

PUBLIC VERSION

13.1/J10944

778525



COMMERCE COMMISSION

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

**SERVICE APPENDIX 1, SCHEDULE 1  
SUB-LOOP UCLL SERVICE DESCRIPTION**

**PUBLIC VERSION**

**18 June 2009**

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## 1 INTRODUCTION

- 1.1 References to clauses or sections are references to clauses or sections in this Sub-loop UCLL Service Description unless expressly provided otherwise. The definitions in the Sub-loop Services General Terms and the Sub-loop UCLL Operations Manual apply to the extent that they are not expressly modified by or inconsistent with this Sub-loop UCLL Service Description.
- 1.2 The Sub-loop UCLL Service (and its associated functions, including the associated functions of Telecom’s operational support systems) is a service that enables access to, and interconnection with, the Sub-loop Network. The Sub-loop UCLL Service comprises the Sub-loop MPF Service and the Sub-loop Tie Cable Service as described below and various ancillary services (as described in the Sub-loop UCLL Operations Manual and the Sub-loop UCLL Price List). Diagrams of the Sub-loop MPF Service and the Sub-loop Tie Cable Service are set out in Appendix A.
- 1.3 The Sub-loop UCLL Service is an input service which the Access Seeker can use as a building block to provide services to End Users. The Access Seeker can combine the Sub-loop UCLL Service with any relevant telecommunications service in order to deliver telecommunications services to End Users, including the following:
- (a) the Sub-loop Co-location Service;
  - (b) the Sub-loop Backhaul Service; or
  - (c) the Access Seeker’s own network or wholesale network transport services provided by other providers.

## 2 SUB-LOOP MPF SERVICE, SUB-LOOP TIE CABLE SERVICE AND ANCILLARY SERVICES

### Sub-loop MPF Service

- 2.1 The Sub-loop MPF Service consists of provision of a Sub-loop MPF for access to End Users. The specification of the Sub-loop MPF is set out in Appendix B.
- 2.2 The Sub-loop MPF Service extends from the ETP, through the Sub-loop Network, to the HDP block(s) on the DF in a Distribution Cabinet.
- 2.3 To use a Sub-loop MPF an Access Seeker must have the capability to access and interconnect with the Sub-loop MPF at the Distribution Cabinet, whether by:
- (a) co-locating Access Seeker Equipment in the relevant Distribution Cabinet using the Sub-loop Co-location Service; or
  - (b) interconnecting Access Seeker Equipment housed in a Pedestal located adjacent to the Distribution Cabinet with the Sub-loop MPF at the Distribution Cabinet using the Sub-loop Tie Cable Service.

- 2.4 “Access Seeker Equipment” in this Sub-loop UCLL Service Description includes equipment used for providing:
- (a) access to, and interconnection with, the Sub-loop UCLL Service; or
  - (b) backhaul for the Sub-loop UCLL Service.
- 2.5 There is no restriction on the type of service or application delivered over the Sub-loop MPF Service by the Access Seeker provided the technology used to deliver that service or application complies with the Interference Management Plan. This may in practice restrict the service or application offered by Access Seekers in some circumstances.

**Sub-loop Tie Cable Service**

- 2.6 Access Seekers may co-locate Access Seeker Equipment at a Distribution Cabinet using the Sub-loop Co-location Service which is separate from the Sub-loop UCLL Service.
- 2.7 Where Access Seeker Equipment is not located at the Distribution Cabinet at which the relevant Sub-loop MPF starts, a Sub-loop Tie Cable Service is available consisting of:
- (a) the provision of HDP block(s) in the Distribution Cabinet DF (with or without Splitters) and any necessary associated earthing;
  - (b) the provision of HDP block(s) with Splitters if requested by the Access Seeker, except where Telecom reasonably considers that:
    - (i) it is not technically feasible to install HDP block(s) with Splitters in the Distribution Cabinet DF; or
    - (ii) technically suitable Splitters are not available; and
  - (c) a Sub-loop Tie Cable:
    - (i) that meets the Cable Specification<sup>1</sup>; and
    - (ii) which connects the HDP block(s) on the Distribution Cabinet DF with the remotely located Access Seeker Equipment located near a point outside and adjacent to the Distribution Cabinet Manhole.
- 2.8 The Sub-loop Tie Cable may be supplied either by Telecom or the Access Seeker. Regardless of whether the Sub-loop Tie Cable is supplied by Telecom or the Access Seeker, Telecom must install the Sub-loop Tie Cable within the Distribution Cabinet and terminate it on the HDP block(s).

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<sup>1</sup> Refer to the specification listed in Appendix E to the Sub-loop UCLL Operations Manual.

- 2.9 For the avoidance of doubt, where the Access Seeker co-locates Access Seeker Equipment at a Distribution Cabinet using the Sub-loop Co-location Service, the Access Seeker may not require access to the Sub-loop Tie Cable Service.

**Service Assistance and Implementation Activities**

- 2.10 The Sub-loop UCLL Service includes service assistance provided by Telecom as follows:

- (a) automated facility for Access Seeker Sub-loop MPF Service and Sub-loop Tie Cable Service Orders and fault notifications;
- (b) an automated prequalification tool to assist the Access Seeker in determining the location and estimated characteristics of the Sub-loop MPF;
- (c) manual measurements of actual Sub-loop MPF electrical characteristics if requested by the Access Seeker; and
- (d) various other ancillary services as described in the Sub-loop UCLL Operations Manual, the Sub-loop UCLL Service Level Terms and in the Sub-loop UCLL Price List.

Further details of Sub-loop UCLL Service assistance provided by Telecom are set out in the Sub-loop UCLL Operations Manual.

- 2.11 The Sub-loop UCLL Service implementation activities that will be carried out by Telecom include:

- (a) provisioning of the Sub-loop MPF;
- (b) where Access Seeker Equipment is not located in the relevant Distribution Cabinet but is located at an Access Seeker cabinet or pedestal, and the Access Seeker is taking up the Sub-loop Tie Cable Service referred to above:
  - (i) provisioning of HDP block(s) on the Distribution Cabinet DF with or without Splitters, in accordance with clauses 2.7(a) and 2.7(b);
  - (ii) Grooming of HDP blocks and/or blocks terminating the Sub-loop Network in order to realise unused capacity on the Distribution Cabinet DF;
  - (iii) identification of the route that the Sub-loop Tie Cable will take between the HDP block(s) on the Distribution Cabinet DF and the point outside and adjacent to the Distribution Cabinet manhole and installation of the Sub-loop Tie Cable including installation of any required ducts to support the Sub-loop Tie Cable;
  - (iv) installation of the Sub-loop Tie Cable and termination on the HDP block(s) on the Distribution Cabinet DF, including installation of any required ducts to support the Sub-loop Tie Cable; and

- (c) ongoing service management.

### **Exclusions**

2.12 The specific exclusions to the Sub-loop UCLL Service include:

- (a) access to, or interconnection with, the Sub-Loop Network at any cabinet or at any distribution point apart from a Distribution Cabinet DF;
- (b) the Sub-loop Co-location Service which is an optional additional service;
- (c) the Sub-loop Backhaul Service which is an optional additional service;
- (d) access to, and interconnection with, the Sub-loop Network at any Distribution Cabinet where there is no relevant Capacity and no additional Capacity is able to be realised through Grooming (as set out in clause 9.13 of the Sub-loop UCLL Operations Manual);
- (e) provision or maintenance of End User premises wiring;
- (f) configuration, monitoring, operation, on-going support or maintenance of Access Seekers' or End Users' applications, equipment or networks;
- (g) any active Telecom analogue telephone service (**POTS**) on the same Sub-loop MPF and any other Telecom service over the Sub-loop MPF such as lawful intercept and 111 service;
- (h) installation of new copper loops between the Distribution Cabinet and an End User's site or installation of new service leads at an End User's site;
- (i) access to a Sub-loop MPF that supports a pair gain system<sup>2</sup> where that pair gain system cannot be transferred, where necessary, onto another suitable Sub-loop MPF; and
- (j) access to a Sub-loop MPF that is a derived circuit<sup>3</sup> over a pair gain system where that derived circuit cannot be transferred, where necessary, to another suitable Sub-loop MPF.

## **3 END USER HANDOVER POINT**

3.1 The Sub-loop MPF Service is delivered to the ETP. The ETP is the End User handover point.

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<sup>2</sup> A pair gain system is a pair of devices, including intermediate repeaters (if applicable), that transmits signals over higher frequencies or different time slots from both ends of a MPF for the purposes of increasing the capacity of the MPF.

<sup>3</sup> A derived circuit on a pair gain system is either (i) one of the initial circuits that operate in a higher frequency band or a different time slot; or (ii) in the case of a "1+1" pair gain system, the physical bearer.

3.2 The Sub-loop MPF Service excludes wiring at the End User's premises. The Access Seeker or the End User must be responsible for CPE and wiring at the End User's premises beyond the ETP. The Access Seeker must ensure that TelePermit and premises wiring requirements are adhered to. The detailed requirements are available at [www.telepermit.co.nz](http://www.telepermit.co.nz).

#### **4 DISTRIBUTION CABINET HANDOVER POINT**

4.1 The Sub-loop MPF Service is delivered from the Sub-loop MPF side of the HDP block(s) on the Distribution Cabinet DF.

#### **5 ACCESS SEEKER RESPONSIBILITIES**

5.1 In addition to the responsibilities stated in this Sub-loop UCLL Service Description, the Access Seeker's other responsibilities are detailed in the Sub-loop Services General Terms, the Sub-loop UCLL Service Level Terms and the Sub-loop UCLL Operations Manual.

#### **6 COMPONENTS OF THE SUB-LOOP UCLL SERVICE AND ASSOCIATED CHARGES**

6.1 Detailed information on the components of the Sub-loop UCLL Service, the core charges, sundry charges, transaction charges and recurring charges are set out in the Sub-loop UCLL Price List.

#### **7 SERVICE LEVELS**

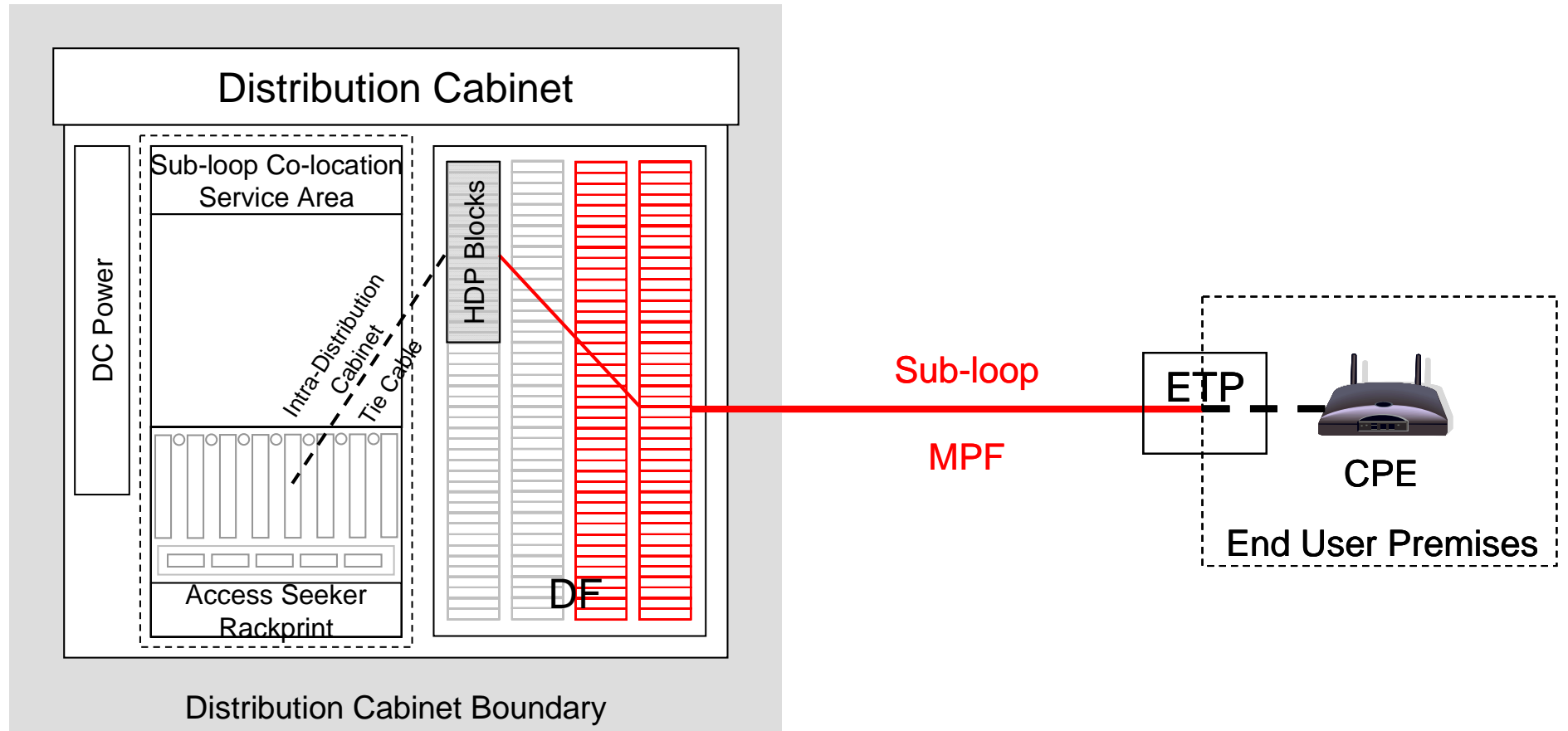
7.1 The applicable service levels are set out in the Sub-loop UCLL Service Level Terms.

#### **8 OPERATIONS MANUAL**

8.1 Detailed information on the operational processes and procedures for supply of the Sub-loop UCLL Service are set out in the Sub-loop UCLL Operations Manual.

APPENDIX A – DIAGRAMS

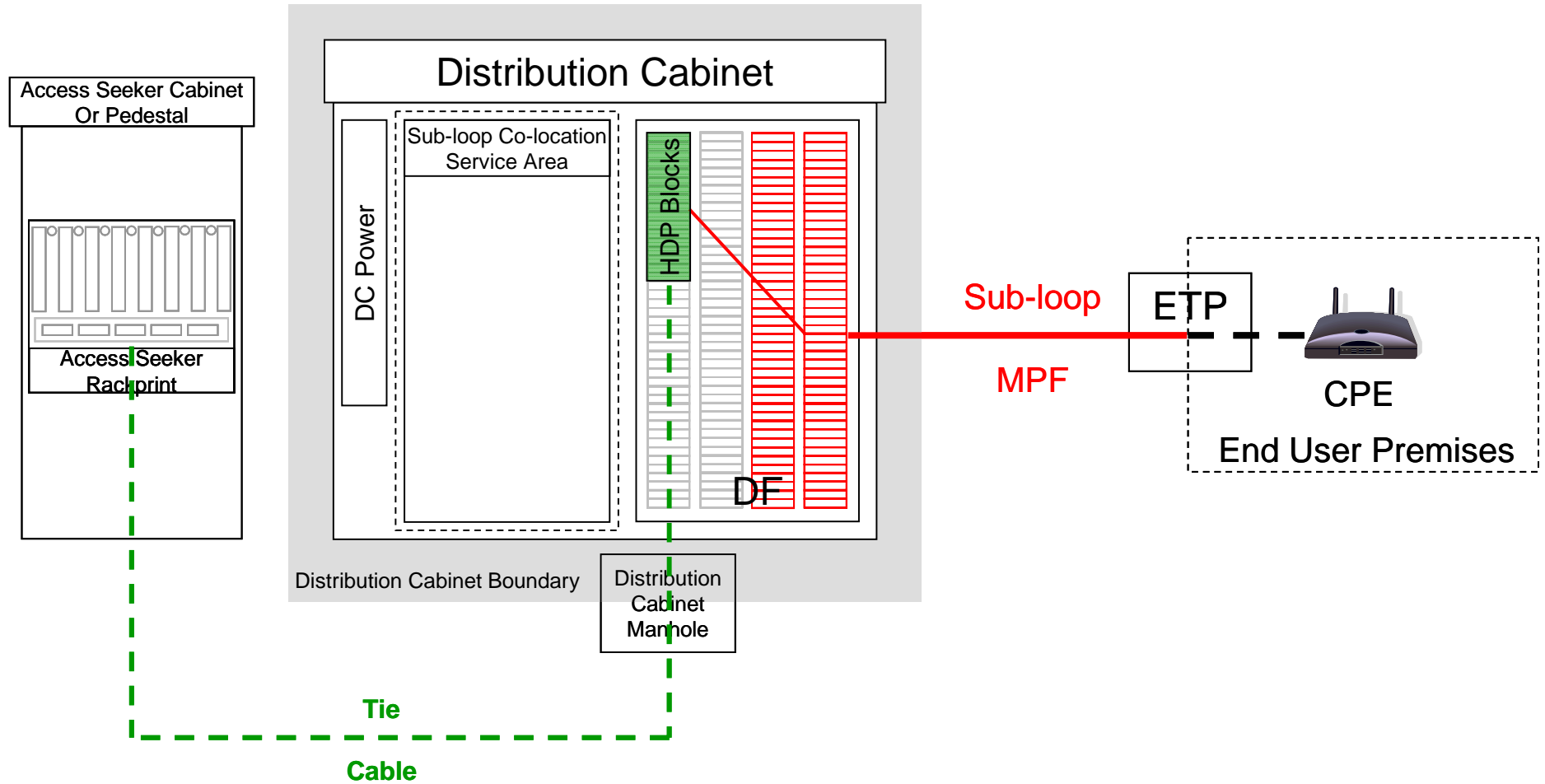
(i) Sub-loop MPF Service



CPE = Customer Premises Equipment (including modem)

Red = Sub-loop MPF Service

(ii) Sub-loop MPF Service and Sub-loop Tie Cable Service



- CPE = Customer Premises Equipment (including modem)
- Red = Sub-loop MPF Service
- Green = Sub-loop Tie Cable Service

**APPENDIX B - SPECIFICATION FOR THE SUB-LOOP MPF**

The parameters of the Sub-loop MPF are defined for the copper pair running from the DF to the ETP. When testing the parameters of the Sub-loop MPF, the Sub-loop MPF must be tested in isolation from the following:

- (a) End User site wiring and equipment; and
- (b) Sub-loop UCLL operator wiring and equipment of the Access Seeker.

The parameters listed in Table 1 apply to all types of Sub-loop MPF.

<b>Parameter (note 2)</b>	<b>Parameter value (taking account of notes 1 to 2)</b>
Minimum insulation resistance between conductors	100k Ohms
Minimum insulation resistance between conductor and earth	100k Ohms

Table 1 – Sub-loop MPF Parameters

Note 1: The Sub-loop MPF must be categorised faulty if any measured resistance is below the parameter values.

Note 2: Any measurement made with respect to earth must be made using the earth at the DF site.