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COMMERCE COMMISSION

Determination on the TelstraClear Application for Determination for "Wholesale" Designated Access Services

Decision 497

Determination under section 27 of the Telecommunications Act 2001 ("the Act") in the matter of an application for determination for designated access services under section 20 of the Act by:

TELSTRACLEAR LIMITED

and

CLEAR COMMUNICATIONS LIMITED

The Commission:	Douglas Webb Paula Rebstock Donal Curtin
Summary of Application:	TelstraClear Limited, on behalf of itself and Clear Communications Limited, applied for a determination under section 20 in regard to retail services offered by means of Telecom's fixed telecommunications network, bundles of retail services offered by means of Telecom's fixed telecommunications network and retail services offered by means of Telecom's fixed telecommunications network as part of a bundle of retail services.
Date of Determination:	12 May 2003

CONFIDENTIAL MATERIAL IN THIS REPORT IS CONTAINED IN SQUARE BRACKETS

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LIST OF TERMS AND ABBREVIATIONS[1]

Access Provider	Telecom Corporation of New Zealand Limited and any of its subsidiaries (together "Telecom").
Access Seeker	TelstraClear Limited and Clear Communications Limited (together "TelstraClear").
Actual costs saved	means the net costs saved by supplying the service on a wholesale rather than a retail basis to the access seeker.
Avoided costs saved	means the difference in the access provider's costs between supplying the service on a wholesale basis only and supplying the service on both a wholesale and retail basis, including a share of retail-specific fixed costs.
CLEC	In the United States, a Competitive Local Exchange Carrier is a telephone company that competes with an ILEC such as a Regional Bell Operating Company (RBOC), GTE, ALLNET, etc. The US Telecommunications Act 1996 allows companies with CLEC status to use ILEC infrastructure in two ways: access to unbundled network elements; and resale.
CO	Commission-only information. Information submitted, under the order made under section 15(i) of the Telecommunications Act and section 100 of the Commerce Act on 30 August 2002, as being only available to the Commission.
CPE	Customer Premises Equipment.
FCC	Federal Communications Commission is an independent United States government agency, directly responsible to Congress. The FCC was established by the Communications Act of 1934 and is charged with regulating interstate and international communications by radio, television, wire, satellite and cable. The FCC's jurisdiction covers the 50 states, the District of Columbia, and U.S. possessions.
Fixed PSTN	A PSTN, or that part of a PSTN, that connects an end-user's building to the local switches or equivalent facilities; and includes those local switches or equivalent facilities.
Fixed PDN	A PDN, or that part of a PDN, that connects an end-user's building (or, in the case of commercial buildings, the building distribution frames) to a data switch or equivalent facility; and includes the data

[1] Where a term or abbreviation is defined in the Telecommunications Act, the statutory definition is adopted for the purposes of this list.

	switch or equivalent facility and that part of the overall telecommunications link within the building that connects to the end-user's equipment.
FTN or Fixed Telecommunications Network	means – (a) any lines between a user's premises and the local telephone exchange or equivalent facility: (b) any fixed PSTN: (c) any telecommunications links between fixed PSTNs: (d) any fixed PDN (e) any telecommunications links between fixed PDNs: (f) any value-added telecommunications services associated with telecommunications services provided by those assets.
ILEC	In the United States, an Incumbent Local Exchange Carrier such as a Regional Bell Operating Company (RBOC), GTE, ALLNET, etc.
MCSA	Master Carrier Services Agreement
PDN	Public data network means a data network used, or intended for use, in whole or in part, by the public.
PSTN	Public switched telephone network means a dial-up telephone network used, or intended for use, in whole or in part, by the public for the purposes of providing telecommunication between telephone devices.
PUC	Public Utilities Commissions are governmental agencies in the United States engaged in the regulation of utilities and carriers in the fifty States, the District of Columbia, Puerto Rico and the Virgin Islands. Under State law, these public utility regulators have the obligation to ensure the establishment and maintenance of such utility services as may be required by the public convenience and necessity, and to ensure that such services are provided at rates and conditions that are just, reasonable and non-discriminatory for all consumers.
Relevant Wholesale Services	Designated access services of the type described in sub-part 1 of Part 2 of Schedule 1 of the Act as retail services offered by Telecom to end-users by means of its fixed telecommunications network.
RI	Restricted Information. Information submitted, under the order made under section 15(i) of the Telecommunications Act and section 100 of the Commerce Act on 30 August 2002, as being only available to the

	Commission and persons who have signed a deed of undertaking in respect of that order.
Streamline	A list of prices set by Telecom for data services.
TLOC	Telecom List of Charges. The list of prices for services, set by Telecom and published on the Telecom website, http://www.telecom.co.nz
VATS	A value-added telecommunications service.

EXECUTIVE SUMMARY

Introduction

i) The Telecommunications Act 2001 ("the Act")[2] regulates the supply of telecommunications services in New Zealand.

ii) The Commerce Commission ("the Commission") has a range of responsibilities under the Act, including making determinations in respect of designated access services. An applicant may seek to apply to the Commission for a determination of terms for the resale of designated retail services offered by means of Telecom's fixed telecommunications network.

iii) Section 18 of the Act provides that the purpose of Part 2 and Schedule 1, under which this Determination is made, is to promote competition in telecommunications markets for the long-term benefit of end-users of telecommunications services within New Zealand by regulating, and providing for the regulation of, the supply of certain telecommunications services between service providers.

iv) There are four criteria that must be satisfied for a service in the Application to fall within the description of a Relevant Wholesale Service. The service must be:

- Non price–capped
- A retail service;
- Offered by Telecom to end-users;
- By means of Telecom's fixed telecommunications network.

Background

v) On 16 May 2002, TelstraClear Limited applied for a Determination in respect of price and non-price terms for supply by Telecom to TelstraClear of:
  - non price-capped retail services offered by means of Telecom's fixed telecommunications network;
  - bundles of retail services offered by means of Telecom's fixed telecommunications network; and
  - retail services offered by means of Telecom's fixed telecommunications network as part of a bundle of retail services.

vi) On 28 June, the Commission decided to investigate the Application, insofar as it concerns non price-capped retail services offered by means of Telecom's fixed telecommunications network. The Commission decided not to investigate bundles of retail services offered by

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[2] All terms and phrases that are defined within the Act have the same meanings in this Determination. All references to Parts, Schedules and sections are to the Parts, Schedules and sections of the Act.

means of Telecom's fixed telecommunications network and retail services offered by means of Telecom's fixed telecommunications network as part of a bundle of retail services.

vii) On 25 November, the Commission issued a draft Determination on the Wholesale Application and sought submissions from the industry on its preliminary findings. This was followed by an industry conference held in February 2003 on the draft Determination where the Commission heard from a number of parties and their experts.

viii) Matters to be decided by the Commission are:

a. Identification of markets where Telecom faces limited, or is likely to face lessened, competition for the services contained with the Application;
b. Identification of all, some, or no markets in which Telecom does not face limited, or likely to be lessened, competition for services contained within the Application;
c. Where a particular retail service falls within a market in which Telecom does not face limited, or likely to be lessened, competition, whether the Commission will require that particular retail service to be wholesaled in that market

ix) A summary of the Commission's Determination on the above matters is listed in the following table:

Summary of Relevant Markets

Service Market	**Customer and Geographic segmentation**	**Competition Assessment**
Local Access Services	SME Metro	Limited
	SME Non-metro	Limited
	Corporate non-metro	Limited
Toll-free services	Business National	Not limited
	Business International	Not limited
Fixed-to-mobile services	SME National	Limited
	Corporate National	Limited
Data services	Business Metro	Not limited
	Business Non-metro	Limited
	Business International	Not limited
Broadband Services	Residential Non-metro	Limited
	Business Metro	Not limited
	Business Non-metro	Limited
Premium Rate Services	Business National	Not limited
Customer Premises Equipment (CPE)	Business National	Not limited
Business information analysis	Business National	Not limited
Directory assistance	Business National	Limited
Operator services	Business National	Not limited

x) In assessing the state of competition in the markets relevant to this Determination, the Commission has considered both the structural elements of the market and the behaviour of market participants.

Services

xi) Based on the conclusions reached regarding the markets identified above, the Commission then identified the individual services that TelstraClear will be able to resell in the limited competition markets.

xii) TelstraClear's Wholesale Application originally described 308 services for which it sought a determination from the Commission.

xiii) After the exclusion of withdrawn services, 158 services remain under consideration by the Commission.

xiv) After completing its market definition and competition analyses, the Commission has determined that 98 services pass both the jurisdictional and competition thresholds and will be available to TelstraClear in specified markets on a resale basis.

Retail Price

xv) The Initial Pricing Principle requires that access seekers gain access to services designated for resale at the retail price less a discount benchmarked against discounts applying in comparable countries that apply a retail minus wholesale methodology.

xvi) The Commission requires that Telecom calculate the 'Standard Retail Price' of the designated services such that the calculated average modal price covers 80% of the observed price points for that service in the market.

xvii) The Commission requires that Telecom calculate the retail price for each designated service in each market including separate calculations for the Commission's determined customer and geographic segmentations, under the guidance of an independent auditor.

xviii) For Corporate customers, TelstraClear will be entitled to the maximum volume or other total customer spend discounts off the estimated spend of a churned customer, subject to any specific terms and conditions applying in order to receive that discount.

xix) Telecom will be required to maintain a comprehensive list of Designated Services and calculate the Standard Retail Prices by service and market of the services on a quarterly basis.

Calculation of the Discount

xx) The Commission has conducted a benchmark study of wholesale discounts in which data were gathered from a number of public sources. Forty-seven U.S. states were selected for the benchmark. As with the interconnection benchmark study, the Commission sought to refine the range of comparators based on a measure of comparability against factors considered to be relevant indicators of cost differentials. These factors were labour cost, population density, GSP, tele-density and urbanisation.

xxi) As indicated in its draft Determination the Commission believes that the selection of a discount rate from within the lower half of the benchmarked range continues to be appropriate. A relatively high discount may increase the risk that investment in infrastructure will be deterred, while inefficient investment in resale functions may be encouraged.

xxii) In determining how much weight to place on the need to protect incentives to invest and innovate at the infrastructural level, the Commission is mindful of the approach it took in the Interconnection Determination. In the current case, the Commission considers that the 25^{th} percentile value of 16.0% is appropriate, taking into account both the theoretical merit of the relative factor cost arguments, as well as the Commission's concerns regarding incentives to invest in infrastructure.

Non-price terms

xxiii) TelstraClear applied for various wholesale non-price terms in its initial application. During the course of the Commission's investigation, the parties were able to progressively reach agreement on a number of terms initially in dispute.

xxiv) On 9 April 2003, Telecom and TelstraClear jointly notified the Commission that they had reached agreement in respect of the remaining non-price issues. The parties provided the Commission with agreed contractual language, which is included in Appendix 4 as a condition of the Determination under section 30(c) of the Act. These agreed terms are included as enforceable terms in this Determination.

Duration of the Determination

xxv) The Commission considers that the appropriate expiry date for its Determination is 18 months from the date of the Determination.

INTRODUCTION

1. The Telecommunications Act 2001 ("the Act")[3] regulates the supply of telecommunications services in New Zealand.

2. The Commerce Commission ("the Commission") has a range of responsibilities under the Act, including making determinations in respect of designated access services. Subject to sections 22 and 23, applicants may make an application to the Commission under section 20 for a determination of all or some of the terms on which a designated access service must be supplied during the period of time specified in the application.

3. Commercially sensitive information cited in this Determination was provided subject to an order made under section 15i of the Telecommunications Act and section 100 of the Commerce Act on 30 August 2002. That order permits the classification of commercially sensitive material as either "Restricted" or "Commission-only". Information designated in accordance with the provisions of that Order is enclosed within square brackets and marked either CO (Commission-only) or RI (Restricted). All such information has been extracted from the public version of the Determination.

[3] All terms and phrases that are defined within the Act have the same meanings in this Determination. All references to Parts, Schedules and sections are to the Parts, Schedules and sections of the Act.

THE APPLICATION

4. On 16 May 2002, TelstraClear Limited on behalf of itself and Clear Communications Limited (together "TelstraClear") filed with the Commission an application for determination of designated access services under section 20 (the "Application").

5. The Application sought a Determination by the Commission in regard to:

   (a) interconnection between TelstraClear's fixed PSTN and Telecom's fixed PSTN and provision:

      (i) by Telecom to TelstraClear of origination and termination (and their associated functions) of voice and data calls (including dial-up internet calls) on Telecom New Zealand's fixed PSTN; and

      (ii) by TelstraClear to Telecom of origination and termination (and their associated functions) of voice and data calls (including dial-up internet calls) on TelstraClear's fixed PSTN;

   (b) supply by Telecom to TelstraClear of:

      (i) non price-capped retail services offered by means of Telecom's fixed telecommunications network;

      (ii) bundles of retail services offered by means of Telecom's fixed telecommunications network; and

      (iii) retail services offered by means of Telecom's fixed telecommunications network as part of a bundle of retail services.[4]

6. On 11 June, the Commission made an Order under section 9(6) that the services named in the Application could be separated into two distinct types of designated services, i.e. interconnection services and wholesale services, and that the Commission would consider each type of service separately for the purposes of deciding whether to investigate under section 25.

7. On 18 July, the Commission gave notice to the parties that it had decided to investigate the Application, insofar as it concerns Relevant Wholesale Services ("the Wholesale Application"). The Commission further decided not to investigate bundles of retail services offered by means of Telecom's fixed telecommunications network and retail services offered by means of Telecom's fixed telecommunications network as part of a bundle of retail services.

8. On 25 July, TelstraClear requested that the Commission reconsider its decision not to investigate the designated service of retail services offered by means of Telecom's fixed telecommunications network as part of a bundle of retail services. On 30 July, the Commission declined TelstraClear's request.

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[4] TelstraClear, Section 20: Application for Determination for Designated Access Services and Specified Services, pp. 2-3.

9. On 27 August, TelstraClear proposed that the MCSA and Service Level Agreement between Telecom and TelstraSaturn, then in force in terms of an agreement between the parties of 5 June 2002 should continue to govern the supply of the Relevant Wholesale Services, subject to the Commission determining:

    1. the discounts which are to apply to retail services;

    2. the discounts which are to apply to retail prices;

    3. that a term of 12 months from the date of the Commission's determination be set, and the terms be backdated on the same basis as the Commission determines for Interconnection Services;

    4. that the provisions of these agreements listed in annexure 6 will not apply to the supply of the services between the parties, on the basis that they are irrelevant or inappropriate to determined terms of supply;

    5. the Commission's approach to the standard access principles set out in its draft determination of 26 August on the interconnection terms should apply to this determination; and

    6. the terms should include a requirement that, as requested in TelstraClear's original Application, Telecom should report to TelstraClear and the Commission not less than quarterly its performance in the supply of the resale services to TelstraClear compared to the supply of the relevant retail services on metrics to be agreed between the parties or determined by the Commission if they cannot agree. Additional information disclosure on price… should also apply".[5]

10. On 3 September, TelstraClear advised the Commission of 22 supplementary services that it wished to include in the Wholesale Application. On 13 September, the Commission advised the parties that it would consider two supplementary services, Global Office (as a service replacing a service in the Application - Telecom VPN), and Centrex CPE, and would not accept 19 supplementary services.[6] The Commission requested additional information concerning the service of Business Calls Savings Plans.

11. On 8 October, Commission staff and representatives from Telecom and TelstraClear held a workshop on issues arising from the Wholesale Application. The workshop assisted in providing further information to the Commission to assist it in making its Determination.

12. On 11 October, Telecom requested that the Commission reconsider its decision to include Global Office in the Wholesale Application. On 18 November, TelstraClear provided the Commission with a response to Telecom's request.

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[5] TelstraClear Submission on Investigation into Application for Determination of Designated Wholesale Services 27 August 2002, p.49.

[6] The Commission notes that its letter of 13 September 2002 actually declined to allow the inclusion of only 18 listed services. The discrepancy came about when two of these services, namely "International Home 0800" and "National Home 0800" were grouped as one service (even though they had been applied for separately).

13. On 26 November, the Commission issued its draft Wholesale Determination and sought submissions from the parties and parties with a material interest. Submissions were received from Telecom, TelstraClear, Vodafone, Ihug, WalkerWireless, and TUANZ.

14. On 10, 12, 13 and 14 February 2003, the Commission held a Conference on its Draft Determination.

15. Further submissions were received from the parties during March and April in response to requests from the Commission for additional information. The Commission has considered all submissions in its Determination.

16. On 9 April 2003, Telecom and TelstraClear jointly notified the Commission that they had agreed terms in respect of all remaining non-price issues.[7] The parties provided the Commission with agreed contractual language, which is included as Appendix 4.

17. In making this Determination, the Commission has had regard for all submissions and other relevant information, and has engaged in an extensive process of consultation.

[7] Letter from Lusk (Telecom) and O'Brien (TelstraClear) to the Commission, 2 April 2003.

THE FRAMEWORK FOR THE DETERMINATION

18. Section 18 provides that the purpose of Part 2 and Schedule 1, under which this Determination is made, is to promote competition in telecommunications markets for the long-term benefit of end-users[8] of telecommunications services within New Zealand by regulating, and providing for the regulation of, the supply of certain telecommunications services between service providers.

19. Section 27 requires that after investigating the matter, the Commission must–

    (a) prepare a determination; and

    (b) give a copy of the determination to the parties to the determination; and

    (c) give public notice of the determination.

20. Section 28 requires that the Commission make reasonable efforts to prepare a determination not later than 50 working days after the date on which it gave written notice to the parties of its decision to investigate. On 21 October, the Commission advised the parties that, despite making reasonable efforts, it was unable to prepare the determination within the prescribed timeframe, but would do so as soon as practicable.

21. Under section 29(a), a determination must, in the opinion of the Commission, be made in accordance with the applicable access principles and any limits on those applicable access principles, and any regulations made in respect of the applicable access principles[9] and any limits on those applicable access principles.

22. Sections 29(b) and (c) respectively provide that a determination must, in the Commission's opinion, comply with any relevant approved codes,[10] and in the case of a determination regarding a designated access service, be made in accordance with the applicable initial pricing principle (as affected, if at all, by clause 2 or clause 3 of Schedule 1 of the Act) and any regulations that specify how the applicable initial pricing principle must be applied.

23. Section 30 of the Act prescribes the matters to be included in the determination. A determination must include–

    (a) the terms on which the service must be supplied; and

    (b) the reasons for the determination; and

    (c) the terms and conditions (if any) on which the determination is made; and

    (d) the actions (if any) that a party to the determination must do or refrain from doing; and

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[8] "The end-user is the ultimate user or consumer of telecommunications services. It is not restricted to subscribers, but extends to telecommunications' users generally", Commerce Commission Determination on the TelstraClear Application for Determination for Designated Services, Decision 477, 5 Nov 2002, p. 10

[9] No such regulations have been issued.

[10] There are no such codes yet in existence.

(e) the expiry date of the determination.

24. This Determination concerns the designated access service of "retail services offered by means of Telecom's fixed telecommunications network":[11]

Description of service:	A non price-capped retail service offered by Telecom to end-users by means of its fixed telecommunications network in the following markets: (a) all markets in which Telecom faced limited, or is likely to face lessened, competition for that services: (b) all, some, or no markets in which Telecom does not face limited, or is not likely to face lessened, competition for that service as determined by the Commission.
Conditions:	That either – (a) Telecom faced limited, or is likely to face lessened, competition in a market for the particular retail service offered by Telecom to end-users; or (b) Telecom does not face limited, or is not likely to face lessened, competition in a market for that particular retail service, and the Commission has decided to require that particular retail service to be wholesaled in that market
Access provider:	Telecom
Access seeker:	A service provider who seeks access to the service
Access principles:	The standard access principles set out in clause 5
Limits on the access principles:-	The limits set out in clause 6
Initial Pricing Principle:	Either – (a) retail price less a discount benchmarked against discounts in comparable countries that apply retail price minus avoided costs saved pricing in respect of these services, in the case of a service offered by Telecom in markets in which Telecom faces limited, or is likely to face lessened, competition for that service; or (b) retail price less a discount benchmarked against discounts in comparable countries that apply retail price minus actual costs saved pricing in respect of these services, in the case of a service offered by Telecom in markets in which Telecom does not face limited, or lessened, competition for that service

25. The Commission is required to determine its jurisdiction over the retail services in the Application in respect of the description of service in the Act. Where a service is within jurisdiction as a non price-capped service offered to end-users by means of [Telecom's] fixed telecommunications network, the Commission is required to

[11] Subpart 1 of Part 2 of Schedule 1 of the Act

determine the market or markets in which that retail service is sold, and the state of competition in those markets. Where a retail service is sold in a market in which Telecom does not face limited, or is not likely to face lessened, competition, the Commission must determine whether that service ought to be regulated by the wholesale regime.

26. The initial pricing principle requires the Commission to benchmark against discounts in comparable countries. Where Telecom faces limited, or is likely to face lessened, competition in a market, that discount must be benchmarked against discounts in comparable countries that apply retail price minus avoided costs saved pricing in respect of these services; where Telecom does not face limited, or is not likely to face lessened, competition in a market, that discount must be benchmarked against discounts in comparable countries that apply retail price minus actual costs saved pricing in respect of these services.

SCOPE OF THE DESIGNATED ACCESS SERVICE

Services in the Application

27. The Wholesale Application described 308 services for which TelstraClear sought a determination from the Commission.

28. TelstraClear withdrew 42 of these services between 16 May and 14 June, and 41 services between 14 June and 27 August 2002, on the grounds that the services described in the Wholesale Application had included some services that had been replaced by other services, some "services" that were not services, and some services, withdrawn without prejudice, which Telecom had submitted were not offered "by means of" its fixed PSTN.[12]

29. The TelstraClear submission of 27 August made no reference to a further eight services listed in the Wholesale Application. The Commission concludes that the following services have been withdrawn:

- National Leased Services – Leased Service – Installation Charges;
- National Leased Services – Leased Service – Monthly Access Charges;
- National Leased Services – Leased Service – Monthly Lease Charges;
- National Leased Services – Leased Service – Monthly Transmission Charges;
- National Leased Services – Leased Service – Alteration and Configuration Charges;
- National Leased Services – Leased Service – Other Charges;
- Data Leased – Circuit Services; and
- Dedicated Voice Services - examples of Installation and Monthly Rental Charges for Dedicated Voice.

30. In its submission of 27 August, TelstraClear requested that an additional 22 services be included in the Wholesale Application. These included 21 new services, and one service – Centrex CPE - which had been previously been withdrawn. On 13 September, the Commission declined to include 19 of these additional services on the grounds that they were materially different from the services included in the Wholesale Application, and should therefore be the subject of a separate application.[13] The remaining three services were:

- Centrex CPE;
- Global Office (replacement for Telecom VPN);
- Business Call Savings Plans.

31. The Commission notified the parties that Centrex CPE would be reinstated, and Global Office included, in the Application: Centrex CPE because it had been a service originally included in the Wholesale Application; and Global Office because it was a

[12] TelstraClear, Submission on Investigation into Application for Determination of Designated Wholesale Services, 27 August 2002, pp. 19-20.

[13] The Commission notes that its letter of 13 September 2002 actually declined to allow the inclusion of only 18 listed services. The discrepancy came about when two of these services, namely "International Home 0800" and "National Home 0800" were grouped as one service (even though they had been applied for separately).

replacement for Telecom VPN, a service originally included in the Wholesale Application.

32. Telecom responded that Global Office is a bundle of retail services rather than an individual retail service, and should not therefore be considered under the Wholesale Application. On 14 March 2003, in response to a request for information from the Commission, Telecom submitted that Global Office was a bundle of retail services and that VPN was still offered to approximately [ ]RI existing customers.[14]

33. The Commission notes that TelstraClear withdrew VPN on the basis that it was no longer offered and that a replacement product, Global Office, existed.[15] Having regard to the various clarifications provided by Telecom, the Commission reinstates VPN to the Application. As a bundle of retail services, Global Office is not within the scope of this Determination.

34. In its cross submission of 13 September,[16] TelstraClear accepted that the following services are not Relevant Wholesale Services:

- Installation Charges – Premises Wiring Installations;
- Installation Charges – Other Installation Charges;
- Directory Listing – Receptionist Service;
- Special National Call Services – Credit Card Calls;
- Frame Relay – Example of Installation and Monthly Rental Charges for Frame Relay; and
- Televote – Installation Charges.

35. On 12 February 2003, TelstraClear withdrew a further 62 services (or parts of services) listed in the Application.[17] The services (or parts of services) withdrawn were:

- Connection Services – Installation of Jackpoints, Business
- Installation Charges – Service Visit Charges pertaining to (i) CPE and premises wiring installation; and (ii) fault in CPE or premises wiring
- Installation Charges – Change of Socket Types
- PSTN Line Rental Charges – 60 Plus Phone Option
- Maintenance Services – Busy Line Verification in respect of 9XX numbers
- Directory Listing – Restricted and Non-Listed Numbers
- Telephone National Calls – Rates from National Calls from Business Lines
- Audio Conference Calls – Audio Conference Calls
- Audio Conference Calls – Audio Conference Call Rates
- Audio Conference Calls – Audio Conference Dedicated Service
- Audio Conference Calls – Videoconference Bureau Service
- Audio Conference Calls – Multipoint Call Rates
- Telecom International Toll Call Charges – Direct Dialled International Calls, from a Business Line
- Telecom International Toll Call Charges – International Call Specials
- Telecom International Toll Call Charges – International Switched Digital Service
- Telecom 0900 Service – 0900 Application Fee

[14] Letter from Blackett (Telecom) to the Commission, 14 March 2003.

[15] Letter from Forsyth (TelstraClear) to the Commission, 18 October 2002.

[16] TelstraClear, Response to Telecom's s25(1)(d) Submission on TelstraClear Limited Application for "Resale Services" Determination, 13 September 2002, Annex E.

[17] Transcript of the Wholesale Conference, 12 February 2003, pp. 1-7.

- Telecom 0800 International Service – Geographic Control
- Telecom 0900 – VSP AUDIOTEX Charges (Information Providers using Telecom Audiotex Equipment)
- Frame Relay – International Frame Relay Services
- Televote – Monthly Rental Charges
- Televote – Televote Session Charges
- Televote – Televote Features
- Televote – Usage Charges
- Televote – Other Charges
- Telecom Internet Services – Dial-Up Service, Internet Connection Fee
- Telecom Internet Services – Dial Up Service Charges
- Telecom Internet Services – Other Dial Up Services
- Telecom Internet Services – Usage Charges
- Telecom Internet Services – Additional Mailboxes
- Telecom Internet Services – Advertising
- Telecom Internet Services – Dedicated Access DDS
- Telecom Internet Services – Domain Name
- Telecom Internet Services – Global Roaming
- Telecom Internet Services – Velocity (ADSL access)
- Telecom Internet Services – XTRANET
- Telecom Internet Services – Telecom XTRA Business
- Telecom Internet Services – Web Hosting
- Voice Circuit Service (V1) – Extended Area Installation Charges pertaining to Foreign Exchange Circuits
- Voice Circuit Service (V1) – Alteration and Configuration Charges pertaining to Foreign Exchange Circuits
- Loop Signalling Service (L1) – Installation Charges
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- Paging Services – Telecom Buzz Me Paging Service

36. The Commission notes that 2 services that TelstraClear did not withdraw are of a similar characteristic to the toll services withdrawn on 12 February 2003 and

confirmed in a submission of 5 March. On those grounds, the Commission has excluded those services from the Determination. They are:

- Telecom International Toll Call Charges – FaxFirst; and
- Telecom International Toll Call Charges – Access 0168.

37. On 5 March, TelstraClear notified the Commission that two services in the Application had been excluded from Appendix 2 of the Commission's Draft Determination. The Commission confirms that those services are within the Application. They are:

- Installation Charges – Connection of Phone Lines to Customer PBXs
- High Capacity Access to the PSTN – 2 Mbit/s Foreign Exchange Service for Inter-Exchange Access

38. In the same submission of 5 March, TelstraClear requested the reinstatement of the service "0900 Application Fee" that had been withdrawn in error. The Commission agrees it is appropriate to reinstate the service.

39. In respect of a service in the Application described as "All xDSL Services", Telecom submitted that it did not know to what the term refers.[18] The Commission is satisfied that the term "All xDSL Services" should be understood as referring to all Telecom's xDSL retail products marketed under the brand name "Jetstream", excluding Jetstream Starter which is a replacement for a product, Jet Start, applied for separately.

40. The services (or parts of services) remaining in the Application are described in Appendix 2.

41. Of these services, sixteen are offered in the residential local access market or markets, as well as the corresponding business markets. The Commission will define the appropriate residential local access market or markets in its Determination on TelstraClear's application for determination dated 13 November 2002 (the "Residential Wholesale Application"). Therefore, the Commission has decided to employ its powers under section 9(6) of the Act to sever these services from the 16 May Application and merge them with the Residential Wholesale Application. The Commission does not make a determination in respect of these services, to the extent they are sold in the residential local access market or markets. The services in question are:

- Reconnection Charges;
- Service Visit Charges;
- Lead-in Installation;
- Extension of Service Beyond the Telecom PSTN;
- Busy Line Verification;
- Message Manager;
- Caller Display;
- Call Minder;
- FaxAbility;
- FaxAddress;
- Permanent Toll Bars;
- Call Restriction Products;
- Restricted Numbers;

[18] Telecom, Submission on the Wholesale Draft Determination, 24 January 2003, Appendix 1, p. 146.

- Direct Connect;
- Operator Assisted Charges;
- International Operator Assisted Calls;

42. In making its Determination, the Commission has relied on the descriptions of services provided by TLOC. The Commission realises that this is a high-level survey of the services which it is determining and notes that Telecom has undertaken to provide a granular list of the services described in Appendix 2.

Jurisdiction

Introduction

43. There are four criteria that must be satisfied for a service in the Application to fall within the description of a Relevant Wholesale Service. The service must be:

- Non price–capped
- A retail service;
- Offered by Telecom to end-users;
- By means of Telecom's fixed telecommunications network.

44. This section of the Determination provides an analysis and discussion on each of these jurisdictional criteria and describes the findings of the Commission. A more detailed analysis of individual services is provided in Appendix 2.

Non price-capped services

45. The description of service in Part 2 of Schedule 1, subpart 1 states that the service is:

> A non price-capped retail service offered by Telecom to end-users by means of its fixed telecommunications network…

46. Price-capped retail services are those services described in the TSO Deed[19], which caps the price Telecom may charge for some of the services it offers to residential customers.

47. Telecom submits that Directory Assistance and International Directory Assistance, to the extent they are telecommunications services under the TSO Deed, are price-capped services.[20] However, Directory Assistance and International Directory Assistance, to

[19] The Telecommunications Service Obligations (TSO) Deed was signed by the Crown and Telecom Corporation of New Zealand Limited and Telecom New Zealand Limited in December 2001. The provisions of the TSO Deed operate in place of, and in addition to, Telecom's Kiwi Share Obligations (KSO) and require Telecom to maintain telecommunications services in New Zealand to specified levels of performance and extent.

[20] Telecom, Submission on the Wholesale Draft Determination, 24 January 2003, p. 37. Telecom notes that clause 7.4 of the TSO Deed and the related exchange of letters between Telecom and the Crown dated 12 August and 1 October 1997 cap the price of Directory Assistance and International Directory Assistance, and rate of increase of those prices, for all Telecom residential customers.

the extent that they are sold to residential customers, are not included in the Application.[21]

The Service must be "offered by Telecom"

48. The description of the service requires that the service be "offered by Telecom". Telecom has submitted that:[22]

- the description of service covers a retail service "offered by Telecom" in certain markets;
- some of the services in TelstraClear's application are not offered by Telecom (e.g. 0900 call charges payable by the caller where Telecom acts as a billing and collection agent for the 0900 information provider);
- a previously offered service that is no longer offered cannot be the subject of a determination as a non price-capped retail service as:
  (a) the requirement is that a service is offered by Telecom in a market or markets in which Telecom faces limited, or is likely to face lessened, competition. Therefore only retail services that Telecom currently offers into the market(s) fall within the service description;
  (b) the fourth category of retail service, refers to a service that "is, or has previously been, offered separately by Telecom" and this strongly suggests that only currently offered services are covered by those descriptions;
  (c) this is consistent with the purpose statement in section 18 of the Act; and
  (d) if Telecom is subject to a requirement to supply on a wholesale basis services which it no longer retails, Telecom's ability to innovate and develop new services and discontinue old ones over time would be hampered;
- the term "offered" must be interpreted in a pre-contractual sense and is distinct from the term "supplied"; and
- TLOC is an "invitation to treat", and not an offer by Telecom to the world at large.

49. Telecom submitted that a number of services (or part services) in the Application are not "retail services offered by Telecom".

50. In response, TelstraClear submitted that:[23]

- a "retail service offered by Telecom to end-users" should be currently or recently provided;
- Telecom should not be able to frustrate the operation of the Act by withdrawing or modifying services without providing prior notice and allowing migration;
- a legalistic interpretation of "offer", distinguishing "invitations to treat" is wholly inappropriate;
- a "retail service offered by Telecom to end-users" means a service supplied or made available to customers. Nothing in the Act or its surrounding circumstances justifies reading down the word "offered" in such a way as to prevent the application of the Act except where there is an open offer of a service; and
- Telecom's interpretation would allow it to continue to supply a large 'captive' customer base while preventing TelstraClear from reselling.

51. The Commission does not consider that the term "offered" bears the meaning contended for by Telecom. Telecom does not maintain a standing "offer" of services to the public capable of being converted into a binding contract as a result of

[21] TelstraClear, Section 20: Application for Determination for Designated Access Services and Specified Services, pp. 2-3.

[22] Telecom, Submission under s. 25(1)(d), Telecommunications Act 2001 – TelstraClear Limited Application for "Resale Services" Determination, 27 August 2002.

[23] TelstraClear – Response to Telecom's s25(1)(d) Submission on TelstraClear Limited Application for "Resale Services" Determination 13 September

acceptance by an individual consumer. The orthodox analysis of the operation of a retail market, as in the case of goods displayed for sale, is that the supplier is not making an offer to sell, but rather invites the public to make an offer to buy.

Grandfathering

52. The Telecom standard terms for residential and business customers allow Telecom to cease providing a service. In the case of residential services, Telecom may cease to provide a service at any time on one month's notice. In the case of business services, Telecom may cease to provide a service on the expiry of any agreed minimum period, and in any event on one month's notice. Telecom may therefore cease to provide services from time to time without limitation, and presumably may do so when it has decided that it will no longer support a service. However, Telecom might cease to provide a service to new customers without exercising its right to cease to provide that service to existing customers. The issue is whether in this latter case, the service is still "offered to end-users", so as to be eligible to be wholesaled as a Relevant Wholesale Service.

53. The Commission considers that in the context of the description of a Relevant Wholesale Service, a service is offered by Telecom to end-users when that service is provided and continues to be provided to a group of customers. A service with an existing customer base is a Relevant Wholesale Service, even though that service is not available to new customers.

54. There are a number of reasons why an end-user may chose to retain an existing service rather than upgrade to a newer service; for example, the end-user may consider that the existing service has preferable functionality or is preferable on grounds of price. In some cases, a customer may not have the option to connect to a replacement service where, for example, an upgrade plan is phased in by exchange. The Commission considers that such customers should be entitled to the benefits of competition contemplated by the Act. Telecom will be required to provide reasonable prior notification to TelstraClear of any discontinuance of the service.

55. Telecom will not be required to resell a grandfathered service to customers that do not currently purchase that service from Telecom. To do so would hinder Telecom's ability to innovate, and require it to maintain platforms and services that it would otherwise choose to discard over time. In such circumstances, it might be commercially impractical for Telecom to grandfather services; a service would simply be terminated to all customers, who would have no choice but to change immediately to the replacement service. It is likely that this would be both commercially and technically impractical, as well as inconvenient to end-users. There may also be circumstances in which replacement equipment or servicing for the existing technology is no longer readily obtainable from the vendor.

56. Telecom accordingly submitted that on this basis a number of services (or part services) were not "offered by Telecom", in that they are no longer provided to existing customers. The Commission has considered all the services identified by Telecom and has specified in Appendix 2 its determination in respect of each.

57. The services (or parts of services) which the Commission has determined are not retail services offered by Telecom to end-users, are not Relevant Wholesale Services.

The service must be a retail service offered to "end-users"

58. The description of service requires that the service be a "retail" service offered by Telecom to "end-users".

59. Telecom submitted that:[24]

- the term "retail" is not defined in the Act; and
- retail ought to be construed together with the term "end-users", emphasising the point of final consumption of the service.

60. On those grounds, Telecom has submitted that a number of services (or part services) are not retail services.

61. In response, TelstraClear submitted:[25]

- there is no necessary connection between the concept of "retail" and the defined term "end-user";
- "end-user" also includes "a person who is the ultimate recipient of... another service whose provision is dependent on that service", which means 'end use' includes not only use of the 'finished' service but also use of constituent services.

62. The Commission considers that a service provided by Telecom to a wholesale customer as an intermediate input, and not otherwise available to be obtained by an end-user from Telecom, is not a service offered by Telecom to end-users.

63. The Commission's conclusions with respect to the services (or part services) which Telecom submits are not retail services are described in Appendix 2.

64. On 14 March, Telecom advised that it only sells end-to-end data services at the retail level, and a customer cannot purchase separately the components of data services, such as the access components or "data tails".[26] The Commission notes that the Relevant Wholesale Service is the end-to-end data service. This Determination does not require Telecom to wholesale the individual components of an end-to-end data service, as they are not retail services.

By means of [Telecom's] fixed telecommunications network

65. The retail service must be offered "by means of" [Telecom's] fixed telecommunications network.

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[24] Telecom, Submission under s25(1)(d), Telecommunications Act 2001 – TelstraClear Limited Application for "Resale Services" Determination, 27 August 2002, p. 16.

[25] TelstraClear, Response to Telecom's s25(1)(d) Submission on TelstraClear Limited Application for "Resale Services" Determination, 13 September 2002, p. 38.

[26] Letter from Blackett (Telecom) to Commission, 14 March 2003.

66. Telecom submitted that:[27]

- the phrase "by means of" means "provided only by means of Telecom's fixed telecommunications network and not by other means". As such the services offered "by means of" the fixed telecommunications network are services offered by means of that network only;
- this is consistent with the use of the phrase elsewhere in the Act (for example, in section 40(1)(c) and 88(a)(ii) of the Act);
- such an interpretation is consistent with the House of Lords decision of *Regina v Effik & Anor* [1994] 3 W.L.R. 583 where Lord Oliver recognised that if "by means of" is to be construed as meaning "through the intermediate agent of", then the transmitted signals were received by means of the public system and as such, in the circumstances, the transmission was not "by means of" the public system;
- if a service uses another network (for example the international network or a cellular network), then (consistent with *Effik*) that service is not provided "by means of" Telecom's fixed telecommunications network;
- the definition of "fixed telecommunications network" has been tailor-made for the service descriptions in the third, fourth, fifth and sixth designated access service categories in Schedule 1. Parliament would have carefully prescribed the limits of the "fixed telecommunications network" if it had intended to capture services reliant on other networks (for example, cellular networks and paging networks);
- a wholesale regime with the interpretation urged by TelstraClear would result in a regime that covered a range of services and technologies for which regulation would not advance the purpose of the Act;
- the Act does not provide "or by means that rely primarily on [Telecom's] PSTN", instead providing "or by means that rely primarily on the existence of [Telecom's] PSTN". This puts the focus on the question of whether ubiquity is important to the offering of a telecommunications service. If it is, then the liable person receiving the revenue stream from providing that service should share the burden of the TSO;
- section 88(b)(i) will clearly catch revenue earned by a liable person from the provision of telecommunications services that pass between the PSTN of the liable person and Telecom's PSTN, as the existence of Telecom's PSTN is a logical prerequisite to the provision of the services, and ubiquity central to the attractiveness of those services to the end-user;
- the designated access service is not itself the value-added telecommunications service and as such the value-added telecommunications service reference must be a reference to value-added network service (for example, Directory Assistance); and
- the definition of "fixed telecommunications network" has been drafted so as not to include the wires and equipment on the PSTN customer's side of the demarcation point between the user's premises and the line to the local exchange or equivalent facility.

67. On those grounds, Telecom submitted that a number of services (or parts services) are not offered "by means of" Telecom's FTN.[28]

68. In response TelstraClear submitted:[29]

- *R v Effik* is not authority for the proposition for which Telecom cites it. The case decided that the particular point of the call path at which interception occurred was not "*in the course of its transmission*... by means of a public transmission system;
- "By means of" means "by direct connection to". It is intended to identify those directly connected Telecom customers who are supplied by means of Telecom's FTN rather than by means of Telecom's mobile telecommunications network, or by means of another network;

[27] Telecom, Submission under s25(1)(d), Telecommunications Act 2001 – TelstraClear Limited Application for "Resale Services" Determination, 27 August 2002, pp. 21-28.

[28] Telecom, Submission on the Wholesale Draft Determination, 24 January 2003, Appendix A.

[29] TelstraClear, Submission on Investigation into Application for Determination of Designated Wholesale Services, 27 August 2002; and TelstraClear, Response to Telecom's s25(1)(d) Submission on TelstraClear Limited Application for "Resale Services" Determination, 13 September 2002.

- That giving sections 88(b)(i) and 92(b)(i) the meaning Telecom proposes for the term "by means of" would truncate the TSO obligation.

69. While maintaining that "by means *only* of" was the correct interpretation of the phrase, Telecom has also proposed an alternative test for "by means of". Telecom's alternative formulation is that there be "substantial and actual use of the FTN" for delivery of the retail service in question.[30] Employing this alternative test, a number of services (or part services) excluded by Telecom's narrower definition would be retained.

70. The narrowest interpretation, proposed by Telecom, was that it meant "by means *only* of the FTN". Telecom acknowledges that this is a narrow interpretation, and indeed it is the narrowest possible, and the Commission considers there are a number of reasons that count against its adoption:

    (a) Telecom cites the need for consistency with the interpretation adopted for the phrase "by means of" in other parts of the Act. The principle of interpretation requiring such consistency is applied most naturally to finite entities or concepts such as "public road" or "hazardous substances". The phrase here, however, has no finite status on its own. It is a linking phrase between two concepts, and only serves its purpose if it takes its colour from the context in which it appears. As Telecom acknowledges, the phrase is elastic. In section 40(1)(c), it links a requirement for the provision of service with the system by which the service will be delivered. To be meaningful in the regulatory context, this requires that the "system" must be the sole means by which the service is provided.

    (b) In contrast, the scope of services to which the Commission's relevant jurisdiction will extend requires a link between non price-capped retail services offered to end users, and Telecom's FTN. There is no contextual requirement here for exclusivity. In technological terms, a very confined category of services would be within the jurisdiction if all aspects of them had to be *only* by means of the FTN. There is a relevant comparison with the wider scope of services that are conceptually appropriate for potential regulation, by virtue of some meaningful, or not insignificant, involvement of the FTN in their delivery.

    (c) Telecom argues for a presumption in favour of a narrow interpretation because the Commission's jurisdiction is an intrusion on what is otherwise its freedom of contract. It would follow that explicit wording is required, before coercive power to regulate any contractual dealings can be assumed. However, a finding that any service is within this initial jurisdictional boundary does not necessarily lead to its being regulated. The important consideration of the nature of the markets in which the services are provided is a second element before jurisdiction might be exercised. The presence of that second element removes the need to apply any such presumption.

    (d) Each possible interpretation of "by means of" involves the implication of some gloss on those words to make the linking phrase work. Given that the most

[30] Telecom, Submission on the Draft Wholesale Determination, 24 January 2003, p. 44.

narrow ("by means only of") approach would produce an extreme outcome, the Commission considers that the legislature would have been explicit in that regard, had it intended such a constraint. The same would apply to an interpretation at the other, widest extreme – ie, if it were to be interpreted as "by means of the FTN in any aspect of the service", the legislature would have been explicit on the point. In this context, more neutral interpretations between those extremes are seen as more naturally arising.

(e) Telecom also sought to rely on the decision in *Regina v Effik* [1994] 3 WLR 583.[31] That decision involved the interpretation of a provision limiting the entitlement of the authorities to intercept telecommunications, where the communications occur in the public domain, in the sense of being on public telecommunications systems. The interception in question was of conversations between participants in a drug conspiracy on a cordless telephone that was technically not part of a public telecommunications system. To validate the use of the interception evidence, their Lordships had to read down the constraint on interceptions on the public telecommunications system so that the restriction applied only when the entire communication occurred solely by means of a public telecommunications system.

The Commission considers that the interpretation in *Effik* can readily be distinguished merely because of the very different context in which the statutory provision arose, and the need for its interpretation which was intended to sensibly confine a civil libertarian protection to circumstances where the authorities might have an easier opportunity to intercept communications because of the public status of the telecommunications system. A reading down of the provision is those circumstances is hardly a persuasive analogy for considering the scope of the Commission's jurisdiction where it is defined in terms of references to services offered "by means of" an FTN.

The Commission, therefore, considers that the interpretation of their Lordships does not offer it assistance in determining the meaning of "by means of" in the context which the Commission is required to apply it.

71. Telecom's proposed alternative interpretation is that services within the Commission's jurisdiction be those delivered by means involving *substantial and actual use of* its FTN. The Commission's contemplation of "participation" by Telecom's FTN is similar to Telecom's own notion of "actual use": both require that the services use the FTN at some point. Difficulties of application arise because of the variety of criteria by which to measure the relative importance of the FTN in delivery of the service.

72. Both formulations of "meaningful or not insignificant" (the Commission) and "substantial" (Telecom) involve elements of degree. However, the Commission does not accept that the former should be discarded in favour of the latter on account of a lack of clarity. Both are the same in the sense that they require the exercise of judgement. If it is necessary to introduce such an element of judgement in order to

[31] Telecom – Submission under Section 25(1)(d), Telecommunications Act 2001 – TelstraClear Limited Application for "Resale Services" Determination, 27 August 2002 p. 22

apply the correct interpretation, then the Commission will not reject such interpretation of its jurisdiction merely because of that consequence.

73. Both Telecom's alternative formulation and the Commission's formulation involve questions of fact and judgement. Telecom's formulation of "substantial use" implies. assessment of the relative proportion of any particular service that is delivered by the FTN, so that it is a quantitative assessment. That could lead to other attributes of the contribution the FTN makes to provision of a particular service being overlooked. A quantitative, "substantial use" gloss on "by means of" therefore does not capture what the context contemplates.

74. For some services, the FTN will be important, in the functionality the service provides, irrespective of the extent of its involvement. This does contemplate a qualitative assessment but that is warranted given the highly technical and in some senses esoteric nature of the services. This is the approach that best fits the immediate context. In contrast, if the nature of that involvement is purely coincidental to the provision of the functionality of what is provided by the service or is substitutable, then it will in this sense, not be meaningful, or will be insignificant.

75. If jurisdiction has not been created by the terms of an Act, then the purposes of the Act should not be used to rewrite the extent of jurisdiction to which the Act will apply. However, in the present circumstances, the highly technical nature of the subject matter being regulated and the overall structure of the Act do warrant consideration being given to the legislative purposes in the limited sense of seeking consistency between those purposes and the conduct able to be regulated, where the part of the definition of the jurisdiction clearly requires that it take its colour from both the immediate, and arguably from the more general context provided by the purposes of the Act.

76. If the section 18 purposes are taken into account, they tend to confirm an interpretation of "by means of" that establishes a broad, but not all encompassing jurisdiction. The "meaningful or not insignificant" participation approach is also consistent with the statutory purposes. Telecom criticises that approach as effectively applying a "but for" test, in the sense that services have been included on the basis that they could not be provided, but for some use made of Telecom's FTN. However, that analysis overlooks the second aspect.

77. Telecom contends that "not insignificant" is the same as "significant". The Commission takes the view that there are shades of difference between the two concepts. Less is required for participation by the FTN that is "not insignificant", than would be involved if the participation had to be significant.

78. The Commission's conclusions in respect of each of the services challenged by Telecom on the basis that they are not offered "by means of" Telecom's FTN are described in Appendix 2.

Value-added telecommunications services

79. The designated access service is described under the Act as a retail service offered "by means of [Telecom's] fixed telecommunications network".

80. In clause 1 of Part 1 of Schedule 1, a fixed telecommunications network is defined as:

(a) any lines between a user's premises and the local telephone exchange or equivalent facilities:
(b) any fixed PSTN:
(c) any telecommunications links between fixed PSTNs:
(d) any fixed PDN:
(e) any telecommunications links between fixed PDNs:
(f) any value-added telecommunications services associated with telecommunications services provided by those assets

81. With respect to paragraph (f), Telecom submits that the "telecommunications service" must be provided by the assets in paragraphs (a) to (e), and that the "value-added telecommunications service" must be associated with such a "telecommunications service". Telecom asserts that the effect of (f) is to expand "retail service" in the designated service description to include those offered *by means of* the VATS. Telecom notes three services which are offered by means of a value-added service of which two, Direct Connect and Additional Call Distribution Plan are services within the Application.[32] The VATS is not in this instance the retail service, but the means by which the retail service is offered. Telecom therefore argues that it should not be required to provide TelstraClear with access to support services on the basis that support services are not provided "by means of" a VATS.

82. Telecom also submits that there is another category of VATS that are offered by the assets in paragraphs (a) to (e), such as Smartphone Services.[33]

83. TelstraClear submits that paragraph (f) describes the other half of the universe of telecommunications services; telecommunications services falling into only two groups: basic and value-added services. TelstraClear argues that the Telecom interpretation would defeat the purpose of the legislation, which was intended to be comprehensive in capturing both categories of telecommunications services.[34]

84. On the natural meaning of the words in (f), they bring within the definition of FTN, any value-added telecommunications services, so long as such services are 'associated' with telecommunications services provided by the assets described in (a) to (e). The Commission is not persuaded by Telecom's argument that the retail service must either be offered by means of a VATS or must in some way be a VATS offered by the assets in paragraphs (a) to (e). While (a) through (e) of the definition of FTN relate directly to actual physical elements of the network, paragraph (f) is distinct in

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[32] The three examples offered by Telecom of services offered by means of a value added service are (a) *Directory Assistance – Direct Connect* (b) *Expected Wait Time Service* which is provided by means of Centrex ACDQ; and (b) *Additional Call Distribution Plan* which is provided by means of 0800 Call Distribution Plan. Telecom, Submission on the Draft Determination, 24 January 2003, p. 55.

[33] Telecom, Submission, 8 October 2002, Question 22, para. 5.

[34] i.e. both basic telecommunications services and value-added telecommunications services. Transcript of the Wholesale Workshop, 8 October 2002, pp. 61-68.

that it adds ‘associated’ VATS to those provided by network elements. Paragraph (f) does not constrain the VATS to only those provided by network elements, so long as they are associated with telecommunications services provided by such assets.

85. Paragraph (f) accordingly makes the designated services’ definitions comprehensive such that they cover both basic and value added services provided by the network, and all VATS associated with such services.

86. At the same time, to be ‘associated’, there must be a meaningful link between the provision of the telecommunications services and the provision of the VATS, and no readily available substitute with comparable functionality.

87. From the perspective of the end-user, an associated VATS adds value or utility to the end-user’s existing telecommunications services. This also accords with the perspective of the supplier of the services; namely that VATS are linked to the provision of, and add value to, a telecommunications service that utilises some of the assets in paragraphs (a) to (e).

88. Telecom argues that only Telecom, as the provider of the basic service, must be able to realistically provide the VATS. However, no such limitation is to be found in the language of the Act. Telecom's test does not take into account whether other providers of a service can provide such service with comparable functionality, and would exclude VATS even if there were differences in the alternate service. The Commission therefore rejects the view that the VATS must only be capable of being provided by Telecom, and prefers the conclusion that the absence of a readily available substitute is the appropriate standard.

89. The Commission does, however, view support services as distinct from VATS. Support services are services that customarily are provided along with the retail services, and are integral to the successful provisioning of retail services. As such, they are part of the terms of supply of the designated service and should be priced on a cost covering basis.

90. Appendix 2 provides details of the Commission’s application of this test for VATS to the services in the Application.

MARKET DEFINITION

Introduction

91. The analysis of competition is a critical part of the Commission's implementation of the wholesaling provisions of the Act, for a number of reasons. First, the outcome of such an assessment may have implications for the range of services to be included in any wholesale determination. A finding of limited, or likely to be lessened, competition in the relevant market is a necessary condition for regulated wholesaling of a service. If a market in which Telecom supplies a particular service is found to be competitive, the Commission has the discretion to require that service to be wholesaled. Second, the assessment of competition will determine the type of discount to be applied. Where Telecom is found to face limited, or is likely to face lessened, competition in a market, the discount is to be based on the "avoided costs saved". Where Telecom does not face limited, or is not likely to face lessened, competition in a market, and the Commission has decided to require the service to be wholesaled in that market, the discount is to be based on "actual costs saved".

92. The concept of a market is an instrumental one, the definition of which is not an end in itself, but rather is an exercise intended to cast light on, or to assist with the analysis of, the conduct at issue. In *Queensland Wire*, the Court stated:[35]

> In identifying the relevant market, it must be borne in mind that the object is to discover the degree of the defendant's market power. Defining the market and evaluating the degree of power in that market are part of the same process, and it is for the sake of simplicity of analysis that the two are separated...

93. The process of identifying the relevant market(s) should keep in mind the object of so doing. In the present case, the objective is to determine whether Telecom faces limited, or is likely to face lessened, competition in a market.

94. For the purpose of undertaking an assessment of the level of competition within a market, the process of establishing market boundaries can be seen as one of identifying the smallest area of product, geographic and functional space over which a hypothetical monopolist could exert a significant degree of market power. This approach focuses on all those close substitutes whose presence would prevent a hypothetical monopolist from exercising market power by raising its price or by other means. Such substitutes must be included in the market within which the hypothetical firm is to be a monopolist. Included are both actual and potential substitutes on both the demand and supply sides of the market.

95. An appropriately defined market will include products which are regarded by buyers as being similar or close substitutes ('product' dimension), and in close proximity ('geographical' dimension), and are thus products to which they could switch if the monopolist were to attempt to exert market power. It will also include those suppliers

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[35] *Queensland Wire Industries Pty Ltd v Broken Hill Pty Co Ltd* (1989) 167 CLR 177.

currently in production who are likely, in that event, to shift promptly to offer a suitable alternative product even though they do not do so currently.

96. One approach to identifying a significant degree of market power (in the context of market definition) is in terms of the ability of the hypothetical monopolist to increase profits by imposing a small but significant and non-transitory increase in price (a "*ssnip*") above the competitive level. For the purposes of determining relevant markets, the Commission will generally consider a *ssnip* to involve a five percent increase in price for a period of at least one year. Starting from a small initial group of close substitutes, other potential substitutes are added to the group, until the hypothetical monopolist is able to profitably impose a *ssnip*. When this occurs, then all possible close substitutes must be encompassed by the proposed market definition.[36]

97. The degree of substitutability between telecommunications services, and thus the definition of telecommunications markets, is likely to be influenced by advances in technologies, and in particular the convergence of different technologies. The *ssnip* test allows for this and therefore, in terms of the product dimension of telecommunications markets, the Commission considers this test to be a useful tool in assessing the likely demand- and supply-side responses to a change in the relative price of functionally similar services. Importantly for a dynamic industry such as telecommunications, the New Zealand regulatory system allows for frequent regulatory reviews, at which point market definitions can be revisited in light of any technological or other developments.

98. The Commission usually seeks to define relevant markets in terms of the following characteristics or dimensions:[37]

- the goods or services supplied or purchased (the product dimension);
- the geographic area from which the goods or services are obtained, or within which the goods or services are supplied (the geographic dimension);
- the level in the production or distribution chain (the functional dimension); and
- the temporal dimension of the market, if relevant (the timeframe).

99. In terms of the functional level, in order to meet the jurisdictional requirements of the Act, the services must be retail services. Therefore all of the markets considered are retail markets. While telecommunications services often have a temporal dimension, for example the use of peak and off-peak pricing, this is not considered to be of particular relevance to market definition in the current context.

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[36] If, in response to the price increase, the reduction in sales of the product would be large enough that a hypothetical monopolist would not find it profitable to impose such an increase in price, then added to the group should be that good that is the next-best substitute for the good in question. This incremental process requires those goods considered the most likely to be close substitutes for the good in question to be added first to the group subject to the *ssnip* test. If this did not occur there may be goods or services which are added to the group which are not close substitutes.

[37] Commerce Commission, Practice Note 4.

100. Despite the apparently clear-cut criteria discussed above, markets are not always easy to define in practice. In part this is because the process itself is inevitably an imprecise one since transactions in the economy do not always fall neatly into a series of discrete and easily observable markets. Hence it may not be practical—nor, indeed, always necessary—to identify the precise boundaries of the activities included in a market. Moreover, as already noted, it is appropriate to tailor the definitions used to meet the requirements of the case in hand.

Summary of Draft Determination

101. The following table summarises the market definitions proposed by the Commission in its draft wholesale determination released on 25 November 2002.

Figure 1: Draft Determination Markets

Product Market	**Customer Segmentation**	**Geographic**
Local access services	Business	Metro, Non-metro
Toll services	Business	National, International
Fixed-to-mobile services	Business	National
Directory Assistance	Business	National
Toll-free services	Business	National
Paging services	Business	National
0900 services	Business	National
ISP services		National
Narrowband internet access	Business	Metro, Non-metro
Broadband internet access	Residential, Business	National
Data services	Business	National

Source: Draft Determination

102. Following TelstraClear's decision to withdraw a number of services from its application, a number of these markets are no longer considered relevant to the current determination. These are the markets for national and international toll services, paging services, and ISP services.

103. In addition, TelstraClear has informed the Commission that it has withdrawn its application in respect of residential broadband services in metropolitan areas:[38]

> TelstraClear does not seek regulated resale to residential customers in a residential metropolitan market of any service which is traded within that residential metropolitan market. This applies to services which are covered by the Residential Resale application or the Wholesale application.
>
> This includes Jetstream Starter, the other Jetstream products … for which the relevant market is a residential metropolitan market.

104. Therefore the market for the provision of broadband internet access to residential customers in metropolitan areas is no longer relevant to the current determination.

[38] Letter from TelstraClear to Commerce Commission "Residential Services" (1 May 2003), page 2.

105. TelstraClear has noted that while it considers the toll-free market to be effectively competitive since the introduction of toll-free number portability in December 2002, it does not believe that effective competition had been established prior to that date.

106. The Commission also noted in its draft determination that the narrowband internet access markets correspond to the local access markets and are therefore not separately considered in the competition assessment.

107. The draft Determination noted that in a market where Telecom does not face limited, or is not likely to face lessened, competition the Commission would not require Telecom to provide a wholesale service, unless the Commission is satisfied of significant long-term benefits for end-users of requiring such wholesale provision.[39]

108. In relation to the metro local access market, both Telecom and TelstraClear have submitted that some parts of this market are contestable. TelstraClear has proposed a carve out based on connectable sites[40]. Telecom has proposed a carve out based on a customer's annual billed revenue.

109. The Commission has considered these proposed dimensions in all relevant markets, although has adopted its own position on the various thresholds suggested by the parties. These conclusions are presented in the market definition and competition assessment section of each relevant market, elsewhere within this Determination.

110. TelstraClear has also proposed that the Commission consider three dimensions in ascertaining whether the access provider faces limited competition within a defined market[41]. These dimensions relate to; a) geography, insofar as it corresponds with the deployment of alternative access networks, b) customer segmentation based on the volume of services or value of a customer, and c) the duration of the Determination.

111. TelstraClear stated in its submission dated 10 March:

> "At the Wholesale conference, TelstraClear proposed an approach which excludes from the regulated resale regime "corporate customers" within metropolitan markets, on the basis that, as it is generally economically feasible for competitors to connect those customers, they should be regarded as contestable".[42]

112. However, in the accompanying footnote, TelstraClear stated that it had "reached the view that the better approach is to define 'Connectable Sites', which often will be sites belonging to corporate customers but also could be sites belonging to other types of customers (e.g. a customer TelstraClear would classify as commercial or large SME.)". Later in the same submission, TelstraClear noted that its exclusion based on

[39] Commerce Commission Draft Determination on the TelstraClear Application for Determination of "Wholesale" Designated Access Services, 25 November 2003, p.95

[40] TelstraClear submission, 10 March 2003, Wholesale application: Definition of a Corporate customer.

[41] TelstraClear submission, 10 March 2003, Wholesale application: Definition of a Corporate customer, paragraph 23.

[42] TelstraClear submission, 10 March 2003, Wholesale application: Definition of a Corporate customer, paragraph 2.

connectable sites may cover more businesses than an exclusion based on Telecom's definition of a corporate customer.

113. Having considered the submissions on the matter, the Commission considers that it is not required to make a determination in relation to the corporate market for local access services in metropolitan areas. ("metropolitan corporate access market") This conclusion is reached on the basis that the Commission considers that TelstraClear has not sought regulatory resale of designated services in the contestable segment of this market.

114. TelstraClear has also requested that, despite its assertion that the metropolitan corporate access market is contestable on the basis of "connectable sites", and therefore not subject to mandatory resale, a number of services require separate treatment and therefore need to be included in the resale regime. These services are Centrex and IP Networking[43]. TelstraClear requests that these services be made available for resale to a connectable site irrespective of the size or value of the customer, citing interoperability concerns.

115. The draft wholesale determination referred to the issue of 'inter-operability' of services offered by both Telecom and TelstraClear. Specifically, where a customer has multiple sites around the country, some of those sites may not be within reach of competing network. In some instances, this can easily be addressed by requiring Telecom to provide wholesale access to those services in 'non-competitive' areas. For example, a business customer may have 10 branches, 8 of which are located in metropolitan areas and 2 of which are in non-metropolitan areas. TelstraClear could then provide direct business line connections in respect of the 8 sites, and serve the other 2 sites through reselling Telecom's access lines.

116. However, TelstraClear has raised the issue that it may not always be possible to supply access in this way to such a customer. Specifically, TelstraClear referred to the case of Centrex:[44]

> Some services are not technologically capable of being offered across interconnected networks, but must be offered entirely on one network or the other: for example, Centrex. While TelstraClear has a Centrex-type product of its own (called Gateway), if TelstraClear cannot directly connect to its own network all of a customer's sites and has to use the Telecom network for Centrex service for some sites, TelstraClear has to use the Telecom Centrex service across all the customer sites, including those to which TelstraClear otherwise would connect the customer directly to its own network.

117. In response, Telecom disputes that there is an integration issue with Centrex:[45]

> Telecom can confirm the integration of Centrex and Gateway (TelstraClear's equivalent) is feasible. Further, Telecom's assistance is not necessary for TelstraClear to achieve this integration.

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[43] Letter from TelstraClear to Commerce Commission, 24 April 2003.

[44] TelstraClear "Submission on Investigation into Application for Determination of Designated Wholesale Services", 27 August 2002, page 13.

[45] Telecom "Submission on Wholesale Draft Determination", 24 January 2003, page 106.

> Telecom currently integrates PABX and Centrex solutions for its internal use. While Telecom does not integrate Gateway, TelstraClear could integrate PABX-based solutions with Centrex if it wished to. Centrex need not be treated differently from the other services in the local access market.

118. At the wholesale workshop, TelstraClear noted that its understanding of the Telecom Centrex product was such that while Centrex and Gateway can work together at some level, certain important features cannot be offered across a hybrid solution.[46] Specifically, TelstraClear set out a list containing 41 different features that it is able to provide to its direct connect customers. Of these, TelstraClear submitted that 7 features cannot be provided over a hybrid Centrex/Gateway service. These include Private Name Display, Private Number Display, and Speed Call Long. TelstraClear concluded that:[47]

> These features are considered critical to some customers. As these cannot be provided by TelstraClear in a hybrid configuration, a single site that is outside the TelstraClear network will dictate that the entire system must be installed on Telecom Centrex if these features are to be offered.

119. All Gateway customers use the "Private Name Display" feature, while 11% use "Music on Hold" and 10%, "Remote Call Forward". TelstraClear go on to note that:[48]

> 70% of TelstraClear Gateway customers rate private CLI as "important" or "significant" and 50% rate name display as "important" or "significant"

120. The Private Name/Number Display feature enables the name/extension of an internal caller to be displayed on the called party's telephone. TelstraClear indicate that this feature would not be available on a hybrid Gateway/Centrex service.[49]

121. In relation to the Centrex issue, the Commission acknowledges that a resultant loss of some functionality may potentially arise when interfacing TelstraClear products supplied in contestable markets with Telecom products supplied in limited competition markets. However, TelstraClear's information suggests that only a limited number of features may not be available over a hybrid Gateway/Centrex service, and that a subset of such features is commonly taken by its customers. Even in terms of the Centrex or Gateway services, which represent a subset of the local access market, only a small number of features would appear to be unavailable over a hybrid service. Of these features, only two are commonly selected by TelstraClear customers.

122. The Commission is not satisfied that there is sufficient evidence that such features would represent a significant impediment to TelstraClear's ability to compete in the local access market, and that a separate market for such services is appropriate. For the purposes of this determination, the Commission has therefore considered Centrex

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[46] See, for example, Peter Waters comments from line 48, page 88,

[47] TelstraClear "Responses to Commission's Questions for the Resale Workshop", 7 October 2002, page 25.

[48] TelstraClear "Response to Information Request following the Wholesale Conference: Scope of Resale Services", 5 March 2003, page 12.

[49] These unavailable features only relate to internal calls. Another feature, referred to as "Caller Line Identification Display", displays the telephone of an external caller. TelstraClear has noted that this feature would be available over a hybrid Gateway/Centrex service.

services to be supplied within the metropolitan and non-metropolitan local access markets.

123. In addition to Centrex, TelstraClear submit that IP Networking should be excluded from its proposed carve out of connectable sites.[50] The Commission notes this service is not supplied in the local access market.[51]

124. In terms of IP Networking, TelstraClear has submitted that similar integration problems arise. In particular, TelstraClear argues that IP Networking is typically a multi-site service, and unless TelstraClear can directly connect all of a customer's sites, it will need to use the Telecom IP Networking product to serve all the sites, even those in metropolitan areas. However at paragraph 235 of this determination, the Commission notes Telecom's position that where a retail data service either originates or terminates in a non-metropolitan area (that is, beyond the reach of alternative data networks), then that service should be regarded as being supplied in a limited competition market and therefore subject to regulated resale.[52] The Commission's view is that multi-site data services, such as IP Networking, can be adequately assessed within this framework and that separate treatment, for example such as TelstraClear's proposed definition of a national IP Networking market, is not warranted.

125. The Commission has therefore not treated these exclusions separately, and has concluded that it is not required to make a determination in respect of the metropolitan corporate access market.

126. In arriving at its conclusion, the Commission places weight on the fact that TelstraClear itself considers the metropolitan corporate access market to be contestable and a market in which Telecom does not face limited, or is not likely to face lessened competition, albeit a conclusion reached on the basis of customer segmentation criteria as opposed to network reach as proposed by TelstraClear.

Main Market Definition Issues Raised by Parties

127. The main market definition issues raised in submissions on the draft wholesale determination and at the conference relate to customer segmentation, the definition of geographic boundaries in relation to local access, broadband internet access, and data markets, and the issue of Centrex/Gateway integration (discussed above).

128. In addition, Telecom has proposed a number of additional markets. These markets are also discussed below.

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[50] Letter from TelstraClear to the Commission, G. Forsyth, 24 April 2003

[51] In its submission on the Definition of a Corporate customer on 10 March 2003, TelstraClear argued that Jetstream should also be carved out of its connectable sites definition. A subsequent submission by TelstraClear, dated 24 April 2003, only refers to Centrex and IPNetworking. However, the Commission has adopted a metropolitan broadband internet access market, and accordingly the TelstraClear reservation is not relevant.

[52] Telecom "Submission on the Wholesale Draft Determination", 24 Jan 2003, p.111

Customer Segmentation

<u>Views of the Parties</u>

129. Both Telecom and TelstraClear, as well as TUANZ, submit that there are separate markets for corporate and SME customers. For example, according to Telecom's submission on the draft wholesale determination:[53]

> Corporate customers purchase their telecommunications requirements in bundles, receiving better price and quality terms than the Business customer. As important, discrimination occurs in dimensions such as quality, functionality and post-sales service levels. The telecommunications preferences of Corporates are more varied, customized and complicated than those of other customers.
>
> The size of a Corporate's spend on telecommunications services gives it a degree of countervailing power over providers. The high level of Corporate customer average billed revenue enables Corporates to purchase their own in-house telecommunications experts or hire consultants to assist with the acquisition of telecommunications services; and gives them the option to self-supply.
>
> In response, telecommunications service providers have separate sales and marketing teams for Corporate and Business customers, and separate marketing strategies. The terms and conditions of provision also differ between Corporate and Business customers (e.g., volume and term commitments).

130. Following the conference, Telecom provided some further detail on the ability of suppliers to substitute between corporate and SME customers. Telecom submitted that a supplier of telecommunications services to SMEs would have to incur significant new investment, some of which would be sunk, in order to switch capacity into the corporate market. According to Telecom, this would include the development of specialist information and communication advisory and support services, which would represent a significant outlay. Further investment in hardware that is specific to services provided to corporate customers may also be required.

131. In terms of supply-side substitution going the other way, Telecom notes that a corporate telecommunications supplier competes in a market that serves approximately 1,500 customers. However, there are approximately 130,000 SME customers, which require a different form of sales and support.

132. Telecom has proposed that a workable definition of corporate customers is those customers that have an annual spend on telecommunications services in excess of $[ ]RI. This is the expenditure figure that Telecom uses internally to define a corporate market.

133. In its response to Commission questions at the wholesale workshop, TelstraClear noted that SME customers spend an average of around $[ ]RI per annum on telecommunications, whereas the annual average spend of a corporate customer is considerably higher at $[ ]RI. TelstraClear goes on to show the differences in the way by which it manages its key customer segments. In particular, corporate customers receive a higher degree of customer-specific support, with individual

[53] Telecom "Submission on Wholesale Draft Determination", 24 January 2003, pages 59-60.

customer account managers allocated to each corporate. Sales and after sales support functions are more intensive in the case of corporates; for example, each sales staff deals with between [ ]RI corporate customers, while the customer:sales staff ratio for smaller business customers ranges from [ ]RI. Given these differences, TelstraClear is:[54]

> …prepared to accept that corporate customers form a separate customer market to other business customers. On the basis of their spend levels and the supply-side factors, such as dedicated sales and support staff.
>
> …
>
> If there is to be a distinction between SME/commercial customers and corporate customers for the purposes of applying the designated resale services (such as pricing or availability), the distinction must be clear cut and easy for the parties to implement. A distinction based on spend is likely to be problematic, and requires rules about what expenditure is included and how it is assessed. … TelstraClear proposes a distinction based on the number of lines: SME/commercial customers should be considered to be any customer with 3 or less sites.

134. TelstraClear proposed that those customer sites located close to a competing access network (that is, within a metropolitan area) with 10 or more voice lines, or bandwidth exceeding 512 kbps, be excluded from the resale regime on the basis that it is likely to be economically feasible to connect such sites.

135. Therefore, both TelstraClear and Telecom agree in principle that there are separate markets for the supply of local access services to SME and corporate customers. However, the parties have put forward different operational definitions of each customer type.

136. TUANZ has also commented on the distinction between corporates and SMEs. At the wholesale conference, TUANZ noted that:[55]

> … we believe there is a necessity to look at splitting the market between corporates and SMEs, small to medium enterprises. The reason for that is that in general corporates in the market today have a much stronger position to negotiate specialised agreements with current incumbents that meet their needs, and in fact in many cases retailers who are providing services to large corporates will go through an investment process and build out to the areas that those customers require services; and, because of the size of those corporates, they're in a position to do that and it probably is the right thing to do.
>
> But, SMEs are not in a position to do that because they don't have the purchasing power and they don't have the specialised needs.

Commission Position

137. Both parties have argued that there are separate corporate and SME markets, for example on the basis of differences in the way in which telecommunications services are supplied, and also differences in purchasing patterns and expenditure levels by these customer groups. Both of these factors are relevant in considering customer segmentation.

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[54] TelstraClear "Responses to Commission's Questions for the Resale Workshop", 7 October 2002, pages 30, 34.

[55] Transcript, Day 4, Conference on Wholesale Draft Determination, page 58.

138. In terms of supply, there appears to be some differentiation by telecommunications companies with respect to SMEs and corporates. In terms of local access provision, a corporate supplier serving a relatively small number of large customers, may need to invest significantly in physical access infrastructure in order to offer service to the larger SME customer base, especially to the extent that SMEs are located in different areas. There may be some substitution possibilities in the other direction, with an access network operator serving SMEs being able to switch into the corporate market. The main form of required investment appears to be in relation to more specialized and intensive sales and support functions.

139. As evidenced by the spend figures provided by TelstraClear and referred to above, the level of customer spend varies considerably across telecommunications users. This is likely to have a bearing on the level of competitive intensity for different customer groups. This is evident in a number of ways. For example, the Commission understands that corporate customers often request competitive tenders for a range of telecommunications services; in some instances, there also appears to be service and price discrimination between corporates and SME customers. For example, Telecom has provided information which shows that SMEs and corporates face different retail prices for some services. This is particularly the case in the local access market, but also in respect of toll-free and fixed-to-mobile services.

140. However, for other markets, there has been little or no evidence of price discrimination between SMEs and corporates. For example, it appears that Telecom's Jetstream pricing does not differentiate between types of business customers. Indeed, Telecom has submitted that the only customer segmentation that is relevant to the provision of broadband internet access is residential and business.[56] In a number of other product markets, it appears that the SME and corporate distinction is not particularly relevant; for example, the markets for premium rate services; directory assistance; operator services; CPE; and business information analysis. The Commission has therefore defined each of these markets as single markets in terms of business customers.

141. The Commission acknowledges that the degree of competition is likely to vary across a wide range of telecommunications customer groups, and that there is unlikely to be a clear breakpoint in customer size. However, the Commission believes that it is reasonable to draw a broad distinction between corporate customers and SME customers in relation to a subset of the product markets relevant to this determination.

142. For ease of implementation, the Commission has adopted a definition of a corporate customer based on average annual spend. In considering an appropriate threshold level of expenditure, TelstraClear has provided the following information which could be used to give an indication of the level of corporate spend from its perspective:

- average corporate spend of $[ ]RI per line per month (excluding data)

[56] Telecom "Cross-submission in response to TelstraClear's resale submission" (13 September 2002), Appendix A, page 8.

- 10 lines per site proposed as the cut-off for a 'connectable site' (TelstraClear define a connectable site to be a customer site within a metropolitan area and with at least 10 lines, and that such sites generally be excluded from the resale regime)
- an earlier submission that a corporate be defined as having at least 4 sites.

143. Based on these figures,[57] the threshold level of spend of a corporate customer would be approximately $[ ]RI per annum (excluding data). In terms of data spend, TelstraClear has used a 512 kbps data connection as part of its definition of a "connectable site". In modelling the costs of supplying a 512 kbps data service, Network Strategies have assumed the annual revenue from such a service to be $[ ]RI. If this can be taken as a broad proxy for data services supplied to corporate customers of TelstraClear, the combined threshold level of spend would be approximately $[ ]RI per annum. Use of higher speed data services would increase the threshold level of spend.

144. The Commission has decided to adopt an annual spend level of $[ ]RI on telecommunications services supplied in New Zealand to distinguish between corporate and SME customers. The adoption of any single expenditure threshold as a basis for defining a corporate customer will to some extent be arbitrary. The Commission is satisfied, however, that a spend level is an implementable and reasonable means of distinguishing between these two user groups.

Geographic Dimensions of the Business Local Access Market

145. The Commission has previously approached the geographic dimensions of telecommunications markets by considering the extent to which network competition has emerged. In taking this approach, the Commission is interested in identifying those areas that may be subject to a greater or lesser competitive threat than may be the case for other areas. In terms of market definition, this threat is typically defined in relation to 'near entrants' who are able to switch or extend existing capacity without incurring significant sunk costs. The Commission concludes that it is appropriate to examine those areas in the vicinity of competing access networks, and to test the extent to which these areas could be regarded as being vulnerable to the threat of near entry in the form of extensions to those competing networks.

146. However it should be noted that this approach to the geographic definition of a telecommunications market is distinct from, although related to, the assessment of the state of competition in that market. As noted later, other structural and behavioural features of a particular market will be considered in the competition assessment.

147. While the Commission has previously defined telecommunications access markets using this approach, it has not been necessary in those cases to draw exact market boundaries. However, for the purposes of administering the wholesale provisions of the Telecommunications Act, a more precise delineation of geographic markets is required. This raises the question of how to precisely define the boundaries of these markets.

[57] Using the midpoint [ ]RI of the average spend.

148. In particular, a geographic rule is required to set the boundaries of the business access market. This rule can then be referenced against an appropriately defined local access network to determine the boundary of that access market.

149. Both parties have commented extensively on the construction and application of such a geographic rule. The following discussion summarises the positions taken in submissions and the draft wholesale determination.

Summary of initial submissions and draft determination

150. In the draft determination, the Commission adopted a 100-metre rule to define the geographic boundaries of the business local access market. This rule would be applied to areas in which there is competing cabinet-based local access networks as well as areas in which a competitor had deployed fibre spurs to reach customers. The supply of access lines and local service to businesses within 100 metres of such competing access infrastructure falls within the metropolitan business access market. Supply in all other geographic areas is within the non-metropolitan business access market.

151. The Commission adopted this position in the draft determination in light of evidence provided by both parties in their initial submissions and cross-submissions following the decision to investigate TelstraClear's application. Telecom submitted that the geographic boundary of the metropolitan market (which Telecom refers to as 'zone 1') should be defined by a 200-metre rule, on the basis that this rule is used by Telecom in its commercial decision-making. In particular, Telecom noted that it has developed a number of pricing and marketing packages which are concentrated in those exchange areas which face competition from an alternative network operator. Telecom states that this has become evident in a pricing differential that has opened up between zones 1 and 2.[58] Telecom also noted that the 200-metre rule was used in the TelstraSaturn MCSA, signed in August 2000.

152. TelstraClear agreed with the principle of defining a market with reference to the availability of competing network, and that as alternative network is rolled out, the regulation of resale services should be rolled back.[59] However, TelstraClear argued that the 200-metre rule proposed by Telecom substantially exceeds the average customer connection served by TelstraClear, which is typically [ ]RI metres in length. TelstraClear also submitted that any rule should only be applied to the appropriate node at which traffic is concentrated within a cabinet-based access network, rather than being simply referenced against the edge of the current competing network.

153. The Commission's proposed 100-metre rule represented a preliminary position of the delineation of the business local access market. In their submissions on the draft determination, and in their presentations at the conference, both parties provided extensive information in an attempt to more precisely test the geographic boundary of this market.

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[58] Evidence of this differential is presented and discussed below.

[59] See draft determination, reference at paragraph 215.

154. The two key issues in relation to setting this boundary are first, the definition of a competing local access network; and second, the distance rule applied to that network.

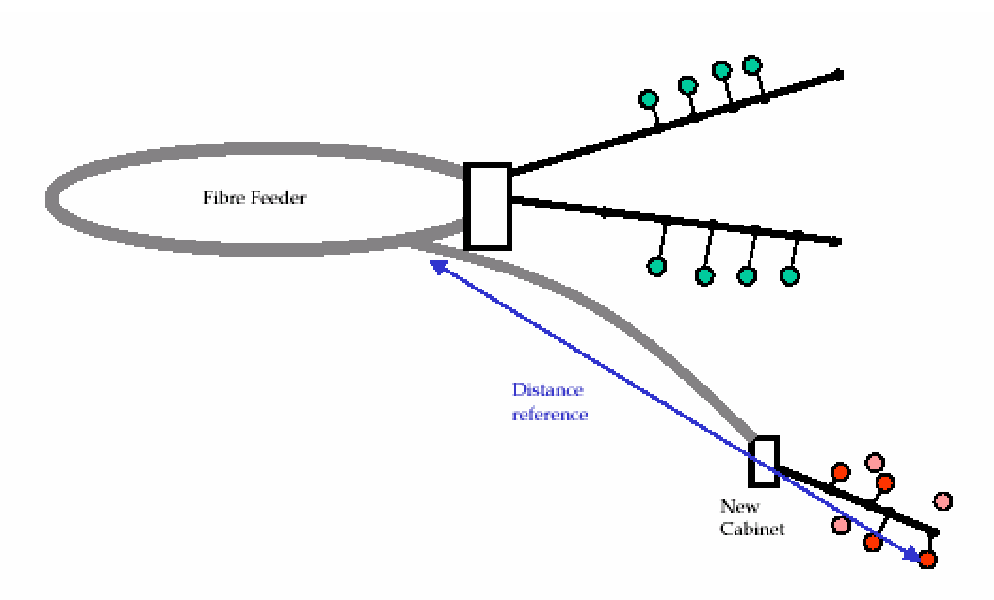
Definition of a Competing Access Network

Telecom's position

155. Telecom commissioned LECG to model the cost of extending existing local access networks. A number of different means by which an access network can be extended were modelled by LECG. For example, in relation to copper-based distribution networks, the simplest extension may be a new drop lead installed to connect a customer to an existing distribution cable. A more complex extension would involve deploying new drop leads as well as a new distribution cable back to an existing cabinet. Going back even further into the access network, an existing cabinet could also be expanded to accommodate the expanded distribution network.

156. Finally, a new cabinet and distribution system could be installed, along with a fibre spur back to an existing fibre feeder. This scenario is depicted in the following diagram, which is reproduced from Telecom's submission on the draft determination.[60] This shows a cluster of new customers connected to a new distribution cable leading to a new cabinet. This cabinet is then linked back to the existing infrastructure by way of a fibre spur.

Figure 2: Cabinet and fibre spur extension, Telecom



[60] Telecom "Submission on Wholesale Draft Determination: Appendix E", 24 January 2003, page 13.

157. Similarly, there are a range of extensions which could be made to a fibre-based CBD network. LECG models the addition of Voice-over-IP (VOIP) equipment to an existing fibre connection; and the addition of VOIP equipment along with a new fibre link.

158. Telecom also argues that installed ducting should be included in the definition of an access network, as the significant expense of laying such ducting has already been incurred.

159. Telecom agrees with TelstraClear that trunk networks designed for the bulk transportation of telecommunications signals should be excluded. Therefore,[61]

> Telecom recommends an exclusion from the definition of access networks for those networks used exclusively for the carriage of telecommunications signals between the network owner's equipment, where that equipment is not located at customer premises. This would exclude, for example, networks dedicated to the transport of calls and data between switches.

160. In summary, Telecom recommends that a competing access network be defined to include all fibre and copper elements of the network, including cabinets, up to but not including the customer drop leads. Installed ducts should also be included, although trunk networks should be excluded.

<u>TelstraClear's position</u>

161. TelstraClear argues that the definition of a competing local access network should include cabinet-based infrastructure, but should exclude those instances where a fibre spur is deployed to connect a small number of large corporate customers. TelstraClear argues that the configuration of these fibre spurs is not suitable to serve more than a limited number of customers. For example, whereas a cabinet service area involves a significant sharing of assets such as the cabinet and distribution cables, a fibre spur is deployed on a customer specific basis:[62]

> Given the size of the individual customers, the mux and other equipment required to provide services to each customer are located within each customer's premises, rather than shared between customers as in the case of a cabinet service area. Thus, in the case of fibre spurs, the equipment to "step up" and "step down" data and voice communications between the form the customer uses and the form the network transmits is largely provided on a one to one basis. In the case of cabinet service areas, this equipment is provided on a shared basis in a cabinet from which lines to individual customers are then fed.

162. TelstraClear illustrate connections to a fibre spur using the following diagram:[63]

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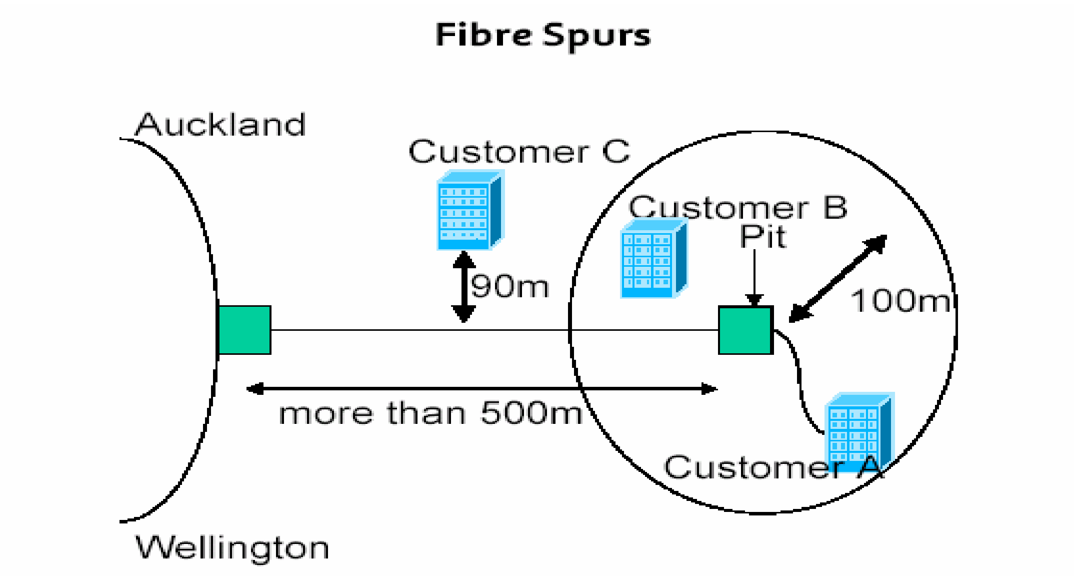
[61] Ibid, page 64.

[62] TelstraClear Wholesale Draft Determination Submission, 24 January 2003, page 53.

[63] ibid, page 54.

Figure 3: Cabinet and fibre spur extension, TelstraClear



163. TelstraClear considers the situation where customer A is currently served by way of a dedicated access pit, and consideration is given to the connection of customers B and C. TelstraClear submit that the customer-specific nature of customer connections to a fibre spur means that customer B cannot be "hubbed off" existing equipment, as a disconnection of service to the existing customer A would then interrupt service over subsequent connections. Therefore, TelstraClear has indicated that it would take significant new investment (in the vicinity of $[ ]RI in equipment costs, plus the additional cost of laying the connection) to connect new customers such as B to an existing fibre spur.

164. In the case of customer C, located within a corridor alongside the fibre spur, a further difficulty would be the splicing of the spur required in order to make the connection. TelstraClear note that:[64]

> … it is not considered good industry practice, after a fibre spur is laid, to keep digging it up to "patch on" new customers along the cable route.

165. TelstraClear acknowledges that where ducting has already been installed, the costs of laying new cable can be avoided. However, their submission notes that it is often the case that ducting is not available.

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[64] ibid, page 55.

Commission Position

166. The Telecom depiction of the fibre spur issue refers to the situation where a spur connects existing infrastructure with a cabinet-based distribution system designed to serve multiple users. Given that this system is shared across multiple users, and appears capable of serving additional customers, for example by adding other customers to the distribution cable or cabinet in the Telecom diagram above, then it seems reasonable to include such a configuration in the definition of an access network. As Telecom itself suggests, the distance rule could then be applied along the distribution cable (as new customer drop leads could in principle be added to this cable) and to the cabinet (as new distribution cables could in principle be installed).

167. However in terms of the fibre spur itself, it does not seem appropriate to reference the distance rule along this link, due to the concerns raised by TelstraClear regarding the splicing of fibre. This is also consistent with Telecom's position that bulk transport network components should be excluded from the local access network.

168. TelstraClear refers to the situation where the spur is used to directly connect a small number of large customers, each of whom is served by customer-specific equipment. This appears to be a different scenario, as this configuration is based more on the use of dedicated customer equipment.

169. Therefore, for the purposes of this determination, the Commission excludes from the definition of a local access network fibre spurs connected directly to customer specific equipment. However, the definition will include situations where a spur goes out to a cabinet-based distribution system.

170. In addition, spare ducting should be included in the local access network, as the sunk cost of laying the ducting has already been incurred. This will necessitate TelstraClear indicating the availability of such duct capacity on its network maps provided to Telecom.

Distance rule

Telecom's position

171. In support of its position that a 200-metre rule is appropriate, Telecom refers to the results of financial modelling conducted by LECG, which shows the feasibility of various types of extensions to existing access networks. The modelling is based on identifying the 'internal rate of return' (IRR) over a ten year period, which is then compared to a cost of capital of 13.2%,[65] as well as the payback period, for each of the network extensions being examined. Extensions of 200 metres, 500 metres, and 700 metres are considered.

172. In each case, a constant number of lines per metre is assumed, as a proxy for customer density. A range of [ ]RI lines per metre is used, with the model results

[65] The cost of capital used by Telecom in its TSO modeling.

presented for each. LECG also assumes that each extension will immediately secure a market share of 20%, rising to 50% after two years and remaining constant thereafter.

173. LECG summarises the results of the modelling as follows:[66]

> For the 200m and 500m extensions presented above:
>
> - The payback periods are [ ]RI years for all values excepting the [ ]RI lines per metre situation, which has periods of [ ]RI years. This is in the context of assets that are expected to have economic lives in excess of 10 years.
>
> - The IRRs range from [ ]RI to [ ]RI for all values excepting the [ ]RI lines per metre situation, which has a lower bound of [ ]RI. Thus the lowest return presented is [ ]RI that of the required rate of return on capital invested of 13.2%, and in most case much higher.
>
> These results demonstrate that it is economically feasible for an owner of a competing access network to enter the local access market for voice and narrowband data, within the 200m and 500m distances from an existing access network, for areas in which our modelling assumptions are representative (e.g. business areas in New Zealand cities as illustrated in section 3)
>
> Further, the results are robust with respect to longer distances, as illustrated in the 700m extension example. The reason for this is that for every metre of additional extension, we have (appropriately) assumed a constant uptake of lines per metre. Where some initial fixed costs are involved, such as the installation of a cabinet, returns rise with distance as the fixed costs are spread over a larger revenue pool.

174. Telecom's submission reiterates its argument that a 200-metre rule has become embedded and 'systemised' in its marketing and pricing analysis for a number of years. When the TelstraSaturn MCSA was signed in August 2000, Telecom provided TelstraSaturn with maps that highlighted those areas within 200 metres of a competing network. Telecom notes that a 500 metre exception has since been developed to reflect instances where a large customer or concentration of customers means that it may be attractive to extend an existing network further.

175. Telecom concludes that:[67]

> the 200 metre and 500 metre rules have arisen from experience with customers and competing network providers, and the pattern of expansion that typically occurs once a competing network is in place. In developing this rule Telecom has attempted to strike a balance between responding adequately to the competitive threat, while at the same time protecting its overall revenues. Given these competing tensions in the development of this rule, it is reasonable to expect it is a reflection of actual competitive activity.

176. Later in Telecom's submission, a series of graphs is presented, showing the opening up of a distinct pricing differential between Telecom's zone 1 and zone 2. According to Telecom, this is a result of an increasing concentration of discounts targeted in competitive exchange areas. For example, Telecom described the following pricing packages:[68]

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[66] LECG "Economic feasibility of extending existing access networks", 23 January 2003, page 8.

[67] Telecom "Submission on Wholesale Draft Determination", 24 January 2003, page 67.

[68] Telecom "Cross-submission in response to TelstraClear's resale submission", 13 September 2002, page 12.

- "w*inback pricing*: special pricing offers for Centrex and standard business access only available to customers on lines that are currently billed by an alternative supplier;
- *retention pricing*: customers are deemed to be at risk following competitor rollout, and business retention pricing is made available to customers in competitive exchanges;
- *discounted packaged pricing*: [ ]CO;
- *"competitive exchange only"* innovations. For example: [ ]CO."

177. As a result of these initiatives, Telecom point to the divergence of zone 1 and zone 2 pricing in recent years, with the steeper reduction in zone 1 pricing reflecting a higher propensity to discount in those areas. This is depicted in Figure 4 below:[69]

Figure 4: Average Price of All Telecom Business Lines

[ ]RI

178. Figure 4 shows that the average price of a Telecom business line in zone 1 has fallen from around [ ]RI at the end of 1997, to around [ ]RI by end-2002. However, in zone 2, prices have fallen from about [ ]RI to around [ ]RI over the same period. From being roughly equal, a pricing differential of around [ ]RI has emerged.

179. Information provided by Telecom suggests that these reductions may have been more pronounced with respect to larger businesses than for small enterprises.

<u>TelstraClear's position</u>

180. In its submission on the draft wholesale determination, TelstraClear expressed general agreement with the Commission's proposal to define access markets by way of a 100-metre rule. TelstraClear does note, however, that even using a 100-metre rule, it may not be economically feasible to connect a significant number of customers. This applies in particular to SMEs, which tend to be 'under-represented' in TelstraClear's customer base.

181. On behalf of TelstraClear, Network Strategies reviewed the assumptions used by LECG and generated an alternative set of results. In its report, Network Strategies summarized the key concerns with the LECG analysis:[70]

[69] Chart 1 is reproduced from Telecom's "Submission on Wholesale Draft Determination", 24 January 2003, page 94.

- it relies on certain assumptions in regard to network architecture that are inappropriate for a competing new entrant looking to build a robust network suitable for providing high quality services beyond the short term
- unit costs are based upon Telecom data, which is significantly different to cost data of a competing new entrant, such as TelstraClear
- the model ignores customer churn, operating costs and overhead costs, as well as transport costs for the additional traffic generated
- market penetration assumptions are extremely aggressive and are not supported by actual New Zealand take-up.

182. Network Strategies presented a range of alternative cost parameters sourced from TelstraClear, some of which differ significantly from those used by LECG. For example, the TelstraClear trenching costs in suburban and CBD areas are given as [ ]CO/metre and [ ]CO/metre respectively, compared to the Telecom figure of [ ]CO/metre. Likewise, cabinet end and exchange end costs are considerably higher according to the TelstraClear data. Network Strategies note that part of the cabinet end cost differences is likely to be attributable to differing functionality at the cabinet of an entrant compared to that of an incumbent. For example, in relation to suburban and CBD cabinet costs:[71]

> "TelstraClear's access network includes functionality (and costs) that would be located within the exchanges (that is, beyond the access network) for an incumbent operator"

183. Network Strategies also noted a number of other possible explanations for the parameter differences, including different interpretations of the definition of individual components.

184. In commenting on the cost of capital parameter used by LECG, Network Strategies questions whether it is appropriate to use a cost of capital developed in a TSO context in an exercise which models commercial decisions to extend an access network. Network Strategies submits that incumbents often have a lower cost of capital than entrants, and notes that TelstraClear tends to use a discount rate of [ ]RI.

185. In addition to using alternative cost inputs, Network Strategies adopts a lower range of market penetration assumptions, rising from an initial [ ]CO within two years. This is said to reflect TelstraClear's experience. These cost and penetration adjustments form the base scenario modelled by TelstraClear. Further adjustments are then modelled, for example to take account of bad debts and operating costs.

186. In modelling the installation of a new 200 metre customer drop lead, LECG produced an IRR of [ ]RI, assuming the customer uses [ ]RI lines. Under the Network Strategies model, this drops to [ ]CO in the base scenario, and further to [ ]CO once additional costs are taken into account. Network Strategies submits that a customer

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[70] Network Strategies "Comments on the economic feasibility of extending existing access networks", 11 February 2003, page 1.

[71] Ibid, page 11.

with [ ]CO lines would be at the very high end of the SME segment; they note that a [ ]CO assumption produces a negative IRR.

187. The results of the Network Strategies analysis in terms of the IRR associated with a 200 metre distribution cable extension are presented in Figure 5 below.

Figure 5: 200 Metre Distribution Cable Extension

	IRR for assumed lines per cable metre				
	0.2	**0.4**	**0.6**	**0.8**	**1.0**
LECG model	[ ]CO	[ ]CO	[ ]CO	[ ]CO	[ ]CO
Network Strategies base model	[ ]CO	[ ]CO	[ ]CO	[ ]CO	[ ]CO
- including GPP*	[ ]CO	[ ]CO	[ ]CO	[ ]CO	[ ]CO
- including GPP and bad debts	[ ]CO	[ ]CO	[ ]CO	[ ]CO	[ ]CO
- including GPP, bad debts, op costs	[ ]CO	[ ]CO	[ ]CO	[ ]CO	[ ]CO

Source: Network Strategies
* Global Peripheral Platform.

188. Similar results are found for the 500 metre and 700 metre extensions.

189. The results of the Network Strategies analysis suggest that the returns from expanding existing access networks may be considerably lower than those produced by the LECG analysis. In particular, only the base model produces returns which are sufficient to cover an [ ]CO cost of capital, and even then only in areas of relatively dense customer demand. Once the model is adjusted to capture additional costs, returns fall below the Telecom cost of capital figure in all cases. This suggests that many of the scenarios being modelled may be marginal at best.

190. Following a request from the Commission at the conference, Network Strategies undertook some subsequent analysis which looked at the sensitivity of the modelling results to changes in certain assumptions. The baseline model was also 'fine tuned' in a number of ways. First, the assumption of trenching was replaced by a mix of trenching [ ]CO and drilling [ ]CO. Second, a distinction was drawn between 'small' customer and 'commercial' customer acquisition, support, and billing costs. These costs were also adjusted to allow for multi-site customers.[72] Finally, a number of site-related costs that had previously been omitted were included. Network Strategies note that the net effect of these adjustments is to increase the IRR in most cases.[73]

191. In its post-conference submission, Network Strategies modelled a 100 metre extension and a 200 metre extension, for low revenue and high revenue customers. The low revenue figure of [ ]CO per line per month appears to relate to SMEs, while the high revenue figures of [ ]CO per line per month corresponds to corporate customers.

192. Figures 6 and 7 below present the baseline results for an individual suburban customer drop lead and a suburban distribution cable extension respectively.

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[72] Specifically, per customer costs were converted into per site costs.

[73] Network Strategies "Viability of network extensions: sensitivity analysis", 9 March 2003, page 4.

Figure 6: Customer drop lead, amended Network Strategies baseline results

	20 line drop	14 line drop	3 line drop
100m low revenue	[ ]CO	[ ]CO	[ ]CO
100m high revenue	[ ]CO	[ ]CO	[ ]CO
200m low revenue	[ ]CO	[ ]CO	[ ]CO
200m high revenue	[ ]CO	[ ]CO	[ ]CO

Source: Network Strategies

Figure 7: Distribution cable, amended Network Strategies baseline results

	IRR for assumed lines per cable metre				
	0.2	0.4	0.6	0.8	1.0
100m low revenue	[ ]CO	[ ]CO	[ ]CO	[ ]CO	[ ]CO
100m high revenue	[ ]CO	[ ]CO	[ ]CO	[ ]CO	[ ]CO
200m low revenue	[ ]CO	[ ]CO	[ ]CO	[ ]CO	[ ]CO
200m high revenue	[ ]CO	[ ]CO	[ ]CO	[ ]CO	[ ]CO

Source: Network Strategies

193. These baseline results indicate that it will be economically feasible to deploy customer drop leads out to 200 metres in a number of cases, although it may not be feasible to connect small businesses even within very short distances from an access network. In terms of a new distribution network, the returns generated by the Network Strategies model are considerably lower.

194. The sensitivity testing conducted by Network Strategies indicates that the key drivers of feasibility are the costs associated with capital expenditure, revenue per line, transport, lines per site, and operating costs. The revenue per line aspect of this sensitivity testing is discussed further below.

Other Parties

195. Walker Wireless agrees with the Commission's approach to defining metropolitan and non-metropolitan access markets, although notes that it may be necessary to review the distance rule in future to reflect competition from wireless networks.

Commission Position

196. The results of the LECG analysis suggest that network extensions of the type being modelled are likely to generate returns that exceed the cost of capital by a significant margin. Of the various scenarios modelled by LECG, the lowest return is given as [ ]RI, which is associated with the installation of a new cabinet and a 500-metre distribution cable. This return was based on an assumption of [ ]RI lines per cable metre. Where a figure of [ ]RI lines per cable metre is used, the estimated returns increase to [ ]RI where a new distribution cable is installed.

197. LECG compared these predicted returns to an assumed cost of capital figure of 13.2%.

198. However, in the first instance it is not clear to the Commission that these types of results reflect the actual level of competing network expansion observed throughout

New Zealand. LECG present the following information which sets out Telecom's estimate of the lines per metre in business districts around New Zealand.

Figure 8: Lines per metre

City	Lines per metre
Whangarei	[ ]RI
Hamilton	[ ]RI
Taupo	[ ]RI
Napier	[ ]RI
Rotorua	[ ]RI
Palmerston North	[ ]RI
Dunedin	[ ]RI
Wellington (Newtown)	[ ]RI
Christchurch (Riccarton)	[ ]RI
Auckland (Takapuna)	[ ]RI

Source: LECG

199. For example, Telecom estimates that business streets in Whangarei exhibit a density of around [ ]RI lines per cable metre. LECG's results indicate that a 200-metre distribution cable produces a return of [ ]RI at 0.6 lines per metre and [ ]RI at 0.8 lines per metre. The corresponding returns for a new cabinet and distribution cable are [ ]RI and [ ]RI (with the lower returns due to the greater investment associated with the cabinet). Similar results are produced for the 500-metre and 700-metre extensions.

200. Returns of this magnitude suggest that entrants with existing access infrastructure could be expected to be rapidly extending such networks, including those access networks in centres such as Whangarei. However, despite the predicted returns from extending a distribution network in an area with the density of Whangarei, TelstraClear's access network remains limited. For example, Telecom's cross-submission on the Commission's decision to investigate contains a series of maps which depict Telecom's understanding of TelstraClear's access networks. The Whangarei map shows limited deployment of fibre by the former Clear Communications. According to TelstraClear's own figures, TelstraClear supplies a total of [ ]RI access lines to businesses in Whangarei.

201. This suggests that TelstraClear's presence in Whangarei is rather limited, which would be surprising if the returns modelled by LECG were in fact available. In other areas, similar observations can be drawn, although TelstraClear itself has indicated that it has continued to extend its network reach.[74] Nevertheless, the observed extent of competing network deployment, and the profitability of TelstraClear, appear to be at odds with the conclusions of the LECG analysis.

202. LECG briefly discussed a number of potential upside and downside risks to their model results. On the upside, the delivery of only a limited number of services has been modelled; there may be greater uptake of services; easier terrain may reduce

[74] See for example, TelstraClear "Resale Draft Determination" presentation at Commission conference on draft determination, slide 5: [ ]RI

costs of deployment; and assets may have a positive value after the ten-year period being modelled.

203. On the downside, there may less uptake than that assumed; terrain may be more difficult; and there may be incremental customer acquisition and operating costs, as well as incremental capital costs, none of which have been modelled. In terms of the latter, LECG assume that the existing access network has sufficient capacity to accommodate the extra demand from the extensions. Failing this, additional capacity further up the access network, for example at the switch, would be required.

204. There was some discussion of this latter point at the conference on the draft wholesale determination. Telecom and LECG noted that these results were based on the assumption that the entrant had already incurred the sunk cost associated with establishing an access network, that there was sufficient capacity back up the network to handle the additional volumes, and that the scenarios modelled therefore involved incremental extensions of such existing networks.

205. This is exactly the situation in New Zealand, where TelstraClear has deployed access networks in the main cities and provincial centres throughout the country. Therefore, the initial sunk investment has been made by the entrant. The question remains whether those initial sunk assets are being expanded in the way or at the rate implied by the LECG analysis. As noted above, there appears to be an inconsistency between the LECG results and actual observed behaviour of entrants in relation to the business local access market.

206. At the conference, LECG noted that there has been network rollout occurring throughout New Zealand. LECG also suggested that the expectation of a mandatory wholesale regime may have had a braking effect on investment, with rollout decisions possibly having been deferred.

207. However, an existing network operator deciding whether to build or buy a network extension is unlikely to defer network build, assuming the LECG returns are achievable. While the introduction of the new regime may have created some uncertainty, an entrant contemplating further network rollout would only replace that strategy with one of resale if the expected returns from resale exceeded those from infrastructure rollout. This would appear to be unlikely if the LECG returns were in fact available.

208. As a general point, the Commission agrees with Network Strategies that the type of analysis undertaken by LECG should be referenced against the existing configuration of the entrant's network. This issue was raised by Network Strategies in relation to 'cabinet end costs'. LECG refers to Telecom cabinet end costs of [ ]CO which accounts for the cabinet, power, fibre connection equipment, SDH terminal, and 2M interfaces. By comparison, Network Strategies notes that TelstraClear cabinet end costs are significantly higher, at [ ]CO. Network Strategies attributes this difference to differing functionality:[75]

[75] Network Strategies "Comments on the economic feasibility of extending existing access networks", 11 February 2003, page 8.

> In the case of TelstraClear, the cabinet performs much of the backhaul functionality of the exchange (as this proves more cost-effective), whereas Telecom has no need of such functionality given its extensive exchange network.

209. While the existing entrant's network should be taken as the starting point, it is important that any network extension is modelled in an efficient manner. In this regard, the Commission notes the Network Strategies assumption at the conference that any cable extension would be installed by way of trenching. Trenching is a relatively expensive mode of deployment, with Network Strategies using a figure of [ ]CO per metre in suburban areas. Network Strategies noted in their conference submission that drilling is a less expensive option, at a cost of around [ ]CO per metre. [ ]CO[76] This is likely to reduce the initial capital outlay associated with network extensions.

210. As noted above, in its post-conference submission Network Strategies presents a 'fine tuned' base model, and conducts a sensitivity analysis of the results. The base model assumes that [ ]CO of cabling is trenched, and [ ]CO is drilled. A number of other amendments are made.

211. The Commission has also noted comments made by LECG on the differences between its own modelling and that of Network Strategies.[77] For example, LECG suggests that the Network Strategies assumption regarding cabinet costs of [ ]CO may include certain costs (namely Primary Multiplexer costs) that have already been picked up elsewhere in the model. LECG question a number of other assumptions, including the trenching costs used by Network Strategies which generally appear to be significantly higher than Telecom's own estimates.

212. In terms of the Network Strategies sensitivity analysis, the results pertaining to an increase in revenue per line are of interest in testing the geographic boundary of the access market. The changes in revenue per line modelled by Network Strategies are increases and decreases of [ ]CO and [ ]CO. Network Strategies characterize revenue per line as a 'high impact' parameter, with changes having a significant effect on returns.

213. Typically, in defining market boundaries, use is made of the 'ssnip' test, which looks at a small but significant non-transitory increase in price. The standard price elevation is a 5% increase. Noting that the sensitivity results provided by Network Strategies indicate an approximately linear relationship between the magnitude of the price change and the resulting movement in returns, it appears that a 5% increase in price would add around [ ]CO percentage points to the IRRs for a customer drop lead and around [ ]CO percentage points for an extension to the distribution system.[78] The estimated returns following a 5% price increase are summarized in the following table.

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[76] Wholesale Conference Transcript, Closed Session, 13 February 2003, page 46.

[77] LECG "Economic feasibility of extending existing access networks" (6 March 2003), Part 2.

[78] For example, a 10% increase in price increases returns by around 4-5 percentage points. See Network Strategies "Viability of network extensions: sensitivity analysis", 9 March 2003, pages 10, 11.

Figure 9: Returns following 5% increase in revenue/line, suburban customer drop

	20 line drop	14 line drop	3 line drop
100m, low revenue	[ ]CO	[ ]CO	[ ]CO
100m, high revenue	[ ]CO	[ ]CO	[ ]CO
200m, low revenue	[ ]CO	[ ]CO	[ ]CO
200m, high revenue	[ ]CO	[ ]CO	[ ]CO

Source: Estimated from Network Strategies

214. The resulting returns indicate that it may be feasible to install a customer drop lead to 'high revenue' or corporate customers located at least 200 metres from the existing local access network. For example, modelling a 14-line drop extending 200 metres to a corporate customer generates a return of [ ]CO. This return increases to [ ]CO when a 20-line drop is installed.

215. However, in the case of smaller 'low revenue' customers, the returns appear to be unlikely to justify new connections, especially in the case of customers with only a handful of lines. The more capital-intensive forms of network expansion, such as installing a new distribution cable and cabinet capacity, appear to generally produce insufficient returns, even at relatively high customer densities.

216. Clearly the feasibility of building an existing access network out towards new customers will depend in large part on the size of the customer. Even with relatively simple extensions, such as the deployment of a new customer drop, a significant proportion of the associated costs are not likely to be sensitive to the size of the customer. This is borne out in the results in figure 9, with the returns correlated to the size of the drop and customer spend.

217. In considering the modelling results presented by both parties, the Commission notes that the results are sensitive to a number of inputs, and that in a number of instances, the inputs proposed by the parties differ significantly. For example, differences in relation to cabinet costs and trenching costs have been referred to above. Therefore, the modelling results in figure 9 above, which are based on the Network Strategies analysis of a customer drop, may tend to overstate the costs, and hence understate the returns.

218. In light of the above, the Commission has decided to adopt a single 200-metre rule to define the boundaries of the corporate and SME metropolitan local access markets. This gives some weight to the range of returns presented in figure 9, but acknowledges that such results will be sensitive to a number of key inputs, in particular capital intensive costs such as those noted in paragraphs 208 and 211 above, and that a range of views have been presented on these assumptions. This boundary is also consistent with the way in which Telecom has organised its pricing over a number of years. In adopting this position, the Commission has also given some weight to the importance of maintaining incentives to build out existing infrastructure, as has been observed.

Geographic Dimensions of the Broadband Internet Access Market

Telecom position

219. Telecom has submitted that it is appropriate to segment the metropolitan and non-metropolitan business broadband internet access markets using the same methodology as for local access. This is because Telecom's broadband internet access service is supplied using Asymmetric Digital Subscriber Line (ADSL) technology, which is delivered over existing telephone lines. Therefore, Telecom argues that the supply side characteristics faced by Telecom are similar to those faced by Telecom in the provision of local access and narrowband internet access. Telecom also notes that other wireline infrastructure operators that supply business local access services will incur similar costs to those incurred by Telecom in upgrading their networks to provide broadband internet access.

220. In the case of local access, Telecom argued that the metropolitan access market be defined by a 200-metre rule, with a 500-metre rule applied where there is a single large customer or concentration of customers. Telecom therefore argues that the broadband internet access market be delineated according to the same rules. Telecom also appears to have used a 200 metre rule to define the metropolitan boundaries of the residential broadband internet access market.

TelstraClear's position

221. In its submission on the draft wholesale determination, TelstraClear expressed broad support for the Commission's approach to market definition, although made a number of specific comments (for example, in relation to the treatment of "fibre spurs"). No specific comment was offered on the draft's definition of a national broadband internet access market, other than that TelstraClear agrees with the retail markets which the Commission proposed to treat as being national.

Commission position

222. In the draft wholesale determination, the Commission considered disaggregating the geographic dimension of the broadband internet access market, given that certain areas are unlikely to receive service in the absence of some form of subsidy such as that associated with Project Probe. However, the Commission noted that a number of service providers offer near-national coverage, and proposed that a national market may be appropriate.

223. The Commission believes there to be some merit in Telecom's argument that a metropolitan and non-metropolitan distinction be made, and that the same rule be used as for the local access markets. While no explicit modelling of extending broadband service has been presented to the Commission to assist in making this delineation, Telecom's argument that its broadband internet access services tend to be delivered across telephone lines suggests that it may be reasonable to define the geographic dimension of this market in a similar way. The Commission notes that Telecom appears to base its argument primarily on the ability of other fixed network operators to supply broadband service. However, broadband internet access is also supplied by

way of wireless technologies, and the economics of extending wireless networks are likely to be quite different from those of a fixed operator. In the absence of specific information on this, the Commission intends to adopt the principle of applying the same methodology as used for local access services, but notes that the resulting boundaries may need to be refined in the future due to the emergence of wireless technologies.

224. Therefore, the Commission has defined the metropolitan broadband internet access markets for business customers to lie within 200 metres of TelstraClear's access network.

225. In terms of the residential broadband internet access markets, the economics of network extension are likely to differ significantly from those relevant to business customers, given the lower value of residential customers. There has been no explicit residential modelling undertaken in this proceeding, and therefore it is difficult to precisely define the metropolitan boundary in respect of residential customers. However, the Commission has decided that given the lower value of residential customers, a narrower metropolitan market, based on a 100 metre rule applied to competing residential access network (namely TelstraClear's network in Wellington and Christchurch), will be applied.

Geographic Dimensions of the Data Market

Telecom position

226. Telecom disputes the view that there is a single national market for retail data products. Instead, Telecom submits that retail data markets should be delineated according to the following:

- Zone 1: those Telecom exchange areas where more than 75% of the area is covered by a rival network or within 2 kilometres of a rival network's node;
- Zone 2: all other exchange areas.

227. This position is set out in a Telecom paper submitted to the Commission just prior to the release of the Commission's draft determination.[79] In that paper, Telecom notes that there are three levels of competitive constraint it faces in relation to data services:[80]

- Those arising from rivals that already have an "access end" to a customer ("existing competitors");
- Those arising from rivals that have a network that is close enough so that the rival can build an "access end" to the customer without having to incur significant sunk costs ("near entrants"); and
- Those arising from rivals that do not yet have a network presence in the particular region ("potential entrants").

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[79] Telecom "Geographic Market Definition and Competition Analysis for Data Services", 20 November 2002.

[80] Ibid, pages 2-3.

228. Telecom refers to its position in respect of local access, where it proposes a 200-metre rule to define the boundary of the zone 1 (metropolitan) market. In the case of data services, Telecom notes that both demand- and supply-side characteristics of data services suggest that a broader market definition be employed.

229. On the demand side, Telecom submits that the revenue per line is higher for data (the example given being [ ]CO per annum) than for voice ([ ]CO for access, [ ]CO for national calling, per annum). On the supply side, Telecom point to the provision of data services over wireless technology as supporting a broader market definition, as such technologies tend to be characterized by lower sunk costs.

230. Telecom's proposal for delineating data markets is based on the typical reach of these wireless technologies.

231. According to Telecom, application of its definition would result in approximately 109 out of 800 exchange areas being regarded as zone 1 exchanges. These exchanges are predominantly in the main centres of Auckland, Wellington, Christchurch, Palmerston North, and Hamilton. These exchanges account for the majority of retail data revenues.

TelstraClear's position

232. As noted above, TelstraClear's submission on the draft wholesale determination expressed agreement with those retail markets which the Commission proposed to treat as being national.

Commission position

233. The Commission considers it appropriate to define separate retail data markets in metropolitan and non-metropolitan areas. Such an approach would again reflect the level of network competition emerging in certain areas, and may also be consistent with the geographic de-averaging of data prices, whereby Telecom draws a distinction between, for example, CBD and non-CBD areas.

234. However, the Commission concludes that the absence of any existing regulatory requirement for Telecom to provide data interconnection may limit the extent to which competition can take place, even in metropolitan areas, as retail data services often involve both metropolitan and non-metropolitan components. The Commission's preliminary view in the draft wholesale determination was, therefore, that the retail data market was national in scope.

235. Telecom proposes to treat retail data services which either originate or terminate in a non-metropolitan area (referred to by Telecom as 'zone 2') as being supplied in a limited competition market, and therefore subject to the mandatory wholesale access provisions of the Telecommunications Act. In principle, this appears to address the Commission's primary concern expressed in the draft determination that led it to define a national market.

236. Telecom has indicated that its proposed approach to the definition of retail data markets is conceptually similar to the approach taken with respect to the local access

markets, in that market boundaries are referenced against rival networks that could be extended without incurring significant additional sunk cost. However, for the reasons set out above, Telecom proposes to use a different distance rule, which results in broader metropolitan markets.

237. Telecom's argument for a 2 kilometre rule appears to be based on the reach of wireless networks. Telecom refers to a number of key wireless technologies that are used by existing competitors in the data services market. In particular, Telecom superimposes the service reach of Walker Wireless on maps showing Telecom's exchange areas. Telecom note that areas that are closest to a wireless base station receive the highest data rates; for example, areas within 1.3 kilometres of a base station can receive 576 kbps upstream and 2 Mbps downstream; coverage out to 2.4 kilometres drops to 384 kbps/1.5 Mbps; and for 3.6 kilometres, 192 kbps/768 kbps.

238. The Commission understands that while wireless technology has been employed in certain circumstances to deliver data services, it is generally viewed as being best suited to the provision of high-speed access to the internet. For example, the asymmetric speeds that Telecom refers to are similar to those delivered by Telecom's Jetstream broadband internet access service. While this asymmetry of upstream and downstream rates may be suitable for delivering certain services such as internet access, it may be less suited to the provision of secure high-speed data services.

239. As part of its analysis of the feasibility of network extensions, Network Strategies examined the scenario where a fixed 512 kbps data line is deployed to a new customer. This indicated that such extensions tend to generate a sufficient rate of return over a relatively short distance. For example, a 100 metre extension in a suburban area was found to generate an IRR of [ ]CO.

240. The Commission also notes that Telecom refers to its high-speed digital data service (HSDDS) as being a 'proxy' for a generic data service. Telecom's HSDDS is sold in 2 Mbps increments. However, according to the contour maps in Telecom's submission, a downstream data rate of 2 Mbps is only available within the inner boundary, namely within 1.3 kilometres from a wireless base station.

241. Telecom does argue that even a 2 kilometre rule may represent too narrow a geographic market, given the presence of other forms of wireless technology:[81]

> In fact 2 kilometres is a very conservative figure, given that a well-engineered LMDS system can actually reach up to 4 kilometres, if the external conditions permit it.

242. However, as noted elsewhere by Telecom,[82] use of LMDS raises issues of line-of-sight and weather interference which limit its application.

243. The Commission, therefore, is not convinced by Telecom's arguments that the metropolitan data market should be defined by reference to wireless networks. The Commission notes that Telecom has not given any weight to wireless technologies in

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[81] Telecom "Geographic Market Definition and Competition Analysis for Data Services", 20 November 2002, page 6.

[82] Ibid, page 4.

developing its definition of the broadband internet access markets, even though such technologies appear to be better suited to delivering broadband service. The Commission therefore sees even fewer grounds for defining the boundaries of the metropolitan data market with reference to wireless networks.

244. Accordingly, the Commission has defined the boundaries of the metropolitan data market according to the same rule as that used for the local access markets, namely with reference to a 200 metre rule boundary around competing network infrastructure.

Additional Markets proposed by Telecom

245. The Commission has reviewed the additional markets proposed by Telecom. The following section summarises its position with respect to the definition of these additional markets.

The Retail Market for International Data Services

246. Telecom considers that the international data market is separate from the national data market, on the basis that the international data services market display different demand side and supply side characteristics to national data services.

247. The Commission accepts the view that there is unlikely to be demand side substitution between these two markets, as customers can not substitute international data services for national data services.[83] The Commission therefore accepts that there is a separate market for international data services.

The Retail Market for International Toll-free Services

248. The draft Determination defined a market for toll-free services to businesses, and did not differentiate between national and international toll-free services.

249. At the Commission conference, TelstraClear limited the scope of their original application for Telecom 0800 and Telecom International 0800 Service to only be applied retrospectively from February 2003 on the basis that number portability was implemented and existing services were ported at the end of February 2003.[84]

250. Telecom submits that two separate markets exist:

- The Business market for national toll-free calls; and
- The Business market for international toll-free calls.

251. The services applied for which would fall into this revised market definition are:

[83] Telecom Submission on Wholesale Draft Determination 24 Jan 2003 p. 113

[84] TelstraClear Limited Wholesale Conference 12 February 2003 p. 3

Inbound International 0800 (#76), Outbound International 0800 (#77), Additional Call Distribution Plans (#78), Call Advance on Busy (#79), Call Advance No Answer (#80), Call Prompting (#81), Confidential PIN (#82), Courtesy Response (#83), Distinctive Tone (#84), Follow Me (#85), Geographic Control (#86), Simple Geographic Control (#87), Advanced Geographic Control (#88), Complex Geographic Control (#89), International 0800 Info Call (#90), Percentage Call Distribution (#91) and Time of Day Diversion (#92).

252. Telecom submits "that there is a separate market for international toll-free services. From a demand side perspective, national toll-free services are not substitutable for international toll free services. Further, businesses are able to purchase national toll-free services separately from international toll-free services."[85]

253. Telecom further submits that there are three types of international toll-free services;

1. **Inbound International 0800** where a customer has a toll-free number in an overseas country with the calls answered in New Zealand;

2. **Outbound International 0800** where a customer has a New Zealand 0800 number that is answered overseas; and

3. **Outbound 0800 number for overseas carriers** where an overseas customer of an overseas carrier has a New Zealand 0800 number that is answered overseas.[86]

254. The Telecom submission is limited to *Inbound International 0800 services.*

255. As with international data services, the Commission believes that Telecom's distinction between national and international toll-free services is reasonable, and therefore accepts that these services are likely to be supplied in separate markets.

The National Operator Services Market

256. In the draft Determination the Commission proposed, a national market for directory assistance. While Telecom agrees with this market definition, it submits that there is a separate market for operator services. Directory assistance services relate to the location of a telephone number, whereas operator services are provided where a customer requires assistance in making a call, for example an international collect call. According to Telecom, these services may be regarded as being complements rather than substitutes, and are also treated differently on the supply side.

257. The three services which TelstraClear have applied for which Telecom consider fall within this market are:

1. Operator Assisted Charges (#42)

   A charge is made where the caller chooses to use the services of an operator. These charges are in addition to any local or national call charges which may apply[87]

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[85] Telecom Submission on Wholesale Draft Determination 24 January, 2003 p. 177

[86] Telecom Submission on Wholesale Draft Determination 24 January, 2003 p. 187

2. Manual calls (#57)

   Manual calls are calls, which must be placed through an operator because direct dialling is not available.[88]

3. International Operator Assisted Call Charges (#58)

   A charge is made where the caller chooses to use the services of an operator. These charges are in additional to any international call charges which may apply.[89]

258. The Commission believes that a distinction between directory assistance and operator services is reasonable. The former involves the listing and provision of information relating to telephone numbers, while the latter refers to assistance in placing a call.

The Messaging Services market

259. In the draft determination, the Commission proposed to consider the supply of messaging services in the context of the local access market, as these services are provided in conjunction with the customer's access line. The Commission noted that it is not clear that Telecom's messaging services can be supplied in isolation of the access line.

260. However, Telecom submits that there is a separate national retail market for messaging services, and messaging services should accordingly not be considered in the context of the local access market.[90] Telecom note that messaging services can be supplied in isolation from the access line on the basis that customers can choose to purchase an answering machine or PABX telephone system with messaging capability. Equivalent fax services can be provided independently of the access line, utilising fax machines with memory and broadcast fax capability.[91]

261. The services Telecom suggest should fall into this market include:

1. Message Manager (#34)

   Message Manager providers customers with a personalised voice mailbox. The service enables customers to listen, save and reply to messages sent to their mailboxes, and to record and send messages directly to other mailboxes free of charge. Messages can be received from other mailboxes, or directly via a telephone call, and can be retrieved from any touch-tone telephone. Calls can be answered with different greetings depending on whether the call originates from the bridged PSTN number or from a Direct Access number. Additional features

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[87] Telecom List of Charges, Telephone Call Prices – Call Tariffs 3.1 p. 3.1

[88] Telecom List of Charges, Telephone Call Prices – Call Tariffs 10.4 p. 10.21

[89] Telecom List of Charges, Telephone Call Prices – Call Tariffs 10.5 p. 10.22

[90] Telecom – Submission on Wholesale Draft Determination 24 Jan 2003 p. 206

[91] ibid, p. 207

enable messages to be recorded and sent to other telephones or cellular phones, or message waiting advice can be sent to a telephone or pager. The Transfer to Personal Assistance feature enables callers calling from a touch-tone phone to be transferred to another number if they wish, instead of leaving a message.[92]

2. Call Minder (#35)

   Calls to a Call Minder customer whose telephone is engaged or not answered will be answered by the customer's voice mailbox. The caller will hear a personal greeting from the mailbox owner, which will ask them to leave a private voice message. Messages can be retrieved from any touch-tone telephone.[93]

3. Centrex Message Manager (#36)

   Centrex Message Manager is a voice messaging service available to Centrex Customers. Centrex Message Manager provides the voice messaging features of Message Manager and the call answering features of Call Minder. Centrex Message Manager also have the facility for a caller to be transferred to a central operator of they do not wish to leave a message.[94]

4. FaxAdvantage (#37)

   FaxAdvantage is an enhanced network service for business lines which are dedicated for fax usage. The service is provisioned on a Business access line, providing a "never miss a fax" service for incoming faxes, savings for short fax messages and first class international faxing to selected countries.[95]

5. FaxAddress (#39)

   FaxAddress is an enhanced network fax mailbox service. The service provides a Direct Access fax number which is associated with a "Store & Forward" fax mailbox.[96]

6. Smartfax Standby Service (#107)

   Telecom Smartfax is a store-and-forward network service offering a range of features (including broadcast) which enhance the functionality of a customer's existing fax machine or fax capable device.

   Smartfax Stand-by is a Bureau service suitable for customers who use Smartfax infrequently, and who do not wish to incur monthly rental charges.[97]

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[92] Telecom List of Charges, Telephone Services – 17.1

[93] Telecom List of Charges, Telephone Services – 17.2

[94] Telecom List of Charges, Telephone Services – 17.5

[95] Telecom List of Charges, Telephone Services – 18.1

[96] Telecom List of Charges, Telephone Services – 18.3

[97] Telecom List of Charges, Special Services -7.1

7. Smartfax Swift Service (#108)

   Smartfax Swift is intended for customers who use Smartfax frequently, and require the flexibility of initiating broadcasts from their own premises.[98]

8. Smartfax Usage Charges (#109)

   All Smartfax charges are based on a per page rate.[99]

262. However, where a customer has an existing handset, the question of whether to purchase an exchange-based messaging service may depend on whether that handset contains messaging functionality. If it does not, the customer is unlikely to buy a new handset in the face of an increase in the price of the exchange-based messaging service.

263. TelstraClear has also argued that while it may be possible for a competing network to construct a messaging service on a resold line, this would require the competing operator to pay the wholesaler termination charges; and such a service is unlikely to be as convenient as an exchange-based messaging solution.[100]

264. The Commission has therefore decided against adopting a separate market for messaging services, and instead considers the provision of such services to be within the context of the local access market.

The Customer Premises Equipment(“CPE”) market

265. Telecom contends that a customer premises equipment market exists distinct from business access lines.

266. Telecom argues that the rental or purchase of CPE from Telecom is divorced from the provision of the access line. As evidence of this, Telecom refers to “the discrepancy between Telecom’s market share of the business local access market, and its estimated market share of the CPE market … The difference in market share demonstrates that there is little incentive for customers to purchase CPE in conjunction with their purchase of local access.”

267. The services Telecom suggest should fall into this market include:

1. Rental of Telephones – Monthly Rental Telephone (#19)

   The following charges apply to the rental of Telecom Rental Telephones[101]

2. Caller Display Service (in relation to Caller Display CPE (#23)

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[98] Telecom List of Charges, Special Services -7.2

[99] Telecom List of Charges, Special Services -7.3

[100] TelstraClear “Wholesale Draft Determination Submission – Appendix 1”, 24 January 2003, page 31.

[101] Telecom List of Charges – Telephone Services 10.1

Customers can have their Caller Display CPE supplied by Telecom or by other vendors. Telecom offers two PE options, a Caller Display phone available for rental only, or a Caller Display adjunct unit compatible with most telephone types which is available for sale only.[102]

3. Centrex CPE (#30)

   Centrex Telephones are standard telephones pre-programmed with a number of commonly used Centrex features:

   Centrex Executive Phone

   Centrex Everyday Phone

   Centrex Caller Display Phone monthly rental[103]

268. In this case, the Commission notes that the access line and CPE are typically supplied independently. This differs from the consideration of messaging services, which are often supplied in conjunction with the line. In the case of CPE, a customer is more likely to separate its purchase or rental of CPE from its purchase or rental of the access line.

269. However the Commission understands that advanced function Centrex customer premises equipment is an exception, in that such CPE is only readily available from the supplier of the Centrex service. The Commission has therefore addressed advanced Centrex CPE within the context of the market in which Centrex is supplied, namely the local access market.

270. The Commission accepts that there is a separate retail market for the provision of CPE.

The Business Information Analysis market

271. Telecom considers there to be a separate national retail market for business information analysis services. These services relate to the provision of information on customer usage of telecommunications services.

272. The services Telecom suggest should fall into this market include:

1. Call Statistics (#71)

   Statistics regarding a customer's Telecom 0800 service are available from Telecom. Charge per number for backdated call statistics…[104]

2. Telecom Vision (#129)

[102] Telecom List of Charges – Telephone Services 11.9

[103] Telecom List of Charges – Telephone Services 15.5

[104] Telecom List of Charges – Special Services p. 1.10

Telecom Vision is a software based product, providing full management reporting information and analysis on customer's call usage and spend with Telecom's outbound and inbound calling products. In addition, it provides viewing and analysis of rental and activity details from their ICMS bill.

The software is delivered to the customer and loaded onto their own PC. The ongoing bill / call information is then delivered either on 3.5" diskette or CD Rom every month (shortly after the customer received their Telecom ICMS bill), or every week for 0800 / 0900.[105]

3. Telecom Customquery (#130)

Telecom Customquery is a software based product, providing management reporting information and analysis on customer's telecommunications spend, based on the Custombill Cube. The Cube defines a customer's organisational structure for downstream billing purposes.[106]

273. The Commission accepts that there is a separate market for the provision of business information analysis services.

Summary of the Relevant Markets

274. Following consideration of the submissions and conference proceedings, as well as the withdrawal by the applicant of certain retail services, the Commission has revisited and amended the retail markets defined in the draft determination. The Commission has adopted the following markets in this determination.

Figure 10: Relevant Retail Markets

Product Market	**Customer Segmentation**	**Geographic**
Local access services	SME, Corporate*	Metro, Non-metro
Toll-free services	Business	National, International
Fixed-to-mobile services	SME, Corporate	National
Data services	Business	Metro, Non-metro, International
Broadband internet access	Residential*, Business	Metro, Non-metro
Premium rate services	Business	National
CPE	Business	National
Business information analysis	Business	National
Directory assistance	Business	National
Operator services	Business	National

* Relevant market in this Determination only in respect of non-metropolitan areas

[105] Telecom List of Charges – Special Services p. 16.1

[106] Telecom List of Charges – Special Services p. 16.2

COMPETITION ASSESSMENT

Introduction

275. This section sets out a framework for considering limited or likely to be lessened competition. The level of competition within each of the relevant retail markets is then assessed within that framework.

276. The wholesale provisions in Schedule 1 of the Telecommunications Act require the Commission to consider whether "Telecom faces limited, or is likely to face lessened, competition" in a market or markets. This assessment of competition is an important factor in determining whether a particular service is to be subject to the wholesale regime, and if so, on what terms.[107]

277. This wording reflects that of section 52 of the Commerce Act, which relates to the imposition of control of goods or services. Section 52 is part of the framework under which the Commission recently conducted an inquiry into whether control should be imposed upon the airfield activities of Auckland, Wellington, and Christchurch International Airports.[108] An important pre-requisite for the imposition of such control is whether: [109]

> …the goods or services are, or will be, supplied or acquired in a market in which competition is limited or is likely to be lessened …

278. It is important to note that this test is different from other tests that the Commission uses, for example in investigating merger applications under Section 47 of the Commerce Act, or restrictive trade practice cases under Part II of the Commerce Act. For example, in considering a proposed merger, the test is whether the merger would have, or would be likely to have, the effect of substantially lessening competition in a market. The finding that those mergers were unlikely to substantially lessen competition does not mean that another party in those markets, such as Telecom, does not face limited competition.[110]

279. This raises the question of how to determine whether or not Telecom does face limited, or likely to be lessened, competition in a market. In other words, what sort of test, or what sort of criteria, might be considered in making such a determination?

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[107] Specifically, at what discount off the retail price.

[108] Commerce Commission "Final Report Part IV Inquiry into Airfield Activities at Auckland, Wellington, and Christchurch International Airports" (1 August 2002).

[109] Section 52, Commerce Act.

[110] The following section does refer to previous Commission decisions where relevant.

Limited or Likely to be Lessened Competition

280. Schedule 1 of the Telecommunications Act refers to two different tests in relation to competition in a market: whether Telecom faces limited competition or is likely to face lessened competition. These two tests are discussed below.

Limited Competition

Telecom's Position

281. In its submissions on the draft wholesale determination, Telecom first argues that the Commission has adopted an interpretation of 'limited competition' under the Telecommunications Act that is different from and inconsistent with that in the Commission's *Airports*[111] decision based on a slight difference in wording between the statements in the two decisions. Telecom alleges that the Commission has added a gloss, a 'hair trigger', to the test used in the *Airports* decision.[112]

282. Telecom then argues that the 'limited competition' test should be interpreted as being a material impairment to workable competition, and that this is equivalent to:[113]

> a market participant possessing a substantial degree of market power, such that it does not feel pressure to lower prices, cut costs and innovate and can raise its prices above those of its competitors without losing sufficient customer demand to make the price increase unprofitable.

283. Telecom goes on to list the factors it considers relevant to the assessment of whether a market is workably competitive. According to Telecom, a workably competitive market will be characterized by:

- Decreasing prices over time due to increased competition;
- Changes in market shares over time;
- Price differentiation including pricing of unique bundles and falling prices for standard services;
- Expanding service definitions and greater value for money for customers;
- Customer churn;
- New investment and technologies;
- Product innovations;
- High demand elasticity;

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[111] Commerce Commission "Final Report Part IV Inquiry into Airfield Activities at Auckland, Wellington, and Christchurch International Airports" (1 August 2002).

[112] Telecom Submission on Wholesale Draft Determination" (24 January 2003), paragraphs 321 et seq.

[113] Telecom Submission on Wholesale Draft Determination" (24 January 2003), paragraph 334.

- Lack of barriers to entry or expansion.[114]

284. Telecom also refers to internal evidence, for example internal strategies responding to rivals' decisions as relevant factors in assessing a market.

285. At the conference Telecom proposed a "bright line" test that could be used to determine whether there is limited competition in a market. This test is based upon the concept of "critical loss", which refers to the extent to which customer switching may constrain an incumbent from exercising any market power. Telecom argued that where there are high fixed costs, an incumbent is unlikely to be able to profitably exercise market power unless it can accurately identify those customers likely to switch to an alternative supplier.

<u>TelstraClear's Position</u>

286. TelstraClear's submission is generally supportive of the Commission's proposed approach to assessing competition in the draft determination. TelstraClear additionally comments that the level of penetration by entrants in New Zealand compared to overseas markets, and the effectiveness of wholesale arrangements between Telecom and other carriers, may be relevant factors.

287. TelstraClear's submission also refers to comments made by its economics expert, Professor Ordover:[115]

> In my view, the mere deployment of a network within 100 meters of some cognizable group of customers of the service is generally not sufficient to deem that this customer group is no longer facing limited competition. I would insist on a more extensive evidence of competitive constraint being exercised by the owner(s) of the deployed network(s). I would, however, require less concrete evidence in these situations where a given cognizable group of telecommunications customers has more than two alternative deployed networks. …
>
> That fact that a single firm may be able to self-supply its network as a F-B (facilities-based) competitive carrier, does not necessarily mean that the incumbent can no longer exercise market power. The (1992 US Horizontal Merger) Guidelines recognize this point, and provide that entry is only sufficient for that purpose when "multiple entry is generally possible and individual entrants may flexibly choose their scale." So, limited competition can still exist unless multiple carriers can profitably duplicate the facilities that are needed to support competitive outcomes. … if two or more entrants would be able to sink costs at scale levels more of their own choosing and be able to survive, then more lively competition could be expected to be observed. So far as I know, TelstraClear is the only other F-B carrier, to its limited scale so far, and there are no others yet on the horizon.

288. TelstraClear then goes on to note the circumstances in which it may be appropriate to deem competition to no longer be limited. These include the erosion of barriers to entry (for example through new technology), changes in market shares and concentration, reductions in pricing, and improvements in product quality and variety.

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[114] Ibid, paragraph 340.

[115] Ordover, J.A., "Determination of Wholesale-only Costs and Limited Competition: A response to the Commerce Commission", 24 January 2003.

Commission Position

289. In its decision to investigate the application for the wholesaling of services, the Commission adopted as the definition of "competition", the meaning given to that term in section 3 (1) of the Commerce Act, namely, "workable or effective competition". The High Court in *ARA v Mutual Rental Cars (Auckland Airport) Ltd*[116] and *Fisher and Paykel Ltd v Commerce Commission*[117] approved the following formulation of workable competition:[118]

> Workable competition means a market framework in which the pressures of other participants (or the existence of potential new entrants) is sufficient to ensure that each participant is constrained to act efficiently and in its planning to take account of those other participants or likely entrants as unknown quantities. To that end there must be an opportunity for each participant or new entrant to achieve an equal footing with the efficient participants in the market by having equivalent access to the means of entry, sources of supply, outlets for product, information, expertise and finance. This is not to say that particular instances of the items on that list must be available to all. That would be impossible. For example, a particular customer is not at any one time freely available to all suppliers. Workable competition exists when there is an opportunity for sufficient influences to exist in any one market which must be taken into account by each participant and which constrain its behaviour.

290. As to the particular elements and principles that underlie effective competition, the courts in New Zealand have generally approved the Australian Trade Practices Tribunal's discussion in *Re Queensland Co-operative Milling Association Ltd: Re Defiance Holdings Ltd* (*QCMA*). [119]

291. In *QCMA* the Australian Trade Practices Tribunal cited the United States Attorney-General's observation that "the basic characteristic of effective competition in the economic sense is that no one seller, and no group of sellers acting in concert, has the power to choose its level of profits by giving less and charging more" and that "the antithesis of competition is undue market power in the sense of the power to raise price and exclude entry".[120] The Australian Trade Practices Tribunal in *QCMA* stated:

> Competition expresses itself as rivalrous market behaviour.
>
> …
>
> In our view effective competition requires both that prices should be flexible reflecting the forces of demand and supply and that there should be independent rivalry in all dimensions of the price-product-service packages offered to consumers and customers.
>
> Competition is a process rather than a situation. Nevertheless, whether firms compete is very much a matter of the structure of the markets in which they operate. The elements of market structure which we would stress as needing to be scanned in any case are these: -

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[116] (1987) 2 TCLR 141, at 166.

[117] (1990) 2 NZLR 731, at 757.

[118] Contained in Heydon, *Trade Practices Law* Vol.1 (2nd Ed.) Sydney, Law Book Co., 1989, page 1548, paragraph 3.210.

[119] (1976) 8 ALR 481, 514-517. Refer the High Court decision in *Fisher and Paykel Ltd v CC* (1990) 2 NZLR 731, 759, and the Court of Appeal decision in *Tru Tone Ltd v Festival Records Retail Marketing Ltd* (1988) 2 NZLR 352.

[120] Report of the National Committee to Study the Anti-Trust Laws (1955).

(1) the number and size distribution of independent sellers, especially the degree of market concentration;

(2) the height of barriers to entry, that is the ease with which new firms may enter and secure a viable market;

(3) the extent to which the products of the industry are characterised by extreme product differentiation and sales promotion;

(4) the character of 'vertical relationships' with customers and with suppliers and the extent of vertical integration; and

(5) the nature of any formal, stable and fundamental arrangements between firms which restrict their ability to function as independent entities.

Of all these elements of market structure, no doubt the most important is (2), the condition of entry. For it is the ease with which firms may enter which establishes the possibilities of market concentration over time; and it is the threat of the entry of a new firm or a new plant into a market which operates as the ultimate regulator of competitive conduct.

292. The New Zealand Court of Appeal in *Telecom Corporation of New Zealand Limited v Commerce Commission*[121] confirmed the need to give weight to both structure and behaviour when examining a market environment, and confirmed that the weighting must vary according to the particular facts. Richardson J (as he then was) stated:

> … structures only function through people and at the end of the day it is how participants in the market behave that counts.[122]

293. The Court of Appeal endorsed the approach of the Commission of the European Community in *re Continental Car Co Ltd*[123], and said:

> That approach reflects the concern for how firms behave and eschews a total preoccupation with structure. [124]

294. The five elements from *QCMA* were used by counsel as the basis for analysing competition in the relevant market both before the High Court and the Court of Appeal in *Tru Tone Ltd v Festival Records Retail Marketing Ltd*. Counsel also referred to a sixth element—'behaviour in the market'. Both Courts implicitly accepted this basis of analysis.[125] In discussing this analysis the Court of Appeal stated: [126]

> The first five are the elements of market structure emphasised in the assessment of the competition process in Re Queensland Co-operative Milling Association Ltd (1976) 25 FLR 169, 189 and in such New Zealand cases as Re Application by Visionhire Holdings Ltd (1984) 4 NZAR 288. The sixth, behaviour in the market, reflects the reality that constraints on the operation of firms are a key indicator of market power.

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[121] (1992) 3 NZLR 429

[122] ibid at 444

[123] (1972) CMLR 911

[124] *Telecom Corporation of New Zealand Ltd* v *Commerce Commission* (1992) 3 NZLR 444.

[125] High Court *Tru Tone Ltd v Festival Records Retail Marketing Ltd* (1988) 2 TCLR 525, Court of Appeal *Tru Tone Ltd v Festival Records Retail Marketing Ltd* (1988) 2 NZLR 352.

[126] Court of Appeal *Tru Tone Ltd v Festival Records Retail Marketing Ltd* (1988) 2 NZLR 363.

295. The Court of Appeal in *Commerce Commission v Southern Cross Medical Care Society* provided the following analysis of the relationship between market share, barriers to entry and expansion, and market power:[127]

> The crucial question is therefore not whether a particular firm has market power but whether such power as it has, or will acquire, is likely to or will enable it to act in an insufficiently constrained manner in the sense that it will have the ability to set prices or conditions without significant constraint from competitors or consumers: see *Port Nelson* (supra) at pp 441-442. Market share is relevant to the level and significance of market power but it is not in itself the determinant of market power. What level of market power a firm has, as a result of its market share, will depend substantially on the level of barriers to entry and expansion which apply to the market. If the barriers are low, a high market share is unlikely to result in an insufficiently constrained level of market power. Conversely, if the barriers are high, a high market share is likely to lead to such a result. The level of market share and the level of market power have no direct relationship in themselves. The levels of barriers to entry and expansion provide the linkage and must be brought to account when considering the level of a firm's market power. The lower the barriers to entry or expansion, the more an incumbent firm with a high market share is constrained from using its position in a supra-competitive way. The level and quality of market power a firm enjoys is therefore the product of its level of market share viewed against the level of barriers to entry or expansion. In practical terms, if market power is insufficiently constrained the firm possessing such power has the ability to increase its prices above marginal costs both sustainably and profitably.
>
> This analysis of the relationship between market share, barriers to entry and expansion, and market power has a long and respectable pedigree, both judicially and academically. The best chronological starting point in judicial terms is the decision of the Australian Trade Practices Tribunal in *Re Queensland Co-op Milling Assn Ltd; Re Defiance Holding Ltd ("the QCMA case")* (1976) 25 FLR 169; 8 ALR 481. Next comes the decision of the High Court of Australia in *Queensland Wire Industries Pty Ltd v Broken Hill Pty Co Ltd* (1989) 167 CLR 177; 83 ALR 577; ATPR 40-925. This was followed by the judgment of the High Court of New Zealand in *Magic Millions* (supra). In that case the Judge observed that a substantial market share without barriers to entry would seldom, if ever, be indicative of dominance. Next is the decision of this Court, broadly to the same effect, in *Telecom Corp of NZ Ltd v CC ("the AMPS-A case")* [1992] 3 NZLR 429; (1992) 4 TCLR 648, and then the decisions of the High Court and this Court in the *Port Nelson* case decided in 1996 and noted above.
>
> As recently as the middle of this year (2001) the central theme developed above has been applied by the US Court of Appeals for the District of Columbia in *US v Microsoft Corp* 253 F3d 34 (2001). At p 51, under the heading "Monopoly Power" — the equivalent of dominance in our legislation — the Court of Appeals said "monopoly power may be inferred from a firm's possession of a dominant share of a relevant market that is protected by entry barriers". And at p 54, the Court observed that:
>
> > "looking to current market share alone can be `misleading' . . . In this case, however, the District Court was not misled. Considering the possibility of new rivals, the Court focused not only on Microsoft's present market share, but also on the structural barrier that protects the company's future position."
>
> The Court then proceeded to discuss a barrier to entry which resulted from the characteristics of the software market. The combination of the market share which Microsoft possessed and this substantial entry barrier justified the inference of monopoly power (dominance) which the District Court had drawn.
>
> Anything is capable of being a barrier to entry or expansion if it amounts to a significant cost or limitation which a person has to face to enter a market or expand in the market and maintain that entry or expansion in the long run, being a cost or limitation that an established incumbent does not face. The height of the barrier is a function of the degree of the differential. A barrier to entry or

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[127] Court of Appeal *Commerce Commission v Southern Cross Medical Care Society* (2001) 10 TCLR 269, 291-292.

> expansion reflects the extent to which an established firm can, in the long run, raise price above marginal cost (supra-competitive pricing) without inducing potential competitors to enter or expand in the market.

296. In assessing the state of competition in the relevant markets in this determination, the Commission therefore takes into account both the structural elements of the markets and the behaviour of market participants, as relevant considerations.

297. A further issue is the potential for coordinated behaviour between firms in a market to impair effective competitive. The Commission usually has regard to a number of specific structural and behavioural features that are indicative of the likelihood of successful collusive behaviour. In the draft determination, the Commission noted that it has previously considered this issue in the context of the merger between TelstraSaturn and Clear, and found that a number of specific factors in relation to fixed wire networks were present which diminished the potential for collusive activity. These included the significant disparity in size between Telecom and other players, the presence of vertical integration, and likely asymmetries in costs. The Commission reiterates its position from the draft determination, that it is unaware of any developments since that decision that would suggest a different conclusion.

298. As noted above, the Commission has previously considered the meaning of "limited competition" in the context of airports:[128]

> 2.24. The Commission must determine whether competition in the markets for airfield activities supplied by AIAL, WIAL and CIAL is limited or is likely to be lessened. The Commission focuses on the higher test of limited, and considers it need only look at the test of 'likely to be lessened' in circumstances where competition is not found to be limited.
>
> 2.25. The ordinary meaning of the word limited applies as the term is not defined in the Commerce Act. Competition will be 'limited' where it is restricted. Consequently, the Commission views limited competition as denoting a restriction or impairment to workable or effective competition.
>
> 2.26. In applying the test of limited competition, the Commission considers the purpose of the Commerce Act, which is to promote competition in markets (for the long-term benefit of consumers within New Zealand). The control provisions of the Commerce Act are interpreted in the light of the objective of maintaining competitive and efficient markets, and also having regard to the meaning of competition in the Commerce Act as being workable or effective, but not perfect, competition.
>
> 2.27. The Commission's view is that a nominal or de minimis restriction or impairment of competition in a market is not sufficient to satisfy the limited competition requirement. There needs to be more than a nominal or de minimis restriction or impairment of competition.
>
> 2.28. In determining whether workable or effective competition is limited in the relevant markets for airfield activities, the Commission considers the structural and behavioural elements exhibited. This involves taking into account all of the relevant factors, including the following: the number and relative sizes of competitors in the market; the nature of entry and of any barriers to entry that may exist; the behaviour of incumbents, and the competitive constraint that one airport may have upon another; the existence of countervailing power of the airlines; and the regulatory environment within which market participants operate.

299. For the avoidance of doubt, the Commission adopts the interpretation of 'limited competition' used in the Commission's *Airports* decision; it is the Commission's intent to use the same 'limited competition' test here as that used in the *Airports* decision. As in the *Airports* decision, the Commission test for assessment of

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[128] Commerce Commission "Final Report Part IV Inquiry into Airfield Activities at Auckland, Wellington, and Christchurch International Airports" (1 August 2002).

competition in the relevant markets involves an analysis and weighting of other relevant factors, and is not a 'bright line' test.

300. The Commission is not persuaded by Telecom's arguments that a bright line test would be appropriate in this context because assessment of competition in a market should not turn on a single determining factor. The Commission therefore finds that Telecom's proposed bright line test for interpreting or defining limited competition is not an appropriate 'stand alone' test. However, it is appropriate to consider this as one of the factors to be used in assessing competition.[129]

301. In light of the submissions made by the parties on the interpretation of limited competition, the Commission believes that the factors listed in its draft wholesale determination remain relevant in considering whether competition is limited in a market. These factors, organised broadly as to whether they relate to existing competition or potential entry (or both), are repeated below:

Existing Competition

- the number and relative size of competitors in the market, including where possible an assessment of trends in shares over time;
- the extent to which there is product differentiation;
- the degree to which competitors engage in independent rivalry;
- the degree of vertical integration;
- the absence of barriers to customer switching;
- the movement in prices over time, and any evidence of their broad relationship to underlying costs;
- the existence of any countervailing power;
- the constraints imposed by the regulatory environment; and
- evidence that the access provider is acting inefficiently or achieving excess returns.

- Potential Competition
    - the potential for entry and the significance of any barriers to entry that may exist, and evidence of recent entry;
    - the movement in prices over time, and any evidence of their broad relationship to underlying costs;
    - the constraints imposed by the regulatory environment; and

[129] This issue is further discussed below in the context of the metropolitan local access market.

- evidence that the access provider is acting inefficiently or achieving excess returns.

302. The Commission's assessment of whether competition is limited in a market will rely on the approach discussed above, including an analysis of the factors listed above.

Likely to be lessened

303. The Commission considers that it should focus on the test of "limited competition", and need only look at the alternative test of "likely to be lessened" in circumstances where competition is not found to be limited. A determination as to the existence of "limited competition" should be undertaken first; a determination of whether competition "is likely to be lessened" should only be undertaken if "limited competition" is found not to exist for the particular service in the specified market.

304. Whether competition is likely to be lessened in a market implies the need to take a forward-looking approach in order to assess the strength of competition in the future. Although a de minimis lessening of competition in a market is unlikely to be sufficient to satisfy this test, anything above such a nominal lessening could be interpreted to do so.

305. There are a number of factors that suggest that competition in a number of areas may be likely to strengthen rather than diminish over time. These include: the rate of technological change within the telecommunications industry, for example allowing new or existing services to be delivered over new and alternative platforms; and the designation of a number of services under the Act.

306. For those markets found to be markets in which Telecom does not face limited competition, the Commission has also concluded that Telecom is not likely to face lessened competition.

Forms of Competitive Supply

307. In telecommunications markets, there are a number of alternative means by which competition at the retail level can take place.[130] These means can be thought of as lying along a spectrum. At one end, full facilities-based competition takes place where an entire service, such as a toll call, is contested. For example, a carrier such as TelstraClear may carry a national call from one of its local access customers in Wellington to one of its local access customers in Auckland. To provide such a service, both the called party and the calling party must be directly connected to the carrier's network.

308. At intermediate points along the spectrum are those involving less than full facilities-based competition. One such example of competing service is where the calling party is connected to one network, and the called party is connected to a different network. In this case, the terminating service may have to be purchased in order to complete the

[130] In addition to the following forms of competitive supply, a further form available in some overseas jurisdictions is based on unbundled network elements.

call. As an example, TelstraClear may originate and transport the call, with the termination provided by Telecom. Interconnection with Telecom's fixed PSTN is a designated service under the Telecommunications Act.

309. A third possible form of supply is where a carrier purchases the originating and terminating, and possibly also the transport, services from another network operator, and provides some limited form of infrastructure itself, such as switching. Again, the origination and termination in relation to Telecom's fixed PSTN is a designated service. Examples of this form of competition includes the 'toll bypass' operators, such as WorldxChange, Compass, and CallPlus.

310. A final form of competition is where a supplier relies entirely on the network infrastructure of another carrier. In this case, a service such as a toll call is purchased on a wholesale basis and resold to retail customers. The Commission understands that DigiPlus is an example of a pure reseller supplying call services in New Zealand, although it appears that DigiPlus currently serves residential customers only.

311. All of these forms of competition take place at the retail level, although they will clearly differ in terms of their reliance on the infrastructure of other operators. At the facilities-based end of the spectrum, an end-to-end service may be provided across a single competing network; at the other end, under a reselling (or 'access-based') arrangement, the end-to-end service will be supplied by way of the network of another telecommunications operator. In other words, access-based competition, such as that represented by toll bypass operators, will depend by definition on access to vertically-integrated facilities. Hence, the designation of interconnection with Telecom's fixed PSTN is likely to be an important factor in assessing the degree of independent rivalry within a number of telecommunications markets, for example the markets for tolls and fixed-to-mobile call services.

312. A retail competitor may purchase access to services on a wholesale basis. For example, a retail competitor may purchase a circuit at a wholesale rate from Telecom, and then combine that circuit with its own infrastructure. In this way, the competitor may be able to compete with Telecom at the retail level, which is relevant to this determination.

313. However, in order to gauge the effectiveness of retail competition that is based upon purchasing a wholesale service from another carrier and reselling it, the terms on which such wholesale access is already supplied are likely to be a relevant consideration. This relates to the question of the degree to which there is independent rivalry within a market.

Assessment of Competition in the Relevant Markets

The Retail SME Market for Metropolitan Local Access Services

314. This refers to the provision of local access services to small/medium businesses (SMEs) in metropolitan areas, including local call services. Local access refers to the connection of business customers to a telephone network, and covers a number of specific services, including basic business line rentals, Centrex services, PABX services and ISDN services. As noted in the draft determination, these forms of local access are regarded as being substitutes for one another. In addition, local call services are also included in this market, since an end-user who makes a local telephone call in New Zealand purchases that call service from the carrier supplying the access line.

315. As discussed earlier, the Commission has decided to distinguish between the provision of local access services to SMEs and corporate customers, and to define the metropolitan market in each case by way of a 200-metre boundary referenced against competing local access infrastructure.

316. In their respective assessments of competition, both TelstraClear and Telecom have provided information on the metropolitan local access market, although the Commission notes that these submissions are based on variations of the 200 metre metropolitan market. Specifically, Telecom's submissions are based on a 200/500 metre boundary.[131] In the absence of information referenced against the single 200 metre rule adopted by the Commission, Telecom's shares of the narrower markets drawn by the Commission are likely to be somewhat lower than the figures contained in the Telecom submissions. This is due to Telecom appearing to include some customers beyond the 200 metre boundary in certain circumstances.

317. In the draft determination, the Commission's preliminary conclusion was that Telecom faces limited competition in the retail market for metropolitan local access services.

318. Telecom disagreed with this conclusion. TelstraClear supported the Commission's preliminary conclusion.

Existing Competition

319. While the Commission has not been able to ascertain precisely how market shares have been shifting over time, some information has been provided through the consultation and submission process.

320. The draft determination noted that although Telecom had a high proportion of retail subscribers in this market, its share based on revenues was lower.

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[131] Telecom defines a 200 metre boundary for the local access market, although extends this to 500 metres where there is a concentration of demand, for example a cluster of business customers or a single large customer.

Figure 11: Metropolitan Business Local Access

	Revenues	**Lines**	**Subscribers**
Telecom	[ ]CO%	[ ]CO%	[ ]CO%
TelstraClear	[ ]CO%	[ ]CO%	[ ]CO%

Source: Draft Determination (estimates based on information received from parties)

321. The draft determination presented a snapshot summary of market share information collected from Telecom and TelstraClear, combining both SME and corporate customers. The information supplied by Telecom was based on the application of a 200-metre rule, which is consistent with the market definition adopted by the Commission above. That information showed that although Telecom had approximately [ ]CO of business customers, its share based on revenues was lower at around [ ]CO.

322. Telecom has provided the Commission with some additional market share data which does separately identify corporate and SME customers, although is only presented at a national level. This data, based on market research, indicates that Telecom's share of national SME access is approximately [ ]RI by customers.

323. While there is some evidence that TelstraClear has been able to secure relatively high value business customers, its share in relation to smaller businesses appears to be relatively low. This is consistent with Telecom's account of how competition has emerged in New Zealand:[132]

> Telecom has faced competition in the access market since the mid 1990s. New networks were rolled out in areas of highest customer concentration and the focus was on CBD and urban areas (where the cost to serve was lowest). Competition began in the corporate sector where large customers were targeted. It then moved into the business sector as competitors sought return on network investment and to build a critical mass of customers. This is supported by market research conducted in 2001 that concluded competitors were competing in areas where customers tended to be bigger, as they would win more value as a result ([ ]CO of Telstra customers had more than 16 lines, [ ]CO for Clear and [ ]CO for Telecom).

324. In the past, Telecom has estimated market shares at an exchange level. For example, in early 2001, Telecom estimated that its market share of the exchange areas on Auckland's North Shore ranged from [ ]CO in Browns Bay, to [ ]CO in Takapuna, to [ ]CO in Albany. This was attributed to Clear's strong presence in the area. Similarly, TelstraSaturn had succeeded in reducing Telecom's share on Wellington's Kapiti coast to [ ]CO in Paraparaumu and [ ]CO in Waikanae, although the Commission notes that these latter shares are likely to have a significant residential element.

325. TelstraClear therefore appears to have been able to secure a reasonable market share of business access lines and revenues, particularly in certain areas. There is also some evidence to suggest that TelstraClear's share increases in relation to larger customers. Although the Commission does not have disaggregated market share data on the

[132] Telecom "Submission on Wholesale Draft Determination", 24 January 2003, page 100.

metropolitan SME and corporate local access markets, Telecom's combined revenue share is estimated to be just over [ ]CO. Given that this is an aggregate figure, it is reasonable to expect that Telecom's share of the SME market will be higher. However, according to market information collected by the Commission, the supply of local access services appears to be highly concentrated, with only Telecom and TelstraClear competing in the metropolitan SME market.

326. Telecom has argued that the high fixed costs associated with a telecommunications network indicate that it is likely to be constrained by existing competition, even where there is only one competitor. The high fixed costs will lead to competitive prices being set in excess of marginal cost. Any attempt to raise prices above their competitive levels may induce some customers to switch to the competing supplier, in which case the entire margin of price over marginal cost will be lost in respect of those customers. The higher this lost margin, the more sensitive will Telecom's profitability be to the level of switching in the face of a price increase.

327. Professor Hausman argued that this level of switching – sometimes referred to as the "critical share" – will be relatively low in telecommunications. At the wholesale conference, he noted that at a price/marginal cost ratio of 5, Telecom would have to correctly identify the level of switching around 94% of the time. Even at a price/marginal cost ratio of 2, Telecom would have to be correct over 90% of the time.

328. This is an issue of price discrimination. As Professor Hausman notes in a paper presented to the Commission,[133] price discrimination is only feasible in certain conditions. The two key conditions are that the price discriminator can identify those customers who are likely to accept the price increase, and that the product cannot be arbitraged.

329. It appears that the second condition is likely to be met in relation to the local access market. A customer purchasing a business line and local calling services from Telecom is unlikely to be able to resell those products to another customer.

330. The first condition refers to the ability of Telecom to identify customers who are less likely to switch suppliers in response to a price increase. If Telecom can accurately target those customers, then such price increases may be profitable; otherwise, the attempt to raise prices is likely to lead to sufficient churn of customers away from Telecom to make the price increase unprofitable.

331. On the evidence presented to the Commission, it appears that Telecom may be able to price discriminate in relation to business customers. For example, Telecom's price discounting seems to be targeted at individual customers, particularly those that have received competing bids or have actually switched to TelstraClear. These 'retention' and 'winback' offers, some of which are discussed below, appear to be made on a selective basis to those marginal customers considered by Telecom to be vulnerable to competitive threat.

[133] J Hausman et al "Market Definition Under Price Discrimination", Antitrust Law Journal (Vol 64, 1996), page 370.

332. This ability to selectively offer discounts suggests that Telecom is able to engage in some price discrimination in the SME access market. While this suggests that some customers are competed for, it also suggests that the level of competitive constraint in relation to remaining customers may be mitigated.

333. This could be compared with a situation where Telecom could not identify which customers were vulnerable, and therefore had to respond to a competitive threat at a more aggregated level.

334. The Commission has received some pricing and churn information from Telecom which distinguishes between SME and corporate customers in metropolitan and non-metropolitan areas. Telecom refers to this information in arriving at its conclusion that the metropolitan market is competitive.[134] For example, in its submission on the draft determination, Telecom says that:[135]

> … the retail market for local access for business in zone 1 has been characterized by intense competition, evidenced in the high level of competitor churn, reduced pricing and innovative product offerings and pricing plans.

335. TelstraClear has noted that it does not have information on pricing or customer churn rates in this market.

336. In terms of churn, Telecom reports the proportion of lines that switch to an alternative supplier each month. At the wholesale conference, Telecom noted that its reported churn rates only relate to customers that switch from Telecom to a competitor.

337. According to information submitted by Telecom, churn rates generally appear to be higher in metropolitan areas, reflecting the greater degree of competition in these areas. For SME customers, monthly churn rates appear to peak in mid-2001, at around [ ]RI% of lines in metropolitan areas. Churn appears to have fallen since then, to around [ ]RI% per month. Over the 12 months to November 2002, it appears that metropolitan churn rates for SMEs averaged around [ ]RI% per month. This indicates that around [ ]RI% of SME lines were churned over the period.

338. In its submission, Telecom suggests that the merger of TelstraSaturn and CLEAR at the end of 2001 and the consequent uncertainty regarding the consolidation of the two companies may have been one factor leading to a reduction in customer churn to TelstraClear.

339. In the draft determination, the Commission noted that current churn rates in New Zealand may be relatively low, in comparison with the level of churn reported in Oftel surveys in the United Kingdom. Those surveys indicate that up to 10% of SMEs had switched operators within the past 12 months, although more recent Oftel surveys

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[134] While Telecom has defined separate SME and corporate markets, much of its competition assessment refers generically to the business market. This also applies to the TelstraClear submissions.

[135] Telecom "Submission on Wholesale Draft Determination", 24 January 2003, page 90.

show a rate of around 7%.[136] However, Telecom points out that those results are annualized and refer to churn to and from the incumbent.

340. The Commission notes that the Oftel figures do not differentiate between metropolitan and non-metropolitan areas. However, as Telecom note, Oftel reports the number of SMEs that had switched operator within the last 12 months. On this basis, it appears that the rate at which SMEs switch to a supplier other than Telecom in metropolitan areas in New Zealand may be comparable to rates reported in the United Kingdom.

341. Telecom's submission on the draft determination contains a series of graphs which show how local access prices have shifted over the last 3-5 years. Metropolitan and non-metropolitan prices are presented for corporate, medium and small enterprise lines. Telecom submit that:[137]

> The key fact demonstrated by the average price charts is the greater level of price decline in zone 1 as a direct result of the intense competition in this zone. The steady average price decline has resulted from Telecom responding to aggressive pricing offers from competitors.

342. The most noticeable decline appears to have been in the price of Telecom's standard business line. In metropolitan (zone 1) areas, the average rental price of business lines in nominal terms has dropped from around $[ ]RI in October 1997 to $[ ]RI in October 2002. This reduction, of around [ ]RI%, compares to a reduction of around [ ]RI% in non-metropolitan areas. The most significant reductions appear to have been made in relation to larger customers; for example, the price to corporates declined by around [ ]RI% over the five years, compared to a reduction of around [ ]RI% for lines sold to small enterprises.

343. In terms of ISDN and Centrex prices, although there is a clear gap between prices offered in metropolitan and non-metropolitan areas, prices appear to have been generally constant since 1999. Telecom notes that the increase in Centrex prices from late 1999 through 2000 was a result of the introduction of new packages that included customer premises equipment and messaging services. Since 2000, Centrex prices have been falling as a result of competition. Telecom notes that its competitors started to offer CPE and messaging free of charge, and Telecom was forced to respond.

344. As with standard business lines, metropolitan Centrex prices tend to be lower for corporates (at an average price of around $[ ]RI per line) than for SMEs ($[ ]RI). Telecom attributes this to the more intense competition from PABX services at the higher end of the market.

345. Budde refers to some aggregate pricing information which sets New Zealand prices in some context.[138] However, the prices to which he refers do not correspond to the metropolitan local access markets being considered here, but instead appear to be national prices. For example, he refers to the annual NUS International Telephone

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[136] Oftel "Business use of fixed telephony, Oftel small and medium business survey May 2002", July 2002, paragraph 4.4

[137] Telecom "Submission on Wholesale Draft Determination", 24 January 2003, page 94.

[138] Budde (2003), page 76.

Price Survey, which compares the prices of local, long-distance, and international telephone calls and line prices across 16 industrialised countries. Over the period 1998-2002, business line rentals throughout New Zealand appear to have fallen by around 2.3%, although remain relatively expensive (the second most expensive behind Canada), while local call prices have fallen by around 0.9% over the period (but are currently 3rd cheapest in the survey). By comparison, the ACCC found that local call prices in Australia fell by around 13% between 1996/1997 and 1999/2000.[139]

346. The aggregate pricing trends in metropolitan areas of New Zealand appear to have been driven by price reductions aimed at customers considered by Telecom to be potentially vulnerable to competitive threat, or at customers who had actually switched suppliers. Telecom has provided a number of examples of 'retention' and 'acquisition' pricing offers, which tend to be concentrated within metropolitan areas. These pricing offers, a number of which are summarized below, provide some indication that Telecom has been responding to the competitive presence of TelstraClear.

- *Metro Access* and *Urban Access* pricing (introduced 1996): discounted line rentals of $[ ]CO were available on a discretionary or approved basis to Telecom account managers whose customers were connected to specific "metropolitan" or "urban" exchanges.

- *Clear Business Access Offer* (introduced July 1999): Telecom sales staff were able to offer discounted business line rentals ($[ ]CO) off certain metropolitan exchanges in response to competitive offers by Clear.

- *Business Line Retention Offer* (March 2000-November 2002): Telecom sales staff were able to offer discounted business lines $[ ]CO in contestable exchanges where a customer had received a competitive offer.

- *Project Spice* (November 2001): five new business line packages were introduced in order to differentiate and add value to Telecom's standard access offerings.

- *Business Access Winback Campaign* (January 2002), *Project VW* (April 2002): these acquisition campaigns offered half-price business line or Centrex rental for the first 3 months of a 12-month contract.

- *Tauranga Winback Campaign* (May 2002): an acquisition in responding to declining market share, offering business line rentals at $[ ]CO for an 18-month contract and $[ ]CO for the first six months.

- *Winback Offer* (July 2002): another acquisition campaign offering business rentals at $[ ]CO for a 12-month contract, with further discounts for a 24 month or 36 month contract.

347. While these pricing offers do not appear to explicitly differentiate between SME and corporate customers, they are often targeted at customers who have either received

[139] ACCC "Future scope of the Local Carriage Service" (July 2002), page 48.

competing offers from, or have actually switched to, TelstraClear (or its predecessors). To the extent that TelstraClear has been successful in securing a relatively high proportion of high value customers, it would be expected that these discounts have been directed at those larger customers. This is to some extent reflected in the aggregate pricing data referred to earlier.

348. In addition to these pricing responses, Telecom refers to a number of specific investments that it has undertaken in response to competitive pressures within the local access market. These include network upgrade expenditures of [ ]RI; a [ ]RI upgrade of its ISDN network in 1999 to match the technology offered by Clear; expenditure of over [ ]RI in 1996 to allow customers to use account codes when making calls on standard business lines; and the [ ]RI introduction of IP Centrex in 2002 to address competitive concerns that were leading to customers churning to TelstraClear and PABX service providers.

349. TelstraClear engages in competition with Telecom in the metropolitan local access market primarily through its own direct connect access network. One important area where TelstraClear does rely on the Telecom network is through interconnection (in this case, of local business calls). Interconnection with Telecom's fixed PSTN is a designated service under the Telecommunications Act. TelstraClear itself acknowledges that the scope for independent rivalry will be limited to the extent that there is no alternative network.[140] However, although this may be the case in non-metropolitan markets, the metropolitan markets are characterized by some network competition.

350. One important distinction between the SME and corporate markets relates to the degree of countervailing market power in the hands of the customers. TUANZ made reference to this in its presentation to the Commission at the wholesale conference:[141]

> … in general corporates in the market today have a much stronger position to negotiate specialized agreements with current incumbents that meet their needs, and in fact in many cases retailers who are providing services to large corporates will go through an investment process and build out to the areas that those customers require services …
>
> But, SMEs are not in a position to do that because they don't have the purchasing power and they don't have the specialized needs.

351. The Commission believes that Telecom faces some constraint from existing competition in the form of TelstraClear, and that this competitive constraint is likely to be more acute in relation to the corporate market than the market for SMEs. This is borne out in the evidence on pricing and to some extent, market shares, as well as the likely countervailing power held by corporate customers.

352. However, there is a high degree of concentration of existing competition in the SME metropolitan local access market. As the Commission has noted elsewhere:[142]

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[140] TelstraClear "Wholesale Draft Determination Submission - Appendix 1", 24 January 2003, page 65.

[141] Transcript, Day 4, Conference on Wholesale Draft Determination, page 58.

[142] Commerce Commission "Practice Note 4", page 31.

> …economic theories based on Nash Equilibrium also predict that as the number of firms in a market shrinks, their independent efforts to maximize profits, whilst observing how much the others produce or charge, will cause prices to rise increasingly above competitive levels.

353. While this comment relates to the Commission's framework relating to mergers and the test of a substantial lessening of competition, the Commission believes that this issue is also pertinent to the test of limited competition. In particular, where the market under investigation is characterised by a small number of players, the pressure to compete either by expanding output or reducing price may be blunted. That is not to say that there will necessarily be explicit coordination between the few suppliers in the market (discussed below), but that a supplier's actions may not be sufficiently constrained.

354. This is also not to say that no competition will take place. As indicated by Telecom's submission on the draft determination, there have been price reductions in relation to business local access services over the last five or six years. However, it is unclear whether such price reductions have been sufficient to result in prices at competitive levels in the SME market.

355. In the United Kingdom, a key part of Oftel's regular competition reviews is an assessment of BT's return on capital employed (ROCE). This financial information provides an indication of where prices sit in relation to cost, and is used in conjunction with information on market share and price movements to determine whether effective competition has emerged.

356. The Commission has considered pricing and market share information presented in written and oral submissions. However, in the absence of direct information showing prices in relation to cost, such as the ROCE information used by Oftel, it has been necessary to place some weight on those structural factors which are expected to influence the level of ongoing competitive behaviour.

357. In terms of existing competition in this market, the duopoly nature of the metropolitan SME local access market in particular suggests that the level of existing competitive pressure may not be sufficient to drive prices to their competitive levels.

358. One further issue that the Commission raised in the draft determination in relation to the level of existing competition in the metropolitan local access market is the question of local number portability. In particular, the Commission noted that number portability may influence the level of customer churn between carriers by reducing the costs associated with switching from one carrier to another. The Commission referred to an Oftel survey which indicated that of the SME customers who had switched operators, 90% had ported all their numbers. Reference was also made to Budde, who has noted that 98% of businesses who would switch local supplier if given the choice would want to retain their telephone numbers.

359. Telecom notes that the number of customers choosing to port their numbers as a proportion of total customers is low, and points to evidence from Australia that this is the case. However, the Commission does not see this as evidence that diminishes the

potential value of number portability. In fact, the ACA report to which Telecom refers recognises the importance of local number portability in promoting competition:[143]

> Since 1998, suppliers of fixed line access services have been exposed to competition in supply of access services and, separately, in provision of certain call types. The fixed line market has been increasingly exposed to the competition stimuli of local number portability (LNP) and pre-selection with significant success. The combined influence of LNP and pre-selection on the fixed line market has led to a competitive, multi-player environment, which has aided—particularly in the business sector—the development of various niche markets.
>
> In an environment where one carrier still maintains ubiquitous 'last mile' infrastructure, the availability of LNP and pre-selection becomes all the more important to the success of competitors wishing to offer services to customers without necessarily establishing complete access networks of their own.

360. The ACA goes on to note that:[144]

> Low volumes of ports do not mean that the benefits of competition are not being realized, as low numbers may be the consequence of CSPs (carriage service provider) successfully retaining existing customers through better service offerings.

361. The Commission also notes that there appears to have been a significant increase in the porting of local numbers in Australia over the last year. The ACA reported around 108,000 local number ports in 2000/01; this increased to 308,000 over 2001/02.

362. In adjudicating on business acquisitions under Section 47 of the Commerce Act, the Commission considers whether the proposed acquisition will enhance the scope for exercising coordinated market power. The Commission's Practice Note on business acquisitions notes that successful coordination involves two elements, collusion and discipline:[145]

> 'Collusion' involves the firms individually coming to a mutually profitable expectation or agreement over coordination; 'discipline' requires that firms that would deviate from the understanding are detected and punished (thereby eliminating the short-term profit to be gained by the firm from deviating).

363. In assessing the likelihood of successful coordination, the Commission examines a range of market structure and conduct features likely to be conducive to such behaviour. In the draft wholesale determination, the Commission noted that it had previously considered such features in the context of the merger between TelstraSaturn and CLEAR, and concluded that the presence of a number of specific factors in relation to fixed wire networks diminished the potential for collusive activity. These included the significant disparity in size between Telecom and other players, the presence of vertical integration, and likely asymmetries in costs. These are factors which may make it easier to conceal price reductions.

364. A further potentially significant feature of retail telecommunications markets relates to the transparency of retail prices for services in the local access market. While

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[143] Australian Communications Authority "Telecommunications Performance Report 2000-2001", page 140.

[144] Ibid, page 142.

[145] Commerce Commission "Practice Note 4", page 35.

Telecom does produce lists of retail charges, actual retail prices charged to customers usually represent a discount off these published charges, and may be bundled together with other services. Indeed, TelstraClear has indicated that it has found it difficult to determine the nature of some of the individual retail services which Telecom supplies, let alone the actual prices charged. These actual prices are usually kept confidential, and this lack of pricing transparency may make it more difficult for either of the two network operators to identify instances where the other party breaches any tacit or explicit understanding.

365. This appears to be compounded by the sale of bundles of services. In applying for wholesale access, TelstraClear has noted the difficulties it has faced in determining exactly what bundles Telecom offers to retail customers, and that this has inhibited its negotiations with Telecom.

Potential Entry

366. In the draft determination, the Commission discussed a number of entry barriers in relation to the metropolitan local access market. These include significant sunk costs and the presence of economies of scale and density in a local access network. The Commission noted that entry had previously occurred, although did not place significant weight on further new entry acting as a constraint on existing suppliers in this market.

367. The Commission's draft determination did note that there may be some competitive constraint on Telecom as a result of increasing penetration of the existing competitor network.

368. In its submission on the draft determination, Telecom does not refer to new entry as a constraint in this market.[146] Telecom does argue, however, that there are few if any barriers to expansion once a network has been deployed. As noted earlier, Telecom has previously estimated its market share at an exchange level, and it submits that relatively high market shares were achieved by TelstraClear's predecessors.

369. In light of (the absence of) submissions on the issue, there is little reason to suggest that de novo new entry into the metropolitan SME local access market represents a sufficient threat to constrain the existing competitors.

370. There has been considerable material submitted on the ability to extend existing local access networks. This evidence has been of particular relevance to the metropolitan markets adopted by the Commission. The Commission therefore accepts that the increasing penetration of the TelstraClear local access network within metropolitan areas has provided some constraint on Telecom, and is likely to continue to do so.

371. As evidence of this, the Commission notes that TelstraClear has a total of around [ ]CO business lines throughout New Zealand.[147] TelstraClear also notes that it has

[146] There is some general discussion by Telecom of entry barriers at paragraphs 346-359 of its submission.

[147] TelstraClear "Submission on Investigation into Application for determination of Designated Wholesale Services", 27 August 2002, pages 3-4. No distinction is drawn between lines to corporate and SME customers.

deployed approximately [ ]CO new business network cabinet areas in the last 24 months, totalling a potential [ ]CO business lines. Although such cabinets may not be fully utilised, this does suggest significant growth in TelstraClear business lines.

372. The Commission also notes that in applying for clearance to purchase CLEAR, TelstraSaturn estimated that the combined entity would have a total of [ ]CO business access lines. This estimate was in November 2001. The latest TelstraClear submission as to the number of its business access lines (as of November 2002) is [ ]CO, which represents an increase of just over [ ]CO since November 2001.

373. TelstraClear's contention that it develops its business case for a new cabinet area on the basis of achieving a [ ]RI market share of that area within a two-year period is also suggestive of its ability to expand its existing access network. Telecom's cross-submission also refers to TelstraClear's stated intention that:[148]

> … in areas where it has its own network – the three biggest cities plus Dunedin, Hamilton, Timaru, Tauranga, Rotorua, and Whangarei – TelstraClear is targeting 50% market share.

374. The Commission therefore believes that while new entry is unlikely, there may be some constraint on Telecom emanating from the expansion of existing competing capacity.

Conclusion

375. The metropolitan SME local access market is currently served by two network operators, Telecom and TelstraClear. It appears that Telecom has a market share in excess of [ ]CO% based on revenues and the number of access lines, with TelstraClear accounting for the remainder.

376. There is also some evidence of price competition, with Telecom offering a range of targeted discounts in metropolitan areas in response to TelstraClear's presence. The intensity of price competition appears to be greatest in relation to larger customers.

377. Furthermore, TelstraClear appears to be able to expand its share, both by extending its network footprint and by filling in its existing network areas.

378. However, there are a number of important structural characteristics of the metropolitan SME local access market which point towards a finding of limited competition. In particular, there are currently only two participants supplying local access services in metropolitan areas, and there appears to be little prospect of new entry in the foreseeable future. These structural factors indicate that while Telecom faces some competition from TelstraClear, the level of competition is unlikely to be sufficient to justify a finding of effective competition in this market. Furthermore, given the significance of these structural factors, the Commission believes that the impairment to competition in this market is enough to find that Telecom faces limited competition.

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[148] Telecom "Cross-submission in response to TelstraClear's resale submission", 13 September 2003, page 13 (quoting The Independent's interview with TelstraClear CEO).

379. SMEs are likely to have less countervailing power than corporate purchasers of telecommunications services. In the absence of information which indicates how prices have moved in relation to costs, the duopoly structure of this market combined with entry conditions suggest that competition in this market is limited.

380. The Commission has therefore concluded that Telecom faces limited competition in the metropolitan SME market for local access.

381. In arriving at this conclusion, the Commission notes that a distinction between metropolitan and non-metropolitan SME local access markets is still warranted, even though there is a finding of limited competition in both (see below for the latter). This is because there are likely to be differing intensities of competition in metropolitan and non-metropolitan areas, and these intensities may develop over time such that one market meets the competition threshold while the other may not.

The Retail Market for Non-Metropolitan Local Access Services

382. This refers to the provision of local access services in non-metropolitan areas, again distinguishing between a SME and a corporate market. The Commission has defined non-metropolitan areas to be all areas beyond a radius of 200 metres from competing local access infrastructure.

383. In the draft determination, the Commission's preliminary conclusion was that Telecom faces limited competition in the non-metropolitan business access market.

384. Both Telecom and TelstraClear agreed with that conclusion.

Existing Competition

385. Telecom is the only supplier of direct local access connections to businesses in non-metropolitan areas, although a number of retail competitors appear to serve a small number of business customers through leasing Telecom access lines. The draft determination noted Telecom's estimate that it has [ ]CO of this market.

386. Telecom's submission on the draft determination simply states that:[149]

> Telecom faces limited competition in the retail market for local access for business in zone 2.

387. The Commission notes that this conclusion is based on a slightly different definition of the non-metropolitan (or zone 2) market.

388. TelstraClear's submission confirms that the majority of the access lines it leases from Telecom are used to resell local access services to businesses in non-metropolitan areas. It also notes that these lines tend to be used in conjunction with its own network to serve multi-site customers spread across metropolitan and non-metropolitan areas.

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[149] Telecom "Submission on Wholesale Draft Determination", 24 January 2003, page 110.

389. Telecom's pricing data indicates that business local access pricing in non-metropolitan areas has generally been static over the last three to four years, with some declines recorded in respect of larger SMEs and corporate customers.

390. Further pricing information was presented in the Commission's draft determination, referring to survey results reported by Budde. As noted in the draft determination, the survey is conducted annually by NUS International, and covers the prices of local and long distance calls and line rentals in 16 industrialised countries.[150] These results have since been updated, and are summarized in the following table.

Figure 12: New Zealand Telephone Prices ($AUS), 1998-2002

	1998	1999	2000	2001	2002	%Δ 1998-2002
Business local calls	0.113	0.103	0.105	0.119	0.112	-0.9%
National calls	0.894	0.600	0.610	0.623	0.544	-39.1%
International calls	2.17	1.17	1.19	1.16	1.13	-47.9%
Business line rentals	48.69	44.30	44.88	47.58	47.58	-2.3%

Source: Budde (2003), Table 33.

391. The results of the survey show that while long distance call charges have fallen significantly over the period, prices of services within the business local access market, namely business line rentals and business local calls, have recorded only small reductions. Furthermore, as noted earlier, the price movements in the NUS survey results do not distinguish between metropolitan and non-metropolitan areas. The concentration of price discounting in metropolitan areas of New Zealand suggests that for non-metropolitan areas, business local call and line rental prices may have been increasing to a greater extent (or falling to a lesser extent) than suggested by the aggregated results in figure 12.

Entry

392. The draft determination noted that in addition to the barriers to entry in the metropolitan market, an important factor influencing entry conditions in non-metropolitan areas is the lower concentration of customers:[151]

> This may serve to increase both the absolute level of entry barriers, for example through the higher capital costs associated with longer loop lengths, as well as the significance of these barriers in that there will be a more dispersed customer base over which to spread network costs.
>
> …
>
> … the Commission believes that there are significant barriers to entry in this market in the form of sunk costs and economies of scale relative to the size of the market, and that the relatively low

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[150] The survey has recently included mobile prices, although these are not reported here.

[151] Commerce Commission "Draft Determination on the TelstraClear Application for Determination for "Wholesale" Designated Access Services", 25 November 2002, page 72.

customer densities associated with non-metropolitan areas suggest that such barriers are likely to limit the threat of new entry.

393. In their submissions on the draft determination, neither party disputed the conclusion that potential competition in respect of non-metropolitan business local access is not likely to sufficiently constrain Telecom.

Conclusion

394. In non-metropolitan areas, Telecom appears to have a very high share of the supply of local access services, with TelstraClear supplying a small number of customers through resold access lines. Prices appear to have been static or increasing in this market. In addition, barriers to entry are likely to be more significant in non-metropolitan areas than for metropolitan areas, due to the more dispersed customer base in the former.

395. The Commission has therefore concluded that Telecom faces limited competition in the retail markets for SME and corporate local access in non-metropolitan areas.

The Retail Market for National Toll-free Services

396. In the draft determination, the Commission defined a retail market for toll-free services. Telecom has proposed a distinction between national toll-free services and international toll-free services. As indicated elsewhere in this determination, the Commission has accepted that this distinction is reasonable, and the national toll-free market is considered here.

397. Telecom submits that it does not face limited, and is not likely to face lessened, competition in the national toll-free market.

398. TelstraClear accepts that since the introduction of toll-free number portability, Telecom does not face limited, and is not likely to face lessened, competition in this market. However, prior to the introduction of toll-free number portability in December 2002, TelstraClear considers that Telecom did face limited competition. Hence, TelstraClear has withdrawn national toll-free services only in respect of the period since December 2002.

Existing Competition

399. In the draft determination, Telecom's estimated market share, based on information received from industry players, was around [ ]CO, although this did not distinguish between national and international 0800 services, nor did it distinguish between corporate and SME customers.

400. In its submission on the draft determination, Telecom estimates that its market share of national toll-free services is around [ ]RI, with TelstraClear being the other main player with [ ]RI. A number of smaller operators, such as CallPlus, Compass, and ZinTel, account for the remainder.

401. Some price trend information is provided in Telecom's submission, showing movements in business and corporate 0800 prices over the period from mid-1996 to end-2002. Telecom notes that the price charts need to be interpreted with caution, with spikes not always representing movements in prices but rather movements in usage.[152] However, business prices have generally been [ ]RI. For corporate 0800 services, there has been a [ ]RI. Telecom submits that its average price for toll-free services to SMEs has fallen by [ ]RI over the past year.

402. Telecom's submission also refers to competitive pricing plans offered by other participants. For example, TelstraClear has a SME customer plan which offers $0.15/minute pricing where customers commit to a 12-month contract; CallPlus has corporate rates of $0.18/minute.

403. In terms of customers switching suppliers, TelstraClear believes that in the absence of toll-free number portability, there has been very little churn, due to the expense of promoting a new toll-free number. However, Telecom submits that since September 2000, it has lost more than [ ]CO active 0800 customers, including a number of large corporate call centre customers such as [ ]CO. Telecom understands that most of these customers have switched to other competitors.

404. Both parties submit that toll-free number portability is an important element in facilitating competition in the provision of toll-free services. TelstraClear argues that a non-vertically integrated supplier of toll-free services could compete with a vertically integrated supplier, provided that toll-free number portability is in place; "cost effective" originating access is available; and "cost effective" terminating access is available to the called party numbers. TelstraClear notes that the Commission's interconnection determination addresses the originating and terminating access, while full toll-free number portability was introduced in December 2002.

405. Telecom's submission emphasizes the importance of toll-free number portability and its impact on the level of competition in this market. According to Telecom, toll-free number portability is likely to have a greater competitive impact than other forms of number portability (such as local or mobile number portability), as toll-free numbers are extensively advertised to encourage inbound calls:[153]

> It is the investment in advertising a toll-free number to gain public awareness and recall of the toll-free number that means number changing is a barrier to customers switching.

406. Telecom has estimated that toll-free number portability will directly reduce its share of the 'business' segment by [ ]CO, and the corporate segment by [ ]CO. Telecom notes that implementation of toll-free number portability will "level the playing field" in that all participating carriers will be able to port numbers to and from each other.

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[152] Telecom note that the prices per minute are derived from revenues and usage over time, and that calling credits may affect usage without a corresponding change in revenues.

[153] Telecom "Submission on Wholesale Draft Determination", 24 January 2003, page 184.

407. TelstraClear's application as amended in respect of toll-free services only applies to the period prior to the introduction of full toll-free number portability. Based on submissions made to the Commission, it appears that the introduction of number portability has reduced barriers to customer switching in this market. A form of toll-free number portability had been in place prior to December 2002, although this was based on a call-forwarding arrangement between carriers. This may explain some of the churn experienced by Telecom since September 2000 (see above).

408. Indeed, in December 2001, the Commission noted that:[154]

> Telecom and CLEAR recently signed an agreement that provides for the transfer of toll-free numbers from one carrier to the other. For example, customers who have historically used Telecom's 0800 service can now switch to CLEAR and retain the same 0800 number, thus avoiding the costs and inconvenience of changing numbers. This is currently being achieved through an interim call forwarding arrangement, although according to CLEAR, full toll-free number portability is expected to be in place by December 2001/January 2002.

409. Although the call-forwarding arrangement was only an interim measure while parties worked towards the implementation of full toll-free number portability, it appears that it covered at least the period for which TelstraClear has applied for resale of Telecom's toll-free services. The effect of this interim arrangement was to reduce customer switching costs, and while the move to full portability appears to represent an important development for toll-free services, the Commission believes that the presence of interim portability prior to December 2002 is likely to have facilitated competition between existing participants in the provision of national toll-free services.

Entry

410. New entry into the provision of toll-free services could take the form of facilities-based competition, where an entrant deploys its own network, or resale.

411. However, Telecom considers that potential entry into the toll-free market will more likely take the form of access- or interconnection-based competition, whereby the entrant accesses an existing network, such as that of Telecom, and installs its own capability to enable it to provide toll-free services. Specifically, an entrant would be required to develop an intelligent network, a billing system capable of billing the called party, and an interconnection agreement with other network operators. Telecom considers that the reduction in interconnection rates as a result of the Commission's interconnection determination will promote access-based competition in this market.

412. As noted above, TelstraClear agrees that the Commission's interconnection determination addresses the supply-side issue of access to origination and termination services. Number portability deals with the demand-side by reducing switching costs.

413. There do not appear to be any significant barriers to entry into the market for national toll-free services.

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[154] Decision 447, page 15.

Conclusion

414. In conclusion, the Commission notes that while Telecom appears to have a market share of [ ]CO%, there are a number of smaller facilities-based or resale-based participants which compete with Telecom in this market.

415. Importantly, there do not appear to be any significant barriers to new entry, in particular since the interconnection determination and the introduction of full toll-free number portability. These factors apply to entry conditions in respect of both SME and corporate provision.

416. The Commission has therefore concluded that in respect of both SME and corporate customers, Telecom does not face limited or is not likely to face lessened, competition in the retail market for national toll-free services.

The Retail Market for International Toll-free Services

417. In the draft determination, the Commission defined a retail market for toll-free services, without any distinction drawn between national and international services. As noted above, Telecom has proposed such a distinction.

418. While Telecom notes that there are both inbound and outbound international 0800 services, it submits that the latter are in effect the same as the national 0800 services considered above, except that the terminating number is offshore. Telecom therefore focuses on the inbound service, and argues that it does not face limited, and is not likely to face lessened, competition in the provision of these services.

Existing Competition

419. Telecom is unable to provide any quantitative information on the market for international toll-free services. However, it does note that both TelstraClear and Zintel are participants in this market. TelstraClear supplies its own international toll-free service, matching Telecom's international reach through Telstra Australia.

420. Zintel currently resells Telecom's international service. According to Zintel, the company commenced a toll-free resale operation in 1995 and has achieved steady growth each successive year. Historically, this has been based around wholesale relationships with a number of New Zealand and Australian carriers, supported by its own proprietary billing and customer management systems.

Entry

421. According to Telecom, a new entrant into this market would have to either establish individual bilateral agreements with carriers in each of the countries from which it wishes to originate calls, or alternatively purchase wholesale access from a carrier which has already established such agreements.

422. Telecom and CLEAR offered international services through bilateral agreements with overseas originating carriers, while TelstraSaturn was able to supply services through Telstra Australia's existing agreements.

423. Telecom concludes that it is not aware of any barrier to a New Zealand company purchasing wholesale international toll-free services from companies such as Teleglobe and AT&T.

Conclusion

424. This is a retail market in which Telecom competes with a small number of facilities-based and resale-based competitors. Although Telecom is likely to have a high market share, there do not appear to be any significant entry barriers in relation to the provision of international toll-free services.

425. The Commission has therefore concluded that Telecom does not face limited or likely to be lessened competition in the market for international toll-free services.

The Retail Market for Fixed-to-Mobile Services

426. In the draft determination, the Commission concluded that it was not satisfied that Telecom does not face limited competition in the market for business fixed-to-mobile calls.

427. Both Telecom and Vodafone disagreed with this conclusion, arguing that this is a competitive market.

428. TelstraClear, Ihug, and CallPlus submit that Telecom faces limited competition in the fixed-to-mobile market.

Existing Competition

429. The participants in this market also compete in the national and international tolls markets. Telecom's share of the fixed-to-mobile market, based on revenues, is estimated to be around [ ]CO. Competitors include TelstraClear ([ ]CO), CallPlus ([ ]CO), and WorldxChange ([ ]CO).

430. Telecom's submission provides historical estimates of its own share along with that of other participants in the fixed-to-mobile market. These estimates, set out below, are the shares of SME customers; however, there is no comparable time series of corporate market shares.

Figure 13: Fixed-to-Mobile Calls (%), SMEs

[

]RI

431. Telecom's market share of SME customers does appear to have been declining in recent years, although a significant part of that reduction occurred in the latest quarter. According to Telecom, its recent reduction in market share is likely to be the result of non-code access for fixed-to-mobile calling, which has been implemented progressively from August 2001. Telecom also argues that it is facing increasing competition from Vodafone, in particular from its "VCI" service, whereby Vodafone installs a dedicated line from the customer's PABX and thus bypasses the need for interconnection with another network. As a result, Vodafone is able to offer competitive fixed-to-mobile prices for these customers.

432. Telecom's pricing data indicate that there has been a gradual decrease in fixed-to-mobile prices over the last five years. Again, as for the toll-free prices, Telecom notes that some care needs to be taken in interpreting the pricing data, especially where there appear significant price fluctuations such as around mid-1997. Since the latter half of 1997, it appears that the average fixed-to-mobile price to corporate customers has trended down from around [ ]RI cents per minute to approximately [ ]RI cents by the end of 2002. The reduction in 'business' prices over the same period has been from around [ ]RI cents per minute to approximately [ ]RI cents per minute. These represent reductions of around [ ]RI over the period.

433. Telecom also responds to the concern raised in the Commission's draft determination regarding the competitive supply of transmission services. Telecom refers to the history of entry into the transmission market, noting in particular that CLEAR established a network from Whangarei to Dunedin within a short period of time, and that TelstraSaturn invested in a submarine cable linking the main centres. Telecom also refers to the availability of digital microwave radio systems such as that of BCL who supplies carrier-class transmission capacity throughout New Zealand.

434. Telecom submits that its National Transport revenues have been subjected to increasing competitive pressure, and that this is borne out by both volume reductions – Telecom's national transport minutes for other carriers appears to have declined from around [ ]CO minutes in 2000/01 to approximately [ ]CO minutes by the end of 2002 as carriers appear to have shifted their traffic to TelstraClear – and price reductions: Telecom reports a reduction in the national transport price charged to Compass from around [ ]CO cents per minute in August 1997, to [ ]CO cents per minute in June 1998. In April 1999, Telecom offered Compass a two-tiered pricing structure of [ ]CO cents per minute in major LICAs and [ ]CO cents per minute elsewhere.

435. TelstraClear agrees that the introduction of fixed-to-mobile pre-selection reduces barriers to entry. This allows a local call customer of one network, most of whom sit

on Telecom's network, to pre-select another carrier for certain services, without having to dial a specific carrier selection code.

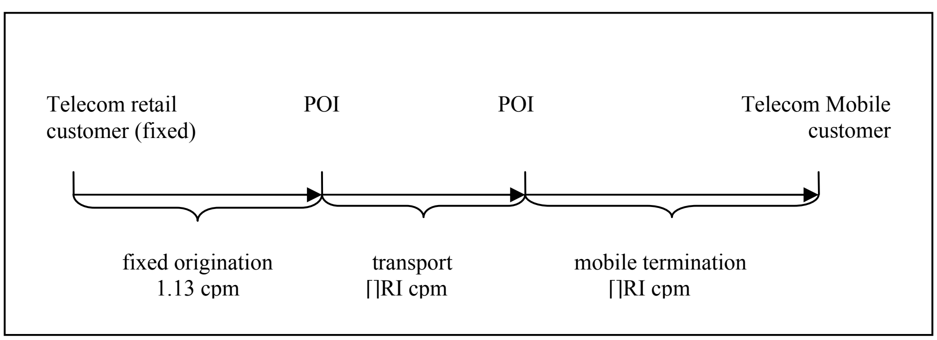
436. TelstraClear, Ihug and CallPlus refer to the high termination charges on a fixed-to-mobile call and as a result, argue that Telecom faces limited competition in this market.

437. These concerns are depicted in the following disaggregation of a retail fixed-to-mobile call service, where a customer connected to Telecom's fixed network calls a Telecom Mobile customer. The calling party uses TelstraClear to supply the retail call. In this example, the network components of the fixed-to-mobile call include the origination of the call on Telecom's local network to a point- of interconnection (POI) with TelstraClear's network; the transport by TelstraClear of the call to a POI with Telecom Mobile; and the termination of the call on the Telecom Mobile network. Therefore TelstraClear is in effect purchasing the fixed origination component and the mobile termination component from Telecom, and providing the transport component itself.

438. In addition to these network components, there will also be various retail-related costs incurred by TelstraClear as the retailer.

439. The Commission notes that mobile termination is not a designated service under the Telecommunications Act. However, the wholesale provisions of the Act cover retail services offered by means of Telecom's fixed telecommunications network. Fixed-to-mobile calls that either originate or terminate on Telecom's FTN entail a not insignificant participation by Telecom's FTN, and accordingly that service is a designated access service.

Figure 14: Network Components of a Retail Fixed-to-Mobile Call



(not to scale)
Costs taken from TelstraClear submission.

440. In assessing the level of retail competition, the Commission has considered evidence submitted to it on the level of Telecom's mobile termination charges and other network charges (such as the origination and transport charges), in relation to Telecom's retail pricing of end-to-end fixed-to-mobile call services.

441. TelstraClear has submitted that network-related costs of fixed-to-mobile calls are around [ ] cpm (comprised of 1.13 cpm representing fixed origination; [ ]RI cpm for transport; and [ ]RI cpm for mobile termination); retail-related costs then need to be added. Taking into account the cost of retailing identified in the Commission's benchmarking exercise, these costs to TelstraClear are likely to be around [ ]RI cpm.[155] Therefore, given Telecom's mobile termination charges to competitors, and the additional costs identified above, it appears that the total fixed-to-mobile call cost to TelstraClear is in the vicinity of [ ]RI cpm. However, TelstraClear notes that Telecom's retail prices range from [ ]RI cpm.

442. Telecom's submission indicates a retail price for corporate customers of [ ]RI cpm. The divergence between this retail pricing and the charges facing competitors strongly suggests that Telecom's wholesale pricing to competitors is not at competitive levels.

443. One explanation for this pricing may be that the cost of providing fixed-to-mobile call services to corporate customers may be lower than the cost of supplying to SMEs. However, such cost differentials are not apparent from information submitted to the Commission in the context of this determination.

444. In terms of SME customers, information supplied by Telecom suggests that its average retail prices may have fallen to around [ ]CO. However, the Commission is concerned that Telecom has the ability to engage in similar pricing behaviour in respect of SME customers, given the degree of reliance of retail competitors on Telecom for mobile termination services. Indeed, CallPlus has submitted that Telecom often supplies fixed-to-mobile calls to small and medium-sized business customers at retail rates as low as [ ]CO cpm.

Entry

445. A number of parties have agreed that the emergence of fixed-to-mobile carrier pre-selection is likely to reduce barriers to entry into this market by allowing non-integrated carriers to compete with full-service carriers. Telecom submits that the introduction of pre-selection since August 2001 has led to an increase in the volume of PSTN to 025/027 calls made via other carriers. Telecom's figures indicate that the average volume of such calls over the first half of 2001 was approximately [ ]RI minutes; since September 2001, this average increased to around [ ]RI minutes.

446. This effect is also reflected in figures provided by TelstraClear, which indicate that prior to the introduction of fixed-to-mobile pre-selection, TelstraClear had an average of [ ]RI minutes per day for SMEs. Since the introduction of pre-selection, this has increased by [ ]RI to [ ]RI minutes per day.

[155] This is the difference between TelstraClear's retail fixed-to-mobile price and the network costs of supplying such a call. See TelstraClear "Wholesale Draft Determination Submission" (24 January 2003), page 74. This magnitude of retail costs is consistent with the Commission's observation of retail costs used in the benchmarking exercise. For example, applying a 16% discount to the network cost of [ ]CO cpm produces a retail price of [ ]CO cpm.

447. It therefore appears that entry conditions in relation to retail fixed-to-mobile call services have improved following the introduction of fixed-to-mobile carrier pre-selection.

Conclusion

448. The retail markets for SME and corporate fixed-to-mobile services do appear to exhibit a number of characteristics which suggest these markets are becoming increasingly competitive. Telecom's share of the SME fixed-to-mobile call market appears to have gradually declined in recent years, from around [ ]CO% in late 1999 to around [ ]CO% by mid 2002. In the latest quarter reported by Telecom, its share of the SME market appears to have fallen further, to around [ ]CO%. The remainder is accounted for by TelstraClear, CallPlus, and WorldxChange.

449. It also appears that Vodafone may compete in the provision of fixed-to-mobile services, in particular in relation to corporate customers. However at this stage Vodafone appears to be very much a niche operator in this market.

450. Entry conditions appear to have improved with the introduction of fixed-to-mobile pre-selection, which has served to promote non-integrated entry through entrants not having to supply a broad range of telecommunications services.

451. However the Commission notes that Telecom competes with retail competitors who rely on Telecom for components of the retail service. In light of the material submitted in these proceedings, it appears that Telecom's pricing may have the potential to impair retail competition in the corporate fixed-to-mobile market.

452. Furthermore, in respect of the SME market for fixed-to-mobile services, the Commission is concerned that Telecom may be able to engage in similar pricing behaviour, given the degree of reliance of retail competitors on Telecom for mobile termination.

453. Therefore, in respect of both the SME and the corporate markets for fixed-to-mobile services, the Commission considers that Telecom faces limited competition.

454. The Commission notes that its concern in relation to the level of retail competition in the fixed-to-mobile markets centres around the relationship between Telecom's retail pricing in these markets and the underlying network charges. The Commission will closely observe the impact of such behaviour in the marketplace. The Commission will also track the continuing impact of pro-competitive factors such as preselection when making future determinations as to the competitiveness of this market.

The Retail Market for Premium Rate Services

455. In the draft determination, the Commission was not able to determine whether Telecom faces limited or likely to be lessened competition in the market for 0900 or premium rate services.

456. Telecom has submitted that it does not face limited or likely to be lessened competition in this market.

457. TelstraClear's submission does not specifically provide a view as to whether Telecom faces limited, or is likely to face lessened, competition in this market.

Existing Competition

458. TelstraClear notes that Telecom is the only supplier of 090X services. However, Telecom argues that its 0900 services face strong competition from the internet as well as short messaging services (SMS). Telecom provides a number of examples where a business customer uses both an 0900 service and SMS as a means of receiving calls from calling parties. Telecom submits that the increasing use of text messaging, combined with its relatively low cost, represents a significant constraint on its 0900 services.

Entry

459. Telecom stresses that there are no barriers to entry facing TelstraClear in relation to this market. This is because the Interconnection Terms include provisions that allow for TelstraClear to offer its own 090X services. The Interconnection Terms require Telecom to originate calls to TelstraClear 090X numbers on the same terms, and at the same rates, as TelstraClear originates calls from its customers to Telecom 0900 numbers. Telecom notes that for other new entrants, the same requirements exist as for entering the toll-free market, for example an Intelligent Network and an interconnection agreement, although an additional step would be to develop a billing system capable of billing the calling party.

460. TelstraClear refers to the same steps required to supply 090X services. TelstraClear notes that it has only recently reached an arrangement for Telecom to bill calling parties and collect on its behalf, and that it intends to launch its own 090X service during the second half of 2003.

461. TelstraClear does point to the lack of number portability for 090X services as being a significant entry barrier.

462. It appears that the majority of the barriers to entry that previously existed in relation to the provision of 090X services have been reduced as a result of the agreed Interconnection Terms between the parties.

Conclusion

463. While Telecom is currently the only supplier of 090X services, there appears to be some existing competition in the form of the internet and SMS services.

464. Furthermore, barriers to entry have been eroded and this has led to TelstraClear preparing to enter this market with its own 090X service in the latter half of 2003, which will increase competition in this market.

465. The Commission has therefore concluded that Telecom does not face limited, or is not likely to face lessened, competition in the market for premium rate services.

The Retail Market for Residential Non-Metropolitan Broadband Internet Access[156]

466. The draft determination's preliminary conclusion was that Telecom faces limited competition in the residential market for broadband internet access. The draft determination did not distinguish between metropolitan and non-metropolitan areas.

467. Telecom has proposed a non-metropolitan market for residential broadband services, defined to cover those areas beyond existing residential local access networks. Specifically, according to Telecom, non-metropolitan areas lie beyond 200 metres of competing residential access network. This appears to relate to areas outside of Wellington and Christchurch.

468. As noted earlier, for this determination, the Commission agrees that it is appropriate to define sub-national broadband markets, and has used a 100 metre rule for this purpose. The residential non-metropolitan market encompasses geographic areas that lie beyond this boundary.

469. Telecom submits that it does not face limited or likely to be lessened competition in the non-metropolitan residential broadband market, due to the threat of new entry.

470. TelstraClear, Ihug and CallPlus view Telecom as facing limited competition in the residential broadband market as defined in the draft determination.

Existing Competition

471. In non-metropolitan areas, Telecom accepts that there is not significant existing competition in the provision of broadband internet access to residential customers.

472. The draft determination noted that the main competitors to Telecom in supplying broadband internet access to residential customers are TelstraClear and Ihug. Telecom's market share based on national revenues was estimated to be around [ ]CO. In terms of subscriber numbers nationwide, Telecom's share was estimated to be around [ ]CO.

473. These market share figures are national. Therefore, the Telecom national market share figures may tend to understate its share of the non-metropolitan market, although the Commission has been unable to ascertain the extent of this understatement in relation to the residential market. It should also be noted that Telecom's competitors rebadge some of Telecom's Jetstream services, although in these cases, Telecom bills the customer directly for the Jetstream connection. For example, Ihug promotes Jetstream 500 and Jetstream 1000 to its residential customers, although Telecom bills the customer for the Jetstream service. This revenue should therefore be reflected in the Telecom market shares referred to above.

[156] As noted earlier, the corresponding market for metropolitan areas is not relevant to this determination following TelstraClear's withdrawal in respect of metropolitan residential service.

474. Telecom's residential broadband packages – referred to as Jetstream@Home – include the entry level Jetstream Starter (with upload and download speeds of 128 kbps), Jetstream Home500, and Jetstream Home1000 plans. The latter two plans typically offer download speeds of up to 2 Mbps. The monthly prices of these plans range from $29.95 to $69.00, with additional charges incurred once the usage cap of each plan has been exceeded.

475. TelstraClear does not supply residential broadband access in non-metropolitan areas.

476. Ihug's Ultra service uses a satellite link for the downstream path and existing telephone lines for the upstream path. The service is therefore highly asymmetric, with 56 kbps available upstream, and speeds of around 1 Mbps downstream. The service also uses the customer's telephone line, whereas broadband services such as Telecom's Jetstream and TelstraClear's cable service allow voice and data traffic to share the access line.

477. Ihug and CallPlus raise similar points in relation to the residential broadband market. Ihug points to a limitation of its satellite-based Ultra service when compared to a DSL service such as Telecom's Jetstream, namely that the Ultra service relies on a basic telephone line for the upload path. Therefore, Ihug considers that:[157]

> … it is extremely likely that when Telecom begins offering those (DSL) services in a given area, Ihug's ability to sell Ultra services in that area will be dramatically reduced. … Accordingly, in Ihug's view there is no doubt that Telecom faces limited competition in the residential market for broadband access.

478. Similarly, CallPlus does not believe that Telecom faces any real competition in this market. CallPlus submits that satellite-based services such as Ultra are poor substitutes for DSL services and only represent a viable solution in those areas where DSL services have not yet been deployed.

479. While Ihug's satellite-based Ultra service provides near-national coverage, it appears to be limited in terms of relying on a standard telephone line for the upload path. While the lower upload rate may not be such an issue for the residential market, this does have the effect of tying up the telephone line in the same way as dial-up internet access. The Commission notes the above comments by CallPlus and Ihug, that the Ultra service has the advantage of being able to be deployed in areas not yet served by a DSL alternative, although as such alternatives are rolled out, the attractiveness of Ultra is significantly diminished.

Entry

480. Although it sees little competitive constraint from existing competition, Telecom submits that its recent losses in the regional broadband tenders demonstrate a competitive threat from new entry.

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[157] Ihug "Draft determination on TelstraClear's application – Wholesale Services", paragraph 4.

481. Telecom and BCL jointly tendered a proposal to supply broadband services in Southland. However, the Southland Regional Council selected a bid from Walker Wireless and Vodafone.

482. Telecom notes in its submission on the draft determination that a similar tender process is being undertaken in relation to the Wairarapa region. It has recently been announced that the Walker Wireless/Vodafone consortium has again been successful in securing the Wairarapa contract, as well as a third contract in respect of Northland.

483. The Commission acknowledges that such initiatives may provide opportunities for expansion and new entry into areas not currently supplied with broadband access. However, these initiatives appear to be at a relatively early stage, with an expectation that access to broadband services for all schools will be available by the end of 2004.

484. There may also be some risk to this timeframe as a result of an application by BCL for a judicial review of the licences underpinning the Walker Wireless/ Vodafone bids. BCL has indicated a concern over possible interference between the Walker Wireless spectrum and its own existing frequency. A judicial review could delay the deployment of the Walker Wireless/Vodafone service.

485. The Commission also notes that the Project PROBE initiative is focusing on schools, although it understands that candidates must demonstrate ways of extending delivery of broadband services to surrounding business communities. However, there is some uncertainty over the extent to which such services will provide residential and business coverage in non-metropolitan areas. Therefore, at this stage, the Commission has decided to place little weight on the constraint from new entry resulting from these initiatives. In particular, the extent to which these initiatives will expand broadband service throughout the non-metropolitan residential sector within a two-year timeframe is unclear.

486. It will be appropriate to review this conclusion in the future, as further evidence emerges on the success and extent of such initiatives. Given that the Commission's determination has a relatively short time-frame, there is little risk in adopting this position in the current determination. Furthermore, to the extent that such entry emerges and is successful in establishing alternative delivery platforms, it may be appropriate to reconsider the metropolitan market boundary. Telecom itself has acknowledged that the market boundaries are likely to be fluid and in need of adjustment as these alternative wireless networks develop an economic business model.[158]

Conclusion

487. In the non-metropolitan market for residential broadband access, Telecom appears to have a high market share, although Ihug also offers satellite-based access in the form of its Ultra service. In addition, barriers to entry are more significant in non-

[158] Telecom "Submission on Wholesale Draft Determination", 24 January 2003, page 65. While Telecom has also argued that the Commission's determination should be able to accommodate such changes within the term of the determination, the relatively short term mitigates the need for such changes.

metropolitan areas, due to the more dispersed customer base. While these barriers may to some extent be reduced through subsidized roll-out of broadband networks, this process is at a relatively early stage.

488. The Commission has therefore concluded that Telecom faces limited competition in the retail market for residential broadband access in non-metropolitan areas.

The Retail Market for Business Metropolitan Broadband Internet Access

489. The draft determination's preliminary conclusion was that Telecom faces limited competition in the business market for broadband internet access. The draft determination did not distinguish between metropolitan and non-metropolitan areas.

490. In its submission on the draft, Telecom proposes a metropolitan/non-metropolitan distinction, based on the same approach to defining the local access markets. With respect to the metropolitan broadband market, Telecom submits that it does not face limited or likely to be lessened competition.

491. TelstraClear agrees with the draft determination's finding that Telecom does face limited competition in the business broadband market.

492. Both Walker Wireless and CallPlus submit that Telecom faces limited competition in the business broadband market as defined in the draft determination.

Existing Competition

493. The draft determination noted that there are a number of competing suppliers of broadband internet access services to business customers, and that these suppliers use a range of differing technologies to deliver these services. The draft determination gave the following national market shares.

Figure 15: Business Broadband Internet Access

	Revenue		**Subscribers**	
	($m)	(%)	(number)	(%)
Telecom	[ ]CO	[ ]CO	[ ]CO	[ ]CO
TelstraClear	[ ]CO	[ ]CO	[ ]CO	[ ]CO
Others	[ ]CO	[ ]CO	[ ]CO	[ ]CO
Total	[ ]CO	100.0	[ ]CO	100.0

Source: Draft Determination (estimates based on information received from parties)

494. The draft determination noted that Telecom offers broadband internet access through its Jetstream and DDS products. TelstraClear offers broadband services across its own cable and fibre networks, as well as in conjunction with other networks (such as CityLink in Wellington). TelstraClear also offers access through ADSL plans based on Telecom's Jetstream services (such as "Paradise ADSL"), although in these cases Telecom directly bills the customer for the Jetstream service.

495. Ihug also supplies broadband access through a number of channels. Ihug's Ultra service is supplied by combining satellite technology for downloads with fixed infrastructure for uploads. For example, Ihug promotes an Ultra Dialup service, where the upload path is by way of existing telephone lines; other variants of the Ultra service appear to use either ISDN or DDS lines for a higher speed upload service. The Commission understands that Ihug also promotes ADSL services by rebadging Telecom's Jetstream services, although again Telecom bills the customer.

496. Walker Wireless has deployed fixed wireless technology to provide a number of broadband internet access packages to business customers. It intends to supplement its existing line-of-sight technology with a new "W-CDMA" fixed wireless platform which does not require a clear line of sight between the customer and the Walker Wireless point of presence.

497. The draft determination referred to a number of smaller regional suppliers of broadband internet access, including the wireless-based Buller Network, Delta Utility Services, and SouthNet.[159]

498. The market share figures presented above are national figures. Therefore, Telecom's metropolitan share may be somewhat lower. However some of the competitors share in figure 15 appears to include Jetstream revenues. In particular, this applies to the revenue share reported by TelstraClear. The Commission therefore asked the main participants in this market to provide updated market share information, including a breakdown which allows Jetstream revenues to be stripped out of competitor shares. For example, recent data supplied by TelstraClear indicates that once Jetstream is excluded, its annual business broadband revenues are around $[ ]CO.

499. Telecom has provided its revenues earned in the metropolitan (zone 1) business broadband market. This information, along with responses from other parties, is summarised in figure 16 below. For competitors to Telecom, Jetstream revenues have been excluded.

Figure 16: Metropolitan Business Broadband Market Shares

	Revenues ($m)	Share (%)
Telecom	[ ]CO	[ ]CO
TelstraClear	[ ]CO	[ ]CO
Walker Wireless	[ ]CO	[ ]CO
Ihug	[ ]CO	[ ]CO
CityLink	[ ]CO	[ ]CO
CallPlus	[ ]CO	[ ]CO
Compass	?	

[159] For example, SouthNet provides internet access using 802.11b technology, using unlicensed 2.4 GHz spectrum. Although service speeds of up of to 3 Mbps are available, customers must be located within line-of-sight of SouthNet's broadcast antenna. According to SouthNet, current service is available in Invercargill, Te Anau, Queenstown, and Winton.

Total	[ ]CO	100.0%

500. Telecom's submission reports its historical revenues earned from business broadband services in metropolitan areas. These estimates show significant growth from a small base; from [ ]CO in 1999/00 to [ ]CO by 2001/02. In terms of customer numbers, Telecom report that the number of residential and business subscribers to Jetstream has recently surpassed [ ]CO, compared to a figure of around [ ]CO which Telecom provided to the Commission prior to the release of the draft determination.

501. Telecom argues that it faces competition both from fixed network operators as well as competition from wireless and satellite operators. In particular, Telecom refers to offerings by the likes of TelstraClear, Walker Wireless, Ihug, Tangent and CityLink as constraining its own broadband pricing.

502. The draft determination noted that while Telecom was likely to face some constraint from existing competition, the extent to which this had flowed through to broadband pricing was unclear. The draft referred to a recent OECD survey which found that New Zealand was one of a small number of countries with metered pricing with usage caps, and that the New Zealand cap was the lowest:[160]

> At the time of the (OECD) study, the basic DSL service in New Zealand included 0.4 Gbytes per month; the next lowest threshold was in Austria (1 Gbyte/month); while other countries had monthly thresholds of 1.5-10 Gbytes. Beyond these thresholds, metered charges apply.
>
> The OECD study commented that: "in competitive markets unmetered rates are typical because the market increasingly demands them. In less competitive markets usage based charges are more evident."

503. The draft noted that while the New Zealand usage cap had been increased since the OECD study, broadband prices in New Zealand remain relatively high, given that average monthly usage appears to exceed the usage caps.

504. Telecom's submission contains an appendix which comments on the OECD study. In particular, Telecom argues that the OECD report shows that New Zealand has the lowest cost DSL based internet service, the fastest residential DSL based service, and the best value for money on a bandwidth per dollar basis (excluding Korea). Telecom also argues that a single flat rate service with no usage cap would represent a significant price increase over its lower end Jetstream packages. The range of plans offered by Telecom allows customers to select the best package for their purposes.

505. The OECD report does indicate that Telecom's pricing and value offered compare well with other countries. However, as qualified by the OECD, this conclusion only holds if users remain below the usage cap. In New Zealand, as long as usage remains below this cap, DSL prices in New Zealand appear to compare favourably with the other OECD countries.

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[160] Commerce Commission "Draft Determination on the TelstraClear Application for Determination for "Wholesale" Designated Access Services", 25 November 2002, page 89.

506. In addition, the Commission notes that while Telecom's Jetstart has the lowest monthly charge in the survey, it is a relatively low speed service. This is reflected in Jetstart's bandwidth-per-dollar position in the OECD table.

507. Furthermore, while Telecom submits that New Zealand's DSL market penetration rank of 11 out of 30 OECD countries is respectable, it appears that a number of the lower ranked countries have higher penetrations of cable-based broadband service. Looking at overall broadband penetration, the OECD reports that New Zealand slipped from 17th in 2000 to 20th in 2001.[161]

508. Telecom makes a number of other points regarding the provision of broadband service, for example regarding the level of service quality, and penetration levels given the time in market. On this latter point, Telecom notes that it commenced offering DSL service in mid-1999, and that penetration levels have been increasing at a faster rate in New Zealand than for other countries after a similar period of deployment.

509. Telecom notes that while Jetstream is a relatively recent service, a number of price-related changes have occurred:

- The monthly prices of Jetstream 3000 and Jetstream 5000 have fallen;
- The usage cap on Jetstream 1500 has been increased to 1800 Mbytes;
- A new plan, Jetstream 1200, has been introduced; and
- Installation charges have declined from $300 to $220, and a "self-install" charge of $88 has been introduced.

510. As with a number of other markets, Telecom submits that the reduction in installation charges has significantly reduced the barriers to customer switching.

511. Given the relatively recent emergence of broadband services in New Zealand, there is only limited historical evidence relating to pricing and market shares in relation to this market. The OECD survey referred to above provides some useful early indications of international broadband pricing and take-up, although there are some difficulties in interpreting the results, given the differences in pricing structures.

Entry

512. The draft determination indicated that the constraint from potential competition is likely to depend on the form of that new entry. For example,[162]

> A new entrant who deploys its own facilities could use fixed infrastructure such as copper to provide ADSL services, or alternatively, it could provide service by way of satellite or fixed-

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[161] OECD "The Development of Broadband Access in OECD Countries", October 2001, Table 4.

[162] Commerce Commission "Draft Determination on the TelstraClear Application for Determination for "Wholesale" Designated Access Services", 25 November 2002, pages 89-90.

> wireless technology. Although there are some limitations in terms of the speed of service provided by the latter, that approach largely avoids the sunk costs associated with deploying a fixed network.

513. For example, Walker Wireless and Vodafone have been conducting wireless trials in Auckland, with promising initial results. In relation to the business broadband market, Telecom's submission notes that:[163]

> Customer feedback indicates that wireless solutions such as those proposed by Vodafone and Walker Wireless (who have completed installing IP wireless technology in Auckland to deliver broadband services to residential and business customers) are a viable competitor:
>
> "… Our initial trial confirmed our belief that the time is right for a broadband solution like IP wireless that enables us to offer cost effective services that subscribers can use at work, at home and anywhere else."

514. Such entry is likely to represent a particular constraint in relation to the business market. Walker Wireless appears to have targeted business customers with its existing fixed-wireless broadband internet services. Information submitted by Walker Wireless shows that its customer base is made up of businesses rather than residential customers. In terms of the newer services being developed by Walker Wireless, it can be expected that this entry will initially target business customers, given that the spectrum underlying this technology is a limited resource.

515. Walker Wireless submits that it is unlikely that Telecom will face significant broadband competition from its new fixed-wireless network before the expiry of this determination, as the Walker Wireless network has only recently completed the trial stage. However, new entry is usually assessed over a period of two years, and this is the relevant reference point rather than the term of the determination. Walker Wireless has informed the Commission that:[164]

> [
>
>]CO

Conclusion

516. It appears that Telecom's market share is just over [ ]CO% in the metropolitan broadband services market, with a number of other fixed and wireless operators also supplying independent broadband access to businesses in metropolitan areas.

517. There also appears to be some prospect of further independent entry into the metropolitan broadband market, for example through the emergence of the new fixed wireless technology recently trialled by Walker Wireless and Vodafone. As noted above, this is likely to represent more of a constraint in terms of the supply to business customers.

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[163] Telecom "Submission on Wholesale Draft Determination", 24 January 2003, page 139.

[164] Walker Wireless email to Commission staff, 28 April 2003.

518. The Commission has concluded that Telecom does not face limited or likely to be lessened competition in the metropolitan retail market for business broadband internet access.

The Retail Market for Business Non-Metropolitan Broadband Internet Access

519. The draft determination's preliminary conclusion was that Telecom faces limited competition in the business market for broadband internet access. The draft determination did not distinguish between metropolitan and non-metropolitan areas.

520. Telecom has responded by noting that while it does not face significant competition from existing suppliers of broadband internet access to businesses in zone 2, it is constrained by the threat of new entry in particular from wireless providers.

521. TelstraClear agrees with the draft determination's finding that Telecom faces limited competition in the business broadband internet access market.

Existing Competition

522. Telecom is the major supplier of broadband internet access to businesses in non-metropolitan areas. Telecom itself acknowledges that it does not face significant competition from existing suppliers in this market.[165]

523. As noted above, Ihug offers a broadband internet service to businesses throughout New Zealand. However, for the reasons given above – and additionally in the case of business customers, for whom the limitation on the upload path is likely to be more significant – the Ihug service does not appear to be a significant competitive constraint to Telecom.

Entry

524. According to Telecom's submission on the draft determination, the threat of new entry into the non-metropolitan market for business broadband access is sufficient to constrain Telecom such that it does not face limited or likely to be lessened competition in this market. The reasons are the same as those discussed above for the residential market, namely that Telecom is facing competition in the regional broadband initiatives and the Government's PROBE initiative. In terms of the latter, a shortlist of 14 candidates has been asked to submit tenders for the provision of broadband service to 15 regions.

525. The Commission acknowledges that such initiatives may provide opportunities for expansion and new entry into areas not currently supplied with broadband access. In particular, the three regional broadband initiatives that have awarded service contracts

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[165] Telecom "Submission on Wholesale Draft Determination", 24 January 2003, page 141. Telecom argues that it is, however, constrained by the threat of new entry.

thus far have selected suppliers other than Telecom. However, these initiatives appear to be at a relatively early stage, with an expectation that access to broadband services for all schools will be available by the end of 2004. Again the earlier comment in relation to BCL's application for a judicial review with respect to the Walker Wireless spectrum creates a further risk that such entry may be delayed.

526. The Commission also notes that the Project PROBE initiative is focusing on schools, although understands that candidates must demonstrate ways of extending delivery of broadband services to surrounding business communities. However, at this stage, the Commission has decided to place little weight on the constraint from new entry resulting from these initiatives. As discussed earlier, the Commission believes that it will be appropriate to review this conclusion in the future, as further evidence emerges on the success and extent of such initiatives.

Conclusion

527. In the non-metropolitan for business broadband access, Telecom appears to serve virtually the entire market. In addition, barriers to entry are more significant in non-metropolitan areas, due to the more disparate customer base. While these barriers may to some extent be reduced through subsidized roll-out of broadband networks, this process is at a relatively early stage.

528. The Commission has therefore concluded that Telecom faces limited competition in the retail market for business broadband access in non-metropolitan areas.

The Retail Market for Metropolitan Data Services

529. The retail market for metropolitan data services relates to retail data services between customer sites located in metropolitan areas. The Commission has adopted the same 200 metre rule as it applied to the local access and broadband metropolitan markets.

530. The draft determination considered a single national data market, and the Commission's preliminary conclusion in the draft was that Telecom faces limited competition in the data market.

531. Telecom proposed a metropolitan data market, based around a 2-kilometre rule, and argued that it does not face limited or likely to be lessened competition within this market.

532. TelstraClear agreed with the Commission's preliminary view in the draft determination.

Existing Competition

533. Telecom has defined a broader metropolitan data market than that used by the Commission. Therefore the market share figures and competition assessment undertaken by Telecom are likely to understate the level of competition in the metropolitan market adopted by the Commission in this determination.

534. Telecom considers its main facilities-based data competitors to be TelstraClear, Walker Wireless, CityLink, United Networks, and Tangent. The latter two have merged as a result of the takeover of United by Tangent's parent, Vector. Telecom also refers to a number of smaller competitors who provide wireless LANs between buildings.[166]

535. Telecom's submission on the draft determination sets out a history of competition in relation to data services. Telecom's Table 7.6 is reproduced below.

Figure 17: History of Data Competition

Date	Event
1994	• Telecom launches Frame Relay services
1995	• Clear launches Frame Relay services
1996	• Clear introduces ATM services
1997	• Telecom introduces ATM services in response to Clear's ATM • CityLink launches Wgtn fibre-based Ethernet service
1999	• Telecom launches LAN Extension in Akld, Wgtn and Chch city • Telecom launches IP.Networking • Telecom launches Jetstream to provide more value on wireline services to counter the emerging mobile threat
2000	• Telecom launches Frame Relay CIR/PIR options in response to Clear's "Graded FR" services • Remote Office launched • Telstra launch gigabit Ethernet service 'Speedway' • Tangent formed
2001	• Launch of Clear's IP Express Ethernet service • Launch of Clear's Tempest Internet service • United launches fibre networks in Akld and Wgtn • Re-brand and re-launch of IP.Networking as Private Office
2002	• Telecom re-launches and expands LAN Extension to incorporate gigabit services and expanding to cover metro areas • CityLink launches 802.11 wireless broadband access in Wgtn

Source: Telecom

536. Telecom notes that in most cases, competitors have been the first to introduce new networking technologies to deliver data services.[167] For example, Telecom refers to the high speed Ethernet technology employed by competitors such as Citylink, TelstraClear, and UNL. These competitors have been able to use a variety of strategies to deploy data networks around the main centres. Citylink has attached fibre to trolley bus cables around Wellington, and is reported to be serving 400 customers through Ethernet technology, compared to Telecom using the same technology to serve [ ]RI customers. UNL has been threading fibre optic cable through its gas

[166] Telecom "Geographic Market Definition and Competition Analysis for Data Services", 20 November 2002, pages 23-25.

[167] Telecom "Submission on Wholesale Draft Determination", 24 January 2003, page 118.

mains in Auckland and Wellington, again avoiding the expense of opening up trenches.

537. Telecom has indicated that in terms of traditional data services, such as DDS, Frame relay, and 2M leased lines, it has an estimated market share of between [ ]CO nationally.[168] For newer data services, Telecom expects its market share to be less than [ ]CO in metropolitan areas, and notes that it has lost a number of significant customers to competitors. These include [

]CO.

538. Telecom also notes that its core data revenues have declined by [ ]CO since 1998. The main reductions appear to have been experienced in relation to DDS services, while there has been some growth in Frame Relay revenues.

539. Telecom also notes that there is a significant difference in prices between zone 1 and zone 2. According to Telecom's submission, prices across DDS, LanLink, MegaLink, and IPNet services are now [ ]RI lower in zone 1 than in zone 2. Telecom refers to a number of examples of its pricing promotions responding to competition. These promotions often involve the waiving of installation fees, in some cases unconditionally, and in others, in return for the customer taking a term contract.

540. TelstraClear notes in its submission on the draft determination that there are a number of network operators competing with Telecom in the supply of data services, with several additional suppliers competing on a resale basis. In metropolitan areas, TelstraClear notes that the network operators are able to provide some independent rivalry to Telecom, although there is no such constraint in non-metropolitan areas.

541. TelstraClear also notes that there were significant reductions in retail data prices in the late 1990s, although the underlying costs have generally been stable or have marginally reduced.

542. According to Paul Budde, Telecom's share of the aggregate data market has been declining in recent years. The following table presents market shares extracted from Budde's latest review of the New Zealand telecommunications industry.

Figure 18: Data Market Shares, 1996/7-2002/3

	1996/7	1997/8	1998/9	1999/0	2000/1	2001/2	2002/3
Telecom	79.9	72.9	67.1	70.4	64.4	62.8	56.6
TelstraClear	n/a	n/a	n/a	n/a	n/a	24.1	22.9
CLEAR	1.5	2.4	3.8	6.2	13.3	14.7	n/a
TelstraSaturn	7.5	7.8	8.4	8.5	8.5	9.4	n/a
Others	11.1	17.0	20.8	15.0	13.9	13.1	20.5
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: Budde (2003), Table 39.

[168] Telecom "Geographic Market Definition and Competition Analysis for Data Services", 20 November 2002, page 8.

543. Budde observes that while Telecom remains the major data player,[169]

> … it is increasingly coming under pressure from a range of diversified and niche operators rolling out broadband networks through fixed-line, wireless and cable mediums. The merger of CLEAR Communications and TelstraSaturn has created a significant data rival. As a result of the increasingly competitive environment, margins have declined and the growing network rollout, supported by low-cost access agreements, will ensure prices and margins continue to decline over time.

544. The market share figures in figure 18 above do not correspond exactly to the market definitions adopted by the Commission. For example, the Budde market shares appear to include broadband services. Further, there is no distinction drawn along the lines of metropolitan and non-metropolitan areas. Therefore, those geographic areas where Telecom is the sole supplier of data services will tend to drag up Telecom's aggregate market share relative to its share of the metropolitan markets. Telecom's share of the metropolitan market is likely to be less than indicated in the table above. As noted above, Telecom itself believes that its share of newer data services in metropolitan areas is less than [ ]CO.

545. Budde also makes a number of observations about the emergence of Internet Protocol (IP) based networks:[170]

> IP-based networks are at the heart of growth in the data market. Traditionally, packet-switched data services have been delivered on relatively low speed point-to-point links across legacy platforms. These platforms were limited to delivering specific services and did not have the flexibility provided by new platforms. The advent of IP as the new global standard for data communications is leading to highly flexible, high bandwidth, 'anywhere-to-anywhere' packet networks. …
>
> Telecom's problem is that it remains burdened with an older network while new competitors with IP solutions in place are starting to proliferate. Not least of these is TelstraClear, which already has a full IP network in Wellington. Elsewhere it is merging the TelstraSaturn and CLEAR networks. … Also in July 2002, TelstraClear announced that it was spending $20 million to 'flesh out' its IP network in five regional centres; Hamilton, Palmerston North, Tauranga, Dunedin, and New Plymouth, under the supervision of Ericsson. …
>
> CallPlus is another taking up IP. Active in Auckland and Hamilton, it competes with Telecom in the small and medium-sized business market.

546. The Commission's main concern regarding retail data services in the draft determination was where such services could only be delivered by accessing part of Telecom's data networks. However, the adoption of a metropolitan and non-metropolitan distinction appears to alleviate these concerns.

547. In the metropolitan data market, there is evidence that Telecom is facing significant existing competition from alternative network operators, and that this is leading to an erosion of Telecom's retail market share.

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[169] Budde (2003), page 84.

[170] Ibid, page 85.

Entry

548. Telecom argues that there are low barriers to entry into the metropolitan data services market. This is evidenced by "frequent and diverse entries" into this market, using a range of technologies and entry strategies. For example, CityLink has used trolley bus cables in Wellington; and United and Tangent have both used gas ducts. Telecom note that wireless options provide another cost-effective entry strategy into this market.

549. The Commission has previously noted that competing data networks have been deployed through the main centres in a number of ways which have avoided the costs associated with trenching. The draft wholesale determination also referred to an earlier Commission decision[171] which concluded that while existing competition was likely to constrain the merged entity in the Auckland CBD, there was likely to be little constraint from new entry, due to the significant levels of under-utilised fibre throughout central Auckland.

550. Telecom comments that the presence of such excess capacity is evidence of low barriers to entry and expansion. Although the Commission accepts that such surplus capacity could be regarded as a constraint in terms of existing competition, it is likely to remain a deterrent in terms of future new entry. However, the Commission accepts that expansion of existing competing infrastructure is likely to represent a constraint on Telecom in the metropolitan data market.

Conclusion

551. Telecom appears to compete in this market with a number of other network operators, including TelstraClear, UNL/Tangent, and Citylink. Telecom's national market share has been declining for a number of years, and currently appears to have fallen to around 56%. Its share in metropolitan areas is likely to be lower still.

552. Based on the above, the Commission has concluded that Telecom does not face limited or likely to be lessened competition in the retail market for data services in metropolitan areas.

The Retail Market for Non-Metropolitan Data Services

553. The retail market for non-metropolitan data services relates to retail data services between customer sites where at least one site is located outside of metropolitan areas. The Commission has adopted the same 200 metre rule as it applied to the local access and broadband metropolitan markets.

554. The draft determination considered a single national data market, and the Commission's preliminary conclusion in the draft was that Telecom faces limited competition in the data market.

[171] Decision 471 "Vector Limited and United Networks Limited", 23 August 2002.

555. Telecom proposed a non-metropolitan data market, based outside of its 2-kilometre rule, and concluded that it does face limited competition within this market.

556. TelstraClear agreed with the Commission's preliminary view in the draft determination.

Existing Competition

557. Outside of metropolitan areas, Telecom appears to be the only significant supplier of data services. As noted earlier, while other competitors have deployed wireless-based technology over which to deliver data services, the Commission is not satisfied that such deployment represents a significant constraint in the context of the non-metropolitan data market.

Entry

558. The Commission believes that entry conditions in non-metropolitan areas are likely to be such that new entry is unlikely to be sufficient to constrain Telecom in these areas. In particular, lower customer concentrations are likely to deter the deployment of new data networks.

Conclusion

559. As a result of Telecom's likely high market share, and the absence of prospective new entry, the Commission has concluded that Telecom faces limited competition in the retail market for data services in non-metropolitan areas.

The Retail Market for International Data Services

560. The draft determination did not refer to a separate market for international data services.

561. Telecom has proposed a separate international data services market, and concluded that it does not face limited or likely to be lessened competition in this market.

562. TelstraClear has not commented specifically on this market.

Existing Competition

563. Telecom competes with a number of companies in the provision of international data services. These include TelstraClear, Equant, and AT&T. Material provided by Telecom indicates that these competitors have succeeded in securing significant international data contracts. [

]RI.[172]

564. Telecom's submission contains some limited information on estimated market shares. Telecom estimates that its share of international leased data services is approximately [ ]RI; TelstraClear's [ ]RI; with other suppliers accounting for the remaining [ ]RI. However, Telecom notes that these estimates do not include a significant number of Internet-based international Virtual Private Networks (VPNs) which compete for international data connectivity. Once these VPNs are included, Telecom believes its market share falls below [ ]RI.

565. Telecom also refers to trans-Tasman data services, indicating that its share of this specific market is around [ ]RI. It estimates TelstraClear's share to be around [ ]RI, with much of the remaining [ ]RI supplied by Equant and AT&T.

566. In terms of pricing, Telecom submits that:[173]

> "International data pricing has reduced over the past three years, due to over-supply in cable capacity. During the mid 1990's the expected 'e-commerce' or 'dot.com' boom prompted telecommunication and network firms to invest money in building international capacity. The predicted demand did not eventuate, leaving many firms with an over supply of broadband capacity. Distressed companies on-sold their capacity at very low rates. For example, Asia Global Crossing sought to sell excess capacity at about 1/3 of market rate (sic).
>
> Examples of price reductions are:
>
> - In 1999 the list price for a E1 private line from New Zealand to Australia was NZ$50,000. The current Telecom list price is NZ$15,000. Telecom understands that Asia Global Crossing are selling Trans Tasman E1 for NZ$7,300.
> - In 1999, the selling price for Frame Relay 128 Kbit/s was NZ$4880.00 Trans Tasman. The current Telecom list price NZ$2,260.
> - In 1999, Internet access, for 10 Mbit/s port in 1999 was priced at NZ$88,000. The current Telecom list price is NZ$45,660.

567. These represent reductions of between 48% and 70% over three years.

568. In aggregate, Telecom's international retail data revenues appear to have fallen from around [ ]CO in 1998/99 to around [ ]CO in 2001/02, a decline of 24%.[174]

569. Telecom also argues that demand for international data services tends to be concentrated in a small number of large customers – [ ]RI – and that this dependence places some countervailing power in the hands of those customers. Larger customers often have the internal capability to develop international data solutions, or alternatively outsource this function to a service provider.

[172] Ibid, Table 7.8, page 132.

[173] Ibid, pages 127-128.

[174] Ibid, Chart 7.23, page 129.

570. Telecom notes that the main method of gaining access to international bandwidth to New Zealand is through the Southern Cross cable,[175] the capacity of which is freely wholesaled to both shareholders and other customers.

Entry

571. Telecom has submitted that barriers to entry into this market are low, and as a result there has been significant new entry over the last six to seven years.

572. Given the level of surplus international bandwidth, there do not appear to be any significant barriers to entry into the international data services market in New Zealand.

Conclusion

573. The level of existing competition and the apparent low barriers to entry suggest that Telecom is constrained in the supply of international data services.

574. The Commission has therefore concluded that Telecom does not face limited or likely to be lessened competition in the retail market for international data services.

The Retail Market for Customer Premises Equipment

575. The draft determination did not explicitly consider a market for customer premises equipment (CPE). However, as noted elsewhere in this determination, the Commission has accepted that there is likely to be a separate market for CPE.

576. Telecom submits that it does not face limited or likely to be lessened competition in the CPE market.

577. TelstraClear has not commented specifically on this market.

Existing Competition

578. According to the Telecommunications Act 2001, no equipment can be connected to a telecommunications network without the agreement of the network operator. The Commission understands that Telecom provides such permission through the granting of a "Telepermit" once it is satisfied that the equipment is compatible with its network.

579. Telecom has submitted that the CPE market has been highly competitive since deregulation in 1988. Telecom competes in this market with a large number of retail outlets, such as Dick Smith Electronics, The Warehouse, and importers. The Telepermit website contains a list of more than 100 distributors of telepermitted CPE.

580. Telecom estimates that around [ ]CO of its business PSTN and Centrex lines are attached to a Telecom handset, with the remaining [ ]CO of lines supplied to

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[175] The Southern Cross cable is owned by Telecom (50%), Cable & Wireless Optus (40%), and MCI WorldCom (10%). See Budde (2003), page 26.

customers who source their own CPE. In terms of PABX, Telecom's CPE penetration is estimated to be less than [ ]CO.

581. These figures provided by Telecom do indicate that there is a significant level of existing competition in the CPE market.

Entry

582. Telecom's submission does not comment on entry conditions with respect to the CPE market. However, there do not appear to be any barriers to entry. A potential entrant would have to ensure that its products meet certain technical standards regarding compatibility with the network to which that equipment is to be connected.

Conclusion

583. Given the above discussion, in particular the level of existing competition from a number of retailers, and the absence of barriers to new entry, the Commission has concluded that Telecom does not face limited, or is not likely to face lessened, competition in the retail CPE market.[176]

The Retail Market for Business Information Analysis Services

584. The draft determination did not explicitly consider a market for business information analysis services. However, as noted elsewhere in this determination, the Commission has accepted that there is likely to be a separate market for such services.

585. Telecom submits that it does not face limited or likely to be lessened competition in the business information analysis market.

586. TelstraClear has not commented specifically on this market.

Existing Competition

587. This market relates to the analysis of customer telecommunications usage. Telecom notes that it supplies a number of such services to customers, including CustomQuery, CallStatistics, and Vision. These services provide customers with information on their usage of telecommunications services, including incoming and outgoing calls by region, duration, time, date, and call type.

588. Telecom submits that there are a number of competing services in this market. Specifically, TelstraClear offers an "Insight" service which provides the same type of analysis and reporting to customers; and CallPlus has developed an advanced real-time bill analysis tool called "Visi-Bill". In addition, CallPlus offer a service called Smartcode which allows cost codes to be allocated to business calls. According to CallPlus, this assists business customers in breaking down and analyzing toll call costs.

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[176] As noted in the earlier discussion of the CPE market, advanced function Centrex CPE is considered within the context of the local access market.

589. In addition to these offered services, Telecom notes that business customers can acquire call analysis services in a number of other ways. For example, the customer can engage auditors or specialist telecommunications providers who can analyse information extracted from the customer's telecommunications bills. Alternatively, businesses can develop their own software to analyse their bills.

Entry

590. While there has been little specific information provided to the Commission on the conditions of entry into this market, there do not appear to be any significant barriers to such entry. At the very minimum, all that is required by an entrant is access to the customers telecommunications accounts/bills. More sophisticated levels of service may involve the installation of software which is able to track the customer's incoming and outgoing calling patterns.

Conclusion

591. Given the above, the Commission has concluded that Telecom does not face limited or likely to be lessened competition in the retail market for business information analysis services.

The Retail Market for Directory Assistance

592. The draft determination considered the national market for directory assistance, and concluded that Telecom was likely to face limited competition in this market.

593. Telecom's submission on the draft determination argued that Telecom does not face limited or likely to be lessened competition in the directory assistance market, due to competitive pressures from both existing substitute services and potential competition.

594. TelstraClear agreed with the Commission's view that Telecom faces limited competition in this market.

Existing Competition

595. Neither party was able to provide any specific information on market shares. While TelstraClear argued that Telecom is the sole provider of such services to both its own direct connect customers and those of other networks, Telecom referred to several substitutes, including an internet directory of cellular telephone numbers ("MobilePages") and Wilson & Horton's Universal Business Directory (UBD). Telecom also refers to overseas internet-based directories which compete with its own international directory assistance service.

596. Telecom notes that its fixed voice directory assistance service is expected to decline, due to the increased availability of internet-based and mobile directory assistance services. Specifically, Telecom expects fixed voice directory assistance to decline by around [ ]CO from 2001 to 2006. However, the Commission notes that Telecom's estimates of its directory services revenues earned from business customers appear to

have been growing in recent years; a decline in revenue was reported over 1996/97 to 1997/98, but there has been steady growth over the last five years.

597. In the draft determination, the Commission noted that:[177]

> … a customer seeking a particular listed or unlisted local, national, or international telephone number can utilize Directory Assistance. As an alternative, the customer could manually search directories, although most individuals are likely to have easy access only to a local telephone directory. The internet may also represent an alternative means of searching for a telephone number, although again this may be less convenient than using a telephone-based service.

598. The Commission also referred to the ability of customers to access Telecom's directory service by dialing the short code 018. This is likely to provide an advantage to the Telecom service in terms of convenience and the level of recognition.

599. While there appear to be some alternative means of obtaining directory information, Telecom's directory services have the advantage of being comprehensive and up-to-date. Telecom's telephone-based directory assistance, accessed through 018, is also a readily available and convenient way of finding local and national telephone numbers.

Entry

600. Telecom considers there to be "low to medium" barriers to entry, with the main barrier being the construction of a directory database of names and telephone numbers. Other lesser barriers relate to investment in the infrastructure necessary to deliver the service. An entrant may also face an additional cost in establishing customer recognition of a competing service, although Telecom argues that there is mixed evidence on this point.

601. Telecom argues that mandatory wholesaling of its directory assistance service is likely to create a barrier to entry, as it considers its avoided costs associated with the directory service to be zero. Therefore, any positive discount will provide resellers with a "free income stream":[178]

> Under these circumstances, a competing carrier will not enter the directory assistance market unless they are not only more efficient than Telecom, but are more efficient than Telecom by more than the wholesale discount.

602. Although the Commission does not have any specific information on the level of costs avoided by Telecom in respect of directory services, the Commission notes that the use of a single discount applied across a range of retail services is likely to involve some averaging. For some services, it may be the case that the average discount overstates the level of avoided costs, and therefore sets too low a price. However, for other services, the average discount may understate the avoided costs saved, and hence set the wholesale price too high. For reasons set out elsewhere in this determination, the Commission has decided to adopt a single discount, rather than service-specific discounts.

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[177] Draft determination, paragraph 153.

[178] Telecom "Submission on Wholesale Draft Determination", 24 January 2003, page 201.

603. TelstraClear refers to the costs associated with establishing and maintaining a database of telephone numbers. TelstraClear notes that while electronic versions of Telecom's White and Yellow Pages are available, they will only be periodically updated. Furthermore, TelstraClear notes that Telecom's directory assistance service is accessed through the short code 018.

604. The Commission also understands that there are restrictions on the use of Telecom's electronic directory.[179]

605. It therefore appears that a competing supplier of directory assistance would not be able to base its operation on Telecom's electronic database, but would have to build its own database of listings. In addition, the level of recognition of the Telecom 018 number may inhibit the emergence of a competing service. Both of these were considered by Oftel to represent barriers to entry into the market for directory services.[180]

Conclusion

606. Given the limited forms of existing competition to Telecom's directory assistance services, and the high barriers to entry, the Commission has concluded that Telecom faces limited competition in the market for the provision of directory assistance.

The Retail Market for Operator Services

607. The draft determination did not consider a separate market for operator services.

608. Telecom submits that it does not face limited or likely to be lessened competition in the market for operator services.

609. TelstraClear did not comment on the market for operator services as this was not included in the draft determination.

Existing Competition

610. Telecom considers that a substitute to operator assisted services is the ability for customers to directly dial numbers.[181]

611. The Commission also considers that there are a number of other competitive options which could be substituted for operator-assisted call services. For example, pre-paid calling cards could be considered to represent a calling alternative to collect calls, albeit requiring upfront payment. Pre-paid calling options are offered by a range of alternative carriers.

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[179] See for example, the Terms and Conditions set out on the white pages website.

[180] See for example, Oftel "Provision of Directory Information Services and Products Statement" (September 1998), paragraph 3.12.

[181] Telecom "Submission on Wholesale Draft Determination" (24 January 2003), page 204.

Entry

612. Telecom has submitted that other carriers can set up their own operator services as there are low barriers to entry:[182]

> To provide such a service, a provider would only need the necessary technology (for example, a billing system that bills the called party in the case of a collect call, or charges a credit card in the case of a credit card call), arrangements with other telecommunications companies, and staff to provide the service. Other service providers may already have the necessary technology to bill the called party if they also offer a collect call service.

613. Another possible substitute for operator-assisted calling may be to purchase an 0800-type service whereby the called party pays for the call. As noted earlier, there appear to be few barriers to entry into the provision of toll-free services.

Conclusion

614. In light of the range of possible substitutes for operator-assisted calls, and the low barriers to entry, the Commission has concluded that Telecom does not face limited or likely to be lessened competition in the market for operator services.

Wholesale in Markets with more than Limited Competition

615. Part 2 of Schedule 1 of the Telecommunications Act requires the Commission to determine whether Telecom should provide wholesale services in markets where Telecom does not faces limited competition or is not likely to face lessened competition. In making the decision, the Commission is required to consider the purpose set out in section 18 and make a decision that the Commission considers best gives, or is likely to best give, effect to that purpose. The Commission accordingly considers that it must consider whether requiring Telecom to wholesale services in already competitive markets will:

> "… promote competition in telecommunication markets for the long term benefit of end-users of telecommunication services within New Zealand"

616. In a market with more than limited competition, the Commission considers that it should not require Telecom to provide a wholesale service, unless the Commission is satisfied of significant long-term benefits for end-users of requiring such wholesale provision. This is because in markets with more than limited competition, intervention is not required to promote competition. Consumers already experience the benefits of competition in such markets, such as lower prices, choice of service providers and improved quality. Furthermore in a competitive market, firms could be expected to negotiate the provision of such a wholesale service without regulatory intervention. Regulatory intervention in competitive markets will add to the costs of suppliers and should only be contemplated where there is persuasive evidence that doing so will

[182] Ibid.

further enhance competition and will provide long-term net benefits to end-users. Therefore the Commission considers that in the absence of such evidence, regulated supply of wholesale services is not required in markets where Telecom does not face limited or is not likely to face lessened competition.

APPLICATION OF THE INITIAL PRICING PRINCIPLE

617. The initial pricing principle for the Relevant Wholesale Services is:

- **retail price** less a discount benchmarked against discounts in comparable countries that apply retail price minus avoided costs saved pricing in respect of these services, in the case of a service offered by Telecom in markets in which Telecom faces limited, or is likely to face lessened, competition for that service; or

- **retail price** less a discount benchmarked against discounts in comparable countries that apply retail price minus actual costs saved pricing in respect of these services, in the case of a service offered by Telecom in markets in which Telecom does not face limited, or lessened, competition for that service.

Retail Price

618. The initial pricing principle requires the deduction of a discount from the "retail price". The final pricing principle by contrast requires discounting from the "average or best retail price".

619. The Act does not define "retail price", "average retail price" or "best retail price". Both TelstraClear and Telecom note that the Act must have contemplated that these terms would have a different meaning.[183]

620. "Retail price" is used without qualification at section 70(4)(d) of the Act, which relates to telecommunications service obligations ("TSO"). A TSO instrument must –

> "specify the retail price at, or below which, the service must be supplied."

621. Section 70(4)(d) would make the retail price a maximum price. The Commission considers that the context of "retail price" in relation to the TSO is sufficiently different, and this interpretation would not be appropriate for the initial pricing principle.

Standard Retail Price

622. Though the Act does not provide guidance on what the retail price should be, both parties agree that the term retail price in the description of service should be interpreted as the "standard" retail price.

623. Telecom initially argued that the Standard Retail Price of a service is that listed in TLOC[184], though this position was later modified. TelstraClear considered that the

[183] TelstraClear – "Submission on Investigation into Application for Determination of Designated Wholesale Services" 27 August 2002 p.27, Telecom – "Submission under Section 25(1)(d), Telecommunications Act 2001 – TelstraClear Limited Application for "Resale Services" Determination", 27 August 2002 p. 36

[184] Telecom – Submission under Section 25(1)(d), Telecommunications Act 2001 – TelstraClear Limited Application for "Resale Services" Determination, 27 August 2002 p. 36

Standard Retail Price is equivalent to the “usually offered price, the generally available price or the price most consumers will pay”.[185]

624. TelstraClear argues that TLOC provides baseline prices at which services are offered, that discounting regularly occurs off those prices, and that, therefore, the retail price list in TLOC does not reflect the price the customer is normally offered.[186] TelstraClear notes that Telecom is free to change TLOC prices and expresses concern, and the Commission agrees, that opportunities exist for Telecom to inflate the TLOC retail price, thereby diluting the benefit of any wholesale discount linked to TLOC.[187]

625. Most US states (against which the New Zealand wholesale regime is benchmarked) regulate retail prices within their jurisdictions by requiring providers to adhere to tariffed rates. These retail tariffs limit the ability of a provider to diverge from the set rates, which include tariffed volume, term, and bundling discounts.

626. The Commission considers that a Standard Retail Price is the appropriate and necessary interpretation of “retail price” in the initial pricing principle. The Standard Retail Price should reflect actual prices offered by Telecom to its own customers. Requiring any price list to reflect the use of a Standard Retail Price would prevent Telecom from increasing a published price without passing that increase on to the majority of its new or existing customers. A Standard Retail Price would not restrain the price at which Telecom can supply services to its retail customers.

627. The Commission considers that where a retail discount is generally available for a service, the baseline price as offered in TLOC is not the Standard Retail Price. Telecom notes that the observed deviations from the TLOC document can be explained by two reasons. Firstly, the nature of the application for services by TelstraClear does not consider additional terms, conditions and service options of a service such as a fixed term contract price which affect the price at which the service is offered to the end-user. A granular approach to services contemplating differences in non-price constructs such as term contracts explains a significant variation between observed TLOC prices and their corresponding granular services.

628. Secondly, Telecom acknowledges that TLOC does not reflect most data pricing and notes that the correct document for comparison should be Streamline data pricing. Telecom note that TLOC data pricing is higher than that provided in Streamline. “[ ]”CO[188] . Telecom considers that this explains the significant variation in observed pricing from the TLOC document for data services.

629. Telecom submits that TLOC prices are representative of actual prices in “Zone 2” where TelstraClear does not have network within 200m of a Telecom customer. In

[185] TelstraClear – Submission on Investigation into Application for Determination of Designated Wholesale Services, 27 August 2002 p. 47

[186] Wholesale workshop – TelstraClear written response to questions, 8 October 2002 p. 35

[187] TelstraClear – Submission on Investigation into Application for Determination of Designated Wholesale Services, 27 August 2002, p. 47

[188] Telecom – Submission on Wholesale Draft Determination 24 January 2003 p. 217

"Zone 1", where TelstraClear has network within 200m of a Telecom customer, TLOC price is not necessarily representative of actual prices.[189]

630. Given the large number of services capable of being wholesaled, the apparent variability and non-transparency of current approaches to providing discounts off TLOC and the importance of a simple and workable means of identifying the standard price, Telecom will be required to maintain a comprehensive current list of charges for all designated services under this Determination reflecting levels of non-bundled pricing typically set by Telecom and, in the case of data services, Streamline pricing.

Calculation of Standard Retail Price

631. On 14 March 2003, Telecom and KPMG provided a presentation on the calculation of retail prices to Commission staff and representatives of TelstraClear. A calculation of the base retail prices was undertaken with a focus on "Streamline" data and business access pricing. KPMG presented on their role in delivering an auditable set of retail prices for regulatory purposes.

Modelling of Standard Retail Prices

632. Telecom propose the following modelling rules:

> "Where a price point covers 80% of the price points of a service, then that price point is the retail price for that service"
>
> "Where no such price point exists, then an average mode price point will be calculated – average mode would be the weighted average of the modal price points and gives a robust outcome for multi-modal distributions."[190]

633. Telecom has documented the Average Modal Price calculation as follows:

> "Process:
> - Take schedule of price points with % of prices paid for each.
> - Take the first mode (largest %) and add next mode (2nd target %)
> - Keep adding next mode until sum of modes exceed 80% of population.
> - Calculate the weighed average of these modes. This is the average modal price"[191]

634. TelstraClear has responded that omission of the 20% tail may distort the effect of the average modal cost. The Commission does not however consider that the use of 80% of the price points would cause unnecessary distortion of the approach.

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[189] ibid p. 15

[190] Telecom Presentation "Wholesale issues – Presentation to Commerce Commission", Bruce Parkes, 14 March, 2003

[191] Telecom – "Overview of Retail Price List for Designated Services "DSPL" – Presentation to the Commerce Commission", 14 March 2003 p. 14

635. The Commission accepts the use of the Average Modal modelling approach proposed by Telecom, subject to adjustments to the modelling on the basis of the decisions contained within this Determination.

Separate calculation for SME and Corporate customers

636. Where the same service is provided in more than one market, and at different prices in each market, a separate Standard Retail Price calculation will be required for each market. In addition, the average retail price of a service for SMEs and Corporates will be calculated separately as those customers are defined in this Determination.

637. A "Corporate" customer has annual billed revenue greater than [ ]RI. Telecom notes that "Telecom's volume and other discounts available across a customer's total annual billed revenue are available to Corporate customers only."[192]

638. For SMEs, Telecom does not generally offer discounts across a customer's total annual billed revenue, however Telecom notes that "there may be isolated instances where a discount has been offered to Medium Enterprises".[193] Telecom notes that such exceptions may occur due to competitive tenders or as a result of a Corporate customer falling below the annual billed revenue requirement and being reclassified as a Medium Enterprise customer. [194]

639. For illustrative purposes, the following table summarises the difference in billing between SME and Corporate customers.

SME Customer		Corporate Customer	
Service A	$\$P_{A}$	Service X	$\$P_{x}$
Service B	$\$P_{B}$	Service Y	$\$P_{y}$
Service C	$\underline{\$P_{C}}$	Service Z	$\underline{\$P_{z}}$
Total Bill	$\mathbf{\$P_{A+B+C}}$	Sub-total	$\$P_{x+y+z}$
		Less Premier discount	$\underline{-X\%}$
		Total Bill	$\mathbf{\$P_{CORP}}$

[192] Letter from Telecom (Blackett) to the Commission, 8 April 2003

[193] ibid

[194] ibid

SME Customers

640. The Commission requires that Telecom calculate the Average Modal Price of a service for SME customers. This Average Modal Price will be the Retail Price for the purposes of the initial pricing principle for the designated services supplied in SME markets. As Telecom notes that SME customers do not generally receive volume or total customer spend discounts across the customer's total account, the Commission considers that the calculation of the Average Modal Price accurately reflects the standard retail price for a service paid by SME customers.

SME Customer

Service A	$\$P_A$ ←	Service A SME price point
Service B	$\$P_B$	
Service C	$\$P_C$	
Total Bill	$\mathbf{\$P_{A+B+C}}$	

641. The Commission requires that, for the purposes of calculation of the Standard Retail Price for Service A, the price points ($\$P_A$) are selected to calculate the Average Modal Price for a service in the SME market. Once the Average Modal Price is calculated for a service, no further adjustment of this Average Modal Price Point is required.

642. The Average Modal Prices must be calculated for metro and non-metro markets separately where the Commission has specified separate metro and non-metro markets and the Commission has determined that Telecom faces limited, or is likely to face lessened, competition in a market for that service.

Corporate Customers

643. The Commission requires that Telecom calculate the Average Modal Price of a service for Corporate customers separately. The Commission note that using the Average Modal Price of a service will not reflect an individual service price point, given that any volume or total customer spend discount (which is not a bundled discount) is provided at the customer, and not service, level.

Corporate Customer

Service X	$\$P_x$ ←	Service X Corporate unadjusted price point
Service Y	$\$P_y$	
Service Z	$\$P_z$	
Sub-total	$\$P_{x+y+z}$	
less Premier Plan	-X%	
Total Bill	$\mathbf{\$P_{CORP}}$	

644. The Commission requires that, for the purposes of calculation of the Standard Retail Price for Service X, the price points ($\$P_x$) are selected to calculate the Average Modal Price for a service in the Corporate market. Any discount across a customer's total spend is excluded in that calculation.

645. The Average Modal Prices for Corporate customers must be calculated for both Metro and Non-metro markets separately where the Commission has specified separate Metro and Non-metro markets and the Commission has determined that Telecom faces limited, or is likely to face lessened, competition in a market for that service.

646. The Standard Retail Price will be the Average Modal Price for a service. In addition, for each service in a corporate market, TelstraClear will be entitled to the maximum volume or other total customer spend discounts off the estimated spend of that churned customer. So, for a Corporate customer to be churned to TelstraClear, the wholesale price will be the Standard Retail Price, less the discount off that price fixed by this Determination. TelstraClear will also be entitled to the same volume or other total customer spend discounts off that wholesale price, being the maximum discount available from Telecom as though that customer had purchased the same services from Telecom.

Allowance for Volume / Total Customer Spend discounts

647. Telecom has provided details to the Commission of the maximum volume discounts available to Telecom Corporate customers. The maximum available "Premier Plan" discount is [ ]RI "Premier Plan" discounts are provided on the basis of three criteria; volume, term and loyalty.[195]

648. Telecom notes that "volume discounts arise from a sliding scale of discount between [ ]RI and [ ]RI depending on the ABR (Annual Billed Revenue) of the customer."[196] The Commission considers that such discount is not offered as a result of bundling of services, but rather the total customer spend which does not hinge on particular services being taken together as a service offering.

649. Telecom notes that "term discounts are given again on a sliding scale dependent on the length of commitment made by the customer".[197] These discounts are between [ ]RI and [ ]RI. The "granular" approach to the calculation of Standard Retail Price for customers will include separate price points for different term contracts taken by end-users. The Commission does not require Telecom to provide "Premier Plan" discounts on the basis of term to TelstraClear as such price differentials will be reflected at the service level.

650. Telecom notes that "loyalty discounts are designed to reflect the nature of the relationship Telecom has with the customer. This is a more discretionary discount

[195] Letter to the Commission from Telecom (B Parkes) 17 April 2003

[196] ibid

[197] ibid

reflecting 'softer' aspects of the relationship."[198] These discounts are between [ ]RI and [ ]RI The Commission does not consider that loyalty discounts forming a part of the "Premier Plan" Corporate discount are a bundled discount. The granting of a loyalty discount is not contingent upon the purchase of particular services taken together as a service offering.

651. For the purposes of the Determination, TelstraClear will be eligible to receive "Premier Plan" discounts on the basis of volume and loyalty, but not term, discounts, to a maximum of [ ]RI. These applicable discounts will be available to TelstraClear off Average Modal Prices where TelstraClear purchases wholesale services at Average Modal Price for a single customer who would individually meet the requirements to be granted Premier Plan discounts as a retail customer of Telecom. If TelstraClear chose to purchase only certain wholesale services from Telecom and substitute other services to the customer with its own products, TelstraClear would only receive such volume discounts to the extent that, for a single customer, Telecom would have provided that discount.

652. Telecom also notes that "non-TLOC Business Line Rental prices are offered to corporate customers in response to competitive bids"[199] The Commission understands that such discounts occur at a single service level rather than as a discount provided across all the client's services. Accordingly, the calculation of the Average Modal Price for Corporate customers would contemplate such discounts, on the basis that such a discount is deducted at the line item. Such discounted prices would be reflected in the Average Modal Price.

Designated Services Price List ("DSPL")

653. Telecom is required to supply to the Commission and to TelstraClear a comprehensive list of Designated Services and the Standard Retail Prices by service and market of the services in Appendix 3. Designated Services Price List ("DSPL") shall contain the name of the service, a description of that service, the interim price and the Average Modal Price (once calculated) for that service differentiated by market.

654. Telecom has provided the Commission with a model for the calculation of such a standard retail price.[200] The Commission has considered the submissions made by both Telecom and TelstraClear, and requires that Telecom use an amended version of their Average Modal approach to calculate standard retail prices.

655. The Standard Retail Price will apply to a new wholesale service, or renewal of service under a previous contract for an individual customer. The Standard Retail Price may fluctuate following quarterly recalibration of the Average Modal Price for a specific service, and will be adjusted prospectively for any new or renewal transactions thereafter.

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[198] ibid

[199] Letter to the Commission from Telecom (B Parkes) 17 April 2003 p. 4

[200] Telecom - "Overview of Retail Price List for Designated Services "DSPL" – Presentation to the Commerce Commission", 14 March 2003

656. The DSPL will be revised quarterly, using calculated Average Modal prices from the middle month of each subsequent quarter. Telecom must provide each revised DSPL to TelstraClear not later than one week prior to implementation.

DSPL Audit

657. Telecom has engaged KPMG to undertake an audit of the DSPL. The Commission has been supplied the draft terms of reference for this audit[201]. The DSPL will be audited quarterly to verify the correctness of the calculations made by Telecom in determining the Standard Retail Price. The audit report shall be provided to the Commission and to TelstraClear not later than 10 working days after the initial issue of the DSPL, and quarterly thereafter.

658. The Commission considers these draft terms of engagement provide a reasonable minimum basis for ensuring the integrity and accuracy of the DSPL. The Commission requires, however, some amendments to be made to the terms of engagement, and the final form of those terms will be subject to the acceptance of the Commission.

659. KPMG note that "the allocation of individual products to either Zone 1 or 2 as provided by Telecom is not part of our scope of work. We will not audit the classification of products to Zones as part of our overall audit process."[202] The Commission requires that the audit include sampling to ensure that price points are classified correctly between the metro and non-metro zones consistent with the Determination.

660. The Commission also requires that the audit include confirmation that the DSPL includes all relevant determined services offered by Telecom.

Product definition

661. Telecom has provided a tiered method of organising the services in this Determination, from the "product market" to the "price point".[203] Aspects of the regulatory regime would adhere at different layers of the structure, and product families, products and services would be differentiated on the basis of the customer's perspective and activity.

662. Telecom has provided the following definitions:

> **Product Family** – A product family is a group of products that meet the criteria for being separate products but which offer the customer the same or substantially similar experience
>
> **Product** – A product represents a distinct element of the customer experience represented by a product family. Distinctions between products are drawn in terms of *application* or *activity* decisions made by the customer, whether undertaken by Telecom or the customer.

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[201] Telecom "Proposal to perform an audit of the Designated Services Price List", 20 March 2003

[202] KPMG, Proposal to perform an audit of the Designated Services Price List, 20 March 2003, p. 7.

[203] Telecom "Wholesale Issues – Presentation to the Commerce Commission, 14 March 2003" Appendix 1

> **Service** – A service would be regarded as a discrete service within a product for wholesaling purposes. Distinctions between services are drawn in terms of *commercial* decisions made by the customer
>
> 1. A service is an offering made to a discrete group of customers identified on the basis of identified criteria. The criteria are those terms and conditions that define the product…
> 2. A service must offer the customer a choice that involves a trade-off between the service being offered and an alternative[204]

663. Telecom expanded the original 212 services applied for, less those excluded by Telecom's assumptions, to 915 "real world" services with unique characteristics. "Without adopting the framework of looking at product family level we can end up with situations where determinations and applications are incomplete and unworkable. e.g. Business Line Rental without a request for Installations or MACs".[205]

664. Telecom have proposed a 'tight link' between retail and wholesale in that the wholesale service would be provided to the same technical specification and would comply with the definition of where and to what customer groups the service could be resold.

665. Grandfathering and the replacement of services will apply at the level of the "product family". Standard Retail Price is to be calculated at the level of the service. The conditions and terms at the service level will bind the reseller, although only those that apply to the group of customers the service can be sold to will necessarily flow through to the reseller's customers.

666. The Commission has decided that a granular product-family approach will be used for designated services. The product families and services will be described in the DSPL.

The nature of discounts

667. There are two types of discounts off Telecom's retail prices. A single service discount is a discount offered on the provision of a single service, including the total volume of services purchased, competitive area discounts or customer loyalty discounts. A bundled service discount is a discount offered on a packaged group of multiple services or service offerings. The calculation of a Standard Retail Price should include only single service discounts. Bundled service discounts are not included in the calculation of a Standard Retail Price.

668. If bundled discounts were included in the calculation of a Standard Retail Price, this would in effect impute a price for a single service as part of a bundle. The imputation of a retail price from a bundle is not available for a Relevant Wholesale Service.

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[204] ibid

[205] Telecom – "Overview of Retail Price List for Designated Services "DSPL" – Presentation to the Commerce Commission", 14 March 2003 p. 8

669. Telecom considers that the separation of single service discounts and bundled discounts is complex. "{O}ne of the constraints that we have in producing information that we're confident with is the exercise of removing bundles from the calculation…"[206] At the wholesale workshop, Telecom also noted that an exhaustive database of price points was several months away from completion.[207] The Commission acknowledges that the calculation of Standard Retail Price is both complex and time consuming. Accordingly, the Commission recognises the need for an interim retail price pending the completion of such calculations.

670. Once the first DSPL is issued, Standard Retail Prices can be compared with the interim retail prices. Any over or underpayments will be the subject of reimbursement in accordance with paragraphs 757 – 761 below.

Bundles

671. Telecom has argued that a bundle is "any two or more services sold together, that are otherwise available singularly, with a financial incentive to take as a bundle or to take together".[208]

672. On this basis, Telecom proposes that, for the purposes of determining the retail price, bundles include entire contracts of certain types as well as discount plans. Telecom argues that this has the effect of excluding all of Telecom's corporate customers and many of its medium sized customers from the calculation of the retail price for individual services.[209] Initially for the purpose of the calculation of the Average Modal Prices of granular services, Telecom suggests excluding only corporate customers. Bundles purchased by SME customers would be excluded from such calculations over time.

673. Telecom's definition excludes discounts associated with scale. Such discounts represent discounting on the basis of revenue volume, and are primarily made available to corporate customers.

674. TelstraClear notes that "the discount 'floats' across whatever services the customer takes from Telecom. A customer who takes services A, B & C will get the 5% total customer spend discount, as will a customer who takes only services A and B, as will a customer who takes services A and X, Y and Z. There is no identifiable bundle of services."[210]

675. The Commission does not consider that Telecom's definition of bundles is correct. The supply of several services to a customer with a discount based on volume is not by default a bundle. While many customers who would be eligible for a volume discount

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[206] Wholesale Workshop Transcript N Haden p.134, lines 17-23

[207] Wholesale Workshop Transcript N Haden p.131, lines 5-7

[208] Telecom "Overview of Retail Price List for Designated Services *DSPL* – Presentation to the Commerce Commission, 14 March 2003, p. 11

[209] ibid

[210] Letter to the Commission from TelstraClear (G. Forsyth) 11 April 2003 p. 2

may purchase two or more services, the Commission does not consider that a volume discount is linked to the purchase of a specific combination of services, but rather to the total customer spend across all services.

676. The meaning of a "bundle" should not hinge on whether a discount is offered off the single service, or on the basis of a bottom-line discount arising from customer volume. Such an outcome would suggest that simply moving all discounts to a bottom-line discount would lead to all contracts being classified as bundles, and therefore excluded from the Standard Retail Price calculation.

677. Accordingly, volume discounts based on customer spend such as Telecom's "Premier Plan", which are deducted from the total spend for customers, are not bundles for the purposes of calculation of Standard Retail Price.

678. The Commission defines a bundle as two or more services that are offered at a retail price less than the price of the aggregate parts where such discount arises from a specific combination of services purchased.

The Interim Period

679. The Commission acknowledges that the preparation of the DSPL will require an interim period to allow Telecom to review the list of services required to be resold under this Determination, to collect billing information[211], calculate the Average Modal Price of those services and issue the DSPL. During the interim period between the date of this Determination and the issuance of the DSPL, the Standard Retail Price of the services will be calculated in accordance with paragraph 680 below.

Wholesale Price for a service to apply for the Interim period

680. For the interim period, the Commission requires that the retail price for the services required to be resold under this Determination be:

a. Streamline pricing for data services where applicable; and
b. TLOC less 10% for other services.

681. The 10% discount off TLOC prices is on the basis that:

a. both parties agree that TLOC does not consistently reflect prices offered to customers;
b. the Wholesale Application predominantly deals with services provided to business customers where discounting occurs more frequently;
c. TLOC less 10% pricing is for an interim period only; and
d. such interim pricing is subject to true-up.

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[211] Telecom has estimated that it will take six weeks from the date of this Determination to provide observed retail prices.

THE WHOLESALE DISCOUNT

682. In order to fix the wholesale discount, the Commission has conducted a benchmark study of wholesale discounts in comparable countries. Globally, the use of a regulated wholesale pricing policy based on retail minus avoided costs is rare, and is found only in Australia, the United Kingdom and the United States. Amongst these the Commission identified individual US states as potential comparators, for the reasons sets out in Appendix 1. The Commission ruled out the use of both the United Kingdom and Australia on the basis of the different discount methodologies adopted in those countries.

683. Forty-seven U.S. states were selected for the benchmark. As with the interconnection benchmark study, the Commission sought to refine the range of comparators based on a measure of comparability against factors considered to be relevant indicators of cost differentials. These factors were labour cost, population density, GSP, tele-density and urbanisation.

684. After conducting a series of regression analyses, the Commission concluded that there was no systematic link between individual variables and the discounts offered in each respective state. Given this lack of observable correlation, the Commission decided not to exclude any states from the range.

685. In some of the benchmark jurisdictions, discounts differ depending on whether the wholesale services offered are to be resold to business or residential customers, which should ideally reflect differences in the retail costs saved. However, there is no clear pattern in these differentiated discounts that would unambiguously suggest that retail costs incurred in serving residential customers are higher than those incurred for business customers or vice versa. Therefore, in order to include those states that adopt variable business and residential discount rates, a simple weighting was applied. This weighted rate allows a single benchmark discount to be presented for those 14 states that apply variable discount rates. The discounts for the benchmarked 47 States appear in the following table.

Figure 19: State Discount Data[212]

State	Company	Single Value
Oregon (i.c.)	Qwest	8.46%
Utah (i.c.)	Qwest	12.20%
Colorado (i.c.)	Qwest	14.35%
Wyoming	Qwest	14.35%
Iowa	Qwest	14.39%
Washington	Qwest	14.74%
South Carolina	Bell South	14.80%
Arizona (i.c.)	Qwest	15.00%
New Mexico	Qwest	15.05%
South Dakota	Qwest	15.55%
Mississippi	Bell South	15.75%
Wisconsin	SBC	16.00%
Nebraska	Qwest	16.00%
Tennessee	Bell South	16.00%
North Dakota	Qwest	16.15%
Kentucky	Bell South	16.17%
Alabama	Bell South	16.30%
California	SBC	17.00%
Rhode Island	Verizon	17.60%
Minnesota (i.c.)	Qwest	17.66%
West Virginia (i.c.)	Verizon	17.84%
Nevada (i.c.)	SBC	18.05%
Montana	Qwest	18.10%
Michigan	SBC	18.15%
Idaho (Southern)	Qwest	18.25%
Georgia	Bell South	18.80%
Missouri (i.c.)	SBC	19.20%
Florida	Bell South	19.32%
Idaho (Northern)	Qwest	19.37%
North Carolina	Bell South	19.55%
New Hampshire	Verizon	19.65%
Oklahoma (i.c.)	SBC	19.80%
Maryland	Verizon	19.87%
Delaware	Verizon	20.00%
New Jersey	Verizon	20.03%
Ohio	SBC	20.29%
Louisiana	Bell South	20.72%
Virginia	Verizon	21.30%
Indiana	SBC	21.46%
Arkansas (i.c.)	SBC	21.60%
Kansas (i.c.)	SBC	21.60%
Texas	SBC	21.60%
Connecticut	Verizon	21.70%
New York	Verizon	21.70%
Vermont	Verizon	24.05%
Maine	Verizon	24.39%
Pennsylvania	Verizon	25.69%
Massachusetts	Verizon	29.47%

[212] The shaded rows in this table represent states that were benchmarked by the Commission in setting a price for interconnection between Telecom's and TelstraClear's fixed PSTNs.

Single or multiple discounts

686. The Commission may either fix a single discount for all services, or individual discounts for each service. A single benchmark discount offers considerable advantages in terms of convenience and simplicity of the regulatory framework. However, a single benchmark discount might be less appropriate where retail costs as a proportion of total costs differ significantly across services. For example, the cost of retailing to business and residential customers expressed as a proportion of retail prices or revenues may differ significantly. However, it is unclear whether the proportion of retail costs that would be saved if the service were supplied on a wholesale basis would be higher or lower for business customers than for residential customers. Although business customers may require more customer care services (a potentially significant element of ongoing retail costs) than residential customers, the cost of providing these services would be spread across larger volumes.

687. Although some of the benchmark jurisdictions apply different discounts for business and residential services, there is no systematic differentiation in the sense that discounts for business services would in each case be higher than discounts for residential services (or vice versa). In cases where business discounts are higher than residential discounts, this might simply be the result of lower retail prices for business customers (which, given the same level of retail costs, would correspond to higher discounts). If differences in discounts were simply the result of differences in retail prices, applying a single discount on the basis of a weighted average retail price would not be in any way different from applying different discounts to different retail prices.

688. Applying a single discount in the presence of systematic and significant differences in retail costs could lead to distortions. For example, if retail costs of serving business customers were lower than retail costs incurred in serving residential customers, a single discount based on average retail costs might distort retail competition in favour of reselling to business customers, leaving the access provider mainly with residential customers. However, if the mix of services offered by Telecom on a wholesale basis to TelstraClear is similar to the mix of services offered by the access provider to its retail customers, divergences between actual retail costs and retail costs implied by a single percentage discount that would exist for individual services would cancel out.

689. The Commission is required by the Act to benchmark against discounts in comparable countries applying a retail minus avoided costs saved methodology. The Act provides no indication as to whether those discounts are to be single or multiple discounts, nor does the Act specify whether the discount data collected during the study is to be representative of either single or multiple discounts or both. A number of the US states employ multiple discount structures. The most widely employed disaggregation is by business and residential services.

690. In proceedings of the New York Public Service Commission in which a joint complaint was lodged against New York Telephone Company the PUC decided to require a single discount structure.

691. Among conclusions reached in these proceedings, the PUC noted that the Federal Telecommunications Act 1986 did not require that multiple discounts be established,

only that "the retail rate used as the starting point be service-specific and imposes no such requirement with respect to the discount applied to that rate."[213]

692. The PUC also heard arguments that available account data were insufficient to establish service-specific discounts beyond the business/residential structure. A number of the parties suggested a single value discount while another proposed that disaggregation should not go beyond the business/residential split citing difficulties in administering such a structure in a fair manner.

693. There is no systematic relationship, in the data from the US states, between the level of the discount and the type. For example it cannot be said that business discounts are consistently higher than residential discounts or vice versa. This implies that the simple average of the two will not uniformly create distortions by making it more profitable to resell one type of service over another.

694. The significant difficulties in establishing systematic differences in retail costs across services with sufficient precision support the adoption of a single benchmark discount for application to the initial pricing principle, absent evidence of significant differences in the mix of services that are sought on a wholesale basis and the mix of services offered by the access provider to its retail customers, which would suggest distortive effects from using a single discount. The evidence, both anecdotal and empirical, leads the Commission to conclude that, where both business and residential discounts exist, they are to be averaged into a single discount on an equally weighted basis. The Commission has therefore decided that a single discount structure is appropriate for application to the initial pricing principle.

Absolute or percentage discounts

695. The Commission could in principle express wholesale discounts as an absolute value or a percentage of the retail price.[214] However, the Commission regards percentage discounts as preferable for a number of reasons:

- Simplicity: To the extent that retail costs vary with the value of a group of retail services, a multitude of absolute discounts that would be required if there were significant differences in the retail value of these services can be captured through a single percentage discount. Thus, a percentage discount appears to be simpler to administer than absolute discounts in the presence of value differences across different retail services (without leading to material distortions as long as there is a relatively constant relationship between retail values and retail costs).
- Less need to update: Provided that changes in overall costs and retail costs are similar over time, there is no need to update percentage discounts, whereas absolute discounts would need to be modified (or reviewed) in order to ensure that they still appropriately reflect the retail costs that would be saved as a result of offering a service on a wholesale rather than a retail basis.

[213] State of New York Public Services Commission Opinion No. 96-30 November 27, 1996.

[214] Note that this is not affected by whether discounts in comparable jurisdictions are expressed as percentages or in absolute terms, as it would be relatively easy to convert one into the other.

- Percentage discounts would take account of the possible change in retail costs that the access provider might make in response to changes in the value of the retail service. It may be reasonable to assume that the access provider would reduce its retail effort in response to falling prices, which would imply a fall in the absolute value of retail costs.

696. The Commission has also received responses suggesting that percentage discounts are preferable because of their incentive properties. According to these arguments, with an absolute discount, the incumbent's incentive to compete with new entrants may be undermined. This is because any reduction in its retail price would lead to a commensurate reduction in its wholesale price. As retail competition becomes more effective and retail prices fall, so does the wholesale discount; this gives incumbents more incentives to cut retail prices than would otherwise be the case. The Commission accepts that a percentage discount gives the incumbent greater incentives to cut retail prices.

697. However, the Commission rejects arguments to the effect that with absolute discounts "competition from resellers could potentially force retail prices below the access provider's costs, so that the wholesaler makes a loss on every unit sold."[215] There is no obvious reason why resellers could force wholesale prices to levels below cost regardless of how the discount is set (provided that the discount does not overstate retail costs). Although it is true that with absolute discounts the resellers could force Telecom's exit from retail, this would only be possible in the case where the resellers are more efficient in retailing than Telecom. However, in this case it would be socially optimal (and might perhaps even be in Telecom's interest) to let resellers rather than Telecom perform the retailing activity.

Costs of Wholesaling

698. TelstraClear limited their application to "the applicable methodology to determine the charges payable to Telecom, being both the discount percentage and the charge base against which that discount is applied" and certain non-price terms[216].

699. Telecom raised the issue of additional costs of wholesaling and argued that the Commission could either chose not to adjust the benchmark discount and allow Telecom to incur and recover the relevant costs; or adjust the benchmark discounts to account for the costs of wholesaling. Telecom suggest that only the second option is practical in terms of the current determination, as Telecom is unlikely to make major systems investments within the term of the current determination.

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[215] Charles River Associates, *Implementing Wholesale Discounts: Issues Raised by TelstraClear's Submission*, 7 August 2002.

[216] TelstraClear, Application for Determination of Designated Services, 16 May 2002.

700. The Act defines *avoided costs saved* as[217]:

> "the difference in the access provider's costs between supplying the service on a wholesale basis only and supplying the service on both a wholesale and retail basis, including a share of retail-specific fixed costs"

701. Measuring avoided costs saved therefore involves a comparison between the two modes of operation: where the service in question is supplied to both retail and wholesale customers, and where the service is supplied to wholesale customers only.

702. An operation that sells services at both the retail and wholesale levels will incur some wholesaling costs. The nature of these costs is likely to depend on the level of wholesaling that currently takes place. For example, a mixed operation that currently sells 80 units at retail and 20 units at wholesale may incur different wholesaling costs from a wholesale-only operation selling 100 units to resellers. In particular, there may be some further wholesale costs that are incurred by the latter. In this case, the difference between the two modes of operation will take into account not only the retail costs but also any additional wholesale costs.

703. If some fixed wholesale costs have already been incurred under the retail/wholesale operation, it will only be incremental fixed costs incurred by a wholesale-only operation that will be included in the avoided costs saved (as opposed to all wholesale costs). According to the parties, these incremental capacity costs could either be fixed, for example the cost to the access provider of setting up external 'gateways' or 'interfaces' that provide resellers with direct electronic access to the operational support systems of the access provider[218], or variable, for example the access provider incurring additional ongoing costs associated with manually responding to reseller inquiries.

704. A distinction can be drawn between "onset" costs and "ongoing" operational costs related to wholesale activities:

- *Onset costs* are those which are fixed costs of wholesaling, are independent of volume and do not change with a customer moving from a wholesale to a retail basis. An example of an onset cost is the upfront investment in setting up an electronic interface between the reseller and the access provider's Operating Support Services (OSS).
- *Ongoing costs* are variable costs of wholesaling which change as a result of one customer moving from retail to a wholesale basis and are therefore volume sensitive. These costs are likely to be dependent on the level of onset cost incurred. For example, if no upfront investment in onset costs is made by the service provider, ongoing costs are likely to be higher due to the manual nature of dealing with operational issues raised by the reseller.

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[217] Telecommunications Act, page 74.

[218] These costs are fixed in the sense that they are not volume-sensitive ie to the volume of service inquiries.

705. Telecom asserts that under the *avoided costs saved* definition it is entitled to recover any additional costs of wholesaling[219]. The Commission accepts that there should be an adjustment for any reduction in costs that occur as a result of reduced retail activities. This adjustment would be made to take account of any corresponding increase in wholesale costs incurred by the wholesaler as a result of replacing retail with wholesale supply, where such increase can be quantified and validated.

706. TelstraClear, while not directly challenging the recovery of onset costs, assert that they must be efficiently incurred, be forward-looking, and should not include "upgrades or activities required only because of Telecom's past (or present) inefficiencies"[220].

707. An across-the-board reduction of the discount (i.e. an increase in wholesale charges) based on the level of future wholesaling onset costs, as suggested by Telecom, would not create the necessary incentives for investment in systems that support independent resellers. If the discount were to be reduced without such investments being in place, it is unclear what incentives Telecom would face.

708. The treatment of onset costs in the US varies and in most instances is not explicitly stated in PUC decisions. Some states permit the recovery of such costs. For example, Utah and New York are states where the recovery of wholesale costs is explicitly dealt with by way of a separate charge levied by the access provider independent of the wholesale discount[221]. In the case of New York, Telecom contend that this levy takes the form of a per-line charge to recover both the capital and operating expenditure components of the wholesaling costs[222]. However, TelstraClear challenge the inclusion of wholesale onset costs in the case of the Utah discount, and in the case of New York claim that the quoted discount figure already reflects an allowance for the onset costs incurred. In Texas, the ILEC is entitled to recover onset costs by way of a fixed monthly amount charged to each access seeker who requests access to the ILEC's operational support systems. The PUC has fixed this amount at USD$ 3,600 per month. Ongoing charges are recovered by way of a per transaction charge of USD$ 2.56 (some operational exceptions are allowed).

709. The Commission is not satisfied that it is necessary to make an order for the recovery of onset costs, or to make adjustments to the benchmark discount to reflect those costs. There are several reasons for this. First, it is unclear whether Telecom will incur any such costs during the period of this Determination. Second, the Commission has insufficient evidence as to the amount and timing of such costs. Third, it is unclear whether and to what extent onset costs are already allowed for in the U.S. state-level wholesale discounts on which the Commission relied.

710. With respect to ongoing costs, the current MCSA agreement between the parties includes agreed charges for ongoing costs by way of a customer transfer charge of

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[219] cf. Telecom submission on Wholesale draft Determination, 24 January 2003, para. 947, p. 227.

[220] TelstraClear submission on Wholesale draft Determination, 24 January 2003, para. 34, p. 11.

[221] Draft Determination on the TelstraClear Application for Determination for "Wholesale" Designated Access Services, 25 November 2002, paragraph 499.

[222] cf. Telecom submission on Wholesale draft Determination, 24 January 2003, paras. 951 & 952, p. 228.

$17.50 per line and higher charges for data services[223]. TelstraClear has not sought a finding by the Commission on ongoing costs, and the agreed charges will therefore apply under this Determination.

[223] Wholesale Draft Determination conference transcript, 10 February 2003, p. 85, line 24.

SELECTING A DISCOUNT POINT

711. Under the initial pricing principle for this determination, the selection of a discount rate from within the benchmarked range is an important step in setting the wholesale price. The Commission's benchmarking of wholesale discounts, as set out in the draft determination, produced a range from 8.46% to 29.47%, with a mean discount of 18.44% and a median of 18.20%.

712. In the draft determination, the Commission referred to its earlier Interconnection Determination, where[224]

> "the Commission acknowledged the importance of dynamic efficiency and emphasised the asymmetry in selecting a price point that both encouraged retail-level competition in the market, while not discouraging investment and innovation in infrastructure in the longer term. It is the view of the Commission that in a situation of imperfect information, the loss in efficiency that would result from under-pricing wholesale access by any given margin outweighs the risks of over-pricing by the same margin. Therefore, a modest conservative bias in setting the initial benchmark may be appropriate."

713. The Commission also attempted to identify any empirical relationship between discount rates and their expected determinants. However, the quantitative analysis conducted by the Commission prior to the release of the draft determination failed to reveal such a relationship.

714. Therefore, in moving away from the median in the draft determination, the Commission decided to place some weight on the need to preserve incentives to invest in infrastructure, and to propose a range of 14.80%-18.05%. It was also noted that this range was before any adjustment for additional costs of wholesaling.

715. Since the draft determination, further consideration has been given to the need for any specific adjustments to be made to the benchmarked discount rates. For example, Telecom has proposed that a number of adjustments should be made to the US benchmark discounts. These proposed adjustments are discussed below.

US Discounts are Out of Date

716. Telecom submit that most of the US discounts were set in 1996/97, and have not been revisited since then due to a lack of interest and the costs of relitigation.[225] NERA on behalf of Telecom conducted an exercise in recalculating discounts based on changes in the regulated accounts. NERA estimates that as a result of cost movements between 1997 and 2001, the average discount would reduce from 18% to 14.5%.

717. The Act requires the Commission to benchmark against discounts in comparable countries. In interpreting this requirement, the Commission considers that the benchmarking should be based on discounts approved by regulatory authorities in

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[224] Draft Wholesale Determination, paragraph 527.

[225] See Telecom "Submission on Wholesale Draft Determination", 24 January 2003, page 226.

comparable jurisdictions. This has been the approach taken in the interconnection determination; the benchmarked prices were interconnection prices set by regulatory bodies, rather than interconnection prices set outside of a regulatory process. In that instance, the range of benchmarked prices was updated as regulators released more current determinations.

718. The 'updating' of rates along the lines proposed by Telecom is inconsistent with the principle of benchmarking against wholesale discount rates approved by overseas regulatory bodies. The Commission has therefore decided to make no adjustment to the benchmarked discounts in this regard.

US Discounts based on FCC Presumptions

719. Telecom submits that adjustments are necessary to the US discounts because those discounts are not based on an "avoided costs saved" methodology.[226] This submission is based on the proposition that the PUCs have tended to adopt FCC presumptions regarding the level of avoidability of regulated expense accounts that are not appropriate to New Zealand. NERA argue that the FCC presumptions, that certain retail expense accounts are 100% avoidable, are not consistent with the definition of 'avoided costs saved' in the Act. According to NERA, PUCs "did not materially depart from FCC presumptions"[227] that Customer Services, Product Management, Product Advertising, and Call Completion and Number Services are 100% avoidable. NERA and Telecom consider that substantially less than 100% of these accounts are in fact avoidable, and that an adjustment in the benchmarked discounts is therefore warranted.

720. However, it is not clear that NERA's assertion that the PUCs assumed 100% avoidability in setting discounts is accurate. This is based upon both the FCC's position in its First Report and Order,[228] as well as the decisions of individual PUCs in relation to setting wholesale discounts.

721. The FCC itself has noted that some of these retail-related expense categories will continue to be incurred by a wholesaler. For example, in its First Report and Order, the FCC signalled a preference for the PUCs to undertake avoided cost studies. To assist in this, the FCC set out a number of presumptions regarding the avoidability of certain retail-related costs. While these presumptions were that 100% of these such costs were avoidable, the presumptions were explicitly made rebuttable, with ILECs expected to furnish evidence as to the extent to which certain costs would continue to be incurred (see for example the experience of New York and other states discussed below). The FCC also set a default range of discounts (17-25%) that could be used by states as an interim measure. In setting this default range, the FCC took a model submitted by MCI and made a number of adjustments. Importantly, the FCC noted that:

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[226] See Telecom "Submission on Wholesale Draft Determination", 24 January 2003, Section 9.1.

[227] See NERA slides (wholesale slides), page 8.

[228] FCC "First Report and Order", 8 August 1996, Section VIII Resale.

> "MCI treats accounts 6611 (product management), 6612 (sales), 6613 (product advertising, and 6623 (customer services) as costs that are entirely avoided with respect to services purchased at wholesale. We agree that a large portion of the expenses in these accounts is avoided when service is sold at wholesale. *We also agree, however, with parties that argue that some expenses in these accounts will continue to be incurred with respect to wholesale products and customers,* and that some new expenses may be incurred in addressing the needs of resellers as customers." (emphasis added) (paragraph 928, First Report and Order)

722. The FCC therefore signalled to PUCs that certain key retail-related expenses were unlikely to be entirely avoided. While the FCC set out a number of rebuttable presumptions regarding the avoidability of retail costs, individual states were given the flexibility to determine the level of avoided costs, in the expectation that ILECs would furnish evidence as to the level of avoidability of such expenses.

723. On 27 November 1996, the New York Public Services Commission (NYPSC) issued an Order determining the permanent wholesale discounts to apply to local telephone services supplied by New York Telephone (NYT) and Rochester Telephone. In that Order, NYPSC explicitly considered the extent to which retail-related expenses can be considered avoidable. In relation to product management (6611), the NYPSC noted that:[229]

> "for default analysis purposes, the FCC regarded these accounts as 90% avoidable."
>
> and
>
> "the functions in this account are so closely tied to retail activities that will be assumed by the reseller as to belie the LECs' assertions that most or all of them will be continued in a wholesale context. At the same time, it is counter-intuitive that a LEC selling only at wholesale would perform no market research activity at all and would depend entirely on its reseller customers for information on what products consumers want. The FCC recognised as much in treating the account as only 90% avoidable for purposes of setting its default rate, and the considerations recognised by the FCC remain real. In the absence of specific evidence warranting a lower avoidance factor, we … treat account 6611 as 90% avoided."

724. Similarly for the other retail expense categories, the NYPSC assumed that some of these expenses would continue to be incurred by a wholesale supplier. These assumptions underpin the wholesale discount rate set in New York, and it therefore appears that the New York discount is consistent with the principle that certain retail-related functions are likely to have a wholesaling counterpart and thus will continue to be incurred by a wholesale-only operator.

[229] State of New York Public Service Commission "Opinion No. 96-30 Opinion and Order Determining Wholesale Discount", 27 November 1996, pages 39-40.

725. Similarly, the Texas PUC considered that:[230]

> "the record evidence demonstrates that there will be some product management, sales, product advertisement, and customer services expenses incurred to serve wholesale customers."

726. Specifically, the Texas PUC regarded the level of avoidability of sales (account 6612) and product advertising (6613) to be 90%; and of product management (6611) and customer services (6623) to be 80%. Expenses in other accounts were also considered to be only partially avoidable, for example call completion (6621, considered to be 75% avoidable) and number services (6622, 55%).

727. The Florida Public Services Commission (PSC) noted in its resale order that:

> "We also recognize that AT&T and MCI have concerns regarding BellSouth's treatment of the product management, advertising, number services (directory assistance), call completion (operator services), and customer services accounts. However, other than noting that these accounts are presumed to be avoided under the FCC Order, we do not find that AT&T and MCI have provided convincing evidence that that these costs should be 100% avoided."

728. The above examples confirm that at least some PUCs have included only a proportion of those costs that Telecom claims would not be fully avoided when setting discounts. A detailed analysis of the relevant decisions, well beyond the scope of price-setting using the initial pricing principle, would be required in order to identify whether individual PUC decisions include cost elements that would not be avoided by a wholesaler.

729. TelstraClear's submission of 1 April 2003 provides a comparison of the avoidability assumptions used in 20 PUC resale decisions. The key observation from this comparison of the avoidability assumptions used by the PUCs is that most of them are set at less than 100%, and therefore take into account any commonality of wholesale and retail costs.

730. The Commission therefore is satisfied that no adjustment to the benchmarked discount rates is required on this issue.

Factor Cost Differences

731. Submissions from both Telecom and TelstraClear, and their experts, have focussed on any observed relationship between the discount rates and relative factor costs. One salient argument was that retail costs avoided would be likely to be relatively labour intensive, and the relative cheapness of labour costs in New Zealand relative to their level in the US would result in a smaller quantum of labour costs avoided in New Zealand than in the US, and therefore to a lower discount in New Zealand. While the Commission sees some theoretical validity to differences in relative factor costs as a driver of discount rates, its own statistical exploration of the US data was unable to detect any relationship along the postulated lines. More sophisticated econometric analysis was conducted by the parties' experts, in particular by Professor Hausman for Telecom, whose results appeared to show such a relationship, but the point estimate of the relationship suggested that the size of any required adjustment would be relatively

[230] Public Utility Commission of Texas "PUC Docket Nos 16189,16196, 16226, 16285, 16290 Arbitration Award", 7 November 1996, paragraph 55.

small (a reduction in the discount of the order of 2-3%). Importantly, the statistical confidence intervals around the point estimate (a measure of uncertainty surrounding the point estimate) were wide, and the Commission consequently did not feel that strong reliance could be placed on the proposed magnitude of the estimated adjustment. In addition to the statistical uncertainty, there were also issues in the computation of the estimate, notably in regards to the parameters used for the cost of capital and the exchange rate, which suggested to the Commission that the estimated adjustment overstated the degree of the impact of different factor costs.

732. Given the considerable uncertainty in terms of any necessary adjustment, in conjunction with the variation in benchmark discounts across all States considered by the Commission, it is difficult to settle on the precise size of any required adjustment. In this context, it is worth noting that, for reasons of asymmetric risks, the Commission has already decided to apply discounts from the lower end of the benchmarked range. The Commission has placed some weight on this issue in exercising its judgment in selecting a discount rate from the lower end of the range.

Selection of a Discount Rate

733. The Commission believes that the selection of a discount rate from within the lower half of the benchmarked range continues to be appropriate. A relatively high discount may increase the risk that investment in infrastructure will be deterred, while inefficient investment in resale functions may be encouraged.

734. In determining how much weight to place on the need to protect incentives to invest and innovate at the infrastructural level, the Commission is mindful of the approach it took in the Interconnection Determination. In setting the final interconnection price, the Commission decided to shift from the median value of benchmarked prices to the 75^{th} percentile of the range. This had the effect of raising the access price for interconnection services.

735. In the current case, the Commission considers that the 25^{th} percentile value of 16.0% is appropriate, taking into account both the theoretical merit of the relative factor cost arguments, as well as the Commission's concerns regarding incentives to invest in infrastructure. Although no specific adjustment has been attributed to each of these issues, the movement from the median value of 18.20% to 16.0% is considered to be an appropriate adjustment, and is within the discount range set out in the Commission's draft determination.

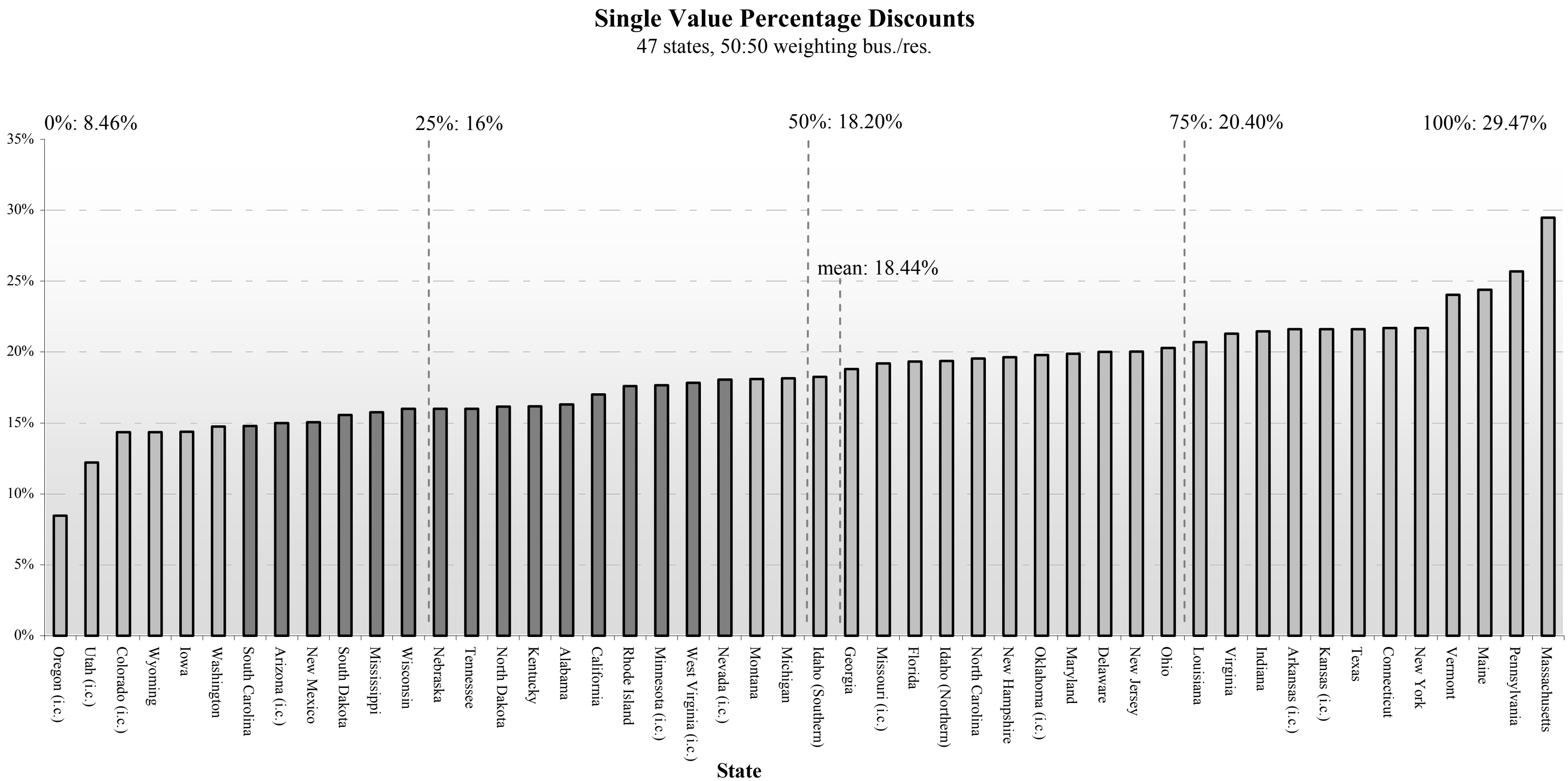

Figure 20: Single Value Percentage Discounts

NON-PRICE TERMS

736. TelstraClear applied for the following wholesale non-price terms in the initial application of 16 May 2002:

7.1 Description of the issues in dispute

7.1.4 In regard to the Resale Services:

(i) the applicable methodology to determine the charges payable to Telecom, being both the discount percentage and the charge base against which that discount is applied;
(ii) procedures and obligations to enhance the accuracy and integrity of billing;
(iii) the requirements of a non-discrimination principle
(iv) service levels, service level rebates and reporting mechanisms for the requested Resale Services.[231]

737. On 27 August, TelstraClear proposed that the MCSA and Service Level Agreement between Telecom and TelstraSaturn, which presently applies pursuant to the parties' undertakings of 5 June 2002, should continue to govern the supply of the retail designated services, subject to the Commission determining the following issues:

1. the discounts which are to apply to retail prices
2. a term of 12 months from the date of the Commission's determination and be backdated on the same basis as the Commission determines for Interconnection Services;
3. that the provisions of the agreements listed in annexure 6[232] will not apply to the supply of the services between the parties, on the basis that they are irrelevant or inappropriate to determined terms of supply;
4. the Commission's approach to the standard access principles set out in its draft determination of 26 August on the interconnection terms should apply to this determination; and
5. the terms should include a requirement that, as requested in TelstraClear's original Application, Telecom should report to TelstraClear and the Commission not less than quarterly its performance in the supply of the resale services to TelstraClear compared to the supply of the relevant retail services on metrics to be agreed between the parties or determined by the Commission if they cannot agree. Additional information disclosure on price… should also apply"[233]

738. At the wholesale workshop, TelstraClear provided a written response to the request for an explanation of non-price terms relevant to the resale of services.[234] "TelstraClear is prepared to accept the non-price terms within the TelstraSaturn/Telecom MSCA, subject to the following:

- An effective mechanism to identify Telecom's retail price movements which require an adjustment in wholesale prices;
- An effective mechanism to identify service withdrawals and incorporation of replacement services;
- Service level reporting to measure compliance with the standard access obligations; and

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[231] TelstraClear Application for Determination 16 May 2002 p.5

[232] ibid Annexure 6 Non-price terms

[233] TelstraClear Submission on Investigation into Application for Determination of Designated Wholesale Services 27 August 2002 p.49

[234] Wholesale Workshop 8 October Q.28

- Conforming common terms in the MCSA and the Interconnection Terms to the terms described in the Agreed Interconnection Terms (e.g. Billing disputes)"[235]

739. Telecom, in written submission to the Commission following the workshop noted that "[a]ll other non-price terms will be set out in the Court Undertakings dated 5 June 2002 that apply to services currently supplied by Telecom, or will be negotiated between the parties."[236]

740. Three non-price issues remained in dispute between the parties and, consequently, before the Commission; namely:

- Procedures and obligations to enhance the accuracy and integrity of billing;
- The non-discrimination principle; and
- Service level, service level rebates and reporting mechanism for the requested resale services.

741. On 9 April 2003, Telecom and TelstraClear jointly notified the Commission that they had reached agreement in respect of these remaining non-price issues.[237] The parties provided the Commission with agreed contractual language, which is included in Appendix 4 as a condition of the Determination under section 30(c) of the Act.

[235] TelstraClear: Resale Determination – Responses to Commission's Questions for the Resale Workshop 7 October p.47

[236] Wholesaling Workshop; Telecom: written response to Q.28 "An explanation of non-price terms relevant to the resale of services is required by the parties"

[237] Letter from Lusk (Telecom) and O'Brien (TelstraClear) to the Commission, 2 April 2003.

DATE OF INCEPTION AND EXPIRY OF THE DETERMINATION

Date of Inception

742. On 13 September, TelstraClear and Telecom jointly advised the Commission that the parties would treat the Commission's interconnection and wholesale Determinations as taking effect from 1 June 2002.[238]

743. The Commission is not required to decide a date of inception, as the parties have agreed it will be 1 June 2002.

Date of Expiry

744. The Commission considers that the appropriate expiry date for its Determination is 18 months from the date of the Determination. Through the draft Determination had indicated that the expiry date would be 12 months from the date of the Determination, the Commission considers, having heard submissions from the parties as to a number of actions required to be taken to operationalise this Determination in full, that a longer period should be set.

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[238] Letter from Telecom and TelstraClear to the Commission, 13 September 2002.

IMPLEMENTATION OF THE DETERMINATION

745. The Commission acknowledges that the implementation of this Determination will require the parties to undertake a number of actions, and to seek agreement with one another on various matters. This section of the Determination, though not exclusive, provides a framework for the implementation phase. The Commission may also exercise its powers under section 58 of the Act, should clarification of this Determination be necessary to ensure effective implementation.

Confidentiality

746. On 30 August 2002, the Commission issued an Order under section 15(i) of the Act. This order was subsequently amended on 4 December 2002. The Order prohibits the disclosure of any information, documents or evidence provided to the Commission during the course of the application and identified by either of the parties, any interested person, or the Commission as being confidential or commercially sensitive or otherwise restricted (collectively the "restricted information").

747. Specific information contained within this Determination has been provided to the Commission on either a confidential or restricted information basis. The order of 30 August (the "Order"), which describes the confidentiality regime in respect of the Application, expires 20 working days after the date of this Determination. The Order provides for both "Commission-only" and "Restricted" information. The Commission notes that the practical implementation of this Determination will require a change in the status of some specific Commission-only or restricted information, and that the parties will have to submit to the Commission if they consider an ongoing protection of commercial information necessary for the implementation of the Determination.

748. The Commission requires that the parties jointly agree the reclassification of any confidential or restricted information within this Determination, where such redesignation is necessary to implement the Determination. Where the parties are unable to reach agreement within 5 working days of the date of the Determination, either party may request the Commission to reclassify the designation. In those circumstances, the Commission will review any designation specified by any persons and determine whether to modify or remove the designation of that information.

Definition of a Coporate Customer

749. For the purposes of implementing the Determination, the Commission has decided to use an annual spend of $[ ]RI to distinguish between a corporate and SME customer. This amount is the total spend of the customer with Telecom on telecommunications services within New Zealand, including both designated and non-designated services.

750. A customer is the party entering into the contractual relationship with Telecom for the purchase of Telecom's services. This could include a variety of ownership structures so long as Telecom, for the purposes of applying its discounting rules, recognises this entity as the customer.

751. For example, if a corporate customer has a single contractual relationship with Telecom that incorporates all its sites nationwide, all its sites would be in the corporate markets regardless of the size or spend of individual sites.

Retail Price Calculation

Duration of Interim Period

752. To calculate the Standard Retail Prices, Telecom requires one billing month's data. The Commission understands that all business is billed on a monthly basis, and accordingly considers that a monthly billing cycle is satisfactory to capture all prices at a point in time.[239] The Commission considers that it is appropriate to use one complete billing month from the release of the Determination.

753. By setting 30 June 2003 as the end of the interim period, the Commission considers that Telecom has sufficient opportunity to (i) make adjustments to their current modelling as a result of this Determination; (ii) observe a clear billing month; (iii) calculate actual retail price points, and (iv) provide adequate notice of these actual price points.

754. The following timeline sets out the timeframe for standard retail price implementation

Figure 21: Standard Retail Price Implementation Timetable

Date	**Action**
12 May 2003	Determination release
16 May 2003	Telecom to provide a list of services to TelstraClear broken down by Product Family, Product and Service basis
23 May 2003	Deadline for commercial agreement of list of services between Telecom and TelstraClear
23 May 2003 – 23 June 2003	Telecom observation of price points for one month's billing cycle Telecom calculation of Average Modal Price for granular services
24 June 2003	Release of Standard Retail Price list to TelstraClear for granular services ("DSPL")
1 July 2003	Implementation of Standard Retail Price list ("DSPL")
8 July 2003	Deadline for receipt of audit report

[239] Telecom presentation on Retail Price Calculations, 14 March 2003

True-up between Interim and Actual Standard Retail Prices

755. The true-up process is required for two distinct periods:

a. The period between the date of this Determination and implementation of the DSPL; and
b. The period between the agreed inception date of this Determination (1 June 2002) and the date of Determination.

Period One

756. The true-up for the first period will reflect any under or over payment between the interim retail prices set by this Determination and Standard Retail Prices of the services required to be resold under this Determination.

Period Two

757. The Commission acknowledges that the true-up calculation for the second period may be complex given that the Standard Retail Prices calculated by Telecom are at a service level, while existing retail prices offered to TelstraClear on a wholesale basis have not had this same level of granularity.

758. A true-up for the second period will account for the differences between the retail price of services covered under this Determination which have been previously provided to TelstraClear on a wholesale basis by Telecom under the expired MCSA agreement.

759. Telecom is required to calculate any adjustment required for true-up of both periods and seek agreement on those adjustments with TelstraClear within one month of the implementation of DSPL. Payment for such difference by either party must be made not later than two months after the date of the DSPL.

Figure 22: True-up Timetable

12 May 2003	Determination release
1 July 2003	Implementation of Standard Retail Price list ("DSPL")
1 August 2003	Deadline for commercial agreement on settlement required.
1 September 2003	Deadline for payment of any true-up.

760. Where the parties are unable to agree on the true-up for either period, either party may request that the Commission fix the amount of the true-up and the payment terms.

COSTS OF THE DETERMINATION

761. Section 55 provides that, in relation to a determination or application for a determination, the Commission's costs must be met by the parties to the determination in the proportions as directed by the Commission in writing.

762. Section 56(2) provides that, in respect of a determination or application for a determination, the Commission may require by written direction to a party that party to meet some or all of the other party's costs, if in the opinion of the Commission, the party has contributed materially to any costs or unreasonable delay.

763. In the Commission's *Guide to the Role of the Commerce Commission in Making Access Determinations under the Telecommunications Act* the Commission noted:

> The Commission intends to recover determination costs on a progressive basis. The Commission will, therefore, regularly invoice parties to an application as the application proceeds. After a determination is completed the Commission will determine whether one party should contribute to another party's costs and the amount of the contribution. The Commission will take into account a variety of factors.

764. During the determination, the Commission directed that the parties pay the Commission's costs in equal proportions. The Commission hereby directs pursuant to section 55 of the Act that the parties pay the Commission's remaining costs in equal proportions, and will notify the parties of the amounts due following completion of the determination.

765. As to whether the Commission ought to order one party to contribute to the other party's costs under section 56(2) of the Act, the Commission encourages the parties to reach agreement. If the parties are unable to reach agreement, they are to provide submissions on costs by 26 May 2003. In the event that the Commission does not receive submission on this matter, that Commission considers that it would not be necessary to make a direction under section 56(2).

DETERMINATION

766. The Commission determines that Telecom shall wholesale to TelstraClear the services (and parts of services) specified, in Appendix 3, as services subject to regulation under the terms of this Determination.

767. Telecom shall calculate, on a quarterly basis, employing the model proposed by Telecom, amended by the terms of this Determination, the standard retail price for these services in each of the markets where supply is regulated by this Determination. The standard retail price shall be calculated at the level of the "service", and that list of services and standard prices (the "Designated Services Price List" or "DSPL") shall be audited and provided to the Commission and to TelstraClear. The final terms of engagement for that audit must be acceptable to the Commission.

768. Telecom shall offer these services to TelstraClear on a wholesale basis at the standard retail price less the determined avoided costs saved discount of 16%.

769. Telecom shall apply the terms determined for grandfathered and replacement services at the level of the "product family". Telecom must also determine, for those services in Appendix 2 for which the Commission has indicated a possible replacement service, whether the indicated service is a replacement service as that concept is described in this Determination.

770. The Determination shall expire 18 months after the date of Determination.

DATED this 12th day of May 2003

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Douglas Webb
Telecommunications Commissioner