuration of allocations in the Co-location Area***

15.1.7 The Available Rack Units within Distribution Cabinets will not necessarily be sequentially filled and gaps may be left between Telecom's equipment and Access Seeker Equipment. For example, gaps may be left for the purposes of managing air temperature and air flow within the Distribution Cabinet.

15.1.8 For the purposes of allocating Rackprints to an Access Seeker under this section 15, an Access Seeker's Rackprint will include any Available Rack Units that are required to be empty for the purposes of power, heat or noise management of the Access Seeker Equipment under section 42.

15.1.9 The Available Rack Units that are allocated to an Access Seeker in a Distribution Cabinets may be co-mingled racks, where Telecom's equipment, Access Seeker

Equipment and Other Service Providers' equipment may either be inter-mixed within a shared rack or located in different racks within the Distribution Cabinet.

15.1.10 Telecom may allocate an Access Seeker shared Available Rack Units, with Other Service Providers or Telecom, where the Access Seeker Equipment is capable of being installed vertically. The number of Available Rack Units allocated to the Access Seeker will reflect the number of Rack Units that the Access Seeker Equipment would have occupied if it was installed horizontally.

15.1.11 Telecom will allocate space in the Sub-loop Co-location Area in a manner that meets the power, heat or noise management requirements set out in this Operations Manual, while best allowing space for current and future installation of Access Seeker Equipment.

***No obligation to build additional capacity***

15.1.12 Where a Distribution Cabinet, including a Distribution Cabinet that is scheduled to be built, has insufficient unoccupied Available Rack Units to meet a Preliminary Order, Telecom is not required to:

(a) build a bigger Distribution Cabinet (including any new or additional Pedestal); or

(b) provide additional Rack Units in the existing Distribution Cabinet, or a new or additional Pedestal.

15.1.13 However, Telecom may, at its discretion, choose to build a bigger Distribution Cabinet (including building a new or additional Pedestal), and to locate part or all of the Sub-loop Co-location Service Area in the bigger Distribution Cabinet. When there is insufficient relevant Capacity in the Distribution Cabinet, Telecom must not, in considering a request for additional Capacity (including during any negotiations under clauses 15.2.4 or 15.3.19), discriminate between a request for additional Capacity from an Access Seeker and any request for additional Capacity from a division of Telecom.

***Order of processing Preliminary Orders***

15.1.14 Telecom will process all Preliminary Orders for a Distribution Cabinet in the order that they are received. However, Telecom will:

(a) treat all Preliminary Orders for a New Distribution Cabinet received prior to the First Assessment Date contemporaneously, and process those Preliminary Orders contemporaneously in accordance with clause 15.2;

(b) on or after the First Assessment Date, treat all Preliminary Orders for a Distribution Cabinet received on the same Working Day as having been

received contemporaneously, and process those Preliminary Orders contemporaneously, in accordance with clause 15.3; and

(c) not process a Preliminary Order for a Distribution Cabinet until any previous Preliminary Orders for that Distribution Cabinet have:

(i) had Quotes issued, and the Quotes have been accepted or rejected, unless there is sufficient unoccupied Available Rack Units to meet all Preliminary Orders for that Distribution Cabinet; or

(ii) been "parked" under clause 15.2.4(a) or 15.3.2, and the processes set out in clauses 15.2 and 15.3 (as applicable) have been completed.

15.1.15 Where, under clause 15.1.14(c), Telecom does not process an Access Seeker's Preliminary Order, then Telecom will give Notice to the Access Seeker that their Preliminary Order has not been processed. For the purpose of determining whether Telecom has met any relevant Sub-loop Co-location Service Level Terms for dealing with Orders, the time that Telecom is required to wait under clause 15.1.14(c) before processing an Access Seeker's Preliminary Order will be excluded from the calculation of Working Days under the Sub-loop Co-location Service Level Terms.

15.1.16 In processing Preliminary Orders, Telecom will treat all Firm Orders for the Distribution Cabinet as if the Available Rack Units under the Firm Order were occupied Available Rack Units.

***Additional space allocations rules***

15.1.17 In addition to the rules set out in clauses 15.1.1 to 15.1.16, space in:

(a) New Distribution Cabinets for Preliminary Orders processed on the First Assessment Date will be allocated by Telecom according to the rules as set out in clause 15.2; and

(b) Installed Distribution Cabinets will be allocated by Telecom according to the rules as set out in clause 15.3. For the avoidance of doubt, where an Access Seeker places a Preliminary Order on or after the First Assessment Date for a New Distribution Cabinet, the Preliminary Order will be treated in accordance with clause 15.3.

## 15.2 Allocation of space – New Distribution Cabinets at First Assessment Date

15.2.1 Twelve months before the scheduled Installation Date of a New Distribution Cabinet, Telecom will provide confirmation on a publicly available Telecom website that the New Distribution Cabinet will be installed.

***Processing of Preliminary Orders to commence on the First Assessment Date***

15.2.2 On the First Assessment Date, Telecom will commence processing Preliminary Orders for the New Distribution Cabinet received prior to the First Assessment Date and that otherwise meet all of the requirements in this Manual.

***Processing of Preliminary Orders that do not exceed the Available Rack Units***

15.2.3 If, when Telecom processes all Preliminary Orders (or equivalent orders from any Other Service Provider) for a New Distribution Cabinet from the Access Seeker and any Other Service Providers, the Preliminary Orders do not exceed the Available Rack Units within the New Distribution Cabinet, then, subject to clauses 15.2.10 to 15.2.13, within ten Working Days of the First Assessment Date, Telecom will prepare a Quote for the Access Seeker based on its Preliminary Order.

***Processing of Preliminary Orders that exceed the Available Rack Units***

15.2.4 If, however, when Telecom processes all Preliminary Orders (or equivalent orders from any Other Service Provider) for a New Distribution Cabinet from the Access Seeker and any Other Service Providers, the Preliminary Orders exceed the unoccupied Available Rack Units within the New Distribution Cabinet, then:

(a) Telecom will give Notice to the Access Seeker within five Working Days of the First Assessment Date that there is insufficient Capacity in the Sub-loop Co-location Service Area for its Preliminary Order (whether due to the size of Access Seeker Equipment, or the results of testing under section 42), and that the Preliminary Order has therefore been "parked";

(b) the Access Seeker will within two Working Days of receipt of that Notice provide Telecom with any additional information requested by Telecom regarding the number of Lines to be commissioned at the New Distribution Cabinet by the Access Seeker, to enable Telecom to undertake a Market Share Assessment;

(c) where necessary, Telecom may validate any of the additional information provided by the Access Seeker under clause 15.2.4(b) to ensure that Available Rack Units are allocated in accordance with an accurate Market Share Assessment and in performing any validation, Telecom will comply with the following:

(i) clauses 31 and 32 of the Sub-loop Services General Terms;

(ii) the separation undertakings given by Telecom in accordance with Part 2A of the Act; and

(iii) any other applicable contractual or regulatory obligation relating to any such additional information provided by the Access Seeker to Telecom;

(d) Telecom will within five Working Days of giving Notice in accordance with clause 15.2.4(a) undertake a Market Share Assessment and give Notice to the Access Seeker of the number of Available Rack Units that the Access Seeker will be entitled to if Telecom is required to allocate Available Rack Units under clause 15.2.5; and

(e) Telecom, the Access Seeker and all Other Service Providers that placed Preliminary Orders (or equivalent orders from any Other Service Provider) for that New Distribution Cabinet must participate, in good faith (subject to any applicable law) and in accordance with clause 15.4, in negotiations regarding the allocation of Available Rack Units for that New Distribution Cabinet to reach a mutually agreeable solution.

15.2.5 If a mutually agreeable solution is not reached within 20 Working Days of Telecom initiating negotiations in accordance with clause 15.4 then Telecom will allocate Available Rack Units according to the Market Share of Telecom, the Access Seeker and Other Service Provider(s) who have submitted Preliminary Orders (or equivalent orders from any Other Service Provider) before the First Assessment Date. The allocation of Available Rack Units will be based on a Market Share Assessment calculation taking into account the following rules:

(a) the Market Share of any of Telecom, the Access Seeker or any Other Service Providers is calculated based on the number of Lines that each party will be paying Telecom a monthly Charge for, once the Line is commissioned at the New Distribution Cabinet;

(b) if the New Distribution Cabinet is to serve a new area where no Lines are currently being used then the Market Share of any of Telecom, the Access Seeker or any Other Service Providers will be based on that party's Market Share of Exchange-based Lines that each party is currently paying Telecom a monthly Charge for, at the Exchange the New Distribution Cabinet will be subtended from;

(c) subject to clause 15.2.5(d) , the allocation to any of Telecom, the Access Seeker or any Other Service Providers of Available Rack Units under clauses 15.2.5(a) or (b) is subject to a maximum of each of their Preliminary Orders;

(d) where the allocation to any of Telecom, the Access Seeker or any Other Service Providers of Available Rack Units under clauses 15.2.5(a) or (b) is greater than their Preliminary Order then any unallocated Available Rack Units will be allocated by Telecom to any other party that has been allocated

less Available Rack Units than requested in their Preliminary Order, in proportion to their Market Share;

(e) subject to clauses 15.2.5(f) and (g), the allocation to any of Telecom, the Access Seeker or any Other Service Providers of Available Rack Units must be rounded to the nearest whole Available Rack Unit;

(f) where rounding results in an under-allocation of the total Available Rack Units at the New Distribution Cabinet, then the unallocated Rack Unit will be allocated to the party closest to being rounded up to an additional Rack Unit; and

(g) where rounding results in an over-allocation of the total Available Rack Units at the New Distribution Cabinet, then the over-allocated Rack Unit will be removed from the allocation of Rack Units to the party that has been rounded up the most.

For example: Where there are 24 Available Rack Units in the Sub-loop Co-location Area and 300 Lines are to be commissioned

- Access Seeker 1 (AS1) has 50 UCLL Lines plus 25 resold Lines, Access Seeker 2 (AS2) has 75 resold Lines and Telecom has 250 Lines of which 100 are resold to AS1 and AS2.
- AS1 and AS2 both place Firm Orders to migrate all their Lines to Distribution Cabinet based services.
- Market Share is: AS1:AS2:T, 50+25:75:250-100, or 75:75:150, hence AS1 and AS2 will each receive a quarter of the Available Rack Units (6 Rack Units each) in the Distribution Cabinet, and Telecom half of the Available Rack Units (12 Rack Units).

***Submission of Modified Preliminary Orders***

15.2.6 Access Seekers may, within ten Working Days following agreement of a mutually agreeable solution under clause 15.2.4(e) or completion of the Market Share Assessment process under clause 15.2.5, submit Modified Preliminary Orders for the mutually agreed allocation of Available Rack Units under clause 15.2.4(e) or the Available Rack Units allocated by Telecom under clause 15.2.5. Telecom will treat Modified Preliminary Orders under this clause 15.2.6 as having been received contemporaneously and will, within ten Working Days, prepare a Quote for each Access Seeker based on its Modified Preliminary Order.

***No Rackprint Preparation to commence where a Dispute is raised***

15.2.7 If a Dispute is raised about the allocation of Rackprints in the New Distribution Cabinet, Telecom will not commence an Access Seeker's Rackprint Preparation allocated under a Market Share Assessment process under clause 15.2.5, until that Dispute has been resolved, unless Telecom acting reasonably considers that the

Access Seeker's Rackprint Preparation is not dependent on the resolution of the Dispute.

***Agreeing or rejecting a Quote***

15.2.8 The Access Seeker will, within five Working Days of Telecom issuing a Quote under clause 15.2.3 or 15.2.6, accept or reject the Quote. Quotes that have not been accepted within 5 Working Days of Telecom' issuing a Quote under clause 15.2.3 or 15.2.6 will be deemed to have been rejected.

15.2.9 Where the Access Seeker accepts a Quote under clause 15.2.8 it must provide the Access Seeker Equipment relating to that Quote to Telecom's Approved Testing and Installation Facility within five Working Days of accepting the Quote, provided that in any case, Access Seeker Equipment must be provided to Telecom's Approved Testing and Installation Facility within eight Working Days of Telecom issuing a Quote under clause 15.2.3 or 15.2.6.

***Access Seeker Equipment testing – New Distribution Cabinets***

15.2.10 If, when:

(a) the Preliminary Orders processed under clause 15.2.3 do not exceed the Available Rack Units within the New Distribution Cabinet; or

(b) any of Telecom or the Access Seeker have submitted a Modified Preliminary Order under clause 15.2.6 (or, for the avoidance of doubt, under clause 15.2.18),

but any of the Telecom Equipment, Access Seeker Equipment or any Other Service Provider equipment, or the Access Seeker Equipment configuration relating to those Preliminary Orders or Modified Preliminary Orders has not been tested in accordance with the Access Seeker Equipment Type Approval rules in section 42, Telecom must notify the Access Seeker and any Other Service Providers within five Working Days that the configuration is untested.

15.2.11 Where Telecom notifies Access Seekers of an untested configuration under clause 15.2.10, then Telecom and Access Seekers must provide the Telecom Equipment, and all Access Seeker Equipment relating to the Preliminary Orders or Modified Preliminary Orders that are referred to in clause 15.2.10 to Telecom's Approved Testing and Installation Facility within five Working Days of that notification, for configuration testing in accordance with section 42. Configuration testing will occur for all of the Telecom Equipment, Access Seeker Equipment and any Other Service Provider equipment collectively, and the results of that configuration testing will apply collectively. Telecom, the Access Seeker and any Other Service Providers will share equally the costs of configuration testing under section 42.

15.2.12 If Telecom's Approved Testing and Installation Facility determines that the Access Seeker Equipment configuration passes the configuration testing in section 42, Telecom will continue to process the Preliminary Orders or Modified Preliminary Orders that are referred to in clause 15.2.10 in accordance with this clause 15.2.

15.2.13 If Telecom's Approved Testing and Installation Facility determines that the configuration does not pass the type approval testing in section 42, Telecom will notify all Access Seekers that provided equipment to Telecom's Approved Testing and Installation Facility under clause 15.2.11 of the problematic configuration and will treat those Access Seekers' Preliminary Orders or Modified Preliminary Orders in accordance with clause 15.2.4(a). Where mutual agreement on a non-problematic configuration, or the installation of managed equipment, is not reached through negotiation under clause 15.2.4(e), then any allocation of Available Rack Units under clause 15.2.5 will be subject to Telecom, the Access Seeker and any Other Service Providers taking appropriate measures to reduce the heat, power or noise output from the Telecom Equipment, Access Seeker Equipment and any Other Service Provider equipment to ensure that the type approval rules in section 42 are met.

***Reallocation of space following rejected Quotes***

15.2.14 Where the Access Seeker rejects a Quote under clause 15.2.8, and any of Telecom, the Access Seeker have submitted a Modified Preliminary Order under clause 15.2.6, then the Available Rack Units associated with rejected Quotes will qualify as excess allocation, (**Excess Allocation**). Telecom must notify the Access Seeker who has submitted a Modified Preliminary Order under clause 15.2.6 that there is Excess Allocation within 2 Working Days of receiving notification of a rejected quote.

15.2.15 Any Access Seeker that has submitted a Modified Preliminary Order under clause 15.2.6 may request, within two Working Days of being notified by Telecom that there is Excess Allocation, that part or all of any Excess Allocation be allocated by Telecom to that party.

15.2.16 If only one Access Seeker requests under clause 15.2.15 that part or all of any Excess Allocation be allocated by Telecom to that party, then Telecom will allocate that party the part or all of the Excess Allocation that party requested.

15.2.17 Where more than one Access Seeker requests under clause 15.2.15 that that part or all of any Excess Allocation be allocated by Telecom to that party, then:

(a) Any of Telecom and the Access Seekers who requested under clause 15.2.15 that part or all of any Excess Allocation be allocated by Telecom to them, are required to participate, in good faith (subject to any applicable law) and in accordance with clause 15.4, in negotiations regarding the re-allocation of Excess Allocation for that New Distribution Cabinet to reach a mutually agreeable solution; and

(b) If a mutually agreeable solution is not reached within 5 Working Days of Telecom initiating negotiations under clause 15.4, then Telecom will allocate the Excess Allocation to all Access Seekers who requested under clause 15.2.15 that part or all of any Excess Allocation be allocated by Telecom to them, in proportion to their Market Share.

15.2.18 Within five Working Days following agreement of a mutually agreeable solution under clause 15.2.17(a) or the allocation of Available Rack Units by Telecom under clause 15.2.17(b), Access Seekers may submit Modified Preliminary Orders under this clause 15.2.18 for the mutually agreed allocation of Available Rack Units under clause 15.2.17(a) or the Available Rack Units allocated by Telecom under clause 15.2.17(b). Telecom will treat these Modified Preliminary Orders as having been received contemporaneously and will, within five Working Days of receiving a Modified Preliminary Order under this clause 15.2.18, prepare a Quote for each Access Seeker based on its Modified Preliminary Order, and it will be further processed as if it were a Modified Preliminary Order under clauses 15.2.6.

15.3 **Allocation of space - Installed Distribution Cabinets**

15.3.1 If a Preliminary Order for an Installed Distribution Cabinet that otherwise meets all of the requirements in this Manual does not exceed the Available Rack Units within the Installed Distribution Cabinet, then within ten Working Days of receiving the Preliminary Order Telecom will prepare a Quote based on the Preliminary Order.

15.3.2 If a Preliminary Order for an Installed Distribution Cabinet that otherwise meets all of the requirements in this Operations Manual exceeds the Available Rack Units within the Installed Distribution Cabinet, Telecom will within five Working Days of receiving the Preliminary Order notify the Access Seeker that there is insufficient Capacity for the Preliminary Order to be processed, and that the Preliminary Order has therefore been “parked”.

15.3.3 Subject to clause 15.3.17(a), in the event that there are insufficient Available Rack Units the Access Seeker may, within five Working Days of Telecom’s notification under clause 15.3.2, request any or all of:

(a) information about Rearrangement under clauses 15.3.5 to 15.3.11;

(b) application of the “Use it or Lose it” policy under clauses 15.3.12 to 15.3.17(b); and/or

(c) negotiations over space allocation under clauses 15.3.19 to 15.3.20.

15.3.4 If an Access Seeker does not make a request under clause 15.3.3, Telecom will reject that Access Seeker’s Preliminary Order.

***Rearrangement***

15.3.5 If an Access Seeker's Preliminary Order requests contiguous Available Rack Units in an Installed Distribution Cabinet and there are sufficient unoccupied Available Rack Units but there are not sufficient contiguous Available Rack Units to meet the Access Seeker's Preliminary Order then the Access Seeker may request information about the likely contiguous Available Rack Units that would be realised if Rearrangement occurred.

15.3.6 Telecom will, within five Working Days of a request for information under clause 15.3.5:

(a) advise the Access Seeker of the number of contiguous Available Rack Units that would be realised by Rearrangement, subject to any power, heat or noise management restrictions under section 42; and

(b) provide the Access Seeker an estimate of the likely cost of Rearrangement.

15.3.7 The Access Seeker may within five Working Days of Telecom providing advice and an estimate under clause 15.3.6, request that Telecom carry out Rearrangement by submitting a Modified Preliminary Order for a maximum of the number of contiguous Available Rack Units that would be realised by Rearrangement, as advised under clause 15.3.6.

15.3.8 Telecom will, within ten Working Days of receiving an Access Seeker request that Rearrangement be carried out, prepare a Quote for the Access Seeker based on its Modified Preliminary Order submitted under clause 15.3.7.

15.3.9 If an Access Seeker accepts a Quote under clause 15.3.8, Telecom must then undertake Rearrangement of existing Rackprints in the relevant Distribution Cabinet in order to allocate contiguous Available Rack Units to the Access Seeker, and notify any affected parties of the changes to their Rackprints.

15.3.10 The Access Seeker will pay Telecom all reasonable costs associated with Rearrangement of existing Rackprints as part of the costs of Rackprint Preparation as set out in the Sub-loop Co-location Price List.

15.3.11 Rearrangement may require Telecom, the Access Seeker and any Other Service Providers using the Distribution Cabinet to consult each other for the purpose of realising unused relevant Capacity.

***"Use it or Lose it" policy***

15.3.12 To ensure efficient allocation of space there will be a three month "Use it or Lose it" policy if there is insufficient Capacity in a Distribution Cabinet. Capacity will be deemed to be used if it contains equipment that is, or will within the next three

months be, supplying services, or supporting services that are supplied, to at least one End User via a Sub-Loop MPF.

15.3.13 Where the “Use it or Lose it” policy is applied to any Installed Distribution Cabinet then Telecom will, within 5 Working Days of the Access Seeker requesting that the “Use it or Lose it” policy be applied:

(a) give written notice (““Use it or Lose it" Notice”) to the Access Seeker and any Other Service Providers that have equipment in the relevant Distribution Cabinet that the “Use it or Lose it” policy is being applied to that Distribution Cabinet;

(b) advise the Access Seeker and any Other Service Providers that have equipment in the relevant Distribution Cabinet that any unused equipment in that Distribution Cabinet that will not be used within the next three months must be removed from the Distribution Cabinet within nine Working Days of the date of the “Use it or Lose it" Notice; and

(c) remove, at its own cost, any unused Telecom equipment in the relevant Distribution Cabinet that will not be used within the next three months within nine Working Days of the date of the “Use it or Lose it" Notice.

15.3.14 Where the Access Seeker is given a “Use it or Lose it" Notice under clause 15.3.13(a), and the Access Seeker is using all of its equipment in the relevant Distribution Cabinet, or will use all of their equipment within the next three months, it must advise Telecom within ten Working Days of the date of the “Use it or Lose it" Notice.

15.3.15 Where the Access Seeker is given a “Use it or Lose it" Notice under clause 15.3.13(a), and clause 15.3.14 does not apply, it must:

(a) within nine Working Days of the date of the “Use it or Lose it" Notice, remove any unused Access Seeker Equipment from the relevant Distribution Cabinet. The Access Seeker may request Telecom remove that equipment on the Access Seeker’s behalf;

(b) within ten Working Days of the date of the “Use it or Lose it" Notice, advise Telecom of the details of any unused Access Seeker Equipment that the Access Seeker has removed from the relevant Distribution Cabinet; and

(c) pay all costs associated with removing that equipment.

15.3.16 If the Access Seeker within ten Working Days of the “Use it or Lose it” Notice Date has not:

(a) removed any unused Access Seeker Equipment or Other Service Provider Equipment from the relevant Distribution Cabinet; or

(b) requested Telecom to remove that equipment on the Access Seeker's behalf,

then:

(c) Telecom:

(i) will remove that unused Access Seeker Equipment from the relevant Distribution Cabinet;

(ii) will notify the Access Seeker that their equipment has been removed;

(iii) may attempt to recover any reasonable costs associated with removal of the unused Access Seeker Equipment from that Access Seeker; and

(iv) will be entitled to treat the Access Seeker Equipment as its own and may retain or dispose of it as Telecom sees fit; and

(d) the Access Seeker will reimburse Telecom for all costs Telecom incurs in removing and disposing of all or any part of that unused Access Seeker Equipment from the relevant Distribution Cabinet Equipment, including the cost of making good any damage resulting from that removal (and Telecom will not be liable for any loss as a result).

15.3.17 For the avoidance of doubt, the "Use it or Lose it" policy does not apply:

(a) where a Preliminary Order for a New Distribution Cabinet received on or after the First Assessment Date is being processed under clause 15.3, to:

(i) any Rack Units in a New Distribution Cabinet that has not yet been installed; or

(ii) any Rack Units in a New Distribution Cabinet that are subject to a Firm Order, but where Access Seeker Equipment is yet to be installed in those Rack Units; or

(b) to any Rack Units in an Installed Distribution Cabinet that are subject to a Firm Order, but where Access Seeker Equipment is yet to be installed in those Rack Units.

15.3.18 Telecom will, within five Working Days of the conclusion of the application of the "Use it or Lose it" policy under clauses 15.3.11 to 15.3.16, advise the Access Seeker the number of Available Rack Units.

***Negotiations over space allocation for Installed Distribution Cabinets***

15.3.19 Where an Access Seeker has made a request for negotiations over space allocation under clause 15.3.3, Telecom, the Access Seeker and any Other Service Providers that are using the particular Distribution Cabinet relevant to Access Seeker's Preliminary Order are required to participate, in good faith (subject to any applicable law) and in accordance with clause 15.4, in negotiations on measures that may result in an allocation of space that is mutually agreeable to all parties.

15.3.20 Telecom will conclude the negotiations within 20 Working Days of the Access Seeker's request under clause 15.3.3.

***Processing of Modified Preliminary Orders following the application of the "Use it or Lose it" policy, and/or negotiations over space allocation for Installed Distribution Cabinets***

15.3.21 The Access Seeker may, within ten Working Days following:

(a) Telecom advising the Access Seeker of the number of Available Rack Units under clause 15.3.17(b), submit Modified Preliminary Orders under this clause of up to a maximum of the number of Available Rack Units advised by Telecom under clause 15.3.17(b); or

(b) agreement of a mutually agreeable solution under clause 15.3.19, submit Modified Preliminary Orders under this clause for the mutually agreed allocation of Available Rack Units under clause 15.3.19.

15.3.22 Telecom will treat any Modified Preliminary Orders submitted under clause 15.3.21 as having been received contemporaneously and will, within ten Working Days, prepare a Quote for each Access Seeker based on its Modified Preliminary Order.

15.4 **General provisions applicable to negotiations over space allocation**

15.4.1 Where Telecom, the Access Seeker or any Other Service Providers are participating in negotiations under clause 15.2.4(e) or 15.3.19, then all parties to the negotiations will:

(a) participate fully and negotiate in good faith with the aim of finding an allocation of space within the relevant Distribution Cabinet that is mutually agreeable to all parties;

(b) adhere to any process agreed for the conduct of the negotiations and any further commitments made relating to the protection of Confidential Information;

(c) consider, and respond to, any proposals made by the other parties;

(d) where they do not accept a proposal, state the reason or reasons for their non-acceptance;

(e) work together to identify barriers to agreement and will actively explore ways to overcome those differences. However, the parties are not required to continue to meet and discuss matters which have been considered and responded to; and

(f) not behave in ways which may undermine the good faith nature of the negotiations.

15.4.2 Telecom will initially facilitate the negotiations under clause 15.2.4(e) or 15.3.19 bi-laterally with the Access Seeker and each Other Service Provider that has placed a Preliminary Order for, or is using, the particular Distribution Cabinet relevant to the Access Seeker's Preliminary Order. Where these bi-lateral negotiations result in a change to the Access Seeker's or any Other Service Provider's Preliminary Order, such that all other Preliminary Orders for the particular Distribution Cabinet can be met, then:

(a) Telecom will advise the Access Seeker and any Other Service Providers;

(b) the Access Seeker or any Other Service Provider that has agreed to change their Preliminary Order may submit a Modified Preliminary Order, as if under clause 15.2.6 or 15.3.19, as appropriate; and

(c) the Access Seeker and Other Service Provider's Preliminary Orders and Modified Preliminary Orders will collectively be deemed to be a mutually agreeable solution under clause 15.2.4(e) or 15.3.19, as appropriate.

15.4.3 Where bi-lateral negotiations under clause 15.4.2 do not result in any changes to the Access Seeker's or Other Service Provider's Preliminary Order, Telecom will then facilitate multi-lateral negotiations with all parties that have placed Preliminary Orders for, or are using, the particular Distribution Cabinet relevant to an Access Seeker's Preliminary Order. Telecom may share information about the particular Distribution Cabinet in order to facilitate the reaching of a mutually agreeable solution under clause 15.2.4(e) or 15.3.19, as appropriate.

15.4.4 If any party to the negotiations under clause 15.2.4(e) or 15.3.19 considers that another party has not fully met the requirements under clause 15.4.1, it will

immediately notify all parties of its concerns to enable the matter to be addressed promptly.

15.4.5 The Preliminary Order of any party to the negotiations under clause 15.2.4(e) or 15.3.19 that has not fully met the requirements under clause 15.4.1, may be rejected by Telecom.

15.4.6 Nothing in this clause 15.4 limits a party's ability to use the dispute mechanisms under section 36 of the Sub-loop Services General Terms.

### 15.5 Dispute resolution

15.5.1 In the event that the Access Seeker believes that any rule regarding space allocation under this section 15 has been incorrectly applied, it may follow the Dispute Resolution procedure under section 36 of the Sub-loop Services General Terms. Any Dispute in relation to any rule regarding space allocation under this section 15 is of a technical, operational or implementation nature and therefore, in the event of a Deadlock, must be resolved by expert decision under clause 36.8 of the Sub-loop Services General Terms.

## 16 SPACE ALLOCATION FOR AND GROOMING OF HDP BLOCKS

### 16.1 General provisions for allocation of space for HDP Blocks

16.1.1 Telecom will process all Preliminary Orders for HDP Blocks, with or without Splitters, in the order that they are received. However, Telecom will:

(a) treat all Preliminary Orders for a Distribution Cabinet received on the same Working Day as having been received contemporaneously and will process those Preliminary Orders contemporaneously; and

(b) not process a Preliminary Order for a Distribution Cabinet until any Preliminary Orders received on a previous Working Day have had Quotes issued, and the Quotes have been accepted, rejected or deemed to be rejected, unless there is sufficient unoccupied Capacity to meet all Preliminary Orders for that Distribution Cabinet.

16.1.2 If, when Telecom processes a Preliminary Order for HDP Blocks, with or without Splitters, the Preliminary Order does not exceed the unoccupied Capacity for HDP Blocks within the New Distribution Cabinet, then within ten Working Days of the First Assessment Date Telecom will prepare a Quote based on the Preliminary Order.

### 16.2 Insufficient Capacity in Distribution Cabinets and Grooming

16.2.1 Telecom must use all reasonable endeavours to arrange equipment in an efficient manner to ensure that there is sufficient relevant Capacity in a Distribution Cabinet and to meet Orders placed in accordance with this Manual.

16.2.2 A Preliminary Order that otherwise meets all the requirements set out in this Manual may be rejected by Telecom if there is insufficient Capacity in a Distribution Cabinet for installation of HDP block(s) and connection of cables on the Distribution Cabinet DF.

16.2.3 In the event that there is insufficient relevant Capacity, the Access Seeker may request Grooming of a Distribution Cabinet. Subject to clause 16.2.1 the Access Seeker must pay the costs of all Grooming work required under this clause 16.2 in accordance with the Sub-loop Co-location Price List.

16.2.4 Where an Access Seeker makes a Grooming request under clause 16.2.3, Telecom must use all reasonable endeavours to Groom the Distribution Cabinet to realise unused Capacity for HDP Blocks.

16.2.5 Grooming may require Telecom, the Access Seeker and Other Service Providers to consult for the purpose of realising unused relevant Capacity.

16.2.6 The Access Seeker that makes a Preliminary Order that result in Grooming under clause 16.2.3 will have priority on any unused Capacity realised by any Grooming carried as a direct result of that Access Seeker's Order under clause 16.2.3.

## 17 ANCILLARY BACKHAUL EQUIPMENT

### 17.1 General

17.1.1 Different types of ancillary equipment for the provision of backhaul can be accommodated as part of the Sub-loop Co-location Service. Applications to install such ancillary equipment for the support of the Access Seeker Equipment within a Rackprint in a Distribution Cabinet will be handled by Telecom as set out below.

17.1.2 An application must include plans, specifications and additional information sufficient to allow Telecom to determine the:

(a) space required for the ancillary equipment;

(b) potential impact on all other users and potential users of the Distribution Cabinet; and

(c) likely disruption or cost caused by the installation and use of the ancillary equipment.

17.1.3 An application for ancillary equipment that uses Wireless Media in relation to a Rackprint on a Distribution Cabinet must include a completed Telecom co-siting form with the following information:

(a) the type, model and manufacturer of the proposed antenna system, including the proposed method of fixing (i.e. mast, tower, building);

(b) the intended service, operating frequency, power level and mode of modulation;

(c) a diagram defining areas of radio frequency exposure at the general public level as described in NZ Standard 2772.1: 1999;

(d) rack or Distribution Cabinet requirements;

(e) power requirements; and

(f) existing air conditioning/ventilation requirements.

17.1.4 Telecom will not be able to issue a Quote unless all relevant information is provided. Telecom may request any missing information before issuing a Quote. A copy of the co-siting form will be provided on request.

17.1.5 The Access Seeker must obtain all necessary consents from the relevant Authority before ancillary backhaul equipment can be installed at a Distribution Cabinet.

17.1.6 If the proposal can be accommodated without disruption to other users or potential users of the site, sections 18 to 25 will apply. Where practicable, Telecom will process Preliminary Orders in relation to ancillary backhaul equipment in parallel with any related Preliminary Orders made by the Access Seeker.

## 18 QUOTE

### 18.1 Overview

18.1.1 Where Telecom is required to issue a Quote, the Quote will include the following information:

(a) where available, an offer of specific Rackprints to the Access Seeker;

(b) a Sub-loop Co-location configuration for the Rackprint Preparation (including detailed design);

(c) an estimated total price for the Rackprint Preparation (**Rackprint Preparation Cost**); and

(d) an estimated number of Working Days for the Rackprint Preparation to be completed from the date the Rackprint Preparation commences (**Rackprint Preparation Time**).

18.2 **Agreeing or rejecting a Quote**

18.2.1 After Telecom has issued a Quote, the Access Seeker may:

(a) accept the Quote (refer to section 19);

(b) reject the Quote; or

(c) propose an amended Quote.

18.2.2 If the Access Seeker proposes an amended Quote, Telecom and the Access Seeker must work together to reach agreement. It is anticipated that the Access Seeker may propose an amended Quote if the Access Seeker:

(a) has changed its requirements (as provided to Telecom as part of the Access Seeker's Preliminary Order); or

(b) disagrees with Telecom's configuration, Rackprint Preparation Cost and/or Rackprint Preparation Time.

18.2.3 If the Access Seeker proposes an amended Quote and Telecom and the Access Seeker cannot reach agreement, either of them may follow the Dispute Resolution procedure under section 36 of the Sub-loop Services General Terms. Any Dispute in relation to a Quote is of a technical, operational or implementation nature and therefore, in the event of a Deadlock, must be resolved by expert determination.

18.2.4 If the Access Seeker rejects the Quote:

(a) its Preliminary Order will be cancelled; and

(b) it will become liable for Telecom's reasonable costs incurred in preparing the Quote.

18.2.5 Unless otherwise provided under section 15, if the Access Seeker does not accept, propose any amendment to, or reject a Quote within 10 Working Days of receiving it from Telecom, the Access Seeker will be deemed to have rejected it and clause 18.2.4 will apply.

## 19 ACCEPTANCE OF TELECOM'S QUOTE – "FIRM ORDER"

### 19.1 Acceptance

19.1.1 A Quote may be accepted by the Access Seeker giving Notice to Telecom's provisioning manager.

19.1.2 The Access Seeker's acceptance of a Quote will constitute a Firm Order.

19.1.3 The Rackprint Preparation will commence as soon as reasonably practicable following a Firm Order being made, subject only to amendment under clause 20.1.2.

## 20 PRIORITISATION

### 20.1 Feedback where resource constraints exist

20.1.1 If there are long delays or resource constraints at a particular Distribution Cabinet or within a particular region for Rackprint Preparation, Telecom will;

(a) give feedback to and consult with Access Seekers about the impact of the delays or resource constraints; and

(b) request that Access Seekers provide details of their priorities for Rackprint Preparation at a particular Distribution Cabinet or within a particular region.

20.1.2 Following consultation between Telecom and Access Seekers about the Access Seekers' priorities under clause 20.1.1, Firm Orders and priorities may be amended by agreement.

### 20.2 Disputes

20.2.1 In the event that the Access Seeker believes any prioritisation has been incorrect, it may follow the Dispute Resolution procedure under section 36 of the Sub-loop Services General Terms. Any Dispute in relation to prioritisation is of a technical, operational or implementation nature and therefore, in the event of a Deadlock, must be resolved by expert determination.

## 21 RACKPRINT PREPARATION

### 21.1 General

21.1.1 Telecom's Sub-loop Co-location project manager will manage the Rackprint Preparation and keep the Access Seeker informed of progress.

21.1.2 Telecom will complete the Rackprint Preparation in accordance with the Quote and subject to clauses 21.2 to 21.5. This includes Telecom obtaining all

necessary consents or other legal permissions for the Rackprint Preparation. Telecom may change the configuration of the Rackprint Preparation only if:

(a) the change is required by circumstances beyond Telecom's control and it would not materially affect the Access Seeker's intended use of the Rackprint; or

(b) the Access Seeker agrees (whose agreement must not be unreasonably withheld, refused or delayed).

21.1.3 Telecom will use all reasonable endeavours to complete the Rackprint Preparation within the Rackprint Preparation Time, subject only to prioritisation (refer to section 20.1.2). However, where an RFS Date is specified by the Access Seeker, the Rackprint Preparation will commence as soon as is reasonably and practically required to ensure the Rackprint Preparation is completed by the RFS Date specified by the Access Seeker, and in which case, if the RFS Date is later than that which would apply if Telecom met the required Rackprint Preparation Time, Telecom will not be liable under the Sub-loop Services Terms for not completing the Rackprint Preparation within the required Rackprint Preparation Time.

21.2 **Rackprint Preparation Times**

21.2.1 The Rackprint Preparation Time will start to be measured from the date a Firm Order is accepted, unless subject to prioritisation, in which case from the date Telecom commences the Rackprint Preparation. A guide to indicative Rackprint Preparation Times is attached as Appendix E.

21.2.2 For the purpose of measuring the Rackprint Preparation Time the following will not be counted as a Working Day:

(a) any day that is not a Working Day under the Sub-loop Services Terms;

(b) any day that Telecom is delayed by an event which could not reasonably have been foreseen by an experienced construction contractor;

(c) any day that Telecom is delayed due to the operation of any law or any requirement of any Authority; and

(d) any day that Telecom is delayed due to the failure of the Access Seeker to provide any necessary materials or information.

21.3 **Rackprint Preparation cannot be completed**

21.3.1 If Telecom reasonably and in good faith believes it has for any reason become impossible to complete the Rackprint Preparation (for instance a necessary consent is refused) it must as soon as practicable give Notice to the Access

Seeker's Sub-loop Co-location project manager. Upon receiving Telecom's Notice, the Access Seeker may either:

(a) cancel its Firm Order; or

(b) work with Telecom to resolve the difficulty by proposing an amended configuration and requesting a new Quote in relation to that configuration.

21.3.2 If the Access Seeker cancels its Firm Order under clause 21.3.1 then Telecom must pay all of the Access Seeker's reasonable costs incurred up to the date of cancellation (excluding equipment that can be reasonably reused by the Access Seeker in a timely manner).

21.4 **Rackprint Preparation Cost exceeds Quote**

21.4.1 If Telecom becomes aware that the Rackprint Preparation Cost under the Quote is likely to be exceeded it will as soon as practicable give Notice to the Access Seeker.

21.4.2 Where the increased Rackprint Preparation Cost is due to events which could not reasonably have been foreseen by an experienced construction contractor, then:

(a) if the actual Rackprint Preparation Cost exceeds the Quote by more than 10%, the Access Seeker may cancel its Firm Order; or

(b) if the actual Rackprint Preparation Cost exceeds the Quote by less than 10% (or the Access Seeker elects not to cancel its Firm Order under clause 21.4.2(a)), such increase will be a price variation and the Quote will be adjusted accordingly.

21.4.3 In all other cases where the actual Rackprint Preparation Cost exceeds the Rackprint Preparation Cost under the Quote the parties must work closely together to agree the Rackprint Preparation Cost that the Access Seeker will pay. In the event that the parties cannot reach agreement, either may follow the Dispute Resolution procedure under section 36 of the Sub-loop Services General Terms. Any Dispute in relation to Rackprint Preparation Cost is of a technical, operational or implementation nature and therefore, in the event of a Deadlock, must be resolved by expert determination.

21.5 **Change to the scope of the contract works**

21.5.1 The Access Seeker may advise Telecom of a change to its requirements for the Access Seeker Build after accepting the Quote, provided that any change either reduces the number of Rackprints or is not a material increase.

21.5.2 Where the Access Seeker changes its requirements the following will apply:

(a) the Access Seeker will give Notice to Telecom requesting a variation;

(b) Telecom will provide the Access Seeker with a price variation; and

(c) if the Access Seeker wishes to proceed with its request it will give Notice to Telecom, within 5 Working Days of receiving the price variation of its acceptance and the Quote will be adjusted accordingly.

21.5.3 If the Access Seeker rejects the revised Quote:

(a) its original Order will be completed; and

(b) it will become liable for Telecom's reasonable costs incurred in preparing the revised Quote.

21.5.4 If the Access Seeker does not accept, propose any amendment to, or reject a revised Quote within 5 Working Days of receiving it from Telecom, the Access Seeker will be deemed to have rejected it and clause 21.5.3 will apply.

21.6 **Hand over**

As soon as practicable after the Rackprint Preparation is complete, Telecom will give Notice to the Access Seeker's Sub-loop Co-location project manager.

## 22 ACCEPTANCE OF THE RACKPRINT PREPARATION

22.1 **Notice of completion**

22.1.1 The Access Seeker has 10 Working Days from the date it receives Notice under clause 21.6 to give Telecom's Sub-loop Co-location project manager Notice of acceptance or rejection. The Access Seeker must liaise with Telecom's Sub-loop Co-location project manager to undertake its inspection.

22.1.2 If the Access Seeker does not give Notice of acceptance or rejection within 10 Working Days it will be deemed to have accepted the Rackprint Preparation.

22.1.3 From the day the Access Seeker gives Notice of acceptance or is deemed to have accepted the Rackprint Preparation:

(a) Telecom may issue the Access Seeker with an invoice for the Rackprint Preparation Cost; and

(b) the Access Seeker will continue to be liable for all Charges for the Sub-loop Co-location Service (including the ongoing Charge for occupation of the Rackprint).

22.1.4 The Access Seeker is not entitled to reject the Rackprint Preparation unless it reasonably and in good faith believes the Rackprint Preparation:

(a) is not in accordance with the configuration in the Quote (taking into account any variation under clause 21.4.2(b); or

(b) has not been completed in a good and workmanlike manner.

22.1.5 If the Access Seeker rejects the Rackprint Preparation, its Notice of rejection must include a full justification. In the event that the Access Seeker or Telecom cannot resolve the Access Seeker's rejection of the Rackprint Preparation, either may follow the Dispute Resolution procedure under section 36 of the Sub-loop Services General Terms. Any Dispute in relation to the Rackprint Preparation is of a technical, operational or implementation nature and therefore, in the event of a Deadlock, must be resolved by expert determination.

## 23 ACCESS SEEKER BUILD

### 23.1 Overview

23.1.1 The Access Seeker's Sub-loop Co-location project manager will manage the Access Seeker Build and keep Telecom informed of progress.

23.1.2 The Access Seeker must complete the Access Seeker Build in accordance with its Permit to Work and this Manual and in a good and workmanlike manner. The Access Seeker may change the configuration of the Access Seeker Build (as detailed in its Preliminary Order) only if Telecom agrees (whose agreement must not be unreasonably withheld, refused or delayed).

### 23.2 Permit to Work

Telecom's Permit to Work procedure is set out in detail in section 55. The Access Seeker must have an approved Permit to Work before commencing the Access Seeker Build.

### 23.3 Certificate of Compliance

After the Access Seeker Build is complete, the Access Seeker must issue a Certificate of Compliance in accordance with section 24.

## 24 CERTIFICATE OF COMPLIANCE

### 24.1 Certificate of Compliance

24.1.1 A Certificate of Compliance is required whenever the Access Seeker:

(a) completes any work that required a Permit to Work; or

(b) installs any new Access Seeker Equipment.

24.1.2 After the Access Seeker completes any work for which a Certificate of Compliance is required under this Manual, the Access Seeker will provide a Certificate of Compliance to the relevant Telecom Sub-loop Co-location project manager certifying that the work and/or new Access Seeker Equipment complies with all of the Access Seeker's obligations under the Sub-loop Services Terms, including the Permit to Work.

24.1.3 The exact information required as part of the Access Seeker's Certificate of Compliance is set out in the "Certificate of Compliance (CoC)" (document reference ASF-001) document listed in Appendix C.

24.1.4 After the Access Seeker has issued a Certificate of Compliance the Access Seeker Equipment can be operationalised.

24.1.5 Telecom may dispute a Certificate of Compliance at any time. If Telecom disputes a Certificate of Compliance (by giving a Dispute Notice to the Access Seeker under section 36 of the Sub-loop Services General Terms) within 10 Working Days of receiving it, clause 24.1.4 will not apply and the Access Seeker Equipment will not be operationalised until the Dispute is resolved. Any Dispute in relation to a Certificate of Compliance is of a technical, operational or implementation nature and therefore, in the event of a Deadlock, must be resolved by expert determination.

## 25 RECORD KEEPING

### 25.1 General

25.1.1 Telecom requires access to certain information to safely manage its Distribution Cabinets. The Access Seeker must comply with any reasonable request made by Telecom for information to enable Telecom to keep accurate technical records for each cabinet, including information about:

(a) "as built" configurations;

(b) what equipment is installed;

(c) the location, power-loading and other requirements of any equipment; and

(d) cabling.

25.1.2 Any information provided to Telecom by the Access Seeker under this clause 25.1.2 will be Confidential Information for the purposes of section 31 of the Sub-loop Services General Terms.

## PART 4 - TENURE

## 26 RELINQUISHMENT

### 26.1 Overview

26.1.1 The relinquishment of any Rackprints (i.e. a reduction of the space supplied to the Access Seeker as part of the Sub-loop Co-location Service) must be included in the Sub-loop Co-location Forecast as a change to existing Rackprints.

26.1.2 Any relinquishment Order must be made using OO&T in the same way as a Preliminary Order.

26.1.3 The relinquishment date for a Rackprint will be six months from the date Telecom receives a relinquishment Order in relation to that Rackprint (or less by agreement).

26.1.4 The Access Seeker is required to remove all the Access Seeker Equipment from within any relinquished Rackprints and all the Access Seeker Equipment no longer required at the Distribution Cabinet by the relinquishment date.

26.1.5 The Access Seeker must liaise with Telecom's Sub-loop Co-location project manager in relation to its relinquishment and may require a Permit to Work in order to remove the Access Seeker Equipment.

26.1.6 The Access Seeker's liability for the ongoing Charges in relation to its occupation of a relinquished Rackprint will cease from the later of:

(a) the relinquishment date; and

(b) the date Telecom is satisfied that all the Access Seeker Equipment has been removed and any reinstatement obligations under the Access Terms have been met.

26.1.7 Telecom will use all reasonable endeavours to inspect the Distribution Cabinet for the purpose of satisfying itself under clause 26.1.6(b) as soon as practicable after the Access Seeker requests it to do so.

26.1.8 If the Access Seeker fails to remove the Access Seeker Equipment within 10 Working Days from the relinquishment date, Telecom will use all reasonable endeavours to give the Access Seeker Notice of Telecom's rights under the Sub-loop Co-location Access Terms.

26.1.9 If the Access Seeker has not removed the Access Seeker Equipment within 40 Working Days from the relinquishment date, Telecom will be entitled to treat the

Access Seeker Equipment as its own and may retain or dispose of it as Telecom sees fit.

26.1.10 The Access Seeker will remain liable for all Charges up to the date all of the Access Seeker Equipment has been removed.

## 27 RELOCATION

### 27.1 Overview

This section 27 outlines the circumstances in which Telecom can require the Access Seeker to relocate the Access Seeker Equipment and describes the procedure for relocation.

### 27.2 Relocation

27.2.1 Where:

(a) Telecom's own requirements for expansion of Distribution Cabinet Services infrastructure require the relocation of the Access Seeker Equipment; or

(b) without limiting clause 35 of the Sub-loop Services General Terms, the relocation of the Access Seeker Equipment is required as the result of:

(i) the expiry, termination or other cessation of any Land Occupation Arrangement and Telecom is unable to renew or extend the Land Occupation Arrangement on reasonable terms;

(ii) any requirement of any relevant Authority; or

(iii) the destruction of, or material damage to, any Distribution Cabinet or any substantial part of any Distribution Cabinet by fire, earthquake or other cause requiring reconstruction or rendering it unfit for use and occupation and Telecom does not intend in its discretion to reinstate the Distribution Cabinet as a result,

Telecom must give Notice to the Access Seeker at the earliest practical date which must, where practical, be given prior to the relevant event or requirement set out above, and in the case of clause 27.2.1(a), three months in advance of the requirement to relocate the Access Seeker Equipment.

27.2.2 Telecom may relocate Access Seeker Equipment in accordance with clause 27.3 from the Access Seeker's existing Rackprint to:

(a) a different Rackprint in that Distribution Cabinet;

(b) the same or a different Rackprint in a relocated Distribution Cabinet; or

(c) a Rackprint in a Pedestal which is associated with that Distribution Cabinet.

27.2.3 Telecom may only undertake relocation under clause 27.3 provided that:

(a) the Notice given by Telecom sets out full details of the requirement, including a reference to the reason for the requirement as set out above;

(b) prior to any relocation taking place, Telecom issues to the Access Seeker a plan for the relocation, which will include the proposed configuration and timeframe for the relocation as well as any temporary solutions to ensure continuity of the operation of the Access Seeker Equipment;

(c) Telecom makes available to the Access Seeker another Rackprint which is as near as reasonably possible to being equally suitable for the installation and operation of the Access Seeker Equipment;

(d) Telecom ensures that the relocation has no material impact on the operation or performance of the Access Seeker;

(e) unless the relocation occurs as the result of the expiry, termination or other cessation of any Land Occupation Arrangement (in which case the Access Seeker will pay its own costs associated with the relocation provided the termination is not initiated by Telecom or a result of a breach by Telecom of the Land Occupation Arrangement and/or any other unlawful act by Telecom which resulted in the termination of the Land Occupation Arrangement), Telecom pays the Access Seeker's reasonable costs associated with the relocation; and

(f) Telecom's Distribution Cabinet Services infrastructure expansion will only require the relocation of the Access Seeker Equipment if the technical requirements of the expansion are such that it must use space that either is:

(i) wholly or partially occupied by the Access Seeker Equipment; or

(ii) in a position that would have a negative operational impact upon the Access Seeker Equipment.

27.3 **Relocation procedure**

27.3.1 The procedure for relocating the Access Seeker Equipment is equivalent to the provisioning procedure under sections 13 to 23, save that:

(a) Telecom must first give three calendar months' Notice to the Access Seeker that it will require the Access Seeker to relocate. Telecom's Notice must specify which Rackprints will be relocated and when the relocation is required by;

(b) the Access Seeker must acknowledge receiving Telecom's Notice and provide Telecom with any relevant requirements it has in relation to the relocation;

(c) Telecom will then issue a relocation plan to the Access Seeker (which includes the proposed configuration and timeframe for the relocation as well as any temporary solutions required to ensure continuity of operation of the Access Seeker Equipment);

(d) the Access Seeker must then accept or amend the relocation plan on the same basis that it would a Quote. A relocation plan cannot be rejected; and

(e) the Access Seeker must then provide Telecom with a quote for its own costs and timeframes for the Access Seeker Build, relocation and installation. Telecom may accept, amend or reject the Access Seeker's quote. Any amendment of the quote by Telecom will be dealt with on the same basis as a Quote under clause 18.2. Telecom is entitled to reject the quote and not proceed with the relocation. If Telecom rejects the quote it will become liable for the Access Seeker's reasonable costs incurred in preparing it.

27.3.2 The remaining steps (Rackprint Preparation, acceptance, hand over, the Access Seeker Build and Certificate of Compliance) are equivalent to the terms dealing with provisioning above. After the Access Seeker has issued a Certificate of Compliance it may invoice Telecom for the sum equal to its quote.

27.3.3 The Access Seeker and Telecom will work closely with each other to facilitate the relocation procedure. In the event that Telecom and the Access Seeker cannot resolve a relocation issue, either may follow the Dispute Resolution procedure under section 36 of the Sub-loop Services General Terms. Any Dispute in relation to relocation is of a technical, operational or implementation nature and therefore, in the event of a Deadlock, must be resolved by expert determination.

## 28 TERMINATION

### 28.1 General

28.1.1 Telecom's rights to terminate supply of the Sub-loop Co-location Service are set out under the Sub-loop Co-location Access Terms and the Sub-loop Services General Terms.

## PART 5 – BILLING

### 29 BILLING

#### 29.1 Invoicing

29.1.1 Telecom will invoice the Access Seeker for all Charges on the basis specified in the Sub-loop Co-location 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 Co-location Price List.

29.1.2 The eBill must include the following information:

(a) Service identifier;

(b) Fault or Order identifier; and

(c) type of charge.

29.1.3 Telecom 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 Telecom to write their own scripts and access the eBill through a script platform.

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

29.1.5 Telecom will provide the eBill and the printed GST summary to the Access Seeker free of charge.

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

#### 29.2 Billing Enquiries

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

29.2.2 The email must include the following information:

(a) a header reading ‘Billing Query’; and

(b) a completed Billing Enquiry Form.

29.2.3 Telecom 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.

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

29.2.5 The process set out in this clause 29.2 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, including giving written notice of the Invoice Error to Telecom.

## PART 6 - TIE CABLES

### 30 TIE CABLING

#### 30.1 Overview

30.1.1 Tie cables are used to connect two points of a network or separate networks together. The following types of tie cables may be required under the Sub-loop Co-location Service:

(a) tie cables running between the HDP block(s) on the Distribution Cabinet DF and the Access Seeker's Rackprint in the Distribution Cabinet (**Intra-Distribution Cabinet Tie Cable**);

(b) tie cables running from the Access Seeker's Rackprint in the Distribution Cabinet to another Rackprint in the Distribution Cabinet that is used by the Access Seeker, Telecom or an Other Service Provider (**Inter-Rackprint Tie Cable**); and

(c) a tie cable running between the Access Seeker's Rackprint(s) at the Distribution Cabinet and:

(i) the Access Seeker's pedestal (or equivalent facility);

(ii) the Access Seeker's or a third party's backhaul network; or

(iii) ancillary backhaul equipment installed outside and adjacent to the Distribution Cabinet Manhole, (**Sub-loop Co-location External Tie Cable**).

30.1.2 The Access Seeker or Telecom may supply any of the Tie Cables described in clause 30.1.1 (which must meet the relevant tie cable specification listed in Appendix C). Where the Access Seeker requires Telecom to supply the tie cables:

(a) the Access Seeker must specify the number required in the Access Seeker's Sub-loop Co-location Forecast and its Preliminary Order; and

(b) the Access Seeker must purchase the tie cables from Telecom for a commercial price to be agreed.

Any tie cable purchased by the Access Seeker from Telecom qualifies as Access Seeker Equipment.

# 31 INTRA-DISTRIBUTION CABINET TIE CABLES

## 31.1 Intra-Distribution Cabinet Tie Cable Identifier

31.1.1 Designations (names) will be assigned by Telecom to each copper tie cable pair for Intra-Distribution Cabinet Tie Cables, for instance:

(a) the normal Telecom network name ELL/BM R99_03_099E identifies shelf 99, cable 03, pair 99 on the equipment side at the Ellerslie BM Distribution Cabinet; and

(b) the related tie cable equipment number assigned and specified on service requests would be LWC=ELL/BM, tie pair=LR-102-0099. (L means UCLL co-location tie cable, 102 is the cable number and 0099 is the pair number padded to the maximum size with leading zeros).

31.1.2 This naming standard is contained in the Telecom document “Network Naming Standard for Regulated or Commercial Access Network Requirements” (reference ASD-0459).

## 31.2 Telecom responsibilities

31.2.1 Telecom will name all pairs within any Intra-Distribution Cabinet Tie Cable and record these in a copper tie cable pair inventory system.

31.2.2 As part of Telecom’s Quote, where tie cables have been requested, Telecom will provide the designation of each pair in the form of start and end positions. For instance, a 100 pair copper tie cable will have its first and last pair terminations identified so that each pair in-between can be named from the sequence.

31.2.3 Telecom will (at the Access Seeker’s cost):

(a) supply and record the necessary space on the HDP block(s);

(b) identify the route that the Intra-Distribution Cabinet Tie Cable will take and install any required cable racking to support that cable;

(c) install the Intra-Distribution Cabinet Tie Cable from the Access Seeker’s Rackprint and terminate the DF end on the HDP block(s); and

(d) when requested, maintain and repair any faults within the Intra-Distribution Cabinet Tie Cable.

## 31.3 Access Seeker responsibilities

31.3.1 The Access Seeker must correctly terminate tie cables within one of its Rackprints using the correct colour-code sequence as specified in the Telecom

document “Network Naming Standard for Regulated or Commercial Access Network Requirements” (reference ASD-0459), further:

(a) as the tie cable designation includes identification of the Rackprint, the tie cable must only be terminated within that Rackprint and not taken elsewhere; and

(b) the correct colour-code sequence must be followed for terminating and recording.

31.3.2 The Access Seeker must maintain and be responsible for its own copper tie cable pair inventory system. This system must be able to record the following:

(a) the termination of each tie cable at the Rackprint end (whether terminated on blocks in the Rackprint or directly on the Access Seeker Equipment);

(b) the Access Seeker’s own assignments or reassignments of tie cables; and

(c) changes to tie cables when service has been transferred (e.g. for fault resolution).

31.3.3 The Access Seeker is responsible for the repair/replacement of faulty termination of the Intra-Distribution Cabinet Tie Cable at both the Access Seeker’s Rackprint and at the HDP block(s).

### 31.4 Testing

After the Intra-Distribution Cabinet Tie Cable is terminated at both the HDP block(s) and the Access Seeker’s Rackprint, Telecom and the Access Seeker will jointly carry out end to end testing.

### 31.5 Resolution of inconsistency

31.5.1 Where Telecom’s records and the Access Seeker’s records differ about the status of a pair, the Access Seeker must confirm the accuracy of the status of that pair in its copper tie cable pair inventory system.

31.5.2 If this does not resolve the difference, the Access Seeker must liaise with Telecom’s provisioning manager.

## 32 INTER -RACKPRINT TIE CABLE

### 32.1 Responsibilities

32.1.1 Telecom will identify the route that the Inter-Rackprint Tie Cable will take within the Distribution Cabinet and then install any required cable racking to support it.

32.1.2 Telecom (at the Access Seeker's cost) will install Inter-Rackprint Tie Cables between the Access Seeker's Rackprint in the Distribution Cabinet and another Rackprint in the Distribution Cabinet that is used by the Access Seeker, Telecom or an Other Service Provider.

32.1.3 Where either Telecom or the Access Seeker supplies the cable a length of cable (as notified by Telecom to the Access Seeker) will be received at the specified location. In either case, Telecom and the Access Seeker will liaise with each other in order to ensure that the cable is handed over by an authorised representative of Telecom to the Access Seeker's authorised representative or vice versa.

32.2 **Testing**

32.2.1 After the Inter-Rackprint Tie Cable is installed between the Rackprints, the Access Seeker will carry out any end to end testing.

## 33 SUB-LOOP CO-LOCATION EXTERNAL TIE CABLE

33.1 **Telecom responsibilities**

33.1.1 Telecom will identify the route that the Sub-loop Co-location External Tie Cable will take within the Distribution Cabinet, Telecom ducts and Telecom Distribution Cabinet Manholes and then install any required cable racking to support it.

33.1.2 Telecom will (at the Access Seeker's cost) install the Sub-loop Co-location External Tie Cable between the Access Seeker's Rackprint at the Distribution Cabinet and:

(i) the Access Seeker's pedestal (or equivalent facility);

(ii) the Access Seeker's or a third party's backhaul network; or

(iii) ancillary backhaul equipment installed outside and adjacent to the Distribution Cabinet Manhole.

33.1.3 For Telecom or Access Seeker supplied cable (and unless agreed otherwise), the Sub-loop Co-location External Tie Cable will be delivered to the Access Seeker at a point to be determined by Telecom. It is anticipated that this will usually be outside of and immediately adjacent to the Distribution Cabinet Manhole or the footprint within which ancillary backhaul equipment is installed. The Access Seeker may request the length of cable to be delivered by Telecom as part of its Preliminary Order.

33.1.4 In either case, Telecom and the Access Seeker will liaise so that the cable is handed over from person to person, with Telecom performing all work in its Distribution Cabinet Manhole.

33.2 **Access Seeker responsibilities**

33.2.1 The Access Seeker will deliver its (or a third party) network cable to Telecom at the Distribution Cabinet Manhole.

33.2.2 The Access Seeker will complete any joint between the network cable and its Sub-loop Co-location External Tie Cable outside of the Telecom Distribution Cabinet Manhole.

33.2.3 The Access Seeker will terminate the Sub-loop Co-location External Tie Cable within the Access Seeker's Rackprint.

33.3 **Testing**

33.3.1 After the Sub-loop Co-location External Tie Cable is jointed to the network cable by the Access Seeker and terminated at the Access Seeker's Rackprint, the Access Seeker will carry out any end to end testing.

## 34 TIE CABLE ENTRY

34.1 **General requirements**

34.1.1 Telecom will specify the entry point into any Distribution Cabinet for the Access Seeker’s tie cables. It is anticipated that the entry point will most commonly be from the Distribution Cabinet Manhole into the Distribution Cabinet using the Distribution Cabinet access ducts. In some cases the entry point may be directly into the Distribution Cabinet.

34.1.2 Tie cable entry other than using the specified entry point is prohibited.

34.1.3 Telecom will undertake all cabling on any Distribution Cabinet (including any penetration into and work within the Distribution Cabinet Manhole) and determine:

(a) the duct cable route;

(b) sub-ducting;

(c) the protection standards to be used;

(d) fastening;

(e) the location of any joints or joint boxes; and

(f) the internal cable route of any cable on a Telecom Site (including within a Distribution Cabinet).

34.1.4 Telecom will provide supervision for any thrusting or trenching near Telecom ducts and within 20 metres of any Distribution Cabinet Manhole or Distribution Cabinet.

### 34.2 Cable identification marking

34.2.1 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 each end.

34.2.2 All fibre closures on Telecom 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.

## 35 DISTRIBUTION CABINET MANHOLE

### 35.1 Overview

35.1.1 Most Distribution Cabinets have at least one Distribution Cabinet Manhole. The Distribution Cabinet Manhole provides duct access into the Distribution Cabinet and is the congregation point for all of the ducts and cables that enter the Distribution Cabinet.

35.1.2 Any ducting or installation in the street to get the Access Seeker's tie cable to the Distribution Cabinet Manhole must comply with all applicable laws (including local government regulation) and obligations under the Sub-loop Services Terms.

### 35.2 Tie cable management in the Distribution Cabinet Manhole or Local Exchange Manhole

Telecom will install tie cables in any Distribution Cabinet Manhole at the Access Seeker's cost (this includes installing cable management brackets if Telecom believes they are required).

### 35.3 Duct to the Distribution Cabinet

35.3.1 The Access Seeker's duct and/or sub-ducts must be sealed at both ends after cables have been installed with a certified "T-Dux" type product. Refer to the installation instructions supplied with the product.

35.3.2 Where the Access Seeker is undertaking work to get its tie cable to the Distribution Cabinet Manhole, the Access Seeker must liaise with Telecom so that the work of both parties is co-ordinated. Telecom will rely on the Access Seeker to:

(a) satisfy the requirements of any law or Authority to allow the work in the Distribution Cabinet Manhole to be undertaken (such as putting in place a traffic management plan); and

(b) arrange for how and when the Access Seeker's tie cable will be handed over.

## 36 RUNNING TIE CABLES WITHIN THE DISTRIBUTION CABINET

### 36.1 Cable trays

All tie cables run within a Distribution Cabinet will be installed and maintained by Telecom.

## 37 RECORDING AND DATA MANAGEMENT

### 37.1 Overview

37.1.1 Telecom requires access to certain information to manage delivery of the Sub-loop Co-location Service and safely manage its Distribution Cabinets and Local Exchanges. The Access Seeker must comply with any reasonable request made by Telecom for information to enable Telecom 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).

37.1.2 Any information provided to Telecom by the Access Seeker under this section 37 will be Confidential Information for the purposes of section 31 of the Sub-loop Services General Terms.

37.1.3 Access Seekers must ensure that information regarding their sub-ducts and cabling is supplied to Telecom for recording. Access Seekers should check subsequent as-built records to ensure accuracy of detail. Telecom requires Access Seekers to mark or label cables/plant in the field.

37.1.4 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.

37.1.5 All fibre closures on Telecom 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.

## PART 7 - SUB LOOP CO-LOCATION SERVICE AREA

### 38 SUB-LOOP CO-LOCATION SERVICE AREA

#### 38.1 Overview

This part describes the normal operating standards and specifications that apply to Rackprints. Except for clause 39.1.1, the standards and specifications set out apply only to Rackprints within the Sub-loop Co-location Service Area in a Distribution Cabinet.

#### 38.2 Sub-loop Co-location Service Area

38.2.1 The Sub-loop Co-location Service Area will provide a working environment broadly equivalent to that provided for existing Telecom equipment and will typically include:

(a) aluminium housing with inner and outer doors;

(b) heat management systems;

(c) equipment mounting and bracings;

(d) electrical reticulation; and

(e) access control.

38.2.2 The Sub-loop Co-location Service will be supplied with Distribution Cabinet Services in accordance with Telecom's normal operating standards and specifications as outlined below.

### 39 ACCESS SEEKER EQUIPMENT

#### 39.1 Access Seeker Equipment

39.1.1 All Access Seeker Equipment installed within a Distribution Cabinet must comply with the same standards as those currently applied to Telecom for its own equipment. Standards will be included in Access Seeker technical documents, which Telecom will make available on a Telecom website accessible to the Access Seeker.

39.1.2 A mounting rack will be provided in every Sub-loop Co-location Service Area to which each item of Access Seeker Equipment must be connected. This mechanical connection will serve as the earthing system for the Access Seeker Equipment.

## 40 CAPACITY

### 40.1 Requirements

The Access Seeker may only occupy a Rackprint it has been allocated as part of the Sub-loop Co-location Service.

### 40.2 Heat generating equipment

All equipment installed in Distribution Cabinets must be configured in the same way that was approved in the heat management testing (see section 42).

### 40.3 Noise generating equipment

All equipment installed in Distribution Cabinets must be configured in the same way that was approved in the noise management testing (see section 42).

### 40.4 Rackprints within a Distribution Cabinet

40.4.1 Rackprints in a Distribution Cabinet will have the following dimensions:

(a) height will be measured in multiples of Rack Units were one RU is 44.45 mm;

(b) width is specified in Appendix D; and

(c) depth is specified in Appendix D;

40.4.2 The Access Seeker may Build up to the edge of any Rackprint. Rackprints will be spaced to provide side clearance for air flow, or the installation of more rack prints at Telecom's discretion and in accordance with the seismic requirements of the particular Distribution Cabinet. In most cases side clearance of no more than 50 mm will be provided for (except where Distribution Cabinet specific seismic conditions require more).

40.4.3 As part of a Quote Telecom will provide a Rackprint plan identifying:

(a) the exact location of each Rackprint; and

(b) an identifier for each Rackprint.

## 41 DISTRIBUTION CABINET CONSTRUCTION

### 41.1 Structure

41.1.1 Distribution Cabinets will be constructed to the appropriate New Zealand and International Standards. This will typically include:

(a) low noise operation to minimize neighbourhood noise pollution;

(b) air to air heat-exchangers;

(c) 19” or 21” standard equipment bay mounting in single or double equipment bays;

(d) double skin design;

(e) marine grade aluminium Distribution Cabinet on galvanized steel plinth;

(f) separate DF chamber and battery compartment from equipment area; and

(g) capability to withstand high seismic loads.

## 42 ACCESS SEEKER EQUIPMENT TYPE APPROVAL

### 42.1 General

42.1.1 In addition to space, three key capacity limitations drive the ability to install equipment into a Distribution Cabinet. These are power, heat and acoustic noise. These limitations are tightly linked, with power usage generating heat in the Distribution Cabinet and equipment, which requires cooling to remove the heat, which subsequently generate noise. The physical limitations are overall power capacity, ability to vent excess heat, and the Resource Management Act 1991 or National Environmental Standards limitations on acoustic noise from the Distribution Cabinet.

42.1.2 This section 42 describes the type approval process that will be used to determine whether Access Seeker Equipment or Access Seeker Equipment configurations exceed any of these limitations.

42.1.3 All Access Seeker Equipment and all Access Seeker Equipment configurations installed as part of the Sub-loop Co-location Service will be required to be submitted for and pass the type approval testing process in this section 42 to ensure that all Distribution Cabinets provide a stable and secure environment for all parties’ equipment. Applications to test Access Seeker Equipment or Access Seeker Equipment configurations within a Rackprint in a Distribution Cabinet will be handled as set out below.

42.1.4 The Access Seeker requesting installation will pay for the type approval testing of the Access Seeker Equipment and Access Seeker Equipment configuration.

### 42.2 Heat Management

42.2.1 All configurations of Access Seeker Equipment installed as part of the Sub-loop Co-location Service will be required to be submitted for and pass heat management testing to ensure that all Distribution Cabinets provide a stable and

secure environment for all parties' equipment. Applications to test such Access Seeker Equipment within a Rackprint in Distribution Cabinet will be handled as set out below.

42.2.2 All heat management will be provided to Telecom specifications as ventilation will circulate throughout Distribution Cabinets. Heat restrictions are a factor of the appropriate temperature for avoiding damage or stress to equipment installed in the Distribution Cabinet, and the practical limits on the effectiveness of fans and heat exchangers located within the Distribution Cabinet.

42.2.3 The effectiveness of heat exchangers is limited by the size and design of the heat exchangers, which is itself limited by the space constraints and construction of the Distribution Cabinet. The effectiveness of fans is limited by the speed at which they can be operated, which in turn is limited by the maximum noise levels by Local Authorities under the Resource Management Act 1991, or the National Environmental Standards.

42.2.4 The resulting heat restrictions differ among Distribution Cabinet designs. The capabilities and resulting heat limitations of different designs is detailed in technical documentation to be made available to Access Seekers via a Telecom web portal.

42.3 **Heat management testing**

42.3.1 Access Seekers are required to have Access Seeker Equipment type approved for installation in a Distribution Cabinet.

42.3.2 In order to determine heat generation of an equipment configuration, including Other Service Provider or Telecom equipment, it will be necessary to conduct testing. This testing will include a process for assessing the impact on the heat management of the Distribution Cabinet of the Access Seeker Equipment being added (new configuration). The Access Seeker requesting installation will pay for the heat management testing of the new configuration. The heat management testing will include:

(a) determining whether the new configuration in the worst case scenario exceeds the heat limitations of the Distribution Cabinet design;

(b) determining whether the new configuration in the worst case scenario creates "hot spots" that exceed the heat limitations of the Distribution Cabinet design; and

(c) moving existing installed Access Seeker Equipment or Other Service Provider equipment where feasible from one location to another within the Distribution Cabinet to attempt to improve heat management. However any change will exclude removing any equipment in the

existing configuration or moving any support equipment or changing the exterior structure of the Distribution Cabinet.

42.3.3 Where the new configuration in the worst case scenario does not exceed the Distribution Cabinet heat dissipation capacity or create “hot spots” within the Distribution Cabinet, the configuration will be deemed ‘a non-problematic configuration’. If all other relevant requirements are met, a non-problematic configuration will be installed and no further heat management will be applied.

42.3.4 Where the new configuration in the worst case scenario either exceeds the Distribution Cabinet heat dissipation capacity or creates “hot spot” within the Distribution Cabinet, the configuration will be deemed a ‘problematic configuration’.

42.3.5 Where the Access Seeker’s installation request would create a problematic configuration the Access Seeker may be permitted to install their Access Seeker Equipment as ‘managed equipment’. The Access Seeker will not be permitted to install their equipment as managed equipment if doing so would not solve the problem identified in clause 42.3.4. Only one set of managed equipment will be permitted in each Distribution Cabinet.

42.3.6 As a term of the installation of managed equipment, the Access Seeker cannot connect ports or otherwise make use of the managed equipment if doing so would cause the theoretical heat requirements of the equipment to exceed the Available Heat Dissipation of the Distribution Cabinet. The Available Heat Dissipation is the Total Heat Dissipation less the heat generated by the worst case scenario testing on the existing equipment configuration. The Total Heat Dissipation is the maximum heat dissipation available from a particular Distribution Cabinet design.

42.3.7 Telecom will install or permit installation of Access Seeker Equipment without testing in future Distribution Cabinets where the installation of such Access Seeker Equipment will be in accordance with a previously tested non-problematic configuration, or where the installation of such Access Seeker Equipment will be as managed equipment in accordance with a previously tested problematic configuration.

42.3.8 Telecom will not install or permit installation of Access Seeker Equipment in future Distribution Cabinets without further testing where the installation of such equipment will not result in a previously tested problematic configuration.

42.3.9 Where Telecom considers that there are unique circumstances pertaining to the particular situation that Telecom considers means that the prima facie non-problematic configuration is in fact a problematic configuration, then Telecom

can require that the configuration be tested. If Telecom has requested testing, then:

(a) if the configuration exceeds the Distribution Cabinet heat dissipation capacity or creates “hot spots”, the Access Seeker requesting installation will pay for the heat management testing; or

(b) if the configuration does not exceed the Distribution Cabinet heat dissipation capacity or create hot spots, then Telecom will pay for the heat management testing.

42.3.10 Any disputes arising from heat management will be dealt with under the Dispute Resolution process set out in section 36 of the Sub-loop Services General Terms.

42.4 **Noise management**

42.4.1 All configurations of Access Seeker Equipment installed as part of the Sub-loop Co-location Service will be required to be submitted for and pass noise management testing to ensure that all Distribution Cabinets meet applicable noise restrictions under the Resource Management Act 1991, or the National Environmental Standards. Applications to test such Access Seeker Equipment within a Rackprint in Distribution Cabinet will be handled as set out below.

42.4.2 Noise is generated by Telecom or Other Service Provider equipment, by Access Seeker Equipment and by cooling systems within the Distribution Cabinet.

42.4.3 Noise restrictions differ among local authority areas.

42.5 **Noise management testing**

42.5.1 Access Seekers are required to have Access Seeker Equipment type approved for installation in a Distribution Cabinet.

42.5.2 In order to determine noise generation of an equipment configuration, including Other Service Provider or Telecom equipment, it will be necessary to conduct testing. This testing will include a process for assessing the impact on the overall noise emitted from the Distribution Cabinet of the Access Seeker Equipment being added (new configuration). The Access Seeker requesting installation will pay for the noise management testing of the new configuration. The noise management testing will include:

(a) determining whether the new configuration in the worst case scenario exceeds the noise limitations applicable noise restrictions under the Resource Management Act 1991, or the National Environmental Standards; and

(b) moving existing installed Access Seeker Equipment or Other Service Provider equipment where feasible from one location to another within the Distribution Cabinet to attempt to improve noise management. However any change will exclude removing any equipment in the existing configuration or moving any support equipment or changing the exterior structure of the Distribution Cabinet.

42.5.3 Where the new configuration in the worst case scenario does not exceed the applicable noise restrictions under the Resource Management Act 1991 or the National Environmental Standards, the configuration will be deemed 'a non-problematic configuration'. If all other relevant requirements are met, a non-problematic configuration will be installed and no further noise management will be applied.

42.5.4 Where the new configuration in the worst case scenario exceeds the applicable noise restrictions under the Resource Management Act 1991 or the National Environmental Standards, the configuration will be deemed a 'problematic configuration'.

42.5.5 Where the Access Seeker's installation request would create a problematic configuration the Access Seeker may be permitted to install their Access Seeker Equipment as 'managed equipment'. The Access Seeker will not be permitted to install their equipment as managed equipment if doing so would not solve the problem identified in clause 42.5.4. Only one set of managed equipment will be permitted in each Distribution Cabinet.

42.5.6 As a term of the installation of managed equipment, the Access Seeker cannot connect ports or otherwise make use of the managed equipment if doing so would cause the theoretical noise level to exceed the applicable noise restrictions under the Resource Management Act 1991 or the National Environmental Standards.

42.5.7 Telecom will install or permit installation of Access Seeker Equipment without testing in future Distribution Cabinets where the installation of such Access Seeker Equipment will be in accordance with a previously tested non-problematic configuration, or where the installation of such Access Seeker Equipment will be as managed equipment in accordance with a previously tested problematic configuration.

42.5.8 Telecom will not install or permit installation of Access Seeker Equipment in future Distribution Cabinets without further testing where the installation of such equipment will not result in a previously tested problematic configuration.

42.5.9 Where Telecom considers that there are unique circumstances pertaining to the particular situation that Telecom considers means that the prima facie non-

problematic configuration is in fact a problematic configuration, then Telecom can require that the configuration be tested. If Telecom has requested testing, then:

(a) if the configuration exceeds the applicable noise restrictions under the Resource Management Act 1991 or the National Environmental Standards the Access Seeker requesting installation will pay for the noise management testing; or

(b) if the configuration does not exceed the applicable noise restrictions under the Resource Management Act 1991 or the National Environmental Standards, then Telecom will pay for the noise management testing.

42.5.10 Any disputes arising from noise management will be dealt with under the Dispute Resolution process set out in section 36 of the Sub-loop Services General Terms.

42.6 **Power consumption**

42.6.1 All configurations of Access Seeker Equipment installed as part of the Sub-loop Co-location Service will be required to be submitted for and pass power consumption testing to ensure that all Distribution Cabinets meet power consumption limitations. Applications to test such Access Seeker Equipment within a Rackprint in Distribution Cabinet will be handled by Telecom as set out below.

42.7 **Power consumption testing**

42.7.1 Access Seekers are required to have Access Seeker Equipment type approved for installation in a Distribution Cabinet.

42.7.2 In order to determine power consumption of an equipment configuration, including Other Service Provider or Telecom equipment, it will be necessary to conduct testing. This testing will include a process for assessing the impact on the overall power consumption of the Distribution Cabinet of the Access Seeker Equipment being added (new configuration). The power consumption testing will include determining whether the new configuration in the worst case scenario exceeds the applicable power consumption limits of the Distribution Cabinet.

42.7.3 Where the new configuration in the worst case scenario does not exceed the applicable maximum power consumption level, the configuration will be deemed ‘a non-problematic configuration’. If all other relevant requirements are met, a non-problematic configuration will be installed and no further power consumption limits will be applied.

42.7.4 Where the new configuration in the worst case scenario exceeds the applicable maximum power consumption level, the configuration will be deemed a 'problematic configuration'.

42.7.5 Where the Access Seeker's installation request would create a problematic configuration the Access Seeker may be permitted to install their Access Seeker Equipment as 'managed equipment'. The Access Seeker will not be permitted to install their equipment as managed equipment if doing so would not solve the problem identified in clause 42.7.4. Only one set of managed equipment will be permitted in each Distribution Cabinet.

42.7.6 As a term of the installation of managed equipment, the Access Seeker cannot connect ports or otherwise make use of the managed equipment if doing so would cause the theoretical power consumption level to exceed the maximum power consumption level.

42.7.7 Telecom will install or permit installation of Access Seeker Equipment without testing in future Distribution Cabinets where the installation of such Access Seeker Equipment will be in accordance with a previously tested non-problematic configuration, or where the installation of such Access Seeker Equipment will be as managed equipment in accordance with a previously tested problematic configuration.

42.7.8 Telecom will not install or permit installation of Access Seeker Equipment in future Distribution Cabinets without further testing where the installation of such equipment will not result in a previously tested problematic configuration.

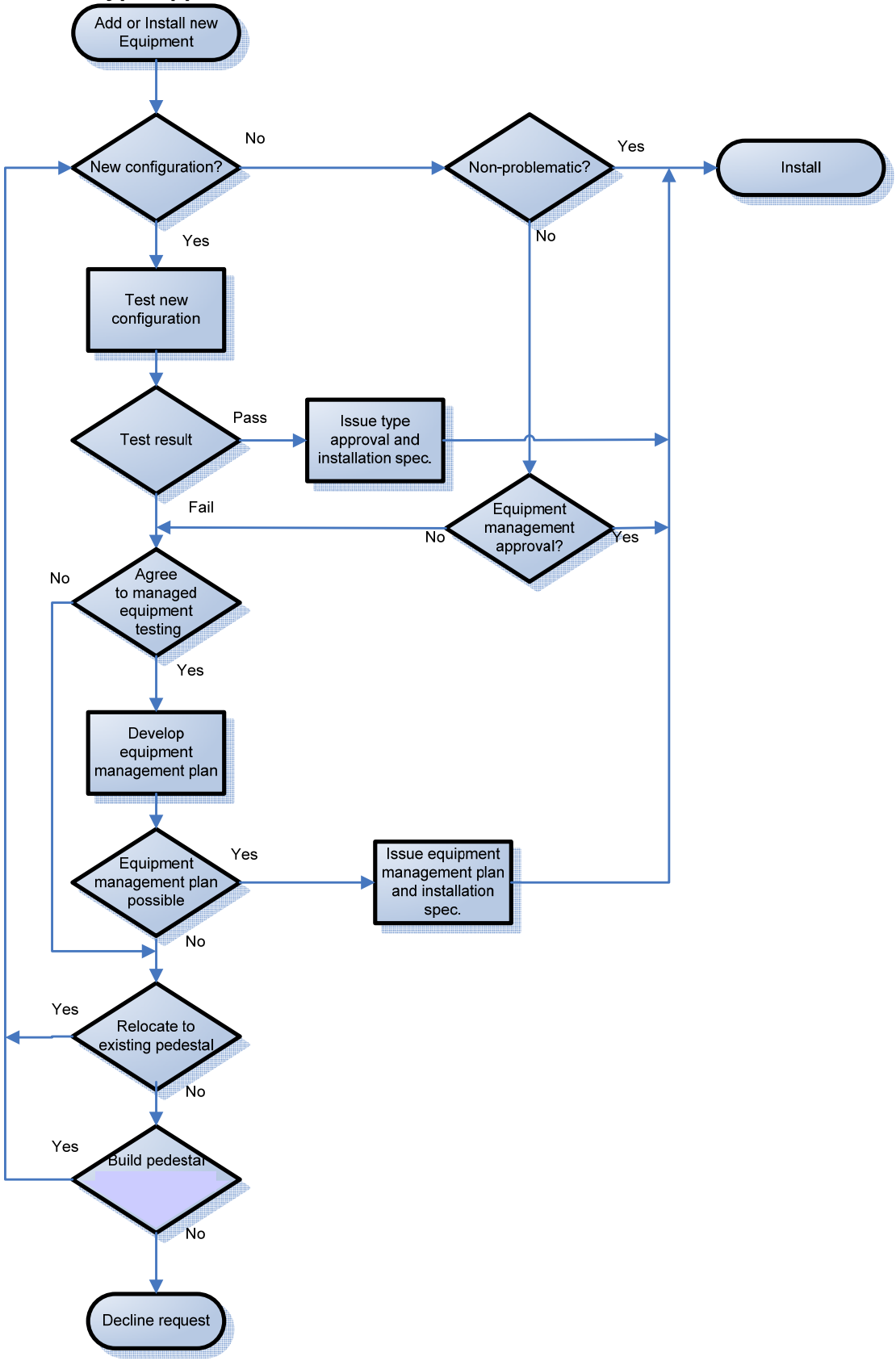
42.7.9 Where Telecom considers that there are unique circumstances pertaining to the particular situation that Telecom considers means that the prima facie non-problematic configuration is in fact a problematic configuration, then Telecom can require that the configuration be tested. If Telecom has requested testing, then:

(a) if the configuration exceeds the applicable maximum power consumption the Access Seeker requesting installation will pay for the type approval testing; or

(b) if the configuration does not exceed the applicable maximum power consumption then Telecom will pay for the type approval testing.

42.7.10 Any disputes arising from power will be dealt with under the Dispute Resolution process set out in section 36 of the Sub-loop Services General Terms.

## 42.8 Type Approval Decision Tree



## 43 TEMPERATURE CONTROL

### 43.1 Overview

43.1.1 The Sub-loop Co-location Service Area will be designed to keep the air temperature below a maximum of 65˚C.

43.1.2 The Sub-loop Co-location Service Area will be equipped with temperature alarms.

43.1.3 Humidity will not be controlled in the Sub-loop Co-location Service Area.

### 43.2 Heat management systems

43.2.1 Air temperature and humidity control will be maintained by a variety of plant at Distribution Cabinets (including in some cases plant specific to the Sub-loop Co-location Service Area).

43.2.2 The main types of cooling systems used are:

(a) heat transfer systems:

(i) forced air circulation using fans within Rackprints; and

(ii) heat exchangers between the interior of the Distribution Cabinet and atmosphere with air circulation using fans (air flow limited by the noise of fans);

(b) air vents.

43.2.3 The removal of heat from the sealed Sub-loop Co-location Service Area will primarily be achieved by circulating air through heat exchangers.

### 43.3 Access Seeker responsibilities

43.3.1 Each Access Seeker will be responsible for ensuring that:

(a) the air flow within its Access Seeker Equipment is sufficient to keep the Access Seeker Equipment cool; and

(b) the configuration is unchanged from that which received type approval.

## 44 POWER

### 44.1 Normal operating standards

44.1.1 The default power source supplied to the Access Seeker will be -48V DC power in amounts of 2, 4, 6, 10, 16, 20, 25 or 32 amp with the same back-up capability as -48v DC power provided to Telecom equipment within the same

Distribution Cabinet. The Access Seeker may Order additional ampere steps in accordance with the Sub-loop Co-location Price List.

44.1.2 The Access Seeker's Preliminary Order must specify its DC power load, breaker ratings and a line diagram of the proposed wiring.

44.1.3 All power connections to the DC power system of a Distribution Cabinet at the breaker end must be undertaken by Telecom (mistakes during the connection procedure can cause power loss to other telecommunications network equipment which may be connected to the same power distribution in the Distribution Cabinet). The Access Seeker is responsible for connection at the Rackprint end.

44.1.4 The circuit breaker rating will be used to indicate power use. Power usage will be assessed as 0.67 of the nominal fuse or circuit breaker rating for single feeds or 0.335 of the nominal rating for dual feed applications.

44.1.5 Cabling must be fused or protected by circuit breakers appropriate to each cable. The maximum feed supplied by Telecom to the Access Seeker per Rackprint will use a maximum distribution circuit breaker of 32 amp, with usage fees charged in accordance with the Sub-loop Co-location Price List. An approximate 3:1 fuse discrimination ratio must be maintained between series fuses or circuit breakers. This ensures that, when a fault occurs, only one device will blow cutting supply to the minimum amount of other equipment.

44.1.6 Separate power feeds from outside the Distribution Cabinet and the installation of batteries are prohibited.

## 45 DISTRIBUTION CABINET RACKING

### 45.1 General

45.1.1 Telecom will supply racking to match the Distribution Cabinet layout.

45.1.2 Telecom will run incoming cabling (including fibre, earth conductor, paired cable, coax cable and tie cables between the Access Seeker Equipment and the Distribution Cabinet DF) on the racking to match the Rackprint layout.

## 46 EQUIPMENT MOUNTING/SEISMIC BRACING

### 46.1 Normal operating standards

46.1.1 The Access Seeker Equipment must comply with the appropriate design standards.

46.1.2 Telecom will supply seismic infrastructure equivalent in function to that provided for existing Telecom equipment.

46.1.3 The Access Seeker must specify the estimated total weight of each piece of Access Seeker Equipment as part of its Preliminary Order so that Telecom can check Distribution Cabinet strength.

## 47 EARTHING

### 47.1 Normal operating standards

47.1.1 The Access Seeker must comply with the earthing requirements set out in the Telecom document “Transmission Stations Earthing Connections” (reference 0033) and the Telecom document “Earthing Systems for Telecom Sites” (reference ND0335).

47.1.2 Each piece of Access Seeker Equipment will be earthed by physical connection to the mounting rack.

47.1.3 All earthing schemes at a Distribution Cabinet must be approved by Telecom, who will approve cable sizes and quantities.

47.1.4 Cable screens must be earthed at the Telecom end and must not be earthed at the Access Seeker’s end.

## 48 ENVIRONMENTAL AND POWER ALARM MONITORING

### 48.1 Normal operating standards

48.1.1 Environmental, power and plant failure alarms will be monitored by the NOC where the Access Seeker takes the Sub-loop Co-location Service and/or the Sub-loop UCLL Service at the Distribution Cabinet.

48.1.2 Some Distribution Cabinets also have plant failure alarms which indicate when particular plant components have failed.

48.1.3 The NOC may dispatch Telecom representatives to Distribution Cabinets that have generated alarms.

## PART 8 – PROBLEM MANAGEMENT

### 49 OFM

#### 49.1 Overview

49.1.1 Telecom 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.

#### 49.2 Terms of Provision

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

#### 49.3 Access to OFM

*Description of OFM*

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

*Access for Authorised Personnel*

49.3.2 In accordance with section 2 the Access Seeker will provide Telecom 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.

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

*Right to Restrict or Prohibit Use of OFM*

49.3.4 Subject to the Notice provisions below, Telecom 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 Telecom will restrict or prohibit access to the minimum extent practicable to protect OFM and any related system.

49.3.5 Telecom 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, Telecom will give the Access Seeker notice of the restriction or prohibition as soon as practicable after the event.

49.4 **Additional Functionalities or Enhancements to OFM**

49.4.1 Where Telecom creates any additional functionality within OFM or makes any enhancements to it, Telecom 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. Telecom must consult with the Access Seekers before notifying the Access Seekers of any additional functionality or enhancements to OFM which affect the use of OFM in relation to the Sub-loop Co-location Service.

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

49.5 **Terms of use**

*Use of OFM*

49.5.1 The Access Seeker must only use OFM for purposes authorised by Telecom.

*Availability*

49.5.2 Telecom will use all reasonable endeavours to ensure that OFM is available to Access Seekers 24 hours a day, 7 days a week.

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

49.6 **Costs**

*Telecom's Costs*

49.6.1 Telecom will be solely responsible for Telecom's costs of designing and developing OFM, including any modifications and enhancements.

*Access Seekers' Costs*

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

*OFM Charges*

49.6.3 Telecom will charge a monthly licence fee for OFM as set out in the Sub-loop Co-location Price List.

# 50 FAULTS

## 50.1 Faults with the Sub-loop Co-location Service

*Responsibility for faults*

50.1.1 Telecom is only responsible for faults that are within Telecom's responsibility, as set out in section 21 of the Sub-loop Services General Terms. If Telecom investigates and no fault is found or no fault for which Telecom is responsible is found, Telecom will charge the Access Seeker the No Fault Found fee as set out in the Sub-loop Co-location Price List. Where Telecom is responsible for the fault, a No Fault Found fee will not be charged.

*Initial Diagnosis by the Access Seeker*

50.1.2 It is the Access Seeker's responsibly to provide the initial fault diagnosis on all faults reported to it by the End Users.

50.1.3 The requirements for this initial fault diagnosis are set out in section 22 of the Sub-loop Services General Terms.

*Reporting Faults to Telecom*

50.1.4 Subject to clause 50.1.5, the Access Seeker must use OFM for reporting all faults related to the Sub-loop Co-location Service. If the Access Seeker uses any other method to report a fault, the relevant Service Levels as defined in the Sub-loop Co-location Service Level Terms will not apply to that fault.

50.1.5 Where Telecom advises the Access Seeker that OFM is unavailable, the Access Seeker must submit fault reports to Telecom by calling the 0800 fault reporting service number provided by Telecom. Telecom must use all reasonable endeavours to advise Access Seekers immediately on upon becoming aware that OFM is unavailable.

50.1.6 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 Telecom's 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 relevant information.

50.1.7 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*

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

50.1.9 Faults that are Telecom's responsibility will be fixed by Telecom representatives during Fault Restoration Hours. If a fault is logged outside of those hours, it is possible Telecom will only start working on the fault as from 7.00 am the following day.

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

*Fault Report Acknowledgement*

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

*Fault Tracking*

50.1.12 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 Telecom's fault prioritisation systems.

50.1.13 Telecom will use all reasonable endeavours to meet the notified expected fault restoration time as provided in clause 50.1.12.

50.1.14 Where Telecom 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, Telecom will advise the Access Seeker of a revised fault restoration time. In that situation the relevant Service Levels in the Sub-loop Co-location Service Level Terms will apply to the originally notified expected fault restoration time rather than the revised fault restoration time.

50.1.15 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.

*Telecom Contractor Work*

50.1.16 If Telecom identifies the need to send a faults contractor, Telecom will update OFM.

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

*Fault Closure*

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

*Emergency and Core Network Faults*

50.1.19 Emergency and Core Network faults reported to Telecom outside of the Fault Restoration Hours set out in clause 50.1.9 will be treated on a case by case basis.

50.1.20 In the first instance, Telecom will propose a temporary solution. However, in the absence of a viable temporary solution, Telecom 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*

50.1.21 The Escalation Protocol is provided in Appendix B.

## PART 9 - WORKING ON TELECOM'S NETWORK – THE ACCESS SEEKER

### 51 GENERAL

#### 51.1 Overview

This section 51 identifies the different requirements the Access Seeker must meet to undertake work on Telecom Sites - in particular in and around a Distribution Cabinet.

#### 51.2 Requirements

51.2.1 The Access Seeker will need to undertake work on a Telecom Site in order to install, operate and maintain the Access Seeker Equipment. To undertake this work, the Access Seeker will need:

(a) access (through either accreditation and security clearance or a Telecom escort);

(b) Telecom's permission to undertake the work (a Permit to Work); and

(c) to meet all of Telecom's work standards.

51.2.2 These requirements are dealt with in detail in Parts 11, 12 and 13.

#### 51.3 Work outside of a Rackprint

51.3.1 All work on a Telecom site outside of the Access Seeker's Rackprint must be undertaken by a Telecom representative on behalf of the Access Seeker at the initiating parties cost.

51.3.2 An Order for Telecom to undertake work must be made using OO&T.

#### 51.4 Escorted access

51.4.1 A representative of the Access Seeker will require escorted access (i.e. to be accompanied by a Telecom representative) where the Access Seeker's representative is not also a Telecom approved contractor. The Telecom approved contractor who is escorting the Access Seeker representative will have the authority to halt the work if, in the Telecom representative's opinion, the work is endangering other equipment within the Distribution Cabinet.

51.4.2 An Access Seeker will not require escorted access from Telecom for a representative who does not hold a valid security access card and Distribution Cabinet key and is not approved and accredited, where an emergency affecting the Access Seeker's Rackprint requires access for a period of less than one day provided:

(a) the Access Seeker has requested escorted access from Telecom as soon as the Access Seeker becomes aware that such access is required and Telecom informs the Access Seeker that Telecom is unable to provide an escort, but is willing to allow the Access Seeker to provide the escort. Telecom must not unreasonably withhold its consent to the Access Seeker providing the escort;

(b) the Access Seeker ensures that the representative is escorted by a second representative who holds a valid security access card or Distribution Cabinet key and is approved and accredited; and

(c) the Access Seeker is responsible and liable for the actions of the unaccredited representative.

51.4.3 An Order for Telecom to supply an escort must be made using OO&T.

## PART 10 – SECURITY, APPROVAL AND ACCREDITATION

### 52 GENERAL

#### 52.1 Overview

52.1.1 To access any secure Telecom Site (which includes all Distribution Cabinets) a representative of the Access Seeker must have accreditation, Telecom approval and security clearance. Accreditation involves training and familiarisation with Telecom's procedures and work standards. A security clearance check may be required or performed by Telecom before access is granted to an accredited person.

52.1.2 In addition, representatives of the Access Seeker that undertake work on a Telecom site must have appropriate work type accreditation/professional qualifications.

### 53 ACCREDITATION

#### 53.1 Overview

This section 53 outlines the procedure for becoming accredited to access and work on Telecom sites.

#### 53.2 PTTN procedure

53.2.1 The Telecom document "The PTTN Procedure" (reference ASD-4501) describes the requirements for accreditation in detail, which include:

(a) all persons engaged in any work on Distribution Cabinets or other infrastructure comprising Telecom's Network must successfully complete the site accreditation training and examination before access to any secure Telecom Site Network will be granted;

(b) site accreditation must be maintained by annual refresher courses; and

(c) training records must be kept and made available to Telecom upon request.

#### 53.3 Work type accreditation

All work that requires industry licensing or specific technical accreditation (e.g. electrical work and data cabling) must meet the appropriate standard and be done by someone with the appropriate qualifications. (On completion, all work must be certified by the person undertaking it as complying with all relevant standards.)

53.4 **PTTN accreditation**

53.4.1 Telecom will undertake PTTN accreditation training at three monthly intervals in Auckland, Wellington and Christchurch (subject to demand). Telecom will provide to the Access Seeker a training schedule detailing times and venues and trainer contact details.

53.4.2 The training will comprise the following:

(a) the Telecom video “Protecting The Telecom Network”;

(b) reference to the Telecom document “The PTTN Procedure” (reference ASD-4501);

(c) a MS PowerPoint presentation “Site Work PowerPoint Presentation” (reference ASD-0042);

(d) an open book test “PTTN Site Access Test Questions” (ASF-60); and

(e) the attendance record “Training Register” (ASF-2).

53.4.3 Telecom will, at its discretion (to be exercised reasonably), accredit representatives of the Access Seeker based on each representative’s participation and performance in the PTTN accreditation training.

53.4.4 To maintain accreditation, accredited representatives must attend a refresher PTTN training course every year.

53.5 **Approval**

53.5.1 Telecom will, at its discretion (to be exercised reasonably), approve representatives of the Access Seeker based on each representative’s experience and performance in the PTTN accreditation training. Additional experience will be demonstrated by items like the following (not an exclusive list):

(a) NZQA Level 3 Telecommunications Technicians Certificate or equivalent;

(b) NZQA Level 4 specialist training as appropriate for the work role;

(c) four years’ general Heritage, NGN, & IT experience;

(d) one year’s relevant Heritage, NGN, & IT installation experience;

(e) relevant quality & health and safety accreditation;

(f) customer service training & accreditation; and

(g) limited electrical registration if relevant.

## 54 SECURITY CLEARANCE

### 54.1 Overview

54.1.1 Accredited and approved representatives of the Access Seeker must apply for access to be granted to any relevant Distribution Cabinets. Access is granted by Telecom issuing the representative with an access card.

54.1.2 Telecom may specify conditions on any person's right of access at the time it issues an access card. Such conditions may be amended subsequently at Telecom's discretion (to be exercised reasonably).

### 54.2 Access card security and Distribution Cabinet key entry

54.2.1 Access to Telecom Sites may be controlled by swipe or proximity cards and PIN entry. Telecom utilises the Cardax access control system to control access to most medium and large buildings Telecom owns or occupies. Use of an access card is subject to the access rules (set out in Appendix F).

54.2.2 Otherwise, physical access to the Distribution Cabinet will be by means of a Distribution Cabinet key rather than an access card. Accredited and approved Access Seeker representatives, will present the valid Permit to Work and sign for the Distribution Cabinet key. Keys will be held in central locations with security staff and will be accessible during business hours. Emergency after hours access will be available with a Telecom escort. Use of an Distribution Cabinet key is subject to the access rules (set out in Appendix F).

54.2.3 Accredited and approved Access Seeker representatives who need regular access to Distribution Cabinets will be provided with a set of Distribution Cabinet keys, but will still need to hold a valid Permit to Work before accessing a Distribution Cabinet.

54.2.4 Access Seekers or their representatives who lose Distribution Cabinet keys will be responsible for the cost of replacement and any other necessary lock costs.

54.2.5 Access will be limited to areas that are essential for an accredited and approved representative of the Access Seeker to complete his or her work (i.e. access to and from the Sub-loop Co-location Service Area).

54.2.6 The accredited and approved Access Seeker contractor accessing the Distribution Cabinet must be escorted by a Telecom representative, if the Access Seeker representative is not also a Telecom approved contractor. The Telecom representative who is escorting the accredited and approved Access Seeker contractor will have the authority to halt the work if, in the Telecom

representative's opinion, the work is endangering other equipment within the Distribution Cabinet.

54.2.7 To be a Telecom approved contractor the accredited and approved representative from the Access Seeker must have appropriate work type accreditation, professional qualification and security clearance. Typically these may include:

(a) NZQA Level 3 Telecommunications Technicians Certificate or equivalent;

(b) NZQA Level 4 specialist training as appropriate for the work role;

(c) four years' general Heritage, NGN, & IT experience;

(d) one year's relevant Heritage, NGN, & IT installation experience;

(e) relevant quality & health and safety accreditation;

(f) customer service training & accreditation; and

(g) limited electrical registration if relevant.

54.2.8 Unauthorised interference with any part of the locks or Cardax system by a representative of the Access Seeker will result in access for that representative being removed permanently.

54.3 **Distribution Cabinet key supply**

54.3.1 An approved and accredited Access Seeker representative who does not hold Distribution Cabinet keys and requires one temporarily must obtain a Distribution Cabinet key from:

(a) a Telecom approved contractor; or

(b) a central location.

54.3.2 An approved and accredited Access Seeker representative who wishes to permanently obtain a set of Distribution Cabinet keys can apply in the following circumstances:

(a) for all new or replacement keys; and

(b) for any amendments to the scope of access required.

54.3.3 Applications must be accompanied by evidence of approval and accreditation (and, if relevant, annual refresher courses). The approved and accredited

Access Seeker representative must complete the "Access Seeker Key Application and Change Form" (reference ASF-007). Approved Distribution Cabinet keys will be provided to the address specified in the application form.

54.3.4 Access Seekers who permanently obtain Distribution Cabinet keys will have access to the respective Distribution Cabinets 24 hours a day, seven days a week, subject to Telecom's Permit to Work Conditions.

54.4 **Lost or damaged Distribution Cabinet keys**

Lost or damaged Distribution Cabinet keys must be reported to a Telecom representative as soon as practicable.

54.5 **Surrendering Distribution Cabinet keys**

The Access Seeker is responsible for returning any Distribution Cabinet keys to Telecom immediately upon them no longer being required.

54.6 **Access card application**

54.6.1 Applications for access cards are required in the following circumstances:

(a) for all new, replacement and expired cards; and

(b) for any amendments to the scope of access required.

54.6.2 Applications must be accompanied by evidence of accreditation and approval (and, if relevant, annual refresher courses). Further, the accredited and approved representative of the Access Seeker must:

(a) complete the "Access Control Card Application Form" (reference ASF-59);

(b) provide a passport sized colour photo of the applicant with the applicant's name written on the back (this image will be stored electronically for future use by Telecom's Security Operations Centre); and

(c) submit the form and photo to Telecom to be processed. Approved cards will be provided to the address specified in the application form.

54.7 **Security clearance**

54.7.1 Telecom may require the Access Seeker to provide a security check in relation to any accredited and approved representative of the Access Seeker who applies for an access card. Telecom may reject any application based on a security check at its absolute discretion.

54.7.2 Telecom may also conduct its own security check.

54.8 **Costs**

54.8.1 Telecom will provide an access card to every successful applicant under clause 54.6.2. Telecom may charge for each access card in accordance with the Sub-loop Co-location Price List.

54.8.2 Telecom has alarms at many Distribution Cabinets and roving security patrols. Telecom may charge the Access Seeker in accordance with the Sub-loop Co-location Price List for any security callout required as a result of the acts or omissions of any accredited representative of the Access Seeker.

54.9 **Card activation**

A new access card must be activated before it can be used. This may be done by contacting Telecom's Security Operations Centre in the manner provided in the "Access Control Card Application Form" (reference ASF-59).

54.10 **Card deactivation**

Any card that is not used within three months of issue may be deactivated and removed from the system. Any card not used at all for six months will be deactivated and removed from the system.

54.11 **Lost or damaged cards**

Lost or damaged cards must be reported to a Telecom representative as soon as practicable.

54.12 **Surrendering cards**

The Access Seeker is responsible for returning any access card to Telecom immediately upon it no longer being required.

54.13 **General**

54.13.1 Telecom may audit and monitor access card use. Breaches of the access card rules may result in withdrawal of access and/or permanent withdrawal of access to any secure Telecom Site.

## PART 11 - PERMIT TO WORK

### 55 PERMIT TO WORK

#### 55.1 Overview

This section 55 explains Telecom's Permit to Work procedure. A Permit to Work will be required for most work within the Distribution Cabinet beyond the day to day operation of the Access Seeker Equipment within the Access Seeker's Rackprint. The purpose of the Permit to Work procedure is so that Telecom has prior notice of all significant activity on Telecom Sites and can respond appropriately in the event of an outage.

#### 55.2 General

Telecom's Permit to Work team is part of the NOC. The NOC is responsible for ensuring that all work on Telecom Sites is visible so that risks to Telecom's Network can be controlled and mitigated.

#### 55.3 Permit to Work procedure

55.3.1 The Permit to Work procedure is intended to minimise disruption by timing and enforcing standard work practices. It provides:

(a) a real time view for the NOC of all planned work which poses a threat or service loss to Telecom's Network;

(b) contention checking to identify and eliminate conflict at Telecom Sites;

(c) a check of work timing against specified requirements; and

(d) an interface with the network events notification procedure to provide End Users with notifications of planned work.

#### 55.4 Permit to Work applications

Permit to Work applications are made online through the website http://www.telecom.co.nz/permits. (Note, this address may be subject to future changes.)

#### 55.5 When to apply for a Permit to Work

55.5.1 A Permit to Work is required when:

(a) the Access Seeker carries out any Access Seeker Build at a Distribution Cabinet (including the installation of and any subsequent work on the Access Seeker Equipment);

(b) work creates a risk or loss of service to Telecom's Network (or a risk or loss of service to any equipment which supports Telecom's Network such as Building Services); and

(c) work is undertaken to Telecom's Network or Distribution Cabinet Services infrastructure.

55.5.2 A Permit to Work is not required for the installation of and changes to cards in the Access Seeker Equipment. For the avoidance of doubt, this work can be undertaken 24 hours a day, seven days a week, if the approved and accredited Access Seeker representative has permanently obtained a set of Distribution Cabinet keys under clause 54.3.2.

55.6 **After hours Permit to Work**

An after-hours Permit to Work is defined as one required after 5.00 pm and where the work is to take place before 8.00 am the next day. The NOC is responsible for processing and approving after-hours Permits to Work. Contact Telecom's NOC on 0800-10-30-60, then follow the IVR prompts.

55.7 **Service impacting faults and Permit to Work requirements**

In the event of a service impacting fault, permission may be given to commence work without a Permit to Work. In this situation the Access Seeker should call the NOC on 0800-10-30-60, then follow the IVR prompts.

## PART 12 - WORK PROCEDURES

### 56 WORK PROCEDURES

#### 56.1 Overview

56.1.1 The following rules apply for managing work on Telecom Sites:

(a) all work must comply with the appropriate generally accepted best practice industry standards including any relevant Telecom standards;

(b) all work must comply with the relevant Permit to Work; and

(c) the Access Seeker must comply with the requirements of all relevant laws (including all consents and permits etc) prior to and during any work.

#### 56.2 Work plan

56.2.1 The Telecom document “The PTTN Procedure” (reference ASD-4501) describes the requirements for work plan development. To ensure all work procedures are robust and that all work proceeds with a structured risk management plan:

(a) the Access Seeker must develop a work plan that is fully compliant to the PTTN process before work starts;

(b) the work plan must be approved by the Telecom field services contact;

(c) the work plan must be available on site at all times during any work and must be used by the Access Seeker’s accredited representatives; and

(d) all work must comply with Permit to Work procedure.

56.2.2 Telecom’s PTTN procedure requires a work plan for any work to be undertaken on a Telecom Site. The work plan must address the following points:

(a) the scope and purpose of the work;

(b) the location of the work (building, floor and area);

(c) the contact details of Telecom’s and the Access Seeker’s representatives;

(d) the name and contact details of the person responsible for carrying out the work;

(e) the duration of work (including dates if known);

(f) a copy of the approved Permit to Work;

(g) the number of people required, their trades, and accreditation requirements;

(h) the name and services provided by any sub-contractor or third party;

(i) the risks and hazards identified;

(j) any parts of Telecom's Network requiring isolation and for how long;

(k) the control and isolation points identified;

(l) any storage requirements;

(m) a dust management plan;

(n) a waste management plan;

(o) any work that produces spark or flame (hot work);

(p) the tools and protective equipment required (e.g. power tools less than 1 kW, power tools greater than 1 kW, isolating transformers, vacuum cleaners, gas operated equipment, non combustible fire blankets, anti static dust sheets, fire extinguishers and sand bags); and

(q) any specific access requirements.

56.3 **Health and safety**

All work must comply with the appropriate health and safety guidelines.

56.4 **Working on Telecom Sites**

56.4.1 Before accessing a Distribution Cabinet, everyone (whether Access Seeker representatives or agents) will text details of the Distribution Cabinet and the permit to a central record for logging purposes.

56.4.2 All work within the Distribution Cabinet outside of the Access Seeker's Rackprint (for example, installing third party backhaul within the Distribution Cabinet or moving equipment in accordance with heat management rules) must be undertaken by Telecom on behalf of the Access Seeker at the initiating party's cost.

56.4.3 For the avoidance of doubt, access on public holidays can be arranged by phoning Telecom's Security Operations Centre on 06-350-7051 or 0800-10-30-60, then following the IVR prompts.

56.4.4 Any Telecom supplied identification must be worn in accordance with the access card rules. Each accredited representative of the Access Seeker must also wear his or her own identification issued by the Access Seeker when entering an Distribution Cabinet. The identification must show the wearer's name, photo and the Access Seeker's name.

56.4.5 Cellular phones must be turned off in sign-posted areas and within 1 metre of telecommunications equipment.

56.4.6 The Access Seeker is responsible for the removal of rubbish and for cleaning and maintaining its equipment and the area around it.

56.5 **Electric tools and appliances**

56.5.1 Use of portable electrical equipment with a power rating of less than 1 kW is permitted in the vicinity of all telecommunications equipment. An isolating transformer must be used with 230 V equipment that is not clearly labelled as double insulated.

56.5.2 Electrical equipment with a power rating greater than 1 kW must not be used within 1 metre of any telecommunications equipment. 230 V equipment over 1 kW must not be plugged into an outlet on the Distribution Cabinet or rack. Only the outlets on a Distribution Cabinet's side panel may be used. An isolating transformer must be used if the equipment is not insulated - RCDs do not provide the necessary earth isolation.

56.5.3 Where it is proposed to use electrical equipment with a power rating greater than 2 kW, the approval of Telecom must first be obtained. Any conditions for use attached to the approval must be strictly adhered to.

56.6 **Static electricity**

56.6.1 As telecommunications equipment is very sensitive to static electricity, extreme care must be taken when working in Distribution Cabinets. Anti-static wrist straps and mats must be used at all times.

## APPENDIX A - GLOSSARY

| Term | Meaning |
|---|---|
| Access Seeker Build | Any Build undertaken by the Access Seeker for the purpose of installing, maintaining, repairing, altering, removing and/or replacing the Access Seeker Equipment. |
| Authority | Includes a government, statutory or regulatory authority. |
| Available Rack Units | Means the number of Rack Units in a Distribution Cabinet that are not required by Telecom:<br>• for the equipment requirements to support Distribution Cabinet Services and the Sub-loop Backhaul Service; and<br>• for Telecom's space requirements to support Distribution Cabinet Services and the Sub-loop Backhaul Service. |
| Build or Preparation | Means any works, repairs refurbishment, alterations or modifications, including temporary works (if any). |
| Cabinet ID | Means, in respect of any Distribution Cabinet, the unique identifier for that Distribution Cabinet that will be Telecom's reference for that Distribution Cabinet (which will generally be an alphanumeric code). |
| Certificate of Compliance | A certificate provided by the Access Seeker to Telecom under section 24. |
| Distribution Cabinet Information | Means, in respect of any Distribution Cabinet, the Information specified in clause 11.3.1. |
| Escalation Protocol | The protocol set out in Appendix B. |
| Firm Order | An Order placed by the Access Seeker which has become an enforceable obligation on Telecom to commence the Rackprint Preparation and on the Access Seeker to pay the Rackprint Preparation Cost, and includes the acceptance of a Quote by an Access Seeker. |
| First Assessment Date | Means the first Working Day that is six months before the scheduled installation date for a New Distribution Cabinet under the Cabinetisation Notice. |
| Forecast | Any or all (as the context requires) of the Forecasts required to be provided by the Access Seeker in this Manual. |
| Forecasting Template | The template provided by Telecom with a separate worksheet for each Forecast type. |
| Installed Distribution Cabinet | Means a Distribution Cabinet that is not a New Distribution Cabinet. |
| Inter-Rackprint Tie Cable | Means a tie cable as described in clause 30.1.1(b). |

| Term | Meaning |
|---|---|
| Intra-Distribution Cabinet Tie Cable | Means a tie cable as described in clause 30.1.1(a). |
| Line | Means a copper line that is or will be connected at the DF to a single End User. |
| Market Share Assessment | Means the process of allocating Available Rack Units under clause 15.2.5. |
| Migration | Has the meaning given in clauses 7.3.1 to 7.3.4 of the Sub-loop UCLL Operations Manual. |
| Modified Preliminary Orders | Means, as the context requires, a modified Preliminary Order submitted under clause 15.2.6, 15.2.18, 15.3.7. or 15.3.21 |
| New Distribution Cabinet | Means any Distribution Cabinet that was installed, or is due to be installed, at its permanent location at least four months after the Determination Date. |
| NOC | Telecom's Network Operating Centre. |
| Operational Date | The date on which the Access Seeker Equipment on a Rackprint may be operationalised under clause 24.1.4. |
| Order | Any order made for any part of the Sub-loop Co-location Service. |
| Preliminary Order | An Order made in accordance with section 13. |
| PTTN | Protecting the Telecom Network. |
| Quarter | A three month period commencing on the first Working Day of February, May, August and November respectively. |
| Quote | Telecom's response in accordance with section 15, 16 or 17 to a Preliminary Order which, if accepted, constitutes a Firm Order. |
| Rackprint Preparation | Any Build undertaken by Telecom for the purpose of supplying the Access Seeker with the Sub-loop Co-location Service. |
| Rackprint Preparation Cost | The cost of a Rackprint Preparation. |
| Rackprint Preparation Time | The estimated number of Working Days for a Rackprint Preparation to be completed from the date it commences. |
| RFS Date | The date on which the Access Seeker Build can commence, as agreed under section 21. |
| Site Audit | A detailed site audit provided under clause 12.2. |
| Sub-loop Co-location External Tie Cable | Means a tie cable as described in clause 30.1.1(c). |
| Sub-loop Co-location Forecasts | The forecasts that the Access Seeker must provide to Telecom under clause 8.1. |

| Term | Meaning |
|---|---|
| Sub-loop MPF Transfer Order | Has the meaning given in the Sub-loop UCLL Operations Manual. |
| Other Service to Sub-loop MPF Transfer Order | Has the meaning given in the Sub-loop UCLL Operations Manual. |
| Telecom's Approved Testing and Installation Facility | Means a location notified by Telecom on a Telecom publicly available website for the testing of Access Seeker Equipment or Access Seeker Equipment configurations under section 42 and the preparation of Rackprints under section 21. |
| Telecom Build | Means any build undertaken by Telecom for the purpose of supplying the Access Seeker with the Sub-loop Co-location Service, and includes the installation of Access Seeker Equipment where requested. |
| Telecom Site | Any Cabinet or other part of Telecom’s Network as the context requires. |
| “Use it or Lose it” policy | Means the process set out under clause 15.3.12 to clause 15.3.18. |

## 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 email | In the first instance an escalation at BAU level should be sent by email 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, ASID/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 his or her own team leader/manager. If the team leader/manager agrees that the issue warrants being escalated to the other party they shall contact his or her 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 his or her 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 his or her own organisation that was party to the original agreement. |
| 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 party and it is discovered that the contacting person has not followed the protocol described above, then the person contacted can at his or her discretion respectfully redirect the contacting person to the correct point of escalation. |

## APPENDIX C – TECHNICAL DOCUMENTS

List of Technical Documents referred to in Sub-loop Services Terms:

ASD-001 OO&T User Guide
ASD-002 Tie Cable Specification
ASD-0033 Transmission Station Earthing Connections
ASD-0042 PTTN Training Presentation
ASD-0137 Specification for Telecommunications equipment seismic frames
ASD-0335 Earthing Systems for Telecom Sites
ASD-0380 Whisper Cabinet Design & installation
ASD-0444 Broadband Pedestal Design & Installation
ASD-0459 Network Naming Standard for Regulated or Commercial Access Network Requirements
ASD-0484 Whisper 2 Cabinet Design & Installation
ASD-2151 Lightning Protection Design Guide
ASD-2856 Seismic Protection Standards Manual Part Two
ASD-4501 PTTN-Site Work
ASD-6314 Telecom Site Access & Security Manual
ASD-7386 Gas Safety
ASD-8213 Separations Between Telecom Plant & Power Network Earthing Systems
ASD-10952 Earth Potential Rise & Induction - Isolation Systems

**Hazard Control Plans Name**
HCP-001 Secondary Cells - Acid Burns
HCP-002 Secondary Cells - Explosion
HCP-003 Car parks, Foyers and Entrances
HCP-004 Windows and Window Ledges
HCP-005 Passage Ways and Stairs
HCP-006 Kitchen and Toilet Areas
HCP-010 Cables Across Floors / Walkways
HCP-011 Stored Unmarked Containers
HCP-012 Walls and Doors
HCP-015 Secondary Cells - Exposed Terminals
HCP-020 Electric Shock From Telecommunication Circuits (Startle Effect)
HCP-023 Gas Soldering Irons
HCP-026 Drilling
HCP-029 Violence in the Workplace
HCP-031 Confined Spaces
HCP-035 Lightning
HCP-036 Sealed Batteries in Cabinets, Manholes or Confined Spaces - Explosion
HCP-038 Noise
HCP-041 Smoking
HCP-043 Extra Low Voltage Bus Bars -Exposed Live Metal
HCP-044 Ladders
HCP-046 Lifting
HCP-047 Local Utilities - Power
HCP-055 Manholes
HCP-065 Burning Circuit Board Cards
HCP-070 Mains Powered Electrical Appliances
HCP-074 Working On The Road
HCP-075 Working In Public Areas
HCP-077 Hazardous Voltage In Plant
HCP-078 Parking - Roadside
HCP-080 Soldering
HCP-084 Operation of Tools / Plant
HCP-097 Optical Fibre
HCP-099 Radio Frequency Exposure

**Telecom Video Name**
ASV-PTTN PTTN Site Access Possum Bourne Video

**Telecom Technical Forms Name**
ASF-001 Certificate of Compliance (CoC)
ASF-002 PTTN Site Access Training Register
ASF-006 Sub Loop Wire Centre Initial Co-location Space Assessment
ASF-007 Access Seeker Key Application and Change Form

## APPENDIX D – DISTRIBUTION CABINET TYPES

| Cabinet Type | Date of introduction (approx.) | Overall External Dimensions HxWxL mm | Rack Width max. inch | Rack Height RU=44.45mm | Rack Depth max. mm | MDF capacity for Eside / Dside | Closed or Open cooling system | Thermal load handling capacity (Watts) |
|---|---|---|---|---|---|---|---|---|
| **Single Bay Whisper** | 2007 | 1660w x 1500h x 600d | 21” | 24RU | 500 | 2500 total | Closed | 1200 |
| **Double Bay Whisper** | 2005 | 2250w x 1500h x 600d | 23" | 24RU + 24RU | 500 | 700E / 1100D | Closed | 800 or 1250 |
| **Broadband Pedestal** | 2006 | 760w x 1095h x 618d | 19" | 11RU | 320 | None | Closed | 450 |
| **USC** | 2001 | 2270w x 1460h x 600d | 23" | 24RU + 24RU | 500 | 700E / 700D | Closed | 580 or 1100 |
| **NOKIA 480** | 1996 | 1600w x 1500h x 500d | 19" | 24RU + 24RU | 320 | 500E / 1400D | Closed | 500 |
| **NOKIA 240** | 1997 | 1100w x 1500h x 500d | 19" | 24RU | 320 | 300E / 800D | Closed | 270 |
| **NOKIA S108** | 1999 | 600w x 900h x 600d | 19" | 8RU | 320 | 100E / 200D | **Open** | 136 |
| **LUCENT 120 24RU** | 2003 | 600w x 1400h x 600d | 19" | 24RU | 500 | 120E / 240D | Closed | 210 |
| **ALCATEL-STC VMUX** | 1980's | Unknown | 19" rear mount | 21RU + 14RU | 320 | 120E / 0D (800pr aux. cabinet common) | **Open** | 150 |
| **Fujitsu PCM** | 1980's | Unknown | Customised | Customised | Customised | Unknown | **Open** | Unknown |

**Notes:**

1) The listed Rack Height excludes the space required for air flow.

2) Rack Height has to be further reduced by the space required by the DC power supply and distribution.

3) The Fujitsu PCM cabinet is obsolete and has only been included for completeness. Access Seekers should assume it will require replacement with a modern Distribution Cabinet.

4) The USC thermal capacity can be increased to 1100 watts by the installation of an up-rated heat exchanger.

## APPENDIX E – INDICATIVE RACKPRINT PREPARATION TIMES

1.1 Rackprint Preparation Times will use the following concepts and indicative estimated lead-times for the various types of fit-out:

1.1.1 *Standard Rackprint Preparation* – is an installation of Access Seeker Equipment in a Distribution Cabinets or Pedestal where all of the following conditions are met:

- type approved Access Seeker Equipment and Access Seeker Equipment configuration in accordance with this Manual;
- no additional site RMA or permit requirements;
- no additional backhaul fibre and network required due to Access Seeker's requirements; and
- where an Access Seeker requests that Telecom installs its equipment the Access Seeker must provide the Access Seeker Equipment to Telecom 4 weeks prior to scheduled cut over date,

Telecom will hand over access to the Distribution Cabinet or Pedestal 1 week prior to scheduled cut over date for pre cutover testing.

1.1.2 *Complex Rackprint Preparation* – is an installation of Access Seeker Equipment in a Distribution Cabinet or Pedestal where one or more of the following conditions exist:

- the Access Seeker Equipment and Access Seeker Equipment configuration has not been in accordance with this Manual;
- the Distribution Cabinet site requires an additional RMA or permit; or
- the Distribution Cabinet site requires additional backhaul fibre or network.

The Access Seeker must provide the Access Seeker Equipment to Telecom in sufficient time prior to scheduled cut over date to facilitate testing of the configuration; details will be provided in a quote.

The factory will deliver the Distribution Cabinet to Telecom in sufficient time prior to scheduled cut over date for site installation and network build.

Telecom will handover access to the Distribution Cabinet or Pedestal 1 week prior to scheduled cut over date for pre cutover testing.

1.2 All Rackprint Preparation will be done to an RFS Date in accordance with this Manual.

This Appendix E is intended to provide a guide as to what is involved and estimated lead times only.

## APPENDIX F – ACCESS RULES

Access to Telecom sites and the use of Telecom access cards and Distribution Cabinet keys is subject to the following terms:

(a) You must wear your identification card where it can be seen clearly (on the front of an outer garment).

(b) Identification cards must be shown on request to any identified Telecom representative.

(c) Never reveal your access card PIN number to anyone other than staff at the Telecom Security Operations Centre (SOC) in order to verify yourself as the card holder.

(d) Ensure external doors, including those that lock on closure are secure before leaving the area.

(e) Do not permit unauthorised people to gain entry through any key or Cardax controlled door or gate.

(f) Challenge any person that you witness tailgating (i.e. following in behind a legitimate access card holder). Also challenge non-card holders entering through vehicular access doors and gates to building basement car park areas.

(g) Where exit card readers are fitted, swipe your card when exiting. Failing to do so may result in further access to the site being denied.

(h) You are responsible for notifying the appropriate manager of your access card expiry date, one calendar month prior to it expiring. This will ensure continuity of access.

(i) Be alert and report suspicious items and unauthorised or suspicious activity to your manager.

(j) Report any security weaknesses, or any failure to follow correct security procedures, to your manager.

(k) Possession of a key or an access card giving legitimate access to a specific area does not grant the right to be in any other area.

(l) Possession of a key or an access card giving legitimate access to a specific area does not grant the right to be in the area without a valid purpose and if required a work permit.

(m) Legitimate access to a specific site or area does not grant the right to take unauthorised visitors into that or any other Telecom area.

(n) Immediately report the loss of your access card or key to the SOC on 0800-103-060, and then follow the IVR prompts, option 3, then 0, then 2.

(o) Access cards or keys may not be loaned to any person, except under clause 54.3.1. If there is loss of your access card or key to the SOC, ring 0800-103-060, and then follow the IVR prompts, option 3, then 0, then 2.

(p) Access cards or keys may not be loaned to any person, except under clause 54.3.1 of the Sub-loop Co-location Operations Manual. (You are responsible for your access card or key.)

(q) Access cards or keys remain the property of Telecom and must be returned to Telecom on request.

(r) Access cards are not valid if they have expired (expiry dates are printed on the card).

(s) Access cards or keys may not be copied or defaced in any way.