



COMMERCE COMMISSION

**STANDARD TERMS DETERMINATION FOR TELECOM'S  
UNBUNDLED COPPER LOCAL LOOP NETWORK  
BACKHAUL (TELECOM EXCHANGE TO  
INTERCONNECT POINT) SERVICE**

**SCHEDULE 2  
UCLL BACKHAUL PRICE LIST  
PUBLIC VERSION**

**27 June 2008**

Updated to incorporate Commerce Commission clarifications up to 23 December 2009



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## 1 Introduction

- 1.1 This schedule sets out the Charges for the UCLL Backhaul Service at the date the UCLL Backhaul Terms take effect and provides a mechanism to make any adjustments to the Charges.
- 1.2 References to clauses or sections are references to clauses or sections in this UCLL Backhaul Price List unless expressly provided otherwise. The definitions set out in the UCLL Backhaul General Terms and the UCLL Backhaul Operations Manual apply to the extent that they are not expressly modified by or inconsistent with the context of this UCLL Backhaul Price List.

## 2 Charges

- 2.1 Each Charge is described in the table below as being either a Core Charge ('C') or a Sundry Charge ('S').
- 2.2 **Core Charges** are for the core components of the UCLL Backhaul Service. 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):
- 2.2.1 For the purposes of this UCLL Backhaul Price List:
- (a) A primary link means that part of the UCLL Backhaul Service between the Local Exchange Handover Point and the Parent POI Site (**Primary Link**). A secondary link means that part of the UCLL 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
  - (b) **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.
- 2.2.2 The connection charge for the UCLL 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 Backhaul Service. Service component 1.1 applies where the Access Seeker requires a new UCLL Backhaul connection for Two Ends. In contrast, service component 1.2 applies where the Access Seeker requires a rearrangement involving a new UCLL Backhaul connection for One End of a Link.
- 2.2.3 For the avoidance of doubt:
- (a) a Parent POI Site does not qualify as an End unless that Parent POI Site is an ASNAPOI;
  - (b) 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
  - (c) 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.
- 2.2.4 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 Backhaul Service. The distance groups are set out in Appendix A and the radial distances are set out in Schedule 5 to the UCLL Backhaul General Terms. A list of the radial distances must also be made available to the Access Seekers via a secure Telecom web portal and must be regularly updated by

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<sup>1</sup> This formula can be calculated in Excel, using the exp() function with the ln(x) values of distance and transmission capacity.

Telecom.

2.2.5 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.

2.2.6 Where the Access Seeker has:

- (a) a Primary Link that ends at the Parent POI Site;
- (b) a Secondary Link that starts at the same Parent POI Site; and
- (c) 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.

2.2.7 Where the Access Seeker has:

- (a) a Primary Link that ends at the Parent POI Site;
- (b) a Secondary Link that starts at the same Parent POI Site; and
- (c) 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.

2.2.8 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).

2.2.9 In addition to the above requirements, service components 2.11 and 2.12 must be charged in accordance with the following formula:  $\text{price} = \exp\{4.6300 + (0.5071 \times \ln(\text{radial distance})) + (0.3858 \times \ln(\text{transmission capacity}))\}$  where "ln" means the natural log.<sup>1</sup>

2.3 **Sundry Charges** are for other components of the UCLL Backhaul Service (**ancillary services**).

2.4 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, Telecom must, if requested by the Access Seeker, use all reasonable endeavours to provide the Access Seeker with two or more competitive quotes.

2.5 The Access Seeker must notify Telecom 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.

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

2.7 All prices in this schedule exclude GST.

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

### 3 Adjustment to Sundry Charges for Labour or Input Costs

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

3.1.1 Each year, on the anniversary of the date the Commission's UCLL Backhaul Standard Terms Determination came into effect, (**Review Date**), Telecom must adjust the Sundry Charges that are shown in the Price List table below (in the column "Price Change Mechanism" and identified as "clause 3.1.1") by an amount equivalent to the percentage change (up or down) for the previous year in the Labour Cost Index (Communication Services) Series Reference

LCIQ.SE49J9 as published by Statistics New Zealand.

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 Backhaul Standard Terms Determination came into effect) and ends on the quarterly index date immediately prior to the Review Date.

3.1.2 Where:

- (a) the cost of providing one of the Service Components 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
- (b) that increase or decrease is due to changes in input costs charged to Telecom pursuant to contractual obligations by its field service company contractors,

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

3.1.3 When adjusting a charge under clause 3.1.1, Telecom must also review all Charges which are POA and provide a fixed price where this is practicable.

3.2 Once an adjustment has been calculated under clause 3.1, Telecom must give notice to the Commission of the adjustment. The notice must include:

3.2.1 a description of the adjustment made; and

3.2.2 the reasons for the increase or decrease.

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

## Table of UCLL Backhaul Charges

### 1 UCLL Backhaul Service Transaction Charges

Service component	Description	Core or Sundry	Charge invoiced	Price Change Mechanism	Charge
1.1 UCLL Backhaul Service New Connection – Two Ends	The establishment of a UCLL Backhaul Service new connection at Two Ends.  Connection only  For the avoidance of doubt this charge is separate from Service Component 1.4.	C	Following notification by Telecom of completion of Order		\$8,059
1.2 UCLL Backhaul Service New Connection – One End	The establishment of a UCLL Backhaul Service new connection at One End.  Connection only  For the avoidance of doubt this charge is separate from Service Component 1.4.	C	Following notification by Telecom of completion of Order		\$4,030
1.3 Handover Fibre Installation	Charge for Telecom installing the Access Seeker's Handover Fibre between the exchange manhole and the OFDF. (See full requirements in UCLL Backhaul Operations Manual)	S	Following notification by Telecom of completion of Order	Clause 3.1.1	Price on Application ( <b>POA</b> )  Based on cost of time and materials (including a 10% contribution towards common costs, unless already recovered)
1.4 Backhaul Connection Installation	Installation of 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 Telecom or Access Seeker supplying the required cable  Fibre tie cable from footprint in co-location room in Local Exchange to Relevant Distribution Frame, with Telecom or Access Seeker	S	On completion of installation	Clause 3.1.1	Price on Application ( <b>POA</b> )  Based on cost of time and materials (including a 10% contribution towards common costs unless already recovered)

Service component	Description	Core or Sundry	Charge invoiced	Price Change Mechanism	Charge
	supplying the required cable  Copper, Coax or fibre cable from footprint in co-location room to external footprint in wireless network antenna, with Telecom or Access Seeker supplying the required cable				
1.5	Relinquishment of Access Seeker Handover Fibre or Backhaul Connection	S	On completion of relinquishment	Clause 3.1.1	Price on Application ( <b>POA</b> )  Basis for determining the charge is based on recovery of costs incurred (including 10% contribution towards common costs, unless already recovered)
1.6	UCLL Backhaul Service Network Change Order	S	At completion of escorted access	Clause 3.1.1 and Clause 3.1.2	\$102.60 per hour  Pricing reflects the fully allocated cost of project management
1.7	UCLL Backhaul Service Speed Change Order	S	At completion of escorted access	Clause 3.1.2	\$252.00  Three hours work at \$84.00 per hour  Pricing reflects the fully allocated cost of manual configuration work required
1.8	UCLL Backhaul Service Connection Relinquishment	C	Following notification by Telecom of completion of Order		No charge

## 2 UCLL Backhaul Service Recurring Charges

Service component	Description	Core or Sundry	Charge Invoiced	Price Change Mechanism	Charge
2.1 UCLL Backhaul Service - 100Mbps – Distance Group 1*	Monthly charge for UCLL Backhaul Service - 100Mbps – Distance Group 1*	C	Monthly in advance from completion of Order		\$964
2.2 UCLL Backhaul Service - 1Gbps – Distance Group 1*	Monthly charge for UCLL Backhaul Service - 1Gbps – Distance Group 1*	C	Monthly in advance from completion of Order		\$2,344
2.3 UCLL Backhaul Service - 100Mbps – Distance Group 2*	Monthly charge for UCLL Backhaul Service - 100 Mbps – Distance Group 2*	C	Monthly in advance from completion of Order		\$1,683
2.4 UCLL Backhaul Service – 1Gbps – Distance Group 2*	Monthly charge for UCLL Backhaul Service – 1Gbps – Distance Group 2*	C	Monthly in advance from completion of Order		\$4,091
2.5 UCLL Backhaul Service – 100Mbps – Distance Group 3*	Monthly charge for UCLL Backhaul Service – 100Mbps – Distance Group 3*	C	Monthly in advance from completion of Order		\$2,181
2.6 UCLL Backhaul Service – 1Gbps – Distance Group 3*	Monthly charge for UCLL Backhaul Service – 1Gbps – Distance Group 3*	C	Monthly in advance from completion of Order		\$5,301
2.7 UCLL Backhaul Service – 100Mbps – Distance Group 4*	Monthly charge for UCLL Backhaul Service – 100Mbps – Distance Group 4*	C	Monthly in advance from completion of Order		\$2,586
2.8 UCLL Backhaul Service – 1Gbps – Distance Group 4*	Monthly charge for UCLL Backhaul Service – 1Gbps – Distance Group 4*	C	Monthly in advance from completion of Order		\$6,287
2.9 UCLL Backhaul Service – 100Mbps – Distance Group 5*	Monthly charge for UCLL Backhaul Service – 100Mbps – Distance Group 5*	C	Monthly in advance from completion of Order		\$2,938

Service component	Description	Core or Sundry	Charge Invoiced	Price Change Mechanism	Charge
2.10 UCLL Backhaul Service – 1Gbps – Distance Group 5*	Monthly charge for UCLL Backhaul Service – 1Gbps – Distance Group 5*	C	Monthly in advance from completion of Order		\$7,142
2.11 UCLL Backhaul Service – 100Mbps – Distance Group 6*	Monthly charge for UCLL Backhaul Service – 100Mbps – Distance Group 6*	C	Monthly in advance from completion of Order		Exponential of $[4.6300 + (0.5071 \times \ln(\text{radial distance})) + (0.3858 \times \ln(100))]$
2.12 UCLL Backhaul Service – 1Gbps – Distance Group 6*	Monthly charge for UCLL Backhaul Service – 1Gbps – Distance Group 6*	C	Monthly in advance from completion of Order		Exponential of $[4.6300 + (0.5071 \times \ln(\text{radial distance})) + (0.3858 \times \ln(1000))]$
2.13 Access Seeker Handover Fibre Monthly Rental Charge – GigE capacity	Standard Monthly rental for an Access Seeker Handover Fibre– GigE capacity	S	Monthly in advance from completion of Order	Clause 3.1.1 and Clause 3.1.2	\$212.30 Based on an underlying service cost including maintenance of [ ] <b>TNZRI</b> plus a mark up of [ ] <b>TNZRI</b> to cover common costs
2.14 Access Seeker Handover Fibre Monthly Rental Charge – 100Mbps capacity	Standard Monthly rental for an Access Seeker Handover Fibre – 100Mbps capacity	S	Monthly in advance from completion of Order	Clause 3.1.1 and Clause 3.1.2	\$212.30 Based on an underlying service cost including maintenance of [ ] <b>TNZRI</b> plus a mark up of [ ] <b>TNZRI</b> to cover common costs
2.15 Handover Fibre or Backhaul Connection Space Rental Charge	Monthly space rental charge for Handover Fibre or Backhaul Connection co-located on Telecom property	C	Monthly in advance from completion of Order		\$27.09

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

### 3 UCLL Backhaul Service Ancillary Services

Service component	Description	Core or Sundry	Charge invoiced	Price Change Mechanism	Charge
3.1 No Fault Found	Fixed charge for fault call that is closed no Telecom fault found	S	Following completion of fault investigation	Clause 3.1.2	\$104.17 Based on a service company cost of [ ] <b>TNZCOI</b> plus [ ] <b>TNZCOI</b> administration charge and [ ] <b>TNZCOI</b> to cover the estimated direct front office costs to manage each transaction. [ ] <b>TNZRI</b> mark up to cover common costs
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	\$102.61 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	\$102.61 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		\$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		\$24.00 per Access Seeker per month Price is equal to the current charge for these services as

Service component	Description	Core or Sundry	Charge invoiced	Price Change Mechanism	Charge
					outlined in the WSA
3.6 Additional Copies of Invoice	Hardcopies of invoices as requested by Access Seeker	S	Following provision of additional copies of invoice	Clause 3.1.1	\$102.61 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	Price on Application (POA) Based on time and material of analyst to prepare and deliver information
3.8 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	\$4.51 Pricing reflects a \$4.10 administration cost and time plus a 10% mark-up to cover common costs unless already recovered
3.9 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	\$61.38 Based on a service company cost of [ ] TNZCOI plus [ ] TNZCOI administration charge and [ ] TNZCOI to cover the estimated direct front office costs to manage each transaction. [ ] TNZRI mark up to cover common costs
3.10 Handover Fibre and Backhaul Connection Repair Charges	Repair of the Handover Fibre or Backhaul Connection	S	Following completion of work		No charge
3.11 Fixing fault where Access Seeker has no right of access	Charge for fixing of fault by Telecom, 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 3.1.1	Price on Application (POA) Based on cost of time and materials (including a 10% contribution towards common costs, unless already recovered)

## Appendix A - UCLL Backhaul Service Recurring Charges

Table of Distance Groupings

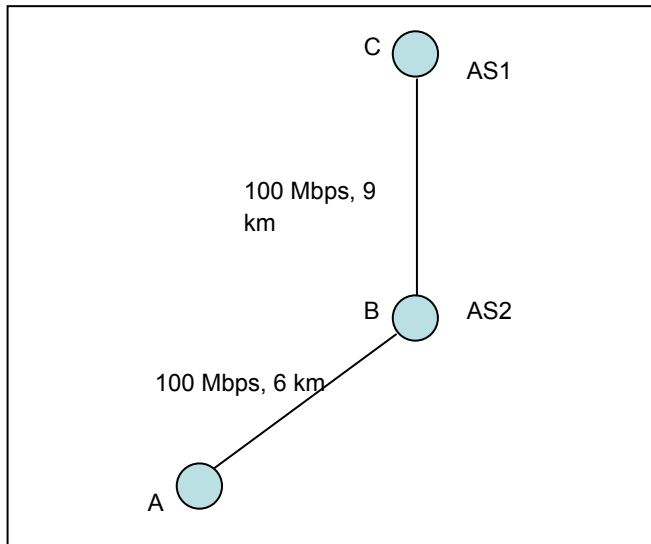
Distance Group	Radial Distance
1	0 km < radial distance ≤ 5 km
2	5 km < radial distance ≤ 10 km
3	10 km < radial distance ≤ 15 km
4	15 km < radial distance ≤ 20 km
5	20 km < radial distance ≤ 25 km
6	radial distance > 25 km

## Appendix B – Application of UCLL 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 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 and connection charges are as follows:

Monthly Rental Rate A-C (100 Mbps, 15 km): Service component 2.5: UCLL Backhaul Service – 100 Mbps – Distance Group 3

Total Connection Charge (A, C): Service component 1.1: UCLL 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 and connection charges are as follows:

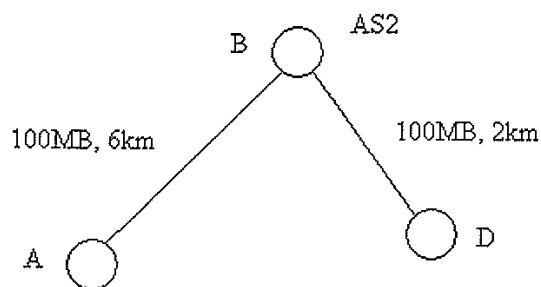
Monthly Rental Rate A-B (100 Mbps, 6 km): Service component 2.3: UCLL Backhaul Service – 100 Mbps – Distance Group 2

Total Connection Charge (A, B): Service component 1.1: UCLL Backhaul Service New Connection – Two Ends

**Annex Two: Revised Examples 2, 3 and 4 for Appendix B – Application of UCLL Backhaul Connection charges and monthly rental charges of UCLL Backhaul Price List**

**Example 2:**

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



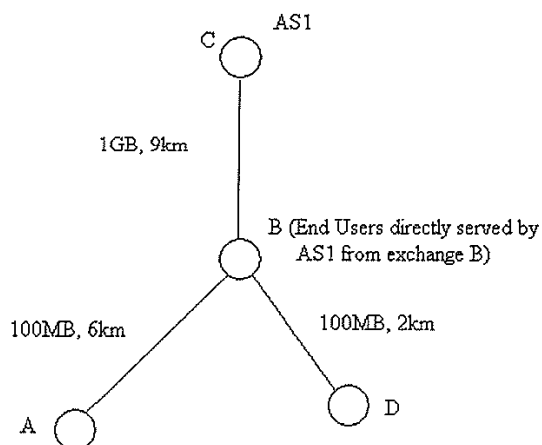
*Access Seeker 2*

Access Seeker 2 (AS2) has DSLAMs located in 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 and connection charges are as follows:

Monthly Rental Rate A-B (100Mbps, 6kms):	Service component 2.3: UCLL Backhaul Service – 100 Mbps – Distance Group 2
Monthly Rental Rate D-B (100Mbps, 2kms):	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 Ends

**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 Telecom. This example shows how the Access Seeker can choose to purchase a combination of lower capacity commercial primary links<sup>3</sup> and a higher capacity regulated Secondary Link, after aggregation has occurred.



*Access Seeker 1*

Access Seeker 1 (AS1) has DSLAMs located in 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 located near C (ie C is the ASNAPOI for AS1 under the UCLL Backhaul Standard Terms Determination).

If AS1 chooses 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 from 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:

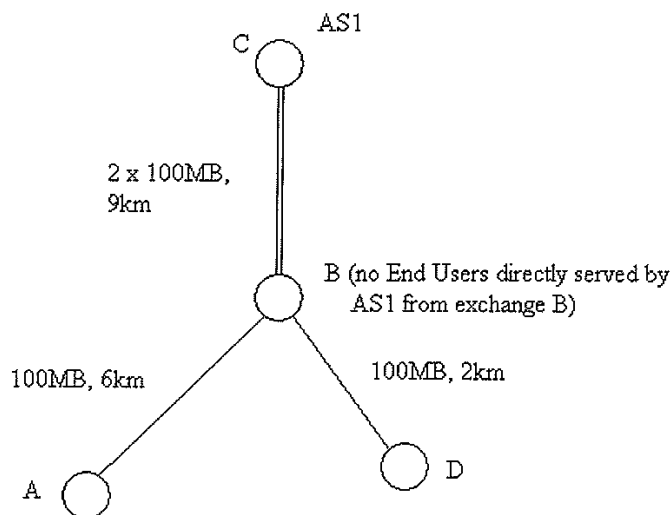
Monthly Rental Rate B-C (1Gbps, 9kms):	Service component 2.1: UCLL Backhaul Service – 1 Gbps – Distance Group 2
Connection Charge (B, C):	Service component 1.1: UCLL Backhaul Service New Connection – Two Ends

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.

<sup>3</sup> The configuration of any commercial unbundled copper local loop backhaul services 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 Seekers is not able to locate aggregation equipment at Local Exchange 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 Telecom).



*Access Seeker 1*

Access Seeker 1 (AS1) has DSLAMs located in 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 A-C (100Mbps, 15kms): Service component 2.5: UCLL Backhaul Service – 100 Mbps – Distance Group 3  
 Monthly Rental Rate D-C (100Mbps, 11kms): 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 Ends

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.<sup>4</sup>

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

**Example 3**  
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

**Example 4**  
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 on AS1's expectations about the amount of capacity required at Local Exchange B (ie the number of unbundled exchanges it will serve from that Parent POI) and AS1's ability to locate aggregation equipment at Local Exchange B.

<sup>4</sup> The configuration of any commercial unbundled copper local loop backhaul services purchased from Chorus is at the discretion of Chorus.