



COMMERCE COMMISSION

Please refer to:

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26 September 2003

**Section 64 and Schedule 3 Draft Report into Unbundling
Re-designation of certain "Restricted Information" to public information**

1. On 14 May 2003 (as amended on 17 September 2003), the Commission made an order under section 15(i) of the Telecommunications Act and section 100 of the Commerce Act 1986 and section 9(6) of the Telecommunications Act 2003 ("the Order") prohibiting the disclosure of any information provided to the Commission and identified by any interested person or the Commission as being confidential on and from the date of commencement of the Review Proceeding. This Order deals with one category of information in relation to the review, namely "Restricted Information".
2. On 18 September 2003, the Commission released a draft report on the section 64 review and Schedule 3 investigation into unbundling the local loop network and the fixed Public Data Network. This draft report and appendices redacted information designated as Restricted Information and such information was placed in square brackets in the draft report and appendices. Such classification was either requested by the party submitting the information, or designated by the Commission. This letter amends the status of specific information, previously classified as Restricted Information under the order, to public information.
3. The Commission has reviewed the status of certain Restricted Information within the draft Report and determined that certain information should be redesignated as public. This review was conducted in consultation with those parties to whom any change in confidentiality status might affect. Appendix One sets out the relevant changes to the confidentiality status of specific information. Information previously classified as Restricted Information, and now reclassified as public, has been underlined.

Yours sincerely

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APPENDIX ONE

APPENDICES TO DRAFT REPORT

Appendix 2: OXERA 'Modelling the Impact of Unbundling the Local Loop Network and the Fixed Public Data Network: Report by OXERA'

2.1.1 Technical Capability, p. 7

2.1.1 Technical capacity

Not all lines in a local exchange can be provided with high-speed data services. The lines available to an operator upgrading the exchange are therefore likely to be a subset of the total number of lines in that exchange-serving area (ESA). Hence, the first calculation for an entrant (or TCNZ) is the number of lines that could be technically upgraded.

This estimation process involves establishing the number of lines within the required distance from the exchange. Also, as discussed above, this is a function of the committed line speed that the operator wants to offer, but, for ADSL, the cut-off in the model is taken to be 7km (although this assumption can be varied).

3.1 Sensitivity Analysis, p. 20

3.1 Sensitivity analysis

As the model has been constructed to allow the key variables to be adjusted in each case, there are many potential sensitivity analyses that could be run. For this analysis, six sensitivities to the central case have been selected for Options 1 to 3:

- Sensitivity 1 the elasticity has been set to -1 (down from -1.5);
- Sensitivity 2 the price fall for retail prices under specification has been set to 10% (ie, the price is higher than in the central case) and 30% (ie, the price is lower than in the central case);
- Sensitivity 3 the price fall for retail prices under designation have been set to 40% (ie, the price is higher and the price *fall* is lower than in the central case);
- Sensitivity 4 the cut-off limit for feasible ADSL connections is reduced from 7km to 4km;
- Sensitivity 5 the return on sales is increased to 18%;
- Sensitivity 6 the weighted average cost of capital (WACC) is set at 18%.

3.1 Sensitivity Analysis, p. 21

**Table 3.8: Present value of consumer surplus, 2005–10 (NZ\$m)—
Sensitivity 4: feasible ADSL connection distance set to 4km (7km in central case)**

Option	Specification			Designation		
	Price effect	Take-up effect	Total	Price effect	Take-up effect	Total
1: Full	8.9	0.7	9.7	176.0	69.3	245.3
2: Line sharing	7.4	0.8	8.2	32.4	12.4	44.8
3: Bitstream	27.7	3.5	31.3	94.3	34.4	128.7

5.2.2 Technically upgradeable lines, p. 38

5.2.2 Technically upgradeable lines

The basis for the number of technically upgradeable lines in each ESA is information supplied by TCNZ.²³ TCNZ has defined lines in range as those that meet TCNZ deployment criteria for DSL.²⁴ This includes lines up to 7km, but only at a rate of 500Kbps. The model allows this distance to be reduced, and so lowers the number of 'lines in range'. This calculation uses teledensity information supplied by TCNZ.²⁵

5.2.3 Prices, p. 42

Other costs incurred as a result of unbundling

Other costs arising from unbundling include one-off costs as well as annual costs. The following cost items have been considered.

- *DSLAMs*—the fixed costs of installing DSLAMs for data services depend on the number of connections per exchange. TCNZ's provided DSLAM node capital costs, depending on the number of connections.³¹

In the central case, an average of 1,000 connections have been assumed, amortised over an expected economic life of 10 years. This is based on experience from other jurisdictions. It is assumed that these costs are the same for residential and business connections. Furthermore, it is assumed that the capital costs of the DSLAMs remain the same in the provision of data services only, and combined data and voice services.

5.2.3 Prices, Tables 5.8 & 5.9, p. 43

Table 5.8: Backhaul set-up costs, voice and data (NZ\$)

Type of ESA	NZ\$
Metro	<u>25,000</u>
Urban	<u>80,000</u>
Suburban	<u>175,000</u>
Rural	<u>300,000</u>

Source: OXERA calculations, based on information supplied by TelstraClear.

In the central case, the annualised cost per connection results from calculating an average cost per ESA amortised over an expected economic life of 20 years, and divided by the central-case average of 1,000 connections per exchange. The expected economic life is based on experience from other jurisdictions, as considered by consultants, ICC. The average cost per ESA results from weighting the above costs by the proportion of TCNZ's lines in range by type of ESA. The weights are as follows: metro [], urban [], suburban [], and rural [].

Table 5.9: Backhaul set-up costs, data (NZ\$)

	NZ\$
Metro	23,810
Urban	76,190
Suburban	166,667
Rural	285,714

Source: OXERA calculations.

5.2.3 Prices, p. 43

These costs include [] handover distribution frame (HDF) connections per bay for the hostel room options, and [] connections per cabinet for the co-mingling options. Combining this information with the number of bays and cabinets under the various options, collocation set-up costs have been estimated for different number of connections per exchange. For exchanges up to 1,000 lines, it has been assumed that the set-up collocation cost is an average of the per-connection cost for the co-mingling and four-bay hostel options. For exchanges over 1,000 lines, the per-connection cost for the eight-bay hostel option has been applied. This method implicitly assumes a linear relationship between collocation set-up costs and the number of connections. It is acknowledged that there may be a non-linear relationship capturing economies of scale. As the approach may overestimate the collocation costs, a conservative approach is adopted regarding the costs that would need to be incurred to unbundle the local loop.

5.2.3 Prices, p. 45

The annualised per-connection cost in the central case has been determined assuming an average of 1,000 lines per exchange, amortised over an expected economic life of 15 years.³⁴

5.2.5 Penetration of high-speed data services, p. 48

In consultation with Commission staff, OXERA determined that the penetration rate would be determined in relation to Internet take-up in New Zealand. It was considered that, if prices were to fall by 20% from current levels, it is likely that penetration would reach 50% of current Internet penetration. In order to determine an estimate of the current level of penetration on this basis, this 50% estimate was rebased to account for the fact that prices have yet to fall 20%. Thus, 30 percentage points were deducted, resulting in an initial multiplier for penetration of 20% of current Internet penetration.³⁹

³⁹ This is calculated by multiplying the 20% price fall by the elasticity factor of -1.5 to determine the penetration effect resulting from the 20% price change. As this price change has yet to arise, penetration was reduced by 30 percentage points, to 20%.