COMMERCE
COMMISSION
NEW ZEALAND
Te Komihana Tauhokohoko

Draft

STANDARD TERMS DETERMINATION FOR CHORUS' UNBUNDLED COPPER LOCAL LOOP AND UNBUNDLED COPPER LOW FREQUENCY NETWORK BACKHAUL (TELEPHONE EXCHANGE TO INTERCONNECT POINT) SERVICE

SCHEDULE 2

UCLL AND UCLF BACKHAUL PRICE LIST

PUBLIC VERSION

27 June 2008

Updated to incorporate Commerce Commission decisions, amendments, and clarifications through to 10 April 2017

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1 Introduction

1.1 This schedule sets out the Charges[1] for the UCLL and UCLF Backhaul Service ~~at the date the UCLL and UCLF Backhaul Terms take effect~~ and provides a mechanism to make ~~any~~ adjustments to the Charges for Service Components[2].

1.2 References to clauses or sections are references to clauses or sections in this UCLL and UCLF Backhaul Price List unless expressly provided otherwise. The definitions set out in the UCLL and UCLF Backhaul General Terms and the UCLL and UCLF Backhaul Operations Manual apply to the extent that they are not expressly modified by or inconsistent with the context of this UCLL and UCLF Backhaul Price List.

2 Charges

2.1 All Prices[3] are listed under the "Charge" column for each Service Component.

~~2.1~~2.2 ~~Each~~ Charges for UCLL and UCLF Backhaul Service Components are ~~is~~ described ~~in the table below~~ as being either a Core ~~Charge~~ ('**C**') or a Sundry ~~Charge~~ ('**S**') Charge.

2.3 **Core Charges** are for the core components of the UCLL and UCLF Backhaul Service.

2.4 **Sundry Charges** are for other components of the UCLL and UCLF Backhaul Service ~~(ancillary services)~~.

2.5 Prices for Service Components are either:

2.5.1 fixed; or

2.5.2 calculated; or

2.5.3 expressed as "Price on application" (**POA**). Price that ar POA must reflect the underlying cost of providing the resources and project management skills required to provide the Service Component.

~~2.2~~2.6 ~~All Charges expressed as "Price on application" (POA) must reflect the underlying cost of providing the resources and project management skills required to provide the service.~~ For all Service Components that are POA ~~price items~~, Chorus must, if requested by the Access Seeker, use all reasonable endeavours to provide the Access Seeker with two or more competitive quotes.

~~2.3~~2.7 ~~The Access Seeker must notify Chorus of the service components that it requires.~~ Charges ~~for the Service Components~~ will become due and payable and will be invoiced in the manner described in the "Charge invoiced" column for each Service Component. ~~table below.~~

~~2.4~~2.8 The provisions in the UCLL and UCLF Backhaul General Terms relating to invoicing and payment of Charges apply.

~~2.5 All prices in this schedule exclude GST.~~

2.9 All adjustments to Price must be done in accordance with the relevant Price Change Mechanism is listed in the "Price Change Mechanism" column for each Service Component.

~~2.6~~2.10 ~~Any~~All adjustments to Charges for Service Components must be approved by the Commission.

3 UCLL and UCLF Backhaul Connection and Monthly Charges

~~2.7~~3.1 The following clauses provide a detailed explanation about connection Charges (Service Components 1.1 and 1.2) and monthly Charges (Service Components 2.1 to 2.12):

~~2.7.1~~3.1.1 For the purposes of this UCLL and UCLF Backhaul Price List:

~~2.7.1.1~~3.1.1.1 A primary link means that part of the UCLL and UCLF Backhaul Service between the Local Exchange Handover Point and the Parent POI Site (**Primary Link**). A secondary link means that part of the UCLL and UCLF Backhaul Service between the Parent POI Site and the ASNAPOI Handover Point (**Secondary Link**). A **Link** means a Primary Link and/or a Secondary Link; and

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[1] **Charge** is defined in the UCLL and UCLF Backhaul General Terms as "all or (as the context requires) any amounts payable by the Access Seeker under the UCLL and UCLF Backhaul Terms." Charges in this schedule exclude GST.

[2] **Service Component** means a component of the UCLL and UCLF Backhaul Service, described in the rows of tables 1-3. Each Service Component has a description of the service, a Price Change Mechanism, invoicing detail and a Charge, which is identified as either Core or Sundry. Individual Service Components are referred to by the numerical reference number at the start of the row in which the Service Component is described.

[3] **Price** in this document means the dollar amount(s) attributed to a Service Component. A Price becomes a Charge when the Access Seeker requests/receives the Service. Prices in this schedule exclude GST.

Comment [A2]: 11.3: Standardisation

Comment [A3]: 11.1: No longer applicable

Comment [A4]: 11.3: Standardisation

Comment [A5]: 11.3: Standardisation

Comment [A6]: 11.1: No longer applicable

2.7.1.23.1.1.2 **Local Exchange End** means the end located at the Local Exchange. **ASNAPOI End** means the end located at the ASNAPOI. **One End** refers to either the Local Exchange End or the ASNAPOI End, as the context requires. **Two Ends** refers to the Local Exchange End and the ASNAPOI End.

2.7.23.1.2 The connection Charge for the UCLL and UCLF Backhaul Service (Service Component 1.1 and 1.2) varies depending on whether the Access Seeker requires connection at One End or Two Ends. The application of these Charges is not dependent on the distance groups in Appendix A or the applicable transmission capacities for the UCLL and UCLF Backhaul Service. Service Component 1.1 applies where the Access Seeker requires a new UCLL and UCLF Backhaul connection for Two Ends. In contrast, Service Component 1.2 applies where the Access Seeker requires a rearrangement involving a new UCLL and UCLF Backhaul connection for One End of a Link.

2.7.33.1.3 For the avoidance of doubt:

2.7.3.13.1.3.1 a Parent POI Site does not qualify as an End unless that Parent POI Site is an ASNAPOI;

2.7.3.23.1.3.2 where an Access Seeker has more than one link ending at an ASNAPOI, a Two Ends connection Charge is payable by the Access Seeker for each Link; and

2.7.3.33.1.3.3 the Access Seeker may purchase more than one Secondary Link between the same POI Site and the same ASNAPOI – see example 4 in Appendix B.

2.7.43.1.4 The monthly Charges for the Primary Link and the Secondary Link (service component 2.1 to 2.12) vary depending on the radial distance of the Link and the transmission capacity. There are six distance groups for each transmission capacity for the UCLL and UCLF Backhaul Service. The distance groups are set out in Appendix A and the radial distances are set out in Schedule 5 to the UCLL and UCLF Backhaul General Terms. A list of the radial distances must also be made available to the Access Seekers via a secure Chorus web portal and must be regularly updated by Chorus.

2.7.53.1.5 The application of the monthly Charges for the Primary Link and the Secondary Link (Service Component 2.1 to 2.12) is illustrated in the following clauses.

2.7.63.1.6 Where the Access Seeker has:

2.7.6.13.1.6.1 a Primary Link that ends at the Parent POI Site;

2.7.6.23.1.6.2 a Secondary Link that starts at the same Parent POI Site; and

2.7.6.33.1.6.3 each of those Links has the same transmission capacity,

the Access Seeker pays a monthly Charge at that applicable capacity. The applicable radial distance is the sum of the radial distance from the Local Exchange to the Parent POI Site and the radial distance from the Parent POI Site to the ASNAPOI.

2.7.73.1.7 Where the Access Seeker has:

2.7.7.13.1.7.1 a Primary Link that ends at the Parent POI Site;

2.7.7.23.1.7.2 a Secondary Link that starts at the same Parent POI Site; and

2.7.7.33.1.7.3 the Secondary Link has a different transmission capacity to the Primary Link,

the Access Seeker pays the applicable monthly Charge for each Link at the applicable capacity. The radial distance for the Primary Link is the radial distance from the Local Exchange to the Parent POI Site and the radial distance for the Secondary Link is the radial distance from the Parent POI Site to the ASNAPOI.

2.7.83.1.8 Appendix B outlines examples relating to the application of the connection Charges (Service Components 1.1 and 1.2) and monthly Charges (Service Components 2.1 to 2.12).

2.7.93.1.9 In addition to the above requirements, Service Components 2.11 and 2.12 must be charged in accordance with the following formula: price = exp{4.6300 + (0.5071 x ln (radial distance)) + (0.3858 x ln(transmission capacity)) where "ln" means the natural log.[4]

2.8 ~~**Sundry Charges** are for other components of the UCLL and UCLF Backhaul Service (**ancillary services**). All Charges expressed as "price on application" (**POA**) must reflect the underlying cost of providing the resources and project management skills required to provide the service. For all POA price items, Chorus must, if requested by the Access Seeker, use all reasonable endeavours to provide the Access Seeker with two or more competitive quotes.~~

2.9 ~~The Access Seeker must notify Chorus of the service components that it requires. Charges for the service components will become due and payable and will be invoiced in the manner described in the table below.~~

2.10 ~~The provisions in the UCLL and UCLF Backhaul General Terms relating to invoicing and payment of Charges apply.~~

2.11 ~~All prices in this schedule exclude GST.~~

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[4] This formula can be calculated in Excel, using the exp() function with the ln(x) values of distance and transmission capacity.

2.12   All adjustments to Charges must be approved by the Commission.

Any adjustment to a Sundry Charge shall take effect from the date the Commission approves the adjustment.

~~3~~4   Adjustment to ~~Sundry~~ Charges ~~for Labour or Input Costs~~

~~3.1~~4.1   Chorus must, subject to the approval of the Commission, pass through changes in costs by increasing or decreasing ~~Sundry Charges~~Prices as follows:

~~3.1.1~~4.1.1   Each year, on 1 November ~~(Review Date)~~, Chorus must calculate adjustments to the ~~Sundry Charges~~Prices relating to the services where this clause is the prescribed Price Change Mechanism ~~that are shown in the Price List table~~ below. ~~(in the column "Price Change Mechanism" and identified as "clause 3.1.1")~~ Those adjustments must be by an amount equivalent to the percentage change (up or down) for the previous year in the Labour Cost Index (All sectors, Salary and Ordinary Time Wage Rates, All industries combined) Series Reference ~~LCIQ.SG51Z9 Communication Services) Series Reference LCIQ.SE49J9~~ as published by Statistics New Zealand, or such successor index as may be designated by Statistics New Zealand from time-to-time.

For the purpose of this clause 4.1.1 the annual percentage change between the previous year's June index number and the current year's June index number must be used. ~~For the purpose of this clause 3.1.1, the previous year is the period which commences on the quarterly index date immediately prior to the previous Review Date (or, for the first review, the date the UCLL and UCLF Backhaul Standard Terms Determination came into effect) and ends on the quarterly index date immediately prior to the Review Date. For the review on 1 November 2010, the previous year is the period which commences on the quarterly index date immediately prior to 1 November 2009.~~

~~3.1.2~~4.1.2   Where:

~~3.1.2.1~~4.1.2.1   the cost of providing one of the Service Components (with the prescribed Price Change Mechanism "clause 4.1.2")~~with a Charge that is shown in the Price List table below (in the column "Price Change Mechanism" and identified as "clause 3.1.2")~~ increases or decreases; and

~~3.1.2.2~~4.1.2.2   that increase or decrease is due to changes in input costs charged to Chorus pursuant to contractual obligations by its field service company contractors,

Chorus must immediately calculate the adjustment to the ~~Sundry Charge~~ Price relating to that Service Component to reflect the increase or decrease in costs.

~~3.1.3~~4.1.3   When adjusting ~~a Charge~~ Prices under clause 4.1~~3.1.1~~, Chorus must ~~also~~ review all ~~Charges~~ Service Components which are POA and ~~provide~~ calculate a fixed Price where this is practicable.

~~3.2~~4.2   Once an adjustment or new fixed Price has been calculated under clause 4.1~~3.1~~, Chorus must give notice to the Commission of the adjustment. The notice must include:

4.2.1   the figures used in the calculation for the adjustment;

4.2.2   the calculations undertaken for the adjustment;

~~3.2.1~~4.2.3   a description of the adjustment made; and

4.2.4   the reasons for the increase or decrease.

4.3   After an adjustment calculation has been approved by the Commission, Chorus must:

4.3.1   notify Access Seekers of the adjustment; and then,

4.3.2   activate the new Charge arising from the adjustments in its billing system within 30 Working Days of the Commission notifying Chorus of its approval.

Comment [A8]: 11.3: Standardisation

Comment [A9]: 11.3: Standardisation

Comment [A10]: 11.1: No longer applicable

Comment [A11]: 11.3: Standardisation

Comment [A12]: 12.1: FPP index

Comment [A13]: 12.2.3: Clarifying calculation

Comment [A14]: 11.3: Standardisation

Comment [A15]: 11.3: Standardisation & 12.2: Standardising adjustment process

Tables of UCLL and UCLF Backhaul Charges

1   UCLL and UCLF Backhaul Service Transaction Charges

	Service component	Description	Core or Sundry	Charge invoiced	Price Change Mechanism	Charge (excl. GST)
1.1	UCLL and UCLF Backhaul Service New Connection – Two Ends	The establishment of a UCLL and UCLF Backhaul Service new connection at Two Ends. Connection only For the avoidance of doubt this ~~charge~~ Service Component is separate from Service Component 1.4.	C	Following notification by Chorus of completion of Order	None	$8,059
1.2	UCLL and UCLF Backhaul Service New Connection – One End	The establishment of a UCLL and UCLF Backhaul Service new connection at One End. Connection only For the avoidance of doubt this ~~charge~~ Service Component is separate from Service Component 1.4.	C	Following notification by Chorus of completion of Order	None	$4,030
1.3	Handover Fibre Installation	~~Charge for~~ Chorus installing the Access Seeker's Handover Fibre between the exchange manhole and the OFDF. (See full requirements in UCLL and UCLF Backhaul Operations Manual)	S	Following notification by Chorus of completion of Order	~~Clause 3.1.1~~None	Price on Application (**POA**) Based on cost of time and materials (including a 10% contribution towards common costs, unless already recovered)
1.4	UCLL and UCLF Backhaul Connection Installation	Installation of UCLL and UCLF Backhaul Connection located at the Local Exchange or the ASNAPOI. Copper tie cable from footprint in co-location room in Local Exchange to Relevant Distribution Frame with Chorus or Access Seeker supplying the required cable Fibre tie cable from footprint in co-location room in Local Exchange to Relevant Distribution Frame, with Chorus or Access Seeker supplying the required cable Copper, Coax or fibre cable from footprint in co-location room to external footprint in wireless network antenna, with Chorus or Access Seeker supplying the required cable	S	On completion of installation	~~Clause 3.1.1~~None	Price on Application (**POA**) Based on cost of time and materials (including a 10% contribution towards common costs unless already recovered)

Comment [A16]: 11.3: Standardisation (unless otherwise specified).

	Service component	Description	Core or Sundry	Charge invoiced	Price Change Mechanism	Charge (excl. GST)
1.5	Relinquishment of Access Seeker Handover Fibre or UCLL and UCLF Backhaul Connection	Relinquishment of an existing Access Seeker Handover Fibre or UCLL and UCLF Backhaul Connection. ~~Charge~~ Covers time and materials to remove existing Handover Fibre or UCLL and UCLF Backhaul Connection and cables and equipment	S	On completion of relinquishment	~~Clause 3.1.1~~None	Price on Application (**POA**) Basis for determining the charge is based on recovery of costs incurred (including 10% contribution towards common costs, unless already recovered)
1.6	UCLL and UCLF Backhaul Service Network Change Order	Charge for project management and coordination of Network Change Orders. Where necessary, the Access Seeker will also be responsible for any relevant new connection or relinquishment	S	At completion of escorted access	Clause 3.1.1 ~~and Clause 3.1.2~~	$~~102.39~~113.72 per hour Pricing reflects the fully allocated cost of project management
1.7	UCLL and UCLF Backhaul Service Speed Change Order	Changing the transmission capacity of an existing connection when only a reconfiguration is required	S	At completion of escorted access	Clause 3.1.2	$~~227.13~~289.87 ~~[ ] CHORUS COI~~ ~~Pricing reflects the fully allocated cost of project management~~
1.8	UCLL and UCLF Backhaul Service Connection Relinquishment	Relinquishment of supply of an existing UCLL and UCLF Backhaul Service connection	C	Following notification by Chorus of completion of Order	None	~~No charge~~$0.00

Comment [A16]: 11.3: Standardisation (unless otherwise specified).

Comment [A17]: 9.3: 2016 adjustment

Comment [A18]: 9.3: 2016 adjustment

2   UCLL and UCLF Backhaul Service Recurring Charges

	Service component	Description	Core or Sundry	Charge Invoiced	Price Change Mechanism	Charge (excl. GST)
2.1	UCLL and UCLF Backhaul Service - 100Mbps – Distance Group 1*	~~Monthly charge for~~ UCLL and UCLF Backhaul Service - 100Mbps – Distance Group 1*	C	Monthly in advance from completion of Order	None	$964
2.2	UCLL and UCLF Backhaul Service - 1Gbps – Distance Group 1*	~~Monthly charge for~~ UCLL and UCLF Backhaul Service - 1Gbps – Distance Group 1*	C	Monthly in advance from completion of Order	None	$2,344
2.3	UCLL and UCLF Backhaul Service - 100Mbps – Distance Group 2*	~~Monthly charge for~~ UCLL and UCLF Backhaul Service - 100 Mbps – Distance Group 2*	C	Monthly in advance from completion of Order	None	$1,683
2.4	UCLL and UCLF Backhaul Service – 1Gbps – Distance Group 2*	~~Monthly charge for~~ UCLL and UCLF Backhaul Service – 1Gbps – Distance Group 2*	C	Monthly in advance from completion of Order	None	$4,091
2.5	UCLL and UCLF Backhaul Service – 100Mbps – Distance Group 3*	~~Monthly charge for~~ UCLL and UCLF Backhaul Service – 100Mbps – Distance Group 3*	C	Monthly in advance from completion of Order	None	$2,181
2.6	UCLL and UCLF Backhaul Service – 1Gbps – Distance Group 3*	~~Monthly charge for~~ UCLL and UCLF Backhaul Service – 1Gbps – Distance Group 3*	C	Monthly in advance from completion of Order	None	$5,301
2.7	UCLL and UCLF Backhaul Service – 100Mbps – Distance Group 4*	~~Monthly charge for~~ UCLL and UCLF Backhaul Service – 100Mbps – Distance Group 4*	C	Monthly in advance from completion of Order	None	$2,586
2.8	UCLL and UCLF Backhaul Service – 1Gbps – Distance Group 4*	~~Monthly charge for~~ UCLL and UCLF Backhaul Service – 1Gbps – Distance Group 4*	C	Monthly in advance from completion of Order	None	$6,287
2.9	UCLL and UCLF Backhaul Service – 100Mbps – Distance Group 5*	~~Monthly charge for~~ UCLL and UCLF Backhaul Service – 100Mbps – Distance Group 5*	C	Monthly in advance from completion of Order	None	$2,938
2.10	UCLL and UCLF Backhaul Service – 1Gbps – Distance Group 5*	~~Monthly charge for~~ UCLL and UCLF Backhaul Service – 1Gbps – Distance Group 5*	C	Monthly in advance from completion of Order	None	$7,142
2.11	UCLL and UCLF Backhaul Service – 100Mbps – Distance Group 6*	~~Monthly charge for~~ UCLL and UCLF Backhaul Service – 100Mbps – Distance Group 6*	C	Monthly in advance from completion of Order	None	Exponential of $[4.6300 + (0.5071 \times \ln(\text{radial distance})) + (0.3858 \times \ln(100))]$

Comment [A19]: 11.3: Standardisation (unless otherwise specified).

Service component	Description	Core or Sundry	Charge Invoiced	Price Change Mechanism	Charge (excl. GST)
2.12 UCLL and UCLF Backhaul Service – 1Gbps – Distance Group 6*	~~Monthly charge for~~ UCLL and UCLF Backhaul Service – 1Gbps – Distance Group 6*	C	Monthly in advance from completion of Order	None	Exponential of [4.6300 + (0.5071 x ln(radial distance)) + (0.3858 x ln(1000))]
[Original 2.13 -2.14 deleted[5]]					
2.15 Handover Fibre or UCLL and UCLF Backhaul Connection Space Rental ~~Charge~~	Monthly space rental ~~charge~~ for Handover Fibre or UCLL and UCLF Backhaul Connection co-located on Chorus property	C	Monthly in advance from completion of Order	None	$27.09

* The Distance Groups are defined in Appendix A – UCLL and UCLF Backhaul Recurring Charges.

Comment [A19]: 11.3: Standardisation (unless otherwise specified).

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[5] Decision No 690 (8 April 2010).

3 UCLL and UCLF Backhaul Service Ancillary Services

Service component		Description	Core or Sundry	Charge invoiced	Price Change Mechanism	Charge (excl. GST)
3.1	No Fault Found	~~Fixed charge for~~ Fault call that is closed 'no Chorus fault found'	S	Following completion of fault investigation	Clause 3.1.2	$~~110.04~~124.13 [ ] CHORUS COI
3.2	Additional OO&T Training	~~Charge for~~ Access Seeker staff training (at Access Seeker's site) on the operation and use of OO&T. Maximum of ten persons per course	S	Following completion of training	Clause 3.1.1	$~~102.39~~113.72 per hour plus actual travel costs (as applicable, the costs of airplane flights, public transport fares, taxi fares and standard mileage rates for motor vehicles as published by Inland Revenue) to Access Seeker's site. Hourly rate reflects fully loaded cost of skilled employee to run training
3.3	Additional OFM Training	~~Charge for~~ Access Seeker staff training (at Access Seeker's site) on the operation and use of OFM. Maximum of ten persons per course	S	Following completion of training	Clause 3.1.1	$~~102.39~~113.72 per hour plus actual travel costs (as applicable, the costs of airplane flights, public transport fares, taxi fares and standard mileage rates for motor vehicles as published by Inland Revenue) to Access Seeker's site. Hourly rate reflects fully loaded cost of skilled employee to run training
3.4	OO&T Licence Fee	Monthly software licence fee for OO&T	S	Monthly in advance	None	$24.00 per Access Seeker per month ~~Price is equal to the current charge for these services as outlined in the WSA~~
3.5	OFM Licence Fee	Monthly software licence fee for OFM	S	Monthly in advance	None	$24.00 per Access Seeker per month ~~Price is equal to the current charge for these services as outlined in the WSA~~
3.6	Additional Copies of Invoice	Additional hardcopies of invoices as requested by Access Seeker	S	Following provision of additional copies of invoice	Clause 3.1.1	$~~102.39~~113.72 per invoice Based on per line itemisation and average forecast invoice length plus estimated time and materials of person to prepare and courier charge
3.7	Additional Billing Information	Providing any additional billing information requested by the Access Seeker	S	On provision of the additional billing information	~~Clause 3.1.1~~None	Price on Application (POA) Based on time and material of analyst to prepare and deliver information

Comment [A20]: 11.3: Standardisation (unless otherwise specified).

Comment [A21]: 9.3: 2016 adjustment

Comment [A22]: 9.3: 2016 adjustment

Comment [A23]: 9.3: 2016 adjustment

Comment [A24]: 9.3: 2016 adjustment

Service component		Description	Core or Sundry	Charge invoiced	Price Change Mechanism	Charge (excl. GST)
3.8	Order cancellation Charge (Pre Truck Roll)	Cancellation of an Order after RFS date notified to Access Seeker but before truck roll confirmed	S	Upon cancellation	Clause 3.1.1	$4.515.00 Pricing reflects administration costs and time plus a 10% mark-up to cover common costs unless already recovered
3.9	Order cancellation Charge (Post Truck Roll)	Cancellation of an Order after RFS date notified to Access Seeker and after truck roll confirmed	S	Upon cancellation	Clause 3.1.2	$59.77104.13 [ ] CHORUS CO
3.10	Handover Fibre and UCLL and UCLF Backhaul Connection Repair Charges	Repair of the Handover Fibre or UCLL and UCLF Backhaul Connection	S	Following completion of work	None	No charge$0.00
3.11	Fixing fault where Access Seeker has no right of access	Charge for fFixing of fault by Chorus, at Access Seeker's request, where Access Seeker is responsible for the fault, but has no right of access	S	On completion of fault rectification	Clause 3.1.1None	Price on Application (POA) Based on cost of time and materials (including a 10% contribution towards common costs, unless already recovered)

Comment [A20]: 11.3: Standardisation (unless otherwise specified).

Comment [A25]: 9.3: 2016 adjustment

Comment [A26]: 9.3: 2016 adjustment

Appendix A - UCLL and UCLF Backhaul Service Recurring Charges

Table of Distance Groupings

Distance Group	Radial Distance
1	0 km < radial distance ≤ 5 km
2	5 km < radial distance ≤ 10 km
3	10 km < radial distance ≤ 15 km
4	15 km < radial distance ≤ 20 km
5	20 km < radial distance ≤ 25 km
6	radial distance > 25 km

> **Comment [A27]:** 11.3:
> Standardisation (unless otherwise specified).

Appendix B – Application of UCLL and UCLF Backhaul connection charges and monthly rental charges

This Appendix sets out a number of examples explaining how the connection Charges (Service Components 1.1 and 1.2) and monthly Charges (Service Components 2.1 to 2.12) will be applied under this STD.

Example 1:

In this example, the Access Seeker requires the same capacity on both the Primary Link and the Secondary Link of the UCLL and UCLF Backhaul Service.
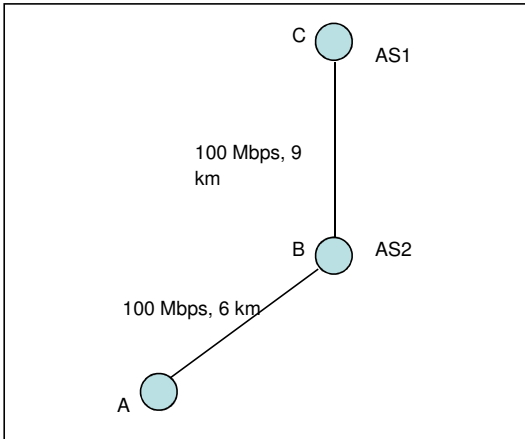
Note: The radial distances from A – B and B – C must be calculated separately and added together to determine the applicable distance group for the Links between A -- C.

Access Seeker 1

Access Seeker 1 (AS1) has a DSLAM located in Local Exchange A and doesn't require access to links at Local Exchange B. The Parent POI Site is at B and C is an ASNAPOI for AS1. In this example, the applicable monthly rental ~~rates~~ Charges and connection Charges are as follows:

|	
Monthly Rental Rate A-C (100 Mbps, 15 km):	Service Component 2.5: UCLL and UCLF Backhaul Service – 100 Mbps – Distance Group 3
Total Connection Charge (A, C):	Service Component 1.1: UCLL and UCLF Backhaul Service New Connection – Two ends

Access Seeker 2

Access Seeker 2 (AS2) has a DSLAM located in Local Exchange A. The Parent POI Site is at B and B is an ASNAPOI for AS2. In this example, the applicable monthly rental ~~rates~~ Charges and connection Charges are as follows:

Monthly Rental Rate A-B (100 Mbps, 6 km):	Service Component 2.3: UCLL and UCLF Backhaul Service – 100 Mbps – Distance Group 2
Total Connection Charge (A, B):	Service Component 1.1: UCLL and UCLF Backhaul Service New Connection – Two Ends

Example 2:

In this example, the Access Seeker is able to purchase two regulated UCLL Backhaul Services, as both links A-B and D-B are end-to-end services for AS2.
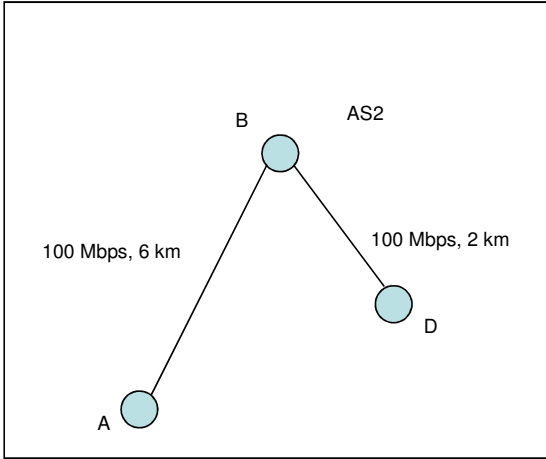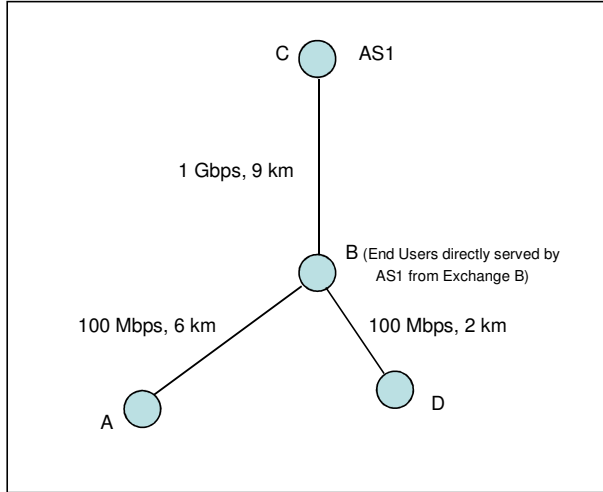

Access Seeker 2

Access Seeker 2 (AS2) has DSLAMs located at Exchanges A and D. The Parent POI is at B, and AS2 is also located near B (ie B is the ASNAPOI for AS2). In this example, the applicable monthly rental ~~rates~~ Charges and connection Charges are as follows:

Monthly Rental ~~Rate~~Charge A-B (100 Mbps, 6 km):   Service Component 2.3: UCLL Backhaul Service – 100 Mbps – Distance Group 2
Monthly Rental ~~Rate~~ Charge D-B (100 Mbps, 2 km):   Service Component 2.1: UCLL Backhaul Service – 100 Mbps – Distance Group 1
Connection Charge (A, B):   Service Component 1.1: UCLL Backhaul Service New Connection – Two Ends
Connection Charge (B, D):   Service Component 1.1: UCLL Backhaul Service New Connection – Two End

Example 3:

In this example, the Access Seeker has aggregation equipment at a Parent POI, under the UCLL Co-location STD, or a commercial co-location arrangement with Chorus. This example shows how the Access Seeker can choose to purchase a combination of lower capacity commercial primary links[6] and a higher capacity regulated Secondary Link, after aggregation has occurred.

Access Seeker 1

Access Seeker 1 (AS1) has DSLAMs located at Exchanges A, B and D, as it is serving end users off all three of these exchanges. In addition to the DSLAMs, AS1 has aggregation equipment located in exchange B. The Parent POI for exchanges A and D for the commercial unbundled copper local loop backhaul service is at B, and AS1 is also located near C (ie B is the ASNAPOI for AS1 under the UCLL Backhaul Standard Terms Determination).

If AS1 choses to aggregate its backhaul needs at exchange B, then it would only be able to access the regulated UCLL Backhaul Service for the Secondary Link B-C, as that would be the only end-to-end service form an exchange to the ASNAPOI for AS1. The Primary Links A-B and B-D would be available as commercial unbundled copper local loop backhaul services only, as they are not an end-to-end service from an exchange to the ASNAPOI for AS1.

The regulated UCLL Backhaul Service required by AS1 would have the following prices:

Monthly Rental ~~Rate~~ Charge B-C (1Gbps, 9km):   Service Component 2.1: UCLL Backhaul Service – 1 Gbps – Distance Group 2
Connection Charge (B, C):   Service Component 1.1: UCLL Backhaul Service New Connection – Two Ends

The prices for the links A-B and D-B would be as agreed in the commercial contract that they are available under but these links would not be governed by this UCLL Backhaul Standard Terms Determination.

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[6] The configuration of any commercial unbundled copper local loop backhaul service purchased from Chorus is at the discretion of Chorus.

Example 4:

In this example, the Access Seeker requires the same capacity on the Primary Links and the Secondary Links of the UCLL Backhaul Service. As the Access Seeker does not have any End Users that it serves at Local Exchange B, the Access Seeker is not able to locate aggregation equipment at Local Exchanges B under the UCLL Co-location STD (although the Access Seeker could locate aggregation equipment at Local Exchange B under a commercial co-location arrangement with Chorus).
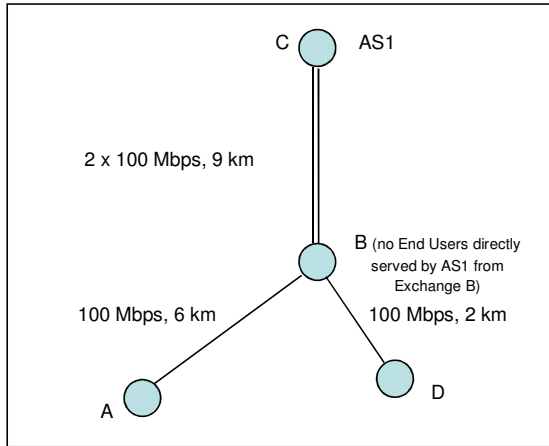
Access Seeker 1

Access Seeker 1 (AS1) has DSLAMs located at Local Exchanges A and D and doesn't require DSLAMs at exchange B, as it is not serving any End Users from that Local Exchange.

The Parent POI is at B, and AS1 is located near C (ie C is the ASNAPOI for AS1). In this example, AS1 purchases Links between A-C and D-C, which would have the following prices:

Monthly Rental ~~Rate~~ Charge A-C (100 Mbps, 15 km):	Service Component 2.5: UCLL Backhaul Service – 100 Mbps – Distance Group 3
Monthly Rental ~~Rate~~Charge D-C (100 Mbps, 11 km):	Service Component 2.5: UCLL Backhaul Service – 100 Mbps – Distance Group 3
Connection Charge (A, C):	Service Component 1.1: UCLL Backhaul Service New Connection – Two Ends
Connection Charge (D, C):	Service Component 1.1: UCLL Backhaul Service New Connection – Two End

As example 4 is comprised solely of regulated UCLL Backhaul Services, it cannot be directly compared to example 3, which contains a mix of the regulated UCLL Backhaul Service and commercial unbundled copper local loop backhaul service.[7]

AS1 will, however, face trade-offs between the regulated and commercial prices for monthly rental and connection Charges, and in particular:

Example 3		Example 4
The monthly charges of a regulated, higher capacity 1Gbps Secondary Link, two regulated connection Charges and commercial Charges for the remaining links, plus the opportunity to aggregate further links in the future at Local Exchange B.	**compared to**	The regulated monthly Charges for the regulated Links, lower capacity end-to-end Primary and Secondary Links, four regulated connection Charges, and the inability to aggregate links at Local Exchange B.

The optimal configuration of Primary and Secondary Links for AS1, and whether they are regulated, commercial or a combination, will depend of AS1's expectations about the amount of capacity required at Local Exchange B (ie the number of unbundled exchanges it will serves from the Parent POI) and AS1's ability to locate aggregation equipment at Local Exchange B.

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[7] The configuration of any commercial unbundled copper local loop backhaul service purchased from Chorus is at the discretion of Chorus.