



COMMERCE COMMISSION

**Review of the Standard Terms Determination for the designated service
Telecom's unbundled copper local loop network backhaul (telephone
exchange to interconnection point)**

DECISION NO. 706

Final Review Decision under section 30R of the Telecommunications Act 2001 of
Decision 626

The Commission:

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EXECUTIVE SUMMARY

1. This competition review of the designated access service of Telecom's unbundled copper local loop network backhaul (telephone exchange to interconnect point) (**UCLL Backhaul Service**)¹ is the third review conducted by the Commerce Commission (the **Commission**) since the UCLL Backhaul Service standard terms determination (**STD**) was issued on 27 June 2008.
2. In this review the Commission conclude that 79² of the 168 UCLL Backhaul Primary Links³ and nine UCLL Backhaul Secondary Links⁴ are now subject to competition. Therefore in these markets, Telecom does not face limited (or is unlikely to face lessened) competition under the applicable statutory conditions of the UCLL Backhaul Service. Accordingly, the terms of the UCLL Backhaul STD do not apply to these links.
3. This outcome is a result of the continued deployment of competitive backhaul links by alternate backhaul providers, increasing UCLL unbundling and a reassessment of the competitive constraint presented by TelstraClear.
4. As part of the assessment framework, the Commission has considered whether any additional market conditions are present that may materially prevent competition from developing, such that links that would otherwise be competitive should remain subject to regulation.
5. In this review the Commission considered the issue of aggregation as raised in submissions by TelstraClear⁵ and Vector⁶ and whether the lack of the ability to aggregate backhaul for multiple providers is preventing competition from developing in the applicable UCLL Backhaul markets. The Commission considers Chorus' commercial offer does not materially restrict competition from developing in the applicable UCLL Backhaul markets.

INTRODUCTION

6. On 27 June 2008, the Commission issued a standard terms determination under section 30M of the Telecommunications Act 2001 (the Act) in respect of the UCLL Backhaul Service.
7. The conditions for the UCLL Backhaul Service require the Commission to identify the markets in which the UCLL Backhaul Service is supplied and to

¹ Commerce Commission, *Standard Terms Determination for the designated service of Telecom's unbundled copper local loop network backhaul (telephone exchange to interconnect point)*, 27 June 2008 (**UCLL Backhaul STD**).

² Thirty nine of these links have been assessed for the first time whereas the remaining 40 links have previously been assessed as being subject to limited competition.

³ A Primary Link refers to that part of the UCLL Backhaul Service between Telecom's local exchange in which the Access Seeker has co-located its equipment, and the Parent Point of Interconnection (**POI**) Site. A POI Site is a point in Telecom's network at which the Access Seeker may interconnect for the purposes of the UCLL Backhaul Service.

⁴ A Secondary Link refers to that part of the UCLL Backhaul Service between the Parent POI Site and the ASNAPOI Handover Point. The ASNAPOI Handover Point means the Access Seeker's side of the OFDF in the ASNAPOI.

⁵ TelstraClear Submission, 21 October 2010

⁶ Vector, *Submission on the Consultation on Market definition and Competition Assessment for UCLL/UBA Backhaul*, 20 April 2010.

assess whether Telecom faces limited, or is likely to face lessened, competition in those markets. For the purposes of the UCLL Backhaul STD, this involves the Commission assessing whether Telecom faces limited, or is likely to face lessened, competition in the markets for transmission capacity on Primary Links (local telephone exchange to Parent POI Site) and secondary links (Parent POI Site to **ASNAPOI**) of the UCLL Backhaul Service.

8. In this review the Commission has assessed competition in the wholesale markets for transmission capacity on certain Primary Links of the UCLL Backhaul Service⁷ and on all Secondary Links. All Primary and Secondary Links that were considered in the last review under section 30R of the Act have been reconsidered in this Decision. In addition, 70 UCLL Backhaul Primary Links were assessed for the first time as part of this review, as a result of exchanges which have been unbundled since the last review.

Background

9. This is the third competition review conducted under section 30R of the Act in respect of the UCLL Backhaul Service. Regular reviews are undertaken with the purpose of ensuring that the Commission's assessments remain current with market developments. Previous UCLL Backhaul Service section 30R reviews were published by the Commission on 30 April 2009⁸ and 3 December 2009.⁹
10. On 30 March 2010¹⁰, the Commission issued a letter to interested parties consulting on the approach to defining the market and assessing competition for this third UCLL Backhaul competition review.¹¹ Submissions were received from parties that no change in approach was required.
11. On 6 August 2010 the Commission issued a draft UCLL Backhaul Decision Document under section 30R of the Act (the **Draft**). In the Draft the Commission adopted the approach used for assessing competition in the UCLL Backhaul market that has been implemented in the previous two Reviews.¹² The Commission received submissions from Telecom¹³ and Chorus.¹⁴

⁷ The Commission assessed competition along all Primary Links that have been assessed in previous UCLL Backhaul competition reviews as well as links connected to exchanges that had been forecast to be unbundled at the time the information request for this Review was circulated. In addition, the Commission added a selection of dummy links in order to protect the confidentiality of the links associated with exchanges that are forecast to be unbundled.

⁸ Commerce Commission, *Review of the Standard Terms Determination for the designated service of Telecom's unbundled copper local loop network backhaul (telephone exchange to interconnection point)*, 30 April 2009 (**Decision 667**).

⁹ Commerce Commission, *Review of the Standard Terms Determination for the designated service of Telecom's unbundled copper local loop network backhaul (telephone exchange to interconnection point)*, 3 December 2009 (**Decision 686**).

¹⁰ Commerce Commission, *Unbundled Copper Local Loop Backhaul and Unbundled Bitstream Access Backhaul Standard Terms Determinations – Consultation over the market definition and competition assessment*, 30 March 2010 (the **30 March 2010 letter**).

¹¹ The Commission received six submissions on the 30 March 2010 letter. Public versions of these submissions are available at <http://www.comcom.govt.nz/competition-reviews-for-uba-backhaul-and-ucll-backhaul-services/>.

¹² Decisions 667 and 686

¹³ Telecom, *Telecom response to the Commerce Commission draft review of unbundled local loop backhaul services*, 13 August 2010 (**Telecom Submission**).

Revised draft UCLL Backhaul Competition Review

12. On 23 September 2010, the Commission issued a Revised Draft UCLL Backhaul competition review decision.¹⁵ As a result of the issues raised in submissions on the Draft, the Commission revised the approach used for assessing competition in the UCLL Backhaul market. In particular, the Commission:
- maintained the view that an operator with a network within 1km-2km of an exchange has incentives to offer UCLL backhaul if requested by an access seeker;
 - removed the cost to build criteria when assessing potential competition on the basis that there is a relatively linear relationship between the cost to build and distance;¹⁶ and
 - decided that any operator that is within 1km-2km of a Telecom exchange will be considered a competitive constraint on Telecom unless it has *publicly stated* that it does not intend to connect to the exchange.
13. The Commission considered that these changes to the criteria would more appropriately reflect the market dynamics and the extent to which Telecom is constrained in the UCLL Backhaul market, as well as simplifying the assessment
14. In the Revised Draft, the Commission applied the following criteria when assessing competition in the wholesale markets for transmission capacity in respect of the relevant Primary Links and Secondary Links of the UCLL Backhaul Service:¹⁷
- Telecom does not face limited competition where there is one, or more, wholesale-only backhaul providers;
 - Telecom faces limited competition where there is no alternative wholesale only backhaul provider or one vertically-integrated operator;
 - where a nearby fibre-based network is within 1km-2km of a Telecom exchange, the network is considered a competitive constraint unless:
 - the operator has publicly stated that they do not intend to, and will not in the near future, offer services to or from that local exchange; or
 - the Commission considers, on a case-by-case basis, that additional information provided by a fibre-based network about a specific link should be taken into consideration;

¹⁴ Chorus, *Draft Review of the Standard Terms Determination for the designated service Telecom's UCLL Network Backhaul*, 13 August 2010 (**Chorus Submission**).

¹⁵ Commerce Commission, *Revised Draft Review of the Standard Terms Determination for the designated service Telecom's unbundled copper local loop network backhaul (telephone exchange to interconnection point)*, 23 September 2010 (**Revised Draft**)

¹⁶ Having accounted for the initial sunk costs.

¹⁷ Commerce Commission, *Revised Draft Review of the Standard Terms Determination for the designated service Telecom's unbundled copper local loop network backhaul (telephone exchange to interconnection point)*, p 9, paragraph 37.

- for those markets in which Telecom is found not to face limited competition, Telecom is not likely to face lessened competition.

SUBMISSIONS

15. This section summarises the key issues raised in submissions on the Revised Draft and provides the Commission's response to each of these issues.

TelstraClear are a constraint in the wholesale market

16. In the UCLL Backhaul STD the Commission's view was that Telecom faced limited competition in the supply of the UCLL Backhaul Service where one other vertically-integrated competitor is the only supplier competing with Telecom. However, the Commission stated that:¹⁸

The Commission will review this position, should evidence be presented that shows that competitive outcomes (for example, in terms of pricing) are being achieved on routes where Telecom and a vertically-integrated competitor are the only suppliers of backhaul services.

17. In the previous two UCLL Backhaul competition reviews, the Commission's view remained that Telecom faced limited competition where Telecom and one other vertically integrated operator (such as TelstraClear) were present on a link.
18. In response to the Draft, Telecom disagreed with the Commission's decision to exclude vertically integrated operators from being considered a competitive constraint. Telecom submitted that TelstraClear is a major competitor to, and constraining force on Chorus, Telecom Wholesale and Telecom Retail, and that TelstraClear's presence on a primary or secondary backhaul link constrains the freedom of Chorus for UCLL Backhaul. Telecom submitted that the constraint is a direct one where TelstraClear is active in a wholesale market and an indirect one where TelstraClear compete at a retail level – placing downward pressure on input prices.¹⁹
19. Telecom also submitted that the infrastructure provided by TelstraClear in its Southern Loop between Christchurch, Timaru, Dunedin, Invercargill and Queenstown qualifies as a real competitive alternative.²⁰
20. Similarly, TelstraClear disagreed with the Commission's view that vertically integrated providers are unable to act as a constraint in the backhaul market.²¹ TelstraClear noted that it operates a significant wholesale division which provides wholesale data, virtual ISP, telephony and data centres, internet and voice services and that TelstraClear Wholesale markets to carriers, ISPs and resellers. TelstraClear also stated it assumed the near entrant criteria will apply for smaller networks with localised network coverage that are within 1 km of a

¹⁸ Commerce Commission, Decision No. 626: *Standard Terms Determination for the designated service Telecom's unbundled copper local loop network backhaul (telephone exchange to interconnect point)*, 27 June 2008, p 44, paragraph 173.

¹⁹ Telecom Submission 21 October 2010, page 1 and Telecom Submission 13 August 2010.

²⁰ Telecom Submission, 21 October 2010, page 2.

²¹ TelstraClear Submission, 21 October 2010, page 2

Telecom exchange and for inner-city networks within 2km and asked the Commission to clarify this interpretation in this review.²²

21. TelstraClear provided the Commission with confidential evidence of backhaul links that it has won through competitive tendering. The Commission has assessed this information and considers it demonstrates that competitive outcomes are being achieved on links where Telecom and TelstraClear are the only potential suppliers of backhaul services. Therefore, the Commission's view is now that TelstraClear acts as a competitive constraint on those links where TelstraClear is currently able to supply UCLL Backhaul Services in competition with Telecom.
22. The Commission accordingly considers that TelstraClear as an operator with an inter-city network qualifies as a competitive constraint on links on which it has a network presence within 2kms from an exchange, regardless of whether or not TelstraClear is currently supplying UCLL Backhaul Services at those locations unless TelstraClear has publicly stated that it does not intend to, and will not in the near future, offer services to or from that local exchange.
23. In summary, the Commission has determined that Telecom does not face limited, or is unlikely to face lessened, competition on any Primary or Secondary Links where only Telecom and TelstraClear are present.

Public statements

24. In the Revised Draft, the Commission stated that any operator that meets the near entrant criteria was to be considered a competitive constraint on Telecom unless it has *publicly stated* that it does not intend to connect to the exchange. In response, the Commission received statements from CityLink and Christchurch City Networks Limited.
25. CityLink submitted that it does not directly compete in the UCLL backhaul market, and that in cases where it is within the 1-2km areas of an exchange, the costs for establishing such network links compared to pre-existing Telecom supplied options make it uneconomic for prospective customers.²³
26. CityLink further submitted that it has no specific planned intentions to build network extensions into Telecom exchanges unless there are customers wishing to contract such links based on the standard CityLink installation rates.²⁴
27. Christchurch City Networks Limited (trading as Enable Networks) submitted that it has no current intentions to connect to a number of Christchurch exchanges because the business case for the investment in providing this service is usually not viable, or at best marginally viable, with service providers taking a very short term outlook and partnering to share exchange based equipment thereby limiting backhaul requirements.²⁵

²² The near entrant criteria was first defined on page 32 paragraphs 112-113 of Decision 626. elstraClear Submission, 21 October 2010, pages 4 and 5.

²³ CityLink submission, 28 September 2010

²⁴ CityLink submission, 28 September 2010

²⁵ CCNL Submission, 30 September 2010

28. The Commission considers that neither CityLink nor Christchurch City Networks provide a competitive constraint to Telecom.

Are any additional market conditions present that may materially prevent competition from developing?

29. Vector Communications submitted that when a stand-alone fibre network player (such as Vector) connects to a Telecom exchange, Chorus' terms and conditions require them to connect one fibre per customer, whereas, by contrast, Telecom Wholesale are able to aggregate customers over one fibre giving them a potential advantage on connection costs. Vector noted that if backhaul aggregation and complementary services (e.g. hauling fibre into the exchange, other connection and co-location costs) are not offered to all on equivalent terms, then Telecom have the potential to skew the state of competition.²⁶
30. TelstraClear submitted that their ability to provide a more competitive backhaul service would improve significantly if Telecom allowed them to connect their surplus fibre to wholesale customers within the exchange, without having to install that fibre in the manhole outside the exchange.²⁷ TelstraClear submitted that this would allow it to aggregate its wholesale customer's backhaul services in a more cost-effective and timely way.
31. TelstraClear noted that Telecom usually requires each traffic type to meet in the manhole outside of the exchange. Each wholesale customer is required to procure their own fibre cable from inside the exchange to the outside manhole for each service. A wholesaler wishing to provision UCLL Backhaul and UBA Backhaul services is also required to procure fibre from inside the exchange to the manhole.²⁸
32. TelstraClear further noted that the process and cost to procure the fibre cable is restrictive and the process to order and provision the fibre can take as long as 8 weeks.
33. Telecom submitted that any additional costs associated with providing a competitive backhaul service are likely to be comparatively low, and this matter should not affect the Commission's current competition assessment framework.²⁹
34. The Commission considers that it is appropriate as part of the assessment criteria to take into account any additional factor that may materially prevent competition from developing in the UCLL Backhaul markets as a whole.
35. A requirement to connect a separate fibre for each service at the exchange manhole is likely to be inefficient, creating additional cost for alternate backhaul providers which will ultimately be passed on to end-users, and as a result is likely to make third party Backhaul uneconomic.

²⁶ Vector, *Submission on the Consultation on Market definition and Competition Assessment for UCLL/UBA Backhaul*, 20.April 2010, p 4.

²⁷ TelstraClear Submission, 21 October 2010, page 8, paragraph 30.

²⁸ TelstraClear Submission, 21 October 2010, page 8, paragraph 31.

²⁹ Telecom Submission, 21 October 2010, page 2.

36. Chorus recently introduced a commercial aggregation service called “Aggregated UCLL Footprint Co-location”. This service enables a backhaul provider to install aggregation equipment in an exchange in order to provide a shared backhaul link for one or more UCLL service providers.³⁰
37. Chorus’ commercial aggregated UCLL service does not require extra fibre cables to be run out to the exchange manhole. The Commission considers that the ability to commercially aggregate UCLL backhaul traffic within an exchange increased the likelihood of potential competition in UCLL Backhaul market
38. The Commission has considered the costs charged to alternate backhaul providers for Chorus’ commercial co-location service. In addition, the Commission also sought feedback on Chorus’ commercial co-location service from interested parties and has taken this into account.
39. The Commission considers that the introduction of a commercial aggregation service by Chorus will ensure that aggregation issues do not materially restrict competition from developing in the applicable UCLL Backhaul markets.

Combining UCLL and UBA Backhaul Reviews

40. In its letter of 30 March 2010, the Commission asked interested parties to comment on whether the Commission should, in addition to conducting a review of all links annually, undertake competition reviews on a link-by-link basis (in response to requests from interested parties, or on its own initiative) of whether Telecom faces limited competition on a particular link, in light of competitive developments. All submissions on this issue favoured an approach whereby additional reviews could occur on a link-by-link basis, in addition to the annual review.
41. The Commission’s view is that it is appropriate for a review of all UCLL Backhaul Links to be conducted annually taking into account competition developments, and for this review to be supplemented where necessary by competition reviews on a link-by-link basis (either in response to requests from interested parties, or on the Commission’s own initiative).
42. In the Revised Draft, the Commission invited submissions on whether, in future, a combined review process should be undertaken for both the UCLL Backhaul and the UBA Backhaul reviews.
43. All the submissions received were in favour of a combined backhaul review. Accordingly, the Commission will for future reviews of backhaul markets combine the review process for the UCLL Backhaul and UBA Backhaul Services.

APPLICATION OF ASSESSMENT CRITERIA IN THIS DECISION

44. In completing this Review, the Commission has applied the “conditions” set out in sub-clause (b) for the UCLL Backhaul Service set out in Part 2 of Schedule 1

³⁰ See http://www.chorus.co.nz/f869,44519/Aggregated_20UCLL_20Footprint_1_.pdf

of the Act. In doing so, the Commission has applied the following criteria when assessing competition in the wholesale markets for transmission capacity in respect of the 168 Primary Links and 38 Secondary Links which were assessed as part of this Review:

- a) Subject to (d), Telecom does not face limited competition on Primary Links or Secondary Links where there are one or more other backhaul providers;³¹
- b) where a nearby fibre-based network meets the near entrant criteria, the network is considered a competitive constraint unless the operator has publicly stated that it does not intend to, and will not in the near future, offer services to or from that local exchange; or
- c) for those markets found to be markets in which Telecom does not face limited competition, Telecom is not likely to face lessened competition; and
- d) there are no additional market conditions present that may materially prevent effective competition from developing.

Primary Links

45. The Commission's view is that the 110 UCLL Backhaul Primary Links set out in Table 1 and Table 2 below either require competition classification for the first time³² (because those links are considered for the first time in this Review) or require a change in classification as a result of applying the criteria set out in paragraph 44.
46. The conclusions reached on all other UCLL Backhaul Primary Links remain the same as the last section 30R review and, for completeness, are recorded in Schedule 1.
47. The Commission's view is that Telecom does not face limited, and is unlikely to face lessened, competition on 79 UCLL Backhaul Primary Links. Therefore, these links are not subject to the terms and conditions of the UCLL Backhaul STD on request of an Access Seeker. A table of these is presented in Schedule 3 at the end of this document.
48. In contrast, the Commission concludes that Telecom faces limited competition on the 31 Primary Links listed in Table 1 below, some of which have been assessed for the first time (as shown by the asterixes below). Therefore these links are subject to the terms and conditions of the UCLL Backhaul STD on request of the Access Seeker and where all applicable terms and conditions for accessing the UCLL Backhaul Service are satisfied.

Table 1: Links assessed as being subject to limited competition

Alexandra	Cromwell*	Ranfurlly	Cromwell*
Coromandel	Hamilton*	Rangiora	Riccarton*
Darfield	Riccarton*	Roxburgh	Cromwell*

³¹ ie already connected to the exchange.

³² All Links that have been assessed for the first time in this Review are marked with an asterix (*). 70 links assessed for the first time.

Dargaville	Whangarei*	Sumner	Christchurch*
Flaxmere	Napier*	Tairua	Hamilton*
Gisborne	Napier*	Te Anau	Invercargill*
Haumoana	Napier*	Thames	Hamilton *
Hokitika	Greymouth*	Tuatapere	Invercargill*
Kaitaia	Kerikeri*	Twizel	Cromwell*
Kurow	Timaru*	Waiheke	Howick*
Little River	Christchurch*	Waihi Beach	Tauranga*
Matamata	Hamilton *	Waimarama	Napier*
Matawai	Napier*	Wairoa	Napier*
Ohakune	Palmerston North*	Welcome Bay	Tauranga*
Otamauri	Napier*	Westport	Greymouth*
Papamoa	Tauranga*		

49. A complete list of the competition assessment classification of all UCLL Backhaul Service Primary Links is shown in Schedule 1.

Secondary Links

50. In this Review, the Commission has applied the framework in paragraph 44 above to all UCLL Backhaul Secondary Links.
51. Following its analysis, the Commission's view is that nine Secondary Links require a change in competition classification as TelstraClear is now considered a competitive constraint. The Commission's view is that Telecom does not face limited, and is unlikely to face lessened, competition on the UCLL Backhaul Secondary Links between:
- Glenfield and Whangarei;
 - Hamilton and New Plymouth;
 - New Plymouth and Palmerston North;
 - Porirua and New Plymouth;
 - Nelson and Wellington;
 - Riccarton and Nelson;
 - Christchurch and Timaru;
 - Timaru and Dunedin; and
 - Dunedin and Invercargill.
52. These links are no longer subject to the terms and conditions of the UCLL Backhaul STD on request of an Access Seeker. The classification of all UCLL Backhaul Service Secondary Links is shown in Schedule 1.

CONCLUSIONS OF THIS REVIEW

53. The Commission's conclusions in this Review are summarised below:

- TelstraClear is a competitive constraint on Primary and Secondary Links where it is connected to, or within 2km of, the relevant exchange(s);
- the criteria for assessing competition in the wholesale markets for transmission capacity on the Primary Links and Secondary Links of the UCLL Backhaul Service which are assessed in this Decision are as set out in paragraph 44 above;
- 110 UCLL Backhaul Primary Links have been assessed for the first time, and/or require a change in classification, as part of this Review. In respect of these 110 Primary Links:
 - Telecom does not face limited, or is unlikely to face lessened, competition on 70 of the links. Therefore, these 70 UCLL Primary Links are not subject to the terms and conditions of the UCLL Backhaul STD on request of an Access Seeker under the Act;
 - Telecom faces limited competition on 31 of the 110 links. These 31 UCLL Primary Links are subject to the terms and conditions of the UCLL Backhaul STD on request of an Access Seeker under the Act subject to satisfaction of the preconditions on obtaining access to UCLL Backhaul;
- nine out of the 37 UCLL Backhaul Secondary Links assessed in this review require a change in competition classification as TelstraClear is now considered a competitive constraint. Telecom does not face limited, and is unlikely to face lessened, competition on these nine UCLL Backhaul Secondary Links. Therefore, these links are no longer subject to the terms and conditions of the UCLL Backhaul STD;
- there are no other changes required to the competition conclusions made by the Commission for all other previously assessed Secondary Links from the last review under section 30R;
- Appendix B in Schedule 5 “UCLL Backhaul POI Site Related Information” of the UCLL Backhaul STD is replaced with the new Appendix B attached as Schedule 2 to this Review. Schedule 2 specifies the Primary and Secondary Links on which Telecom will be required to supply the UCLL Backhaul Service on the request of an Access Seeker (and subject to compliance with all applicable terms and conditions);
- the similarities between the UCLL Backhaul Review and the UBA Backhaul Review mean that, in the future, a combined review process should be undertaken for both the UCLL Backhaul and the UBA Backhaul Services. The review of all Backhaul Links will be conducted annually taking into account competition developments. This review will be supplemented, where necessary, by competition reviews on a link-by-link basis (either in response to requests from interested parties, or on the Commission’s own initiative).

DATED at Wellington this 9 March 2011

Dr Ross Patterson
Telecommunications Commissioner

Schedule 1 - List of Primary Links considered under this Review Determination, and the Commission's updated view on competition

Parent POI	Local Exchange	Assessment of competition status
Kerikeri	Kaitaia	Limited
Whangarei	Dargaville	Limited
Whangarei	Hikurangi	Not Limited
Whangarei	Kamo	Not Limited
Whangarei	Kensington	Not Limited
Whangarei	Ruakaka	Not Limited
Torbay	Hibiscus Coast	Limited
Torbay	Matakana	Limited
Torbay	Albany	Not Limited
Torbay	Browns Bay	Not Limited
Torbay	Forrest Hill	Not Limited
Torbay	Greenhithe	Not Limited
Torbay	Red Beach	Not Limited
Torbay	Warkworth	Not Limited
Glenfield	Birkdale	Not Limited
Glenfield	Birkenhead	Not Limited
Glenfield	Devonport	Not Limited
Glenfield	Takapuna	Not Limited
Henderson	Waiatarua	Limited
Henderson	Glen Eden	Not Limited
Henderson	Massey	Not Limited
Henderson	Te Atatu	Not Limited
Henderson	Titirangi	Not Limited
Henderson	Whenuapai	Not Limited
Remuera	Ellerslie	Not Limited
Remuera	Glendowie	Not Limited
Remuera	St Heliers	Not Limited
Remuera	Tamaki	Not Limited
Airedale Street	Mount Eden	Not Limited
Airedale Street	Ponsonby	Not Limited
Auckland Central	Airedale Street	Not Limited
Auckland Central	Mayoral Drive	Not Limited
Mt Albert	Avondale	Not Limited
Mt Albert	Blockhouse Bay	Not Limited
Mt Albert	Mount Roskill	Not Limited
Mt Albert	New Lynn	Not Limited

Parent POI	Local Exchange	Assessment of competition status
Mt Albert	Three Kings	Not Limited
Howick	Waiheke	Limited
Howick	Whitford	Limited
Howick	Pakuranga	Not Limited
Papakura	Waiau Pa	Limited
Papakura	Waiuku	Limited
Papakura	Bombay	Not Limited
Papakura	Manurewa	Not Limited
Papakura	Pukekohe	Not Limited
Papakura	Tuakau	Not Limited
Papatoetoe	East Tamaki	Not Limited
Papatoetoe	Mangere	Not Limited
Papatoetoe	Manukau City	Not Limited
Papatoetoe	Onehunga	Not Limited
Papatoetoe	Otahuhu	Not Limited
Papatoetoe	Otara	Not Limited
Hamilton	Cambridge	Limited
Hamilton	Coromandel	Limited
Hamilton	Matamata	Limited
Hamilton	Tairua	Limited
Hamilton	Thames	Limited
Hamilton	Brymer	Not Limited
Hamilton	Claudelands	Not Limited
Hamilton	Flagstaff	Not Limited
Hamilton	Frankton	Not Limited
Hamilton	Hamilton East	Not Limited
Hamilton	Melville	Not Limited
Hamilton	Pokeno	Not Limited
Hamilton	Raglan	Not Limited
Hamilton	Te Awamutu	Not Limited
Hamilton	Te Kauwhata	Not Limited
Hamilton	Te Kuiti	Not Limited
Hamilton	Te Rapa	Not Limited
Hamilton	Turangi	Not Limited
Hamilton	Whatawhata	Not Limited
Tauranga	Maungatapu	Limited
Tauranga	Papamoa	Limited
Tauranga	Waihi Beach	Limited
Tauranga	Welcome Bay	Limited

Parent POI	Local Exchange	Assessment of competition status
Tauranga	Bethlehem	Not Limited
Tauranga	Mount Manganui	Not Limited
Tauranga	Otumoetai	Not Limited
Tauranga	Whakatane	Not Limited
Tauranga	Te Puke	Not Limited
Tauranga	Te Ranga	Not Limited
Rotorua	Taupo	Not Limited
Napier	Flaxmere	Limited
Napier	Gisborne	Limited
Napier	Haumoana	Limited
Napier	Matawai	Limited
Napier	Otamauri	Limited
Napier	Taradale	Limited
Napier	Waimarama	Limited
Napier	Wairoa	Limited
Napier	Bay View	Not Limited
Napier	Clive	Not Limited
Napier	Dannevirke	Not Limited
Napier	Hastings	Not Limited
Napier	Havelock North	Not Limited
Napier	Marewa	Not Limited
Napier	Waipukurau	Not Limited
New Plymouth	Hawera	Not Limited
Palmerston North	Ohakune	Limited
Palmerston North	Bunnythorpe	Not Limited
Palmerston North	Pahiatua	Not Limited
Palmerston North	Wanganui	Not Limited
Porirua	Paraparaumu	Not Limited
Porirua	Tawa	Not Limited
Porirua	Waikanae	Not Limited
Naenae	Eastbourne	Not Limited
Naenae	Featherston	Not Limited
Naenae	Lower Hutt	Not Limited
Naenae	Masterton	Not Limited
Naenae	Petone	Not Limited
Naenae	Upper Hutt	Not Limited
Wellington	Blenheim	Not Limited
Wellington	Courtenay Place	Not Limited
Wellington	Hataitai	Not Limited

Parent POI	Local Exchange	Assessment of competition status
Wellington	Island Bay	Not Limited
Wellington	Johnsonville	Not Limited
Wellington	Kelburn	Not Limited
Wellington	Khandallah	Not Limited
Wellington	Wellington South	Not Limited
Nelson	Upper Moutere	Limited
Nelson	Motueka	Not Limited
Nelson	Richmond	Not Limited
Nelson	Stoke	Not Limited
Greymouth	Hokitika	Limited
Greymouth	Westport	Limited
Riccarton	Darfield	Limited
Riccarton	Rangiora	Limited
Riccarton	Avonhead	Not Limited
Riccarton	Canterbury Technology Park	Not Limited
Riccarton	Fendalton	Not Limited
Riccarton	Hillmorton	Not Limited
Riccarton	Islington	Not Limited
Riccarton	Lincoln	Not Limited
Riccarton	Memorial Ave	Not Limited
Riccarton	Middleton	Not Limited
Riccarton	Rolleston	Not Limited
Riccarton	Woodend	Not Limited
Christchurch	Little River	Limited
Christchurch	Sumner	Limited
Christchurch	Ashburton	Not Limited
Christchurch	Beckenham	Not Limited
Christchurch	Belfast	Not Limited
Christchurch	Burwood	Not Limited
Christchurch	Culverden	Not Limited
Christchurch	Kaiapoi	Not Limited
Christchurch	Kaikoura	Not Limited
Christchurch	Linwood	Not Limited
Christchurch	Mount Pleasant	Not Limited
Christchurch	New Brighton	Not Limited
Christchurch	Papanui	Not Limited
Christchurch	Shirley	Not Limited
Christchurch	St Albans	Not Limited
Timaru	Kurow	Limited

Parent POI	Local Exchange	Assessment of competition status
Timaru	Oamaru	Not Limited
Cromwell	Alexandra	Limited
Cromwell	Ranfurly	Limited
Cromwell	Roxburgh	Limited
Cromwell	Twizel	Limited
Cromwell	Queenstown	Not Limited
Cromwell	Wanaka	Not Limited
Dunedin	Balclutha	Not Limited
Dunedin	Mosgiel	Not Limited
Dunedin	Palmerston	Not Limited
Dunedin	South Dunedin	Not Limited
Invercargill	Te Anau	Limited
Invercargill	Tuatapere	Limited
Invercargill	Gore	Not Limited
Invercargill	Lumsden	Not Limited

Schedule 2 – Replacement Appendix B for Schedule 5 “UCLL Backhaul POI Site Related Information” of the UCLL Backhaul STD

Primary Links

Subject to the terms of the UCLL Backhaul Service Description, the table below shows the Primary Links on which Telecom must supply the UCLL Backhaul Service at the request of the Access Seeker:

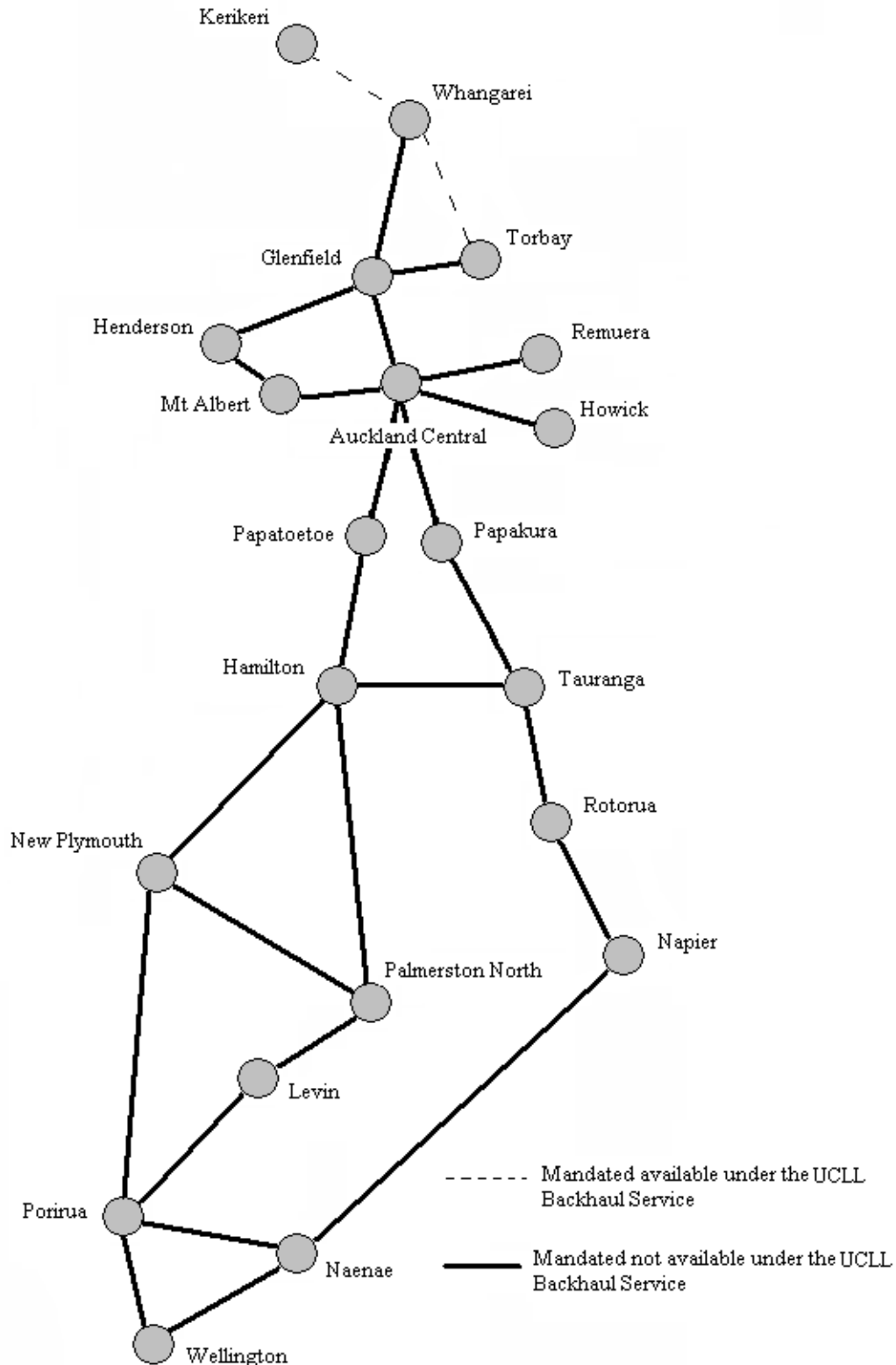
Parent POI	Local Exchange
Kerikeri	Kaitaia
Whangarei	Dargaville
Torbay	Hibiscus Coast
Torbay	Matakana
Henderson	Waiatarua
Howick	Waiheke
Howick	Whitford
Papakura	Waiu Pa
Papakura	Waiuku
Hamilton	Cambridge
Hamilton	Coromandel
Hamilton	Matamata
Hamilton	Tairua
Hamilton	Thames
Tauranga	Maungatapu
Tauranga	Papamoa
Tauranga	Waihi Beach
Tauranga	Welcome Bay
Napier	Flaxmere
Napier	Gisborne
Napier	Haumoana
Napier	Matawai
Napier	Otamauri
Napier	Taradale
Napier	Waimarama
Napier	Wairoa
Palmerston North	Ohakune
Nelson	Upper Moutere
Greymouth	Hokitika
Greymouth	Westport
Riccarton	Darfield
Riccarton	Rangiora
Christchurch	Little River
Christchurch	Sumner

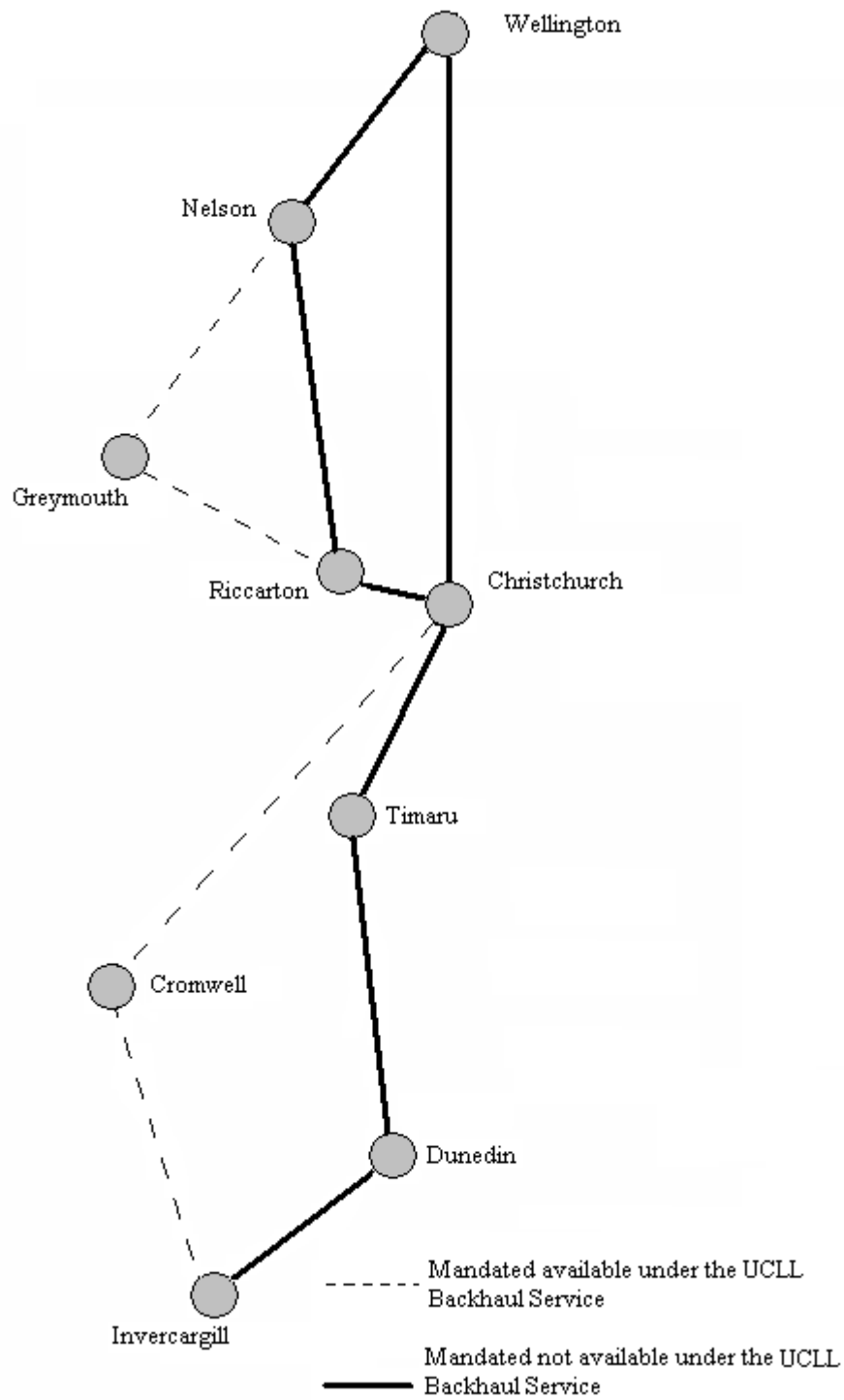
Parent POI	Local Exchange
Timaru	Kurow
Cromwell	Alexandra
Cromwell	Ranfurly
Cromwell	Roxburgh
Cromwell	Twizel
Invercargill	Te Anau
Invercargill	Tuatapere

Secondary Links

Subject to the terms of the UCLL Backhaul Service Description, the diagrams below show the Secondary Links where the UCLL Backhaul Service must be supplied by Telecom on the request of the Access Seeker and where Telecom is not required to supply the UCLL Backhaul Service:

North Island:



South Island:

Schedule 3 – Links assessed as not being subject to limited competition

All Links that have been assessed for the first time in this Review are marked with an asterix (*)

Local Exchange	Parent POI	Parent POI	Local Exchange
Ashburton	Christchurch	Mosgiel	Dunedin
Avonhead	Riccarton	Motueka	Nelson*
Balclutha	Dunedin*	Mount Manganui	Tauranga
Bay View	Napier*	Mount Pleasant	Christchurch
Beckenham	Christchurch*	New Brighton	Christchurch
Belfast	Christchurch*	Oamaru	Timaru
Bethlehem	Tauranga*	Otumoetai	Tauranga
Bombay	Papakura*	Pahiatua	Palmerston North*
Brymer	Hamilton	Palmerston	Dunedin*
Bunnythorpe	Palmerston North	Paraparaumu	Porirua*
Burwood	Christchurch*	Petone	Naenae
Canterbury Technology Park	Riccarton*	Pokeno	Hamilton*
Clive	Napier*	Queenstown	Cromwell
Culverden	Christchurch*	Raglan	Hamilton*
Dannevirke	Napier*	Red Beach	Torbay
Eastbourne	Naenae	Rolleston	Riccarton*
Featherston	Naenae*	Ruakaka	Whangarei*
Fendalton	Riccarton	Shirley	Christchurch*
Flagstaff	Hamilton	South Dunedin	Dunedin
Gore	Invercargill*	St Albans	Christchurch
Greenhithe	Torbay	Taupo	Rotorua*
Hastings	Napier	Te Atatu	Henderson
Havelock North	Napier	Te Awamutu	Hamilton
Hawera	New Plymouth*	Te Kauwhata	Hamilton*
Hikurangi	Whangarei*	Te Kuiti	Hamilton*
Hillmorton	Riccarton*	Te Puke	Tauranga*
Islington	Riccarton*	Te Ranga	Tauranga*
Johnsonville	Wellington	Te Rapa	Hamilton
Kaiapoi	Christchurch	Turangi	Hamilton*
Kaikoura	Christchurch*	Upper Hutt	Naenae*
Kamo	Whangarei	Waikanae	Porirua
Kensington	Whangarei	Waipukurau	Napier*
Khandallah	Wellington	Wanaka	Cromwell*
Lincoln	Riccarton	Wanganui	Palmerston North
Linwood	Christchurch	Warkworth	Torbay
Lumsden	Invercargill*	Whakatane	Tauranga
Marewa	Napier	Whatawhata	Hamilton
Masterton	Naenae*	Whenuapai	Henderson
Melville	Hamilton	Woodend	Riccarton
Middleton	Riccarton *		