TELECOMMUNICATIONS ACT 2001

SCHEDULE 3 INVESTIGATION INTO THE EXTENSION OF REGULATION OF DESIGNATED AND SPECIFIED SERVICES

Final Report

28 August 2006

COMMERCE COMMISSION

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COMMERCE COMMISSION

Report on whether to extend the period of regulation of ten designated and specified services

Report under clause 4 of Part 1 of Schedule 3 of the Telecommunications Act 2001 ("the Act") in the matter of whether or not to extend the period of regulation of ten designated or specified services.

Designated services under investigation:

- Retail services offered by means of Telecom's fixed telecommunications network;
- Residential local access and calling service offered by means of Telecom's fixed telecommunications network;
- Bundle of retail services offered by means of Telecom's fixed telecommunications network;
- Retail services offered by means of Telecom's fixed telecommunications network as part of a bundle of retail services;
- Interconnection with Telecom's fixed PSTN;
- Interconnection with fixed PSTN other than Telecom's;
- Local telephone number portability service; and
- Cellular telephone number portability service.

Specified services under investigation:

- National Roaming; and
- Co-location on cellular mobile transmission sites.

The Commission:	Douglas Webb Gowan Pickering Anita Mazzoleni
Summary of Final Report:	The Commission recommends that the period of regulation of all ten services under review be extended for a period of two years to 19 December 2008 in accordance with section 65 of the Act.
Date of Final Report:	28 August 2006

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List of Abbreviations

CDMA	Code-Division Multiple Access
GSM	Global System for Mobile communications
MNO	Mobile network operator
PSTN	Public Switched Telecommunications 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
2G	Second generation cellular network, characterised by digital transmission rather than analogue used by the first generation of cellular networks
3G	Third generation cellular network, based on the IMT 2000 set of radio technology standards as recognised by the ITU

Executive Summary

i. The thirteen services originally regulated under the Telecommunications Act 2001 (‘the Act’) are due to expire on 19 December 2006. The Commission may make a recommendation to the Minister of Communications that any or all of these services should continue to be regulated under the Act for a further two year period.

ii. The Commission decided that there were reasonable grounds to investigate whether to extend ten of the thirteen services, namely the four ‘retail services’, the two ‘interconnection services’, national roaming, co-location on cellular mobile transmission sites, and the local and cellular number portability services. This report considers only whether these services should be extended, and not whether any amendments should be made to these services. The Commission continues to evaluate whether changes to the existing regulated mobile services should be made. The Commission has commenced a review into entry issues in the mobile market and this is likely to address whether an investigation should be launched into amendments to existing regulated roaming and co-location services. The Commission has decided not to investigate amendments to any other regulated services at this time.

iii. In deciding whether or not to recommend extension of a service, the Commission must satisfy itself that such a recommendation best gives, or would be likely to best give, effect to the purpose of the Act, which is the promotion of competition in telecommunications markets for the long-term benefit of end-users. The Commission has assessed whether competition issues which existed prior to and during the initial period of regulation of these services are likely to continue for the period of the extension.

iv. The Commission considers that a finding of limited competition in key markets associated with the ten regulated services, and/or the presence of other factors suggestive of competition concerns in the industry, means that there would be ongoing benefit to the availability of the regulated services for a further two year period.

v. It is the Commission’s view that in the case of all ten services under investigation, an extension of the period of regulation for a further two years will best promote competition in telecommunications markets for the benefit of end-users of telecommunications services. Accordingly, the Commission recommends that all ten services be extended for two years from 19 December 2006.

Background and Process

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

2. The thirteen designated and specified services originally incorporated within Schedule 1 of the Act are due to expire on 19 December 2006 unless the period of regulation is extended.[2] Any investigation into whether or not to recommend extension of these services must have commenced at least one year prior to the expiry of the services.[3]

3. On 4 August 2005, the Commission sought comment on its preliminary view[4] ('the Preliminary View Paper') as to whether the Commission should investigate the extension of the thirteen designated and specified services. The Commission received a number of submissions from interested parties on its Preliminary View Paper.

4. On 16 November 2005, the Commission released its Decision to Investigate[5] concluding that there were reasonable grounds to investigate the extension of the following ten designated and specified services:

    - interconnection with Telecom's fixed PSTN;
    - interconnection with fixed PSTN other than Telecom's;
    - retail services offered by means of Telecom's fixed telecommunications network;
    - residential local access and calling service offered by means of Telecom's fixed telecommunications network;
    - bundle of retail services offered by means of Telecom's fixed telecommunications network;
    - retail services offered by means of Telecom's fixed telecommunications network as part of bundle of retail services;
    - local telephone number portability service;
    - cellular telephone number portability service;
    - national roaming; and
    - co-location on cellular mobile transmission sites.

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[1] Section 5 of the Act defines telecommunication to mean (a) the conveyance by electromagnetic means from one device to another of any encrypted or non-encrypted sign, signal, impulse, writing, image, sound, instruction, information, or intelligence of any nature, whether for the information of any person using the device or not; but (b) does not include any conveyance that constitutes broadcasting. 'Telecommunications service' means any goods, services, equipment, and facilities that enable or facilitate telecommunication.

[2] Section 65(1)(a) of the Act provides that every designated or specified service expires on the expiration of 5 years from the date on which the designated service or specified service came into force unless the period is extended in accordance with this section.

[3] Refer to clause 1(1)(b) of Part 1 of Schedule 3 to the Act.

[4] Commerce Commission, *Review of Designated and Specified Services under the Telecommunications Act 2001: Preliminary view on decision to investigate and procedural matters*

[5] Commerce Commission, *Review if Designated and Specified Services under the Telecommunications Act 2001: Decision to Investigate*, 16 November 2005

5. Full descriptions of these services are set out in Schedule 1 to the Act.

6. The Commission did not consider that there were reasonable grounds to investigate the following services:

- national toll-free telephone number portability service;
- Telecom's fixed PSTN to mobile carrier pre-selection service; and
- co-location of equipment for fixed telecommunications services at sites used by Broadcast Communications Limited.

7. Accordingly, regulation of these three services will expire on 19 December 2006.

8. On 30 May 2006, the Commission released its draft report on whether or not to extend the period of regulation of the ten services under review. The Commission recommended that all ten services be extended for a period of two years in accordance with section 65 of the Act.

9. The Commission called for submissions and cross-submissions on its draft report. Responses were received from Telecom New Zealand Limited ('Telecom'), TelstraClear Limited ('TelstraClear') and Vodafone New Zealand Limited ('Vodafone'). Econet Wireless ('Econet') made a cross-submission only.

10. On 15 August 2006, the Commission held a conference on the draft report and heard oral submissions from Econet, Telecom, TelstraClear and Vodafone. The Independent Chair of the Telecommunications Carriers' Forum (TCF) also provided a brief update on progress with its radiocommunciations co-location draft code.

Consideration of proposed amendments

11. At the same time as releasing its Decision to Investigate, the Commission invited interested parties to submit proposals on whether amendments should be made to any of the ten services it decided to investigate. On 21 December 2005, the Commission received submissions on whether amendments should be made from Econet, Telecom, TelstraClear, Vodafone and Woosh Wireless Limited ('Woosh').

12. This report only sets out the Commission's recommendations to the Minister of Communications in relation to whether the period of designation or specification of these ten services should be extended for up to two years.[6]

13. The Commission will keep a watching brief on whether changes to the existing regulated services which are the subject of this report should be made. With the exception of the two mobile services discussed below, the Commission has decided not to further consider whether to initiate an investigation into amendments of any of the regulated services at this time.

[6] Refer to sections 65 and 68 of Act.

Mobile Services Review

14. On 10 May 2006, the Commission informed the telecommunications industry that it had decided to gather views and relevant information in order to assist it to make a decision whether or not to commence an investigation under Schedule 3 of the Act into the addition of new regulated services required to promote competition in the mobile services market, or the alteration of the existing roaming and co-location services.

15. The Commission has held a number of meetings with relevant industry players and is currently evaluating the information which was gathered during those meetings. The Commission has decided to run this process separately from the extension review because, should the Commission determine that reasonable grounds exist for an investigation into whether to amend any of the existing services, the Commission's view is that amendment to an existing service requires different analysis from the consideration of whether to extend an existing service for a period of two years. Furthermore, this approach was taken to ensure that the Commission is able to deliver its report to the Minister of Communications in sufficient time to allow for consideration of the Commission's recommendations prior to the expiry of the existing services on 19 December 2006.

16. As noted above, the Commission is only considering whether to launch an investigation into amending the roaming and co-location services. The Commission is not considering whether to investigate amendments to any other services at this time.

Decision Making Framework

The Legislation

17. Section 19 of the Act provides that:

> **19 Commission and Minister must consider purpose set out in section 18 and additional matters**
> If the Commission or the Minister (as the case may be) is required under this Part or any of Schedules 1 to 3 to make a recommendation, determination, or a decision, the Commission or the Minister must—
> (a) consider the purpose set out in section 18; and
> (b) if applicable, consider the additional matters set out in Schedule 1 regarding the application of section 18; and
> (c) make the recommendation, determination, or decision that the Commissioner or Minister considers best gives, or is likely to best give, effect to the purpose set out in section 18.

18. Section 18 describes the purpose of Part 2 and Schedules 1 to 3 as follows:

> **18 Purpose**
> (1) The purpose of this Part and Schedules 1 to 3 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.

Promotion of Competition

19. In assessing whether to recommend the extension of each service, the Commission must consider whether each recommendation best gives, or is likely to best give, effect to the promotion of competition in telecommunications markets for the long-term benefit of end-users of telecommunications services, consistent with sections 18 and 19 of the Act.

20. The Commission must satisfy itself that, for the two year period of analysis between 19 December 2006 and 19 December 2008, there are benefits to end-users from extending the existing regulated service over allowing that service to expire.

21. As set out in the draft report, the Commission has decided not to undertake a quantitative cost-benefit analysis for the purposes of considering whether or not to recommend the extension of currently regulated services for two years. The Commission notes that it has, in previous Schedule 3 investigations, quantified the net benefit effects of the regulation of new services. However, given the tight timeframes for the completion of this review, and the fact that there are multiple services under investigation, the Commission does not consider it is feasible to undertake an extensive analysis that quantifies the net benefits of continued regulation.

22. In its submission on the draft report, and during the conference, Vodafone stated that the Commission needs to do a more thorough investigation of actual competitive conditions before it can conclude that further regulation is required. Vodafone considered that the

Commission needs to define a counterfactual in relation to each regulated service, i.e. it should state what it thinks would happen if regulation were allowed to lapse and compare that with what it thinks would happen if regulation were continued.[7] The Commission should then only recommend extension of regulation if it is likely to promote competition for the long-term benefit of end-users compared to the situation where regulation is allowed to lapse. In particular, Vodafone suggested that the mobile regulations under review should be extended only if they *appreciably* increase the chances of mobile entry.

23. The Commission notes that in 2001, at the time of the enactment of the Act, Parliament considered that there would be overall benefit in regulating the current services under review. The Final Report of the Ministerial Inquiry into Telecommunications[8] notes that it is important, when considering how any regulatory changes would contribute to the objective of the Inquiry[9], that the benefits of change outweigh the costs. The report also stated that in practice, quantifying the costs and benefits of a change to the regulatory regime can be difficult but the Inquiry still attempted to apply a cost-benefit assessment methodology in formulating its recommendations. In addition, the explanatory note to the Telecommunications Bill sets out that the supply of certain telecommunications services to service providers is regulated where regulation will result, or is most likely to result, in economic benefits to New Zealand.

24. While the Commission has not sought to quantify the net benefits of continued regulation, the analysis that it has undertaken takes into account a counterfactual of no regulation and a factual of continued regulation. In order to reach a conclusion on whether continued regulated access to these services will promote competition, the Commission has undertaken an assessment of the current level of competition in markets relevant to each of the services under review. This review considers whether the competitive conditions in relevant telecommunications markets have changed such that regulation is no longer necessary.

25. The Commission considers that where competition concerns remain, and are likely to continue, in the market, or markets, relevant to a particular service, the factual is more likely to result in benefits to end-users than the counterfactual. If the regulation is allowed to continue then the Commission considers that the level of competition in relevant markets might either remain the same or improve. Furthermore, the Commission considers that continued regulation of services where there are competition concerns would not result in any deterioration of the level of competition.

26. However, if regulation is allowed to lapse then the Commission considers that competitive conditions in relevant markets may worsen because there is little incentive for a rational access provider to grant access to a bottleneck service on a commercial basis when it knows that there is no regulatory backstop in place that the access seeker can rely on.

[7] Vodafone, *Submission on draft report on extension of regulated services*, 26 June 2006, page 2.
[8] Ministerial Inquiry into Telecommunications, *Final Report*, September 2000, page 11.
[9] The objective was "to ensure delivery of cost-efficient, timely, and innovative telecommunications services on an ongoing, fair and equitable basis to all existing and potential users".

27. The Commission considers that where there is currently effective competition in the market, or markets, relevant to a particular service then will generally be appropriate for the regulation of that to lapse.

28. The Commission notes that three of the 'Retail Services'[10] under review are described in Schedule 1 of the Act in such a way that it is not feasible, in the context of the current investigation, to conduct a precise market definition exercise. These regulated services can be considered 'umbrella' services covering a large range of telecommunications services that are likely to fall within multiple markets, including markets that are yet to be identified by the Commission. In assessing whether there is ongoing benefit to the extension of these 'umbrella' services, the Commission confined its analysis in the draft report to an assessment of the features of the telecommunications industry; in particular the Commission considered the degree of infrastructure competition and barriers to entry in telecommunications markets.

29. The Commission has previously assessed markets relevant to 'Retail Services' in the context of access determinations. However, the Commission notes that the retail markets that were assessed in previous bilateral access determinations were defined for a specific purpose – to ensure that access to resale was only granted in those precise geographic and customer markets subject to the application where Telecom faced limited competition for a particular service. The Commission considers that it is not necessary to apply this kind of comprehensive analysis in the context of an investigation into whether retail services in their entirety should continue to be regulated. This is explained in more detail in the section of the report on 'Retail Services'.

30. The Commission considers that a finding of limited competition in key markets associated with the ten regulated services, and/or the presence of other factors suggestive of competition concerns in the industry, means that there would be benefit from the continued availability of the regulated service. In recommending regulation, the Commission has been mindful of the fact that commercial outcomes should be encouraged to the extent possible, while providing a regulatory backstop where such negotiation is unlikely to result in access to bottleneck services.

31. It is arguable that a finding of limited competition in a market relevant to a particular designated or specified service might suggest that the regulation of that service has been ineffectual during the five year period. This could lead to a conclusion that continued availability of the service will not promote competition for the long term benefit of end-users. However, the Commission does not consider that this necessarily follows. In these cases the Commission considers that, competition may have been more limited if it were not for the presence of a regulated service. Also, the Commission notes that it cannot control whether or not an access seeker actually chooses to lodge an application for an access determination. The Commission's role is simply to determine the terms of

[10] Retail services offered by means of Telecom's fixed telecommunications network; Bundle 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.

access to a bottleneck service when requested by an access seeker. While disputes may not have resulted in applications to the Commission, regulation may still have encouraged the promotion of competition.

32. The Commission has received submissions from interested parties that the existing services, as currently described, are deficient and that in some respects the services should be amended and extended simultaneously. However, the Commission is currently evaluating whether changes to certain existing regulated services should be made as a separate process. The Commission does not consider that it is feasible to undertake an analysis of whether to recommend the extension of the ten existing services concurrently with an analysis of any amendments to those ten services. To do so would entail a risk that the Commission would not complete its investigation in sufficient time for the Minister to consider whether to accept a recommendation before the service expires.[11] The Commission has commenced a review of issues surrounding entry into the mobile services market which will involve consideration of whether there are reasonable grounds to launch an investigation into the regulation of mobile services under the Act, including whether the existing roaming and co-location services should be amended.

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[11] The Commission notes that an Omnibus Bill has been introduced into the House which would, if passed by Parliament, grant automatic extension of the services

Services under Review

33. As noted earlier, the Commission has carried out an investigation into whether to recommend extension of the period of regulation of the following currently designated or specified services:

- Retail services offered by means of Telecom's fixed telecommunications network;
- Bundle of retail services offered by means of Telecom's fixed telecommunications network;
- Retail services offered by means of Telecom's fixed telecommunications network as part of a bundle of retail services;
- Residential local access and calling service offered by means of Telecom's fixed telecommunications network;
- Interconnection with Telecom's fixed PSTN;
- Interconnection with fixed PSTN other than Telecom's;
- Co-location on cellular mobile transmission sites;
- National Roaming;
- Local telephone number portability service; and
- Cellular telephone number portability service

34. Each of these services is considered below. Where appropriate, the Commission has reached a view on the level of competition in relevant upstream and/or downstream markets for these services.

Retail Services

Introduction

35. This section concerns the following three designated access services (together 'Retail Services'):

- Retail services offered by means of Telecom's fixed telecommunications network ('Single Service Resale');
- Bundle of retail services offered by means of Telecom's fixed telecommunications network ('Bundles'); and
- Retail services offered by means of Telecom's fixed telecommunications network as part of a bundle of retail services ('Parts of Bundles').

36. It is appropriate to consider these three services together as they all concern 'retail services offered by means of Telecom's fixed telecommunications network'. Also, as noted in the section on decision making framework, these three services can be considered 'umbrella' services which cover a large range of telecommunications services that are likely to fall within separate markets. Accordingly, the Commission has conducted a different analysis from the other more specific services in Schedule 1 of the Act in determining whether to recommend extension.

37. Since the inception of the Act in 2001, the Commission has received a number of applications for access determinations concerning all the Retail Services, and has made determinations in relation to Single Service Resale services and Bundles.

38. Schedule 1 of the Act contains service descriptions for all designated and specified services, with a number of services having 'conditions' upon them. Single Service Resale services and Bundles have similar conditions, as set out below:

Retail services offered by means of Telecom's fixed telecommunications network

Conditions: That either-

(a) Telecom faces 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

Bundle of retail services offered by means of Telecom's fixed telecommunications network

Conditions: That either-

(a) Telecom faces limited, or is likely to face lessened, competition in a market for the particular bundle of retail services offered by Telecom to end users by means of its fixed telecommunications network; or

(b) Telecom does not face limited, or is not likely to face lessened, competition in a market for the particular bundle of retail services, and the Commission has decided to require that particular bundle of retail services to be wholesaled in that market

39. These conditions act as a competition threshold, whereby the Commission must determine the terms of access to any service that falls within the service description, where it is satisfied that Telecom faces limited, or is likely to face lessened competition, in a market for that service. The Commission also has the discretion to require regulated access to a service where Telecom does not face limited competition. The Commission has previously indicated that it would only require such access if it is satisfied of significant long-term benefits for end-users of requiring such wholesale provision.[12]

40. The Commission notes that the Parts of Bundles service does not have any conditions set out in the service description. However, the service itself is described as:

A retail service that –

(a) is, or has previously been, offered separately by Telecom to end-users by means of its fixed telecommunications network; and

(b) is offered by Telecom to end-users as part of a bundle of retail services -

(i) **in markets in which Telecom faces limited, or is likely to face lessened, competition for that service**; and

[12] Commerce Commission, *Determination on the TelstraClear Application for Determination for "Wholesale" Designated Access Services* (Decision 497), 12 May 2003, paragraph 107.

(ii) if the effect of the bundled price is likely to significantly reduce the ability of an efficient rival to contest the market [emphasis added]

41. As a result of these competition thresholds, the Commission has been required to define the markets for a number of retail services, and conduct competition analyses in relation to those markets, for the purposes of making access determinations.

Market Analysis during bilateral determinations

42. In the TelstraClear Business Wholesale Determination (Decision 497) [13], TelstraClear sought access to over 150 'retail services offered by means of Telecom's fixed telecommunications network'. In that decision, the Commission defined ten product markets, distinguishing between type of customer (SME and corporate) and geographic location of customers (metropolitan and non-metropolitan) for some of these product markets.

43. In the TelstraClear Residential Resale Determination (Decision 525) [14], the Commission was also required to conduct a market definition and competition analysis exercise for a number of retail services including access to 'retail services', the 'residential local access service', and 'bundles of retail services'. In Decision 525, the Commission defined three product markets, and distinguished between geographic location of customers for one of those product markets.

44. Finally, the Commission again looked at markets relevant to the retail group of services for the purposes of the TelstraClear 'Private Office Networking' Determination (Decision 563)[15]. In that decision, the Commission newly defined a national retail market for the supply of private IPVPN data services.

45. In considering applications for access to regulated services under Schedule 1, the Commission has necessarily considered specific markets, such as a market for local access and calling services for SME customers in metropolitan areas, with 'metropolitan' itself having a very precise meaning (i.e. areas within 200 metres of competing local access infrastructure).[16] To date, the access determination process has required this specificity as a large number of individual retail services have been applied for. As a result of the conditions in the service description for the regulated retail services, the Commission has had to reach a conclusion on market definition for each of these individual services.

46. The bilateral nature of the access determination process has also, in part contributed to these specific market definitions. In particular, the Commission was required to define

[13] Commerce Commission, *Determination on the TelstraClear Application for Determination for "Wholesale" Designated Access Services* (Decision 497), 12 May 2003
[14] Commerce Commission, *Determination on the TelstraClear Application for Determination for "Residential Wholesale" Designated Access Services* (Decision 525), 14 June 2004
[15] Commerce Commission, *Determination on the TelstraClear Application for determination of designated access services (including Private Office Networking* (Decision 563), 9 December 2005
[16] Decision 497

precise geographic boundaries for a number of the services requested in both the Business Wholesale and Residential Resale Determinations in order to allow the determinations to be implemented by the parties. For some services, it was also necessary to carve out geographic regions due to the access seeker only requesting access to that particular service in some areas.[17]

47. For these reasons, the Commission does not believe that it is necessary to conduct a market definition and competition assessment exercise of the kind undertaken in the context of access determinations. The Commission will be required to carry out this analysis for individual services which may be the subject of future applications for an access determination. At that time it will be necessary to re-examine the market definitions that have previously been determined by the Commission.

48. Accordingly, the Commission considers that in the case of Retail Services, any risk of regulatory overreach is minimised by the requirement for the Commission to conduct a market and competition exercise for each service applied for by an access seeker in relation to an access determination.

49. There are a number of observations that can be made in the present telecommunications market place that might suggest that the previously defined markets are no longer as relevant. For example, there appears to be an increasing level of bundling of telecommunications service offerings, suggesting that drawing market boundaries by specific service type may be less appropriate.

50. Also, the line traditionally drawn between voice and data services is likely to become increasingly blurred with the convergence of services, particularly with the emergence of IP networks. Finally, the Commission has observed a shift towards uniform national pricing, including identical pricing for residential and business customers, in relation to some services. This indicates that drawing a distinction between geographic region and type of customer is less appropriate.

Summary of Analysis in the Draft Report

51. For the purposes of deciding whether or not to recommend extension of regulation of the ‘Retail Services’, the Commission decided in the draft report to undertake a broad analysis of the features of the telecommunications industry that may give rise to competition issues across a wide range of telecommunications markets.

52. In summary, the features highlighted by the Commission were:

- the lack of infrastructure, or facilities-based competition, in relation to the delivery of telecommunications services;

[17] For example, in its application for access to residential wholesale services. TelstraClear did not seek access to Telecom’s residential local access and calling service in the metropolitan areas of Wellington and Christchurch where TelstraClear had its own network (i.e. ‘Networked Metropolitan’ areas).

- Telecom remains the only telecommunications provider of fixed services in New Zealand that has a ubiquitous network;
- the low probability that there will be a significant increase in the level of infrastructure based competition during 2007-2008;
- significant barriers to entry that potential new suppliers of telecommunications services face, including the extent of sunk costs and the presence of economies of scale and density in a local network;
- network operators tend to be vertically integrated, which can allow the incumbent to discourage competitors to enter by pricing access services inefficiently high, or refusing to wholesale its services altogether; and
- bundling of telecommunications services is also common within the industry and where it is possible for an incumbent to bundle contestable and non-contestable services together, this will provide the supplier of the non-contestable services with a significant advantage over its competitors.

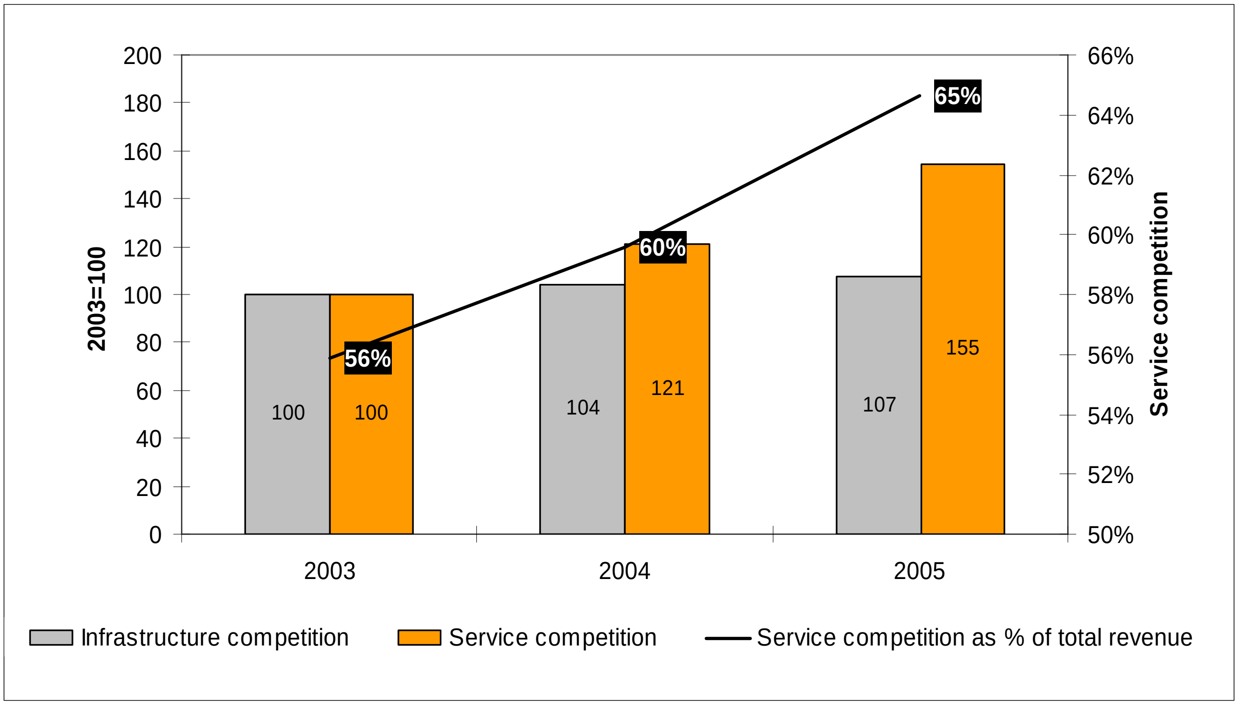
53. In the draft report, the Commission also considered the material received in response to the notices issued under section 98 of the Commerce Act and has drawn on some of this information to highlight the lack of facilities based competition within the industry. The Commission requested revenue information for three types of services (local access/calling; best efforts internet services; and business grade data services) and asked that the revenue be broken down into 'on-net' and 'off-net' revenue.[18] The Commission also asked for the information to be broken down by region and type of customer, but this data has been aggregated for current purposes.

54. The data collected was used to assess the level of facilities-based competition for delivery of these services against the level of service-based competition, i.e. competition that results from the resale of another provider's services. Because the revenue data requested was broken down by 'off-net' and 'on-net' the Commission was able to assess whether those alternative providers to Telecom are generating revenue as a result of delivering services using their own infrastructure.

55. Figure 1 illustrates the importance of service-based competition in the market for local access and calling services. During the period 2003-2005 'on-net' revenue grew by only 7% while 'off-net' revenue increased by 55%, thus representing in 2005 around 65% of total revenue for local access and calling services delivered by alternative providers through both infrastructure and service based competition.

[18] 'On-net' means that the service is delivered by a provider's own network, while 'off-net' refers to the provision of services via another provider's infrastructure.

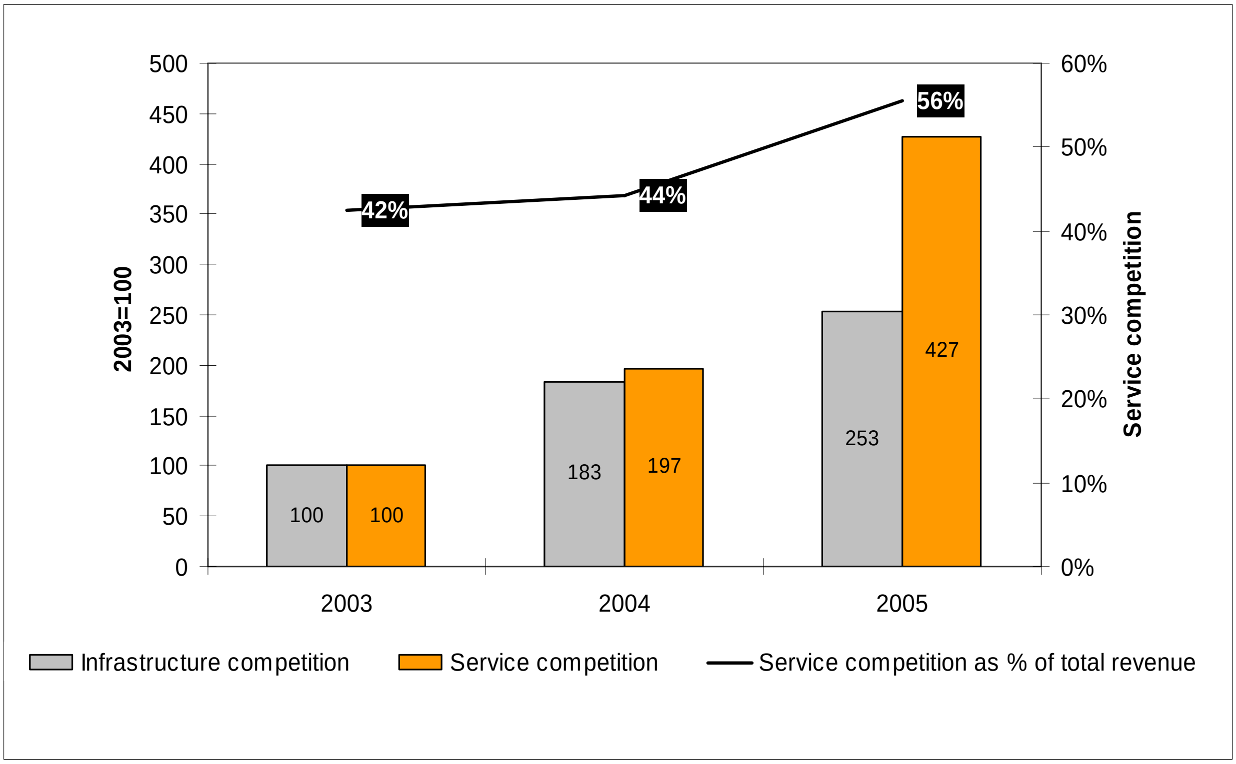
Figure 1: Local access and calling services delivered by alternative providers – 'off-net' vs 'on-net' revenue



Source: Commerce Commission, Industry data

56. Figure 2 shows again the importance of service-based competition during the period 2003-2005, this time in the market for best effort Internet grade services (residential and business broadband Internet access services). During the period 2003-2005 'on-net' revenue increased significantly by 153% but 'off-net' revenue grew by 327%. 'Off-net' revenue thus represented in 2005 around 56% of total revenue for best effort Internet grade services delivered by alternative providers, compared to 42% in 2003.

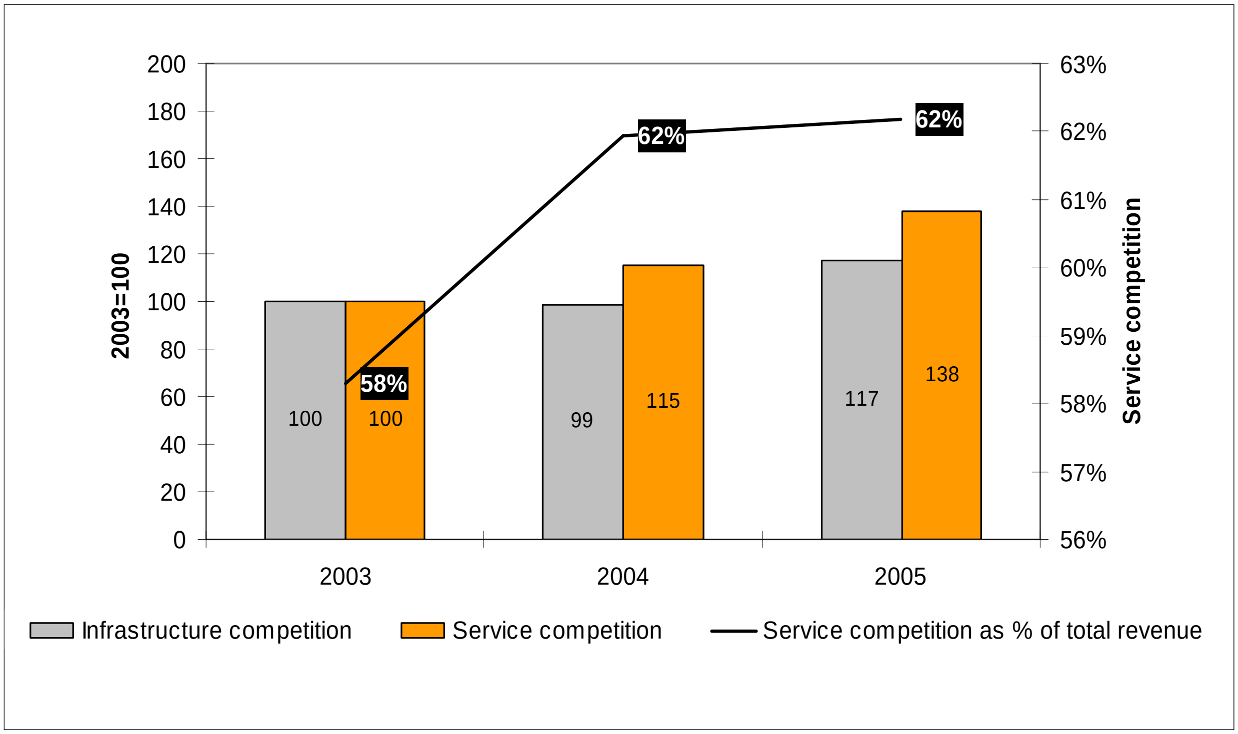
Figure 2: Best effort internet grade services delivered by alternative providers – 'off-net' vs 'on-net' revenue



Source: Commerce Commission, Industry data

57. Figure 3 presents the distribution of business grade services revenue delivered by alternative providers through infrastructure and service based competition during the period 2003-2005. During the period 2003-2005 'on-net' revenue grew by 17% while 'off-net' revenue increased by 38%, thus representing in 2005 more than 62% of total revenue for business grade services delivered by alternative providers.

Figure 3: Business grade services delivered by alternative providers – 'off-net' vs 'on-net' revenue



Source: Commerce Commission, Industry data

58. In the draft report, the Commission concluded that the presence of all the highlighted features of the telecommunications industry add to limited competition in telecommunications markets. The Commission decided that there will be benefits to end-users from the continued availability of access to regulated resale services in such markets. These features existed at the time of the Ministerial Inquiry into Telecommunications[19], still exist today and are likely to continue to exist during the two year period under review.

59. Accordingly, the Commission proposed to recommend that the Retail Services should be extended for a further period of two years in accordance with section 65 of the Act.

Submissions on the Draft Report

60. The Commission notes that no party has raised any objections to the Commission's analysis of whether regulation of the retail services should be extended for a further two years. Only TelstraClear addressed the Retail Services in its submission on the draft report and it provided arguments in support of the Commission's analysis.

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[19] Ministerial Inquiry into Telecommunications, 27 September 2000

Conclusion

61. Having assessed key features of the telecommunications industry, and considered such matters as the degree of infrastructure competition and barriers to entry in telecommunications markets, the Commission believes that extension of the period of regulation of the three Retail Services will best promote competition for the long-term benefit of end-users. No interested parties have objected to the extension of these three services.

62. Accordingly, the Commission concludes that the three Retail Services should be extended for a further period of two years in accordance with section 65 of the Act.

Residential Local Access and Calling Service

Introduction

63. This section concerns the designated access service ‘Residential local access and calling service offered by means of Telecom’s fixed telecommunications network’.

64. As with ‘Retail Services’, the service description for the local access and calling service contains conditions which include a competition threshold whereby the Commission must determine the terms of access to the service if it is satisfied that Telecom faces limited, or is likely to face lessened competition, in a market for the service.

Residential local access and calling service offered by means of Telecom’s fixed telecommunications network

Conditions: That either-

(c) Telecom faces limited, or is likely to face lessened, competition in a market for price-capped residential local access and calling service offered by Telecom to end users; or

(d) Telecom does not face limited, or is not likely to face lessened, competition in a market for price-capped residential local access and calling service, and the Commission has decided to require that price-capped residential local access and calling service to be wholesaled

Summary of Analysis in the Draft Report

65. The Commission noted that the conditions in the service description for the residential local access and calling service specifically refer to ‘a market for price-capped residential local access and calling service offered by Telecom to end-users’. The Commission, therefore, considered that the uncertainty around market boundaries for the other retail services, referred to in the previous section, do not apply to the same extent to this particular service.

Market Definition

66. The Commission has made one access determination in relation to the residential local access and calling service, namely the TelstraClear Residential Wholesale Determination (Decision 525). In that determination, the Commission defined the following markets:

- retail market for residential local access services in non-networked metropolitan areas (lying within 100 metres of TelstraClear's residential access network in Wellington and Christchurch);
- retail market for residential local access services in non-networked metropolitan areas (includes those areas of Wellington and Christchurch that are between the 100 metre boundary and the outer limits of Telecom reduced residential line rentals); and
- retail market for residential local access services in non-metropolitan areas (the remainder of New Zealand).

67. In the draft report, the Commission noted that for the purpose of the current investigation, the Commission requested relevant revenue and customer information from all industry participants in order to assess the level of competition in the local access services market. In deciding how to frame the data request, the Commission took the view that it would not be necessary to define geographic markets at the level of precision used in its previous access determinations. In this investigation, the Commission has used less specific boundaries which nevertheless are expected to capture the main differences between 'metropolitan' and 'non-metropolitan' areas, in terms of where competing infrastructure is located. The Commission also notes that most of the recipients of the section 98 notices would not have had the necessary information to enable them to provide data in accordance with the 100 metre boundary rule set out above. Industry participants were therefore requested to present the data separately for Auckland, Christchurch, Wellington and Other geographic areas.

68. The Commission considered that the geographic dimension in relation to the residential local access markets should consist of separate networked metropolitan (Christchurch and Wellington) and non-networked (Auckland and Other) geographic areas.

69. In defining geographic boundaries, the Commission has been consistent with the definitions of 'Auckland', 'Christchurch', 'Wellington' and 'Other' as set out in the instructions accompanying the section 98 notices. These definitions are as follows:

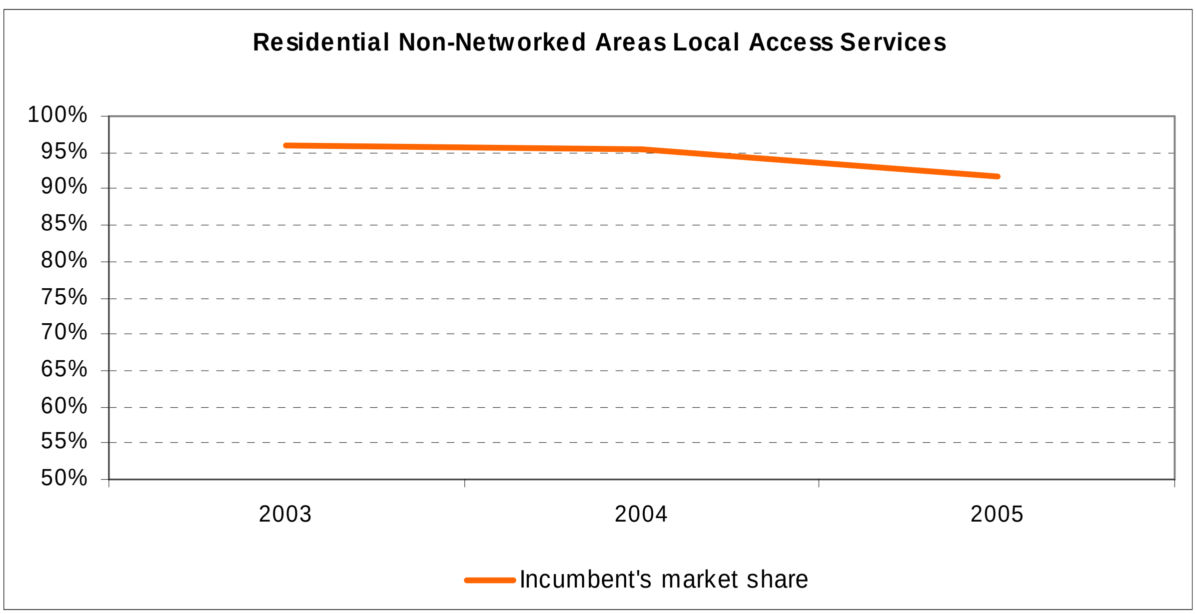
- 'Auckland' means the Auckland free local calling area;
- 'Christchurch' means the Christchurch free local calling area;
- 'Wellington' means the Wellington 04 calling region; and
- 'Other' means all other regions outside 'Auckland', 'Christchurch' and 'Wellington'

Competition Assessment

70. In the draft report, the Commission noted that it has not previously been required to assess the level of competition in networked metropolitan areas, as TelstraClear did not seek regulated access to the residential local access service in these areas. Accordingly, the Commission did not consider that it was necessary to form a view on the level of competition in this market in the context of the current investigation. The Commission considered that it would be sufficient to update the assessment of the level of competition in the non-networked areas, i.e. those areas outside Wellington and Christchurch ('Auckland' and 'Other' regions).

71. In relation to those non-networked areas, the Commission analysed the trend in Telecom's market shares in the retail market for residential local access services in terms of number of customers and also in terms of revenue. Figures 4 and 5 below show these trends:

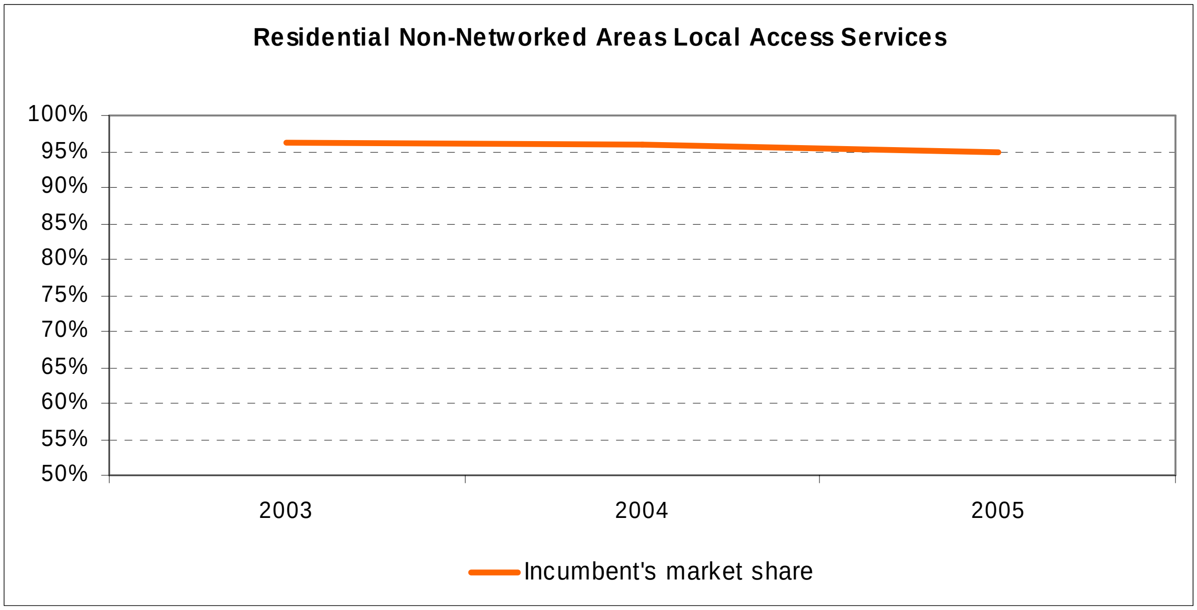
Figure 4: Telecom's market share in the Retail Market for Residential Local Access Services in Non-Networked Areas – number of customers



Source: Commerce Commission, Industry data

72. The alternative providers in the market appear to have gained market share in the recent period, but the incumbent still appears to account for a large majority of the market, providing local access and calls services to more than 90% of residential customers in non-networked areas.

Figure 5: Telecom's market share in the Retail Market for Residential Local Access Services in Non-Networked Areas – revenue



Source: Commerce Commission, Industry data

73. Telecom's market share has remained relatively stable over the period, decreasing by only 1%. The incumbent still appears to account for a large majority of the revenue in this market, earning 95% of the total revenue from the provision of local access and calling services to residential customers in non-networked areas.

74. The Commission noted that subsequent to the release of Decision 525, wholesaling of Telecom's local access services to residential customers has increased. The Commission considers that the incumbent's small loss of market share during 2003-2005 is likely to be largely attributable to the increased importance of wholesaling. This suggests an ongoing reliance on Telecom's fixed network to deliver services to end-users, whether they be delivered directly by Telecom or by a Telecom wholesale customer. Absent the availability of Telecom's network, this wholesaling would not be possible.

75. The Commission also noted that Vodafone intends to launch a local call service over its existing mobile telecommunications network infrastructure. Vodafone intends to compete in the local services market by enabling Vodafone local customers to make and receive local calls from their mobile handset using a local number, when in a pre-defined geographical zone around their home or business. Vodafone has not yet been able to reach agreement with Telecom for local service interconnection. On 13 January 2006, Vodafone applied to the Commission for determination, requesting that Telecom be required to provide interconnection with its fixed PSTN for calls to and from Vodafone's local numbers.

76. The Commission considered that Vodafone's local call service is likely to have some impact on the level of competition in the retail market for residential local access services

in non-networked areas. However, at this stage it is unclear exactly when and where Vodafone's service will be available so it is difficult to predict whether it will act as a constraint on Telecom in this market during the period under review.

77. The Commission concluded in the draft report that, during the period under review, Telecom is likely to continue to face limited competition in the retail market for residential local access services in non-networked areas.

78. Accordingly, the Commission proposed to recommend that the residential local access and calling service should be extended for a further period of two years in accordance with section 65 of the Act.

Submissions on the Draft Report

79. The Commission notes that no party has raised any objections to the Commission's analysis of whether regulation of the residential local access and calling service should be extended for a further two years. Only TelstraClear addressed this service in its submission on the draft report and it provided arguments in support of the Commission's analysis.

Conclusion

80. The Commission has assessed the level of competition in the retail market for residential local access services in non-networked areas. The Commission believes that Telecom faces, and is likely to continue to face, limited competition in this market. Accordingly, the Commission is satisfied that extension of the period of regulation of this service for a further period of two years in accordance with section 65 of the Act will best promote competition for the long term-benefit of end-users.

Interconnection Services

Introduction

81. This section concerns the following two 'Interconnection Services':

- Interconnection with Telecom's fixed PSTN; and
- Interconnection with fixed PSTN other than Telecom's

82. When there is more than one telecommunications network, there is a need for networks to interconnect so that calls made from one network can be terminated on another. Access to interconnection with Telecom's ubiquitous fixed PSTN network is therefore essential for any new network operator in order to provide any-to-any connectivity to its customers.

83. Where competition is not effective, or where substantial market power exists in telecommunications markets, regulatory intervention may be required to facilitate efficiently priced interconnection between networks.

Summary of Analysis in the Draft Report

Market Definition

84. In the draft report, the Commission found that the relevant upstream markets for the Interconnection Services are the national wholesale markets for origination and termination (and their associated functions) of voice and data calls (including dial-up internet calls) on <u>each</u> fixed PSTN. In arriving at this conclusion, the Commission noted that:

- There are no substitutes for either interconnection service. For example, if a customer connected to TelstraClear's fixed PSTN wishes to place a call to a customer connected to Telecom's fixed PSTN, the network operator can only facilitate this if there is an agreement in place for termination of that call on Telecom's network;
- Interconnection services are provided to network operators at the wholesale level; and
- In the TelstraClear Interconnection Determination[20] (Decision 477) the Commission set a uniform national price for origination and termination of toll bypass, standard, toll-free and payphone calls, and calls to premium rate services and 50XY services on Telecom's fixed PSTN. This price also applied to origination and termination on TelstraClear's fixed PSTN. Telecom also offers a uniform national price for origination and termination of voice and data calls on its fixed PSTN in its commercial agreements with other network operators.

85. The Commission also found that the relevant downstream markets for the Interconnection Services are:

- National retail market for fixed-to-mobile and toll call services;
- Retail market for residential local access services in non-networked areas; and
- National retail market for mobile subscription and origination services.

86. In arriving at this conclusion, the Commission noted that interconnection is used as an input by toll by-pass operators in order to provide toll services to their customers, by providers of local access services and also by mobile operators.

87. The Commission also noted that, as part of the investigation into regulation of mobile termination rates[21], the Commission had defined a combined fixed-to-mobile and tolls national retail market based on evidence that a high proportion of customers tend to

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[20] Commerce Commission, *Determination on the TelstraClear Application for Determination for Designated Access Services* (Decision 477), 5 November 2002

[21] Commerce Commission, Schedule 3 Investigation into regulation of Mobile Termination, Final Report, 9 June 2005

purchase both tolls and fixed-to-mobile calls from the same supplier.[22] The Commission considers that the same market definition that applied in the Commission's mobile termination report should be adopted for the purposes of this investigation.

88. As part of that investigation, the Commission also defined a national retail market for mobile subscription and origination services. As this market encompasses mobile-to-fixed calls, the Commission considered that this is also a relevant downstream market for the interconnection services. Mobile operators require an interconnection agreement with the relevant fixed PSTN operator in order to provide this service to their customers. The Commission considered that the same market definition that applied in the Commission's mobile termination report should be adopted for the purposes of this investigation.

89. The Commission noted that one dimension of the local access market had been addressed in relation to the 'Residential local access and calling service' and the Commission defined the following markets:

- Retail market for residential local access services in networked metropolitan areas ('Christchurch' and 'Wellington'); and
- Retail market for residential local access services in non-networked areas ('Auckland' and 'Other').

90. The Commission acknowledged that local access services are also delivered to business customers and that a number of relevant business markets were defined in the Business Wholesale Determination. However, as noted in the section on 'Retail Services', the Commission decided that it is appropriate in the context of the current investigation to define broad markets relevant to this group of services, and only referred to the local access market in the context of considering whether to recommend extension of the 'Residential local access and calling service'. For the purposes of considering downstream markets for 'Interconnection Services', the Commission considered that it is sufficient to refer to the residential local access market.

Competition Assessment

<u>National Wholesale Interconnection Markets</u>

91. The Commission concluded in the draft report that as the particular fixed PSTN operator (i.e. Telecom or another operator) supplying the origination and termination services is the sole supplier of those services, there is not any constraint from existing competition in wholesale interconnection markets. The Commission also concluded that existing suppliers of origination and termination on a fixed PSTN will not be constrained by potential competition because no other party can facilitate origination or termination on these networks in order to provide any-to-any connectivity to subscribers.

[22] ibid page 40

National Retail Market for Fixed-to-Mobile and Toll Call Services

92. The Commission noted that it had recently assessed the competitiveness of this market during its mobile termination investigation. The Commission concluded that the retail market for the supply of tolls and fixed-to-mobile calls is subject to limited competition.[23] The Commission has retained this view in the context of the mobile termination reconsideration.

Residential Local Access Retail Market

93. The Commission concluded that there is likely to continue to be limited competition in the retail market for residential local access services in non-networked areas ('Auckland' and 'Other'). The Commission decided it was not necessary for the purposes of this investigation to assess the level of competition in the corresponding retail market for residential local access services in networked areas ('Christchurch' and 'Wellington').

National Retail Market for Mobile Subscription and Origination Services

94. The Commission in its recent mobile termination investigation examined competition in the retail mobile services market. The Commission did not form a definitive view on whether the retail mobile services market is subject to limited competition. However, the Commission did not believe that existing or potential competition at the retail level was sufficiently intense to ensure that any excess profits were dispersed through competition at the retail level.

95. Having assessed the markets relevant to the Interconnection Services, the Commission concluded in the draft report that there will be benefits to end-users of telecommunications services if the period of regulation of these services is extended for a further period of two years in accordance with section 65 of the Act.

Submissions on the Draft Report

96. The Commission notes that no party has raised any objections to the Commission's proposed recommendation that regulation of the Interconnection Services be extended for a further two years.

TelstraClear

97. TelstraClear agrees with the Commission's proposed recommendation to extend the regulation of the Interconnection Services. The ubiquity of Telecom's fixed PSTN network combined with its high market share means that Telecom is likely to continue to have substantial market power in telecommunications markets. This combined with the fact that no other party can facilitate origination and termination on Telecom's fixed

[23] Commerce Commission, *Schedule 3 Investigation into Regulation of Mobile Termination: Final Report*, 9 June 2005, pages 58-66.

PSTN means that interconnection should continue to be regulated. TelstraClear is not aware of any technological developments that would mean that a party other than the network provider could facilitate origination or termination on that provider's PSTN in the next two years.[24]

98. TelstraClear submits that Telecom's substantial market power in telecommunications markets means it has the incentive and ability to continue to set interconnection prices above costs and therefore there is a strong case for regulation of interconnection to continue.[25]

Vodafone

99. While Vodafone supports the extension of the Interconnection Services, it does not agree with the Commission's market definition in relation to these services. Vodafone argues that there is a two-sided market for termination and origination on telecommunications networks. To define an operator-specific market for termination alone is inconsistent with both commonsense and with commercial reality.[26]

100. However, Vodafone notes that regardless of how the market is defined, Telecom will have the majority of the market share by customers and revenue and will continue to have strong incentives to foreclose competition.[27]

Commission View

101. The Commission does not agree with Vodafone that a two-sided market should be defined for termination and origination on telecommunications networks. Two-sided market mechanisms were considered during the investigation into regulation of mobile termination and the Commission concluded that there exist separate product markets, on the one hand for the supply of mobile termination services on each mobile network and, on the other hand for the retail supply of both mobile subscription-related services and mobile-originated calling services. The Commission is therefore satisfied that the market definition for the relevant upstream markets in relation to the Interconnection Services remains appropriate.

Conclusion

102. The Commission has assessed the level of competition in the national wholesale market for the supply of origination and termination of voice and data calls on each fixed PSTN, the national retail market for fixed-to-mobile and toll call services, and the retail market for residential local access services in non-networked areas was assessed. The Commission believes that all of these markets are, and will continue to be, subject to

[24] TelstraClear, *Submission in response to the Commerce Commission's Schedule 3 investigation into the extension of regulation of designated and specified services – Draft report*, 28 June 2006, page 16
[25] ibid page 18
[26] Vodafone, *Submission on draft report on extension of regulated services*, 26 June 2006, page 3
[27] ibid

limited competition. The Commission also considers that the national retail market for mobile subscription and origination services is a relevant downstream market for the Interconnection services. As noted above, in the context of the mobile termination investigation, the Commission did not believe that existing or potential competition at the retail level was sufficiently intense to ensure that any excess profits were dispersed through competition at the retail level.

103. Accordingly, the Commission is satisfied that extension of the period of regulation of these services for a further period of two years in accordance with section 65 of the Act will best promote competition for the long-term benefit of end-users.

Co-location on Cellular Mobile Transmission Sites

Introduction

104. In Schedule 1 of the Act, the co-location service is described as:

> A service that enables co-location of cellular mobile telephone network transmission and reception equipment (including any necessary supporting equipment on or with the following facilities (**relevant facilities**)):
>
> (a) any towers, poles, masts, or other similar structures –
>
> (i) that are used for the transmission or reception of telecommunications via a cellular mobile telephone networks; and
>
> (ii) that are owned, managed or leased by the access provider:
>
> (b) all sites, building, or utility services that are associated with the kinds of structures referred to in paragraph (a)

105. Co-location may reduce the costs associated with the setting up of cell sites and the necessary associated infrastructure of a Mobile Network Operator (MNO) by the sharing of facilities with existing operators. Co-location may also facilitate market entry or expansion by allowing an operator to rapidly expand its network coverage beyond the footprint of its own infrastructure.

Summary of Analysis in the Draft Report

Market Definition

106. The relevant market for the co-location service is the national wholesale market for co-location on cellular transmission sites. In arriving at this conclusion, the Commission noted that:

- the regulated co-location service is restricted to ‘relevant facilities’ that are used for the transmission or reception of telecommunications via a cellular mobile telephone network, and that are owned, managed or leased by the access provider (who must operate a cellular mobile telephone network)[28];

- there are no suitable substitutes for the co-location of cellular transmission equipment on cellular mobile transmission sites;
- co-location of equipment on other types of sites is limited in practice due to the suitability of sites for transmission, planning, resource management, health and environmental considerations and lease terms, which all require additional time and cost for a site to be suitable for cell site location;
- the number of broadcast sites that can be used for co-locating with cellular transmission sites is limited as broadcast transmission equipment is generally located on sites that lend themselves to a high level of geographic coverage transmitting at high power in order to achieve optimal population coverage using as few sites as technically possible;
- high voltage power transmission towers are not suitable substitutes for co-locating with cellular transmission equipment. Most high voltage power transmission towers are located around areas that do not provide the best possible location for cellular transmission equipment especially in terms of traffic volumes to warrant the expense of installing a cell site. Furthermore, high voltage transmission tower owners do not generally provide any other facilities apart from the towers themselves. Cellular operators would be responsible for any additional facilities that would be required to house base stations and other equipment;
- co-locating with wireless networks does not offer a true substitute to co-locating on cellular mobile transmission sites due to the minimal coverage of such networks in New Zealand;
- co-location services are supplied by a site owner to a mobile network operator for the purpose of supplying downstream services to retail customers, therefore the relevant functional level of the market is the wholesale level; and
- the market for co-location is geographically national given that the current geographic coverage of the two existing mobile networks is national. While potential operators may wish to enter the cellular market on a regional basis, absent roaming agreements, the demand for co-location is likely to be on a national basis in order to provide customers with ubiquitous coverage.

Competition Assessment

107. The Commission concluded in the draft report that there is limited competition in the market for co-location on cellular mobile transmission sites.

108. The Commission noted that whilst the number of cell sites available for co-location in theory is limitless, the most optimal sites available for the location of cell towers are likely to be already in use and controlled by the incumbent mobile network operators.

[28] Refer to the description of the service above.

Submissions on the Draft Report

Telecom

109. Telecom does not oppose the extension of the co-location service. Telecom states that the Commission should not assume that mobile co-location is always the cheapest option as Resource Management Act (RMA) and community issues often mean it is cheaper to build a new site near to an existing site. Also, structures such as power poles and broadcast towers often can be suitable for co-location. Telecom also notes that the limitations with non-mobile sites that were identified by the Commission can also limit co-location on mobile sites.

TelstraClear

110. TelstraClear agrees with the Commission's market definition for the co-location service as broadcast and power transmission towers are not suitable substitutes for co-location of equipment on cellular sites.[29]

111. TelstraClear submits that competition for co-location is not only limited because the optimal sites are controlled by existing operators, but also because of:[30]

- limited competition in the cellular market due to duopoly;
- incentives on incumbents to restrict entry to allow price to remain above cost;
- a lack of suitable substitutes for co-location; and
- barriers to entrants building alternative facilities.

112. TelstraClear argues that it would be inappropriate for the co-location service to lapse prior to the conclusion of the mobile services review.[31] Also, it would be destabilising for the industry if co-location regulation were left to expire just as the industry is close to finalising the co-location code.[32]

113. TelstraClear agrees that co-location is occurring at present, but it is either between the existing players or with organisations that do not directly compete with Telecom or Vodafone. The incentives to provide co-location are stronger in these instances than in the case of a new rival, where cost savings may be offset by potential revenue impacts. Also, new entrants lack the ability to provide reciprocal co-location opportunities.[33]

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[29] TelstraClear submission, pages 18-20
[30] ibid page 20
[31] TelstraClear, *Cross-Submission on Commerce Commission's Draft Report: Schedule 3 Investigation into the Extension of Regulation of Designated and Specified Services*, 14 July 2006, page2
[32] ibid page 3
[33] Ibid page 2

Vodafone

114. Vodafone disagrees with the Commission's recommendation that the co-location service be extended for the following reasons:[34]

- there is no evidence of a market failure, therefore there is no need to regulate co-location;
- there are strong incentives to negotiate co-location arrangements as it saves both parties money;
- the process for co-location is well established;
- the pricing for co-location is reasonable and Vodafone offers the same terms of access to all access seekers;
- the existing terms of co-location has generated around 100 agreements with a number of parties including Telecom, Woosh and Broadcast Communications Limited;
- co-location will continue commercially regardless of the regulation. Accordingly, regulation of this service makes little difference to Vodafone's behaviour therefore it can be allowed to lapse without any impact on market outcomes.

115. Vodafone considers that the Commission's market definition is too narrow. Telecom and Vodafone compete with building owners and lamppost owners for co-location business in areas where the mobile operators have towers near to suitable buildings or lampposts. Vodafone has co-located 40 sites with organisations other than Telecom.

116. Vodafone notes that co-location is a means of reducing costs but it is not a substitute for building a network. The savings from co-location are small in the context of the overall business case. Vodafone asserts that modelling work done by Covec shows that co-location would save a new 3G entrant around $5 million in annualised capital and $1.1 million in annual operating costs in the first year of network rollout. Co-location will affect network rollout at the margins but is unlikely to make or break the business case for a new mobile entrant.

117. Around half of the third party sites on which Vodafone itself co-locates transmission and reception equipment are not existing cell-sites. Instead, they are on top of buildings or are micro-sites in lampposts and traffic lights. Vodafone does not seek to restrict entry to its own transmission sites and does not price co-location above cost. Vodafone has a standard approach to co-location that is adopted for all access seekers.[35]

118. Vodafone argues that regulation of the co-location service (and similarly for the national roaming service) should only be extended if regulation appreciably increases the chance of mobile entry. This analysis would require a comparison of a factual scenario where regulation is extended and a counterfactual where it is not. It is not enough that co-location is helpful to an entrant. Instead, it is necessary to identify what a regulated service adds, given that co-location is already commercially available.

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[34] Vodafone submission, pages 4-7
[35] Vodafone, *Cross submission on draft report on extension review*, 14 July 2006, page 2

Econet

119. Econet agrees with the Commission's market definition and competition assessment in relation to the co-location service. Econet submits that there are strong incentives for an incumbent to engage in anti-competitive behaviour by failing to offer co-location, particularly where that behaviour will deny, delay and/or overcharge a new entrant for co-location.

120. Econet also argues that RMA, community, and landlord issues do limit the desirability of co-locating on certain existing infrastructure, but this does not support a conclusion that all sites are unusable. RMA issues are not a reason to conclude that there is not limited competition. Rather, this is a reason for making amendments to the regime. Also, lease agreements can readily be addressed by direct agreement between the co-locating party and the landowner.

121. Econet also notes that until the Commission has re-evaluated the co-location services regime, only the extension of the service can offer any protection to potential new entrants.

122. Econet disputed Vodafone's claim that it has a number of sites where other co-locate on its masts. Econet presented evidence that the large majority of the North Island sites that Vodafone claims are co-located are co-sited, i.e. the Telecom and Vodafone towers are next to each other (some with a shared access track or power supply). Econet submits that there are only three locations in New Zealand where Telecom and Vodafone share a single tower. These are in Muriwai, where Econet claims the community forced the co-location, and two other Telecom lattice transmission towers where Vodafone has installed equipment.

123. In response to Econet's presentation at the conference, Vodafone argued that it is unlikely that anyone would have been denied co-location for illegitimate reasons. Vodafone also noted that there is a distinction between promoting competition and managing market outcomes. The Commission needs to consider whether it is aiming to resolve an access problem in relation to co-location, or whether something else is desired – e.g. less cellular towers nationwide.

124. While Econet agrees with extension of the co-location service, it would prefer to see the service amended to allow the Commission to set the price, as well as non-price, terms of access.

Commission view

125. For the reasons given in paragraph 106, the Commission considers that broadcast and transmission sites are not substitutes for co-location on cellular transmission sites.

126. Competition for co-location on existing cellular mobile transmission sites is limited due to the fact that the incumbent operators retain control over the optimal sites for co-

location, and have limited incentives to support co-location on reasonable terms for competing cellular operators. This constraint is likely to be most binding in the case of a potential entrant, where the nature and extent of network build is uncertain, rather than in the case of an existing competitor. In the latter case, the reciprocity opportunities for co-location may largely mitigate the market power stemming from control of individual sites.

127. While noting the claims by Vodafone that the costs to a new 3G entrant of achieving co-location are not large in the context of a wider multi-city network build, the Commission considers that the interplay between price levels and the ability for an entrant to secure agreement with existing cellular operators on access to multiple cellular transmission sites in a timely manner continues to represent a significant entry barrier.

128. The Commission anticipates that the co-location code currently under preparation by the Telecommunications Carriers' Forum will assist to standardise the inter-carrier processes surrounding co-location. It would be premature, however, for the Commission to reach any conclusion at this stage as to the long-term impact the code may have in the market for co-location.

129. The Commission does not agree with Vodafone's submission that the test to be applied is whether or not regulated co-location would "appreciably increase the chances of mobile entry". The Commission is required to make the recommendation that the Commission considers best gives, or is likely to best give, effect to the purpose of the promotion of competition in telecommunications markets for the long-term benefit of end-users of telecommunications services within New Zealand. This requires the Commission to be satisfied that the recommended outcome is, or is likely to be, superior to any alternative in achieving the promotion of competition in relevant markets. In that regard, the extent to which Vodafone or Telecom are currently providing co-location services on reasonable terms (about which there is significant dispute) is not a reliable guide to the behaviour of those companies if co-location were not at present a regulated service. For the reasons given above, the Commission considers that, absent the presence of a regulated co-location service, Vodafone and Telecom would be likely to use their market power to deter or delay competitor mobile entry or expansion.

Conclusion

130. The Commission has assessed the level of competition in the national market for co-location on cellular mobile transmission sites and considers that this market is subject to limited competition. Accordingly, the Commission is satisfied that extension of the period of regulation of this service for a further period of two years in accordance with section 65 of the Act will best promote competition for the long-term benefit of end-users.

National Roaming

Introduction

131. In Schedule 1 of the Act, the national roaming service is described as:

> A service that enables an end-user who subscribes to a network operator's (**operator A's**) cellular mobile telephone service to use services (except value-added services) generally accepted as second generation cellular mobile services that are provided to the public by another operator (**operator B**), within the area where operator B has a cellular mobile telephone network (which must not be a third generation cellular mobile telephone network), but which is outside the coverage area of operator A's cellular mobile telephone network telephone network

132. National roaming provides the ability for a customer of a cellular mobile network to make and receive calls in areas where that network is inaccessible due to poor coverage or lack of network reach.

133. Roaming is not currently being provided in the domestic mobile market as the different technologies in use by the two incumbent networks do not support roaming on each other's network. Telecom and Vodafone offer very similar coverage areas to their customers. The capability to provide roaming to a new entrant is limited to the choice between one of the two incumbent MNOs.

134. Telecom and Vodafone have roaming agreements with international mobile operators to allow customers to roam while in New Zealand. However, these agreements are not relevant to the current investigation into national roaming.

Summary of Analysis in the Draft Report

Market Definition

135. The relevant markets for the national roaming service are the national wholesale market for roaming services on GSM cellular mobile networks and the national wholesale market for roaming services on CDMA cellular mobile networks. In arriving at this conclusion, the Commission noted that:

- New Zealand currently has two cellular mobile network service providers. Given the incompatibility of the GSM and CDMA technologies, it is the Commission's view that the market for roaming is made up of two wholesale markets, one for GSM roaming and another for CDMA roaming;
- there are currently no substitutes available for roaming services in New Zealand; and
- that once a new MNO enters the market, roaming services between the two incumbent MNOs are not substitutable.

Competition Assessment

136. The Commission concluded in the draft report that neither Vodafone nor Telecom face competition for the provision of roaming services on their respective networks.

137. In the mobile services market, a new entrant would rely on gaining access to the Vodafone or Telecom network in order to provide nationwide coverage to its customers through roaming. If suppliers of roaming services were to engage in behaviour inconsistent with competitive outcomes (e.g. raising prices above competitive levels), this may discourage market entry or network deployment by a new entrant.

138. If competition is ineffective in the wholesale market for the provision of roaming services, this may affect the ability of carriers to compete in downstream retail mobile services markets.

139. Deployment of a mobile network involves considerable upfront costs in establishing base stations, mobile switching centres and transmission links. There has been no new facilities-based entry into the mobile market in New Zealand since Vodafone bought the former network owned by Bell South in November 1998, though Econet and TelstraClear have both announced their intention to enter the market.

140. The Commission is currently undertaking a review of the mobile market and examining the reasons for lack of new entry into the mobile services market as a prelude to deciding whether or not to commence an investigation into possible changes to the regulatory framework.

141. Immediate large-scale deployment of infrastructure by a new entrant is not necessary to gain nationwide coverage as long as the entrant can negotiate a roaming agreement with an incumbent. However, the competitiveness of price and non-price terms for roaming may be reduced if the incumbents use their market power when negotiating the terms of roaming agreements.

142. Econet and TelstraClear have recently announced plans to build a pilot network in Auckland and a regional network in Tauranga respectively.

143. The Commission's view is that incumbent suppliers of roaming would not be constrained by any new entrant until such time as the entrant itself had significant coverage of major population centres with its own network infrastructure. Accordingly, the Commission considers that MNOs are subject to limited competition in the wholesale market for roaming services on their respective networks.

Submissions on the Draft Report

Telecom

144. Telecom does not oppose the extension of the national roaming service for a further two year period.

Vodafone

145. Vodafone considers that the Commission's market definition for roaming is too narrow and that there are not separate markets for GSM and CDMA roaming. Vodafone notes that an entrant can seek bids from both types of operators before committing to a technology choice and therefore roaming on GSM competes with roaming on CDMA.

146. Accordingly Vodafone argues for a broader market definition, one in which all network entry strategies are options for an entrant – i.e. build, build and co-locate, share network build, build and roam, wholesaling of minutes, and resale.

147. Vodafone submits that the Commission should look at what difference the roaming regulation actually makes by exploring what would happen in the wholesale market in the absence of regulation. Vodafone would like the Commission to construct a simple business case for a roaming entrant and see whether this regulation makes any difference to the chances of entry. Vodafone is willing to commercially provide roaming services on reasonable terms and has strong incentives to provide roaming at a reasonable price.

148. Roaming may result in an increase in total traffic on Vodafone's network, especially if an entrant takes customers from Telecom rather than Vodafone. Increased traffic on the Vodafone network would generate lower average network costs. Without roaming on Vodafone's network, an entrant may choose to build a more extensive network than it would otherwise. In that scenario, Vodafone will lose retail revenues, without obtaining roaming revenues that would help to offset the retail losses.

TelstraClear

149. TelstraClear agrees, once in the market, that a new entrant is unlikely to switch between technologies due to the substantial sunk costs. TelstraClear also agrees with the Commission that there are no substitutes for the roaming service as a requirement to use co-location as the sole means of national coverage would involve unreasonably high costs that would be likely to prevent entry.

150. TelstraClear agrees with the Commission that it is unlikely that potential entry would constrain the market power of Telecom and Vodafone, especially during the extension period. This is because of the level of investment and time required to build a mobile network as extensive as Telecom's and Vodafone's.

151. TelstraClear considers that the existing specified roaming service should be extended for a further two years. Removing the service could remove important regulatory certainty for a new entrant.

152. TelstraClear considers it unlikely that roaming could be commercially negotiated in the absence of the regulation. The costs of continued regulation of this service appear to be low and the benefits are likely to outweigh these.

Econet

153. Econet supports the Commission's market definition and competition assessment and notes that as roaming is not yet subject to competitive pressures, the roaming service must remain regulated. While Econet agrees with extension of the roaming service, it would prefer to see the service amended to allow the Commission to set the price, as well as non-price, terms of access.

154. Econet disagrees with the list of options put forward by Vodafone for a new entrant strategy for the mobile market. Econet contends that none of the options are sufficient to allow a new entrant to compete effectively without roaming.

Commission View

155. The Commission considers that given the incompatibility of the GSM and CDMA technologies, and the inability to switch networks once entry has occurred, there are separate wholesale markets for roaming on each of the GSM and CDMA networks.

Conclusion

156. The Commission has assessed the level of competition in the national wholesale markets for roaming on both the CDMA and GSM cellular mobile networks. The Commission considers that both these markets are subject to limited competition due to the absence of effective substitutes and the importance of national roaming to overcome the entry barriers represented by the need to provide national coverage from the outset.

157. Accordingly, the Commission is satisfied that extension of the period of regulation of national roaming for a further period of two years in accordance with section 65 of the Act will best promote competition for the long-term benefit of end-users.

Number Portability

Introduction

158. In Schedule 1 of the Act, the 'cellular telephone number portability service' is described as:

> A service that enables an end-user of a cellular telephone network service to change providers of that service but to retain the same telephone number (including the same cellular network access code)

159. The 'local telephone number portability service' is described as:

> A service that enables an end-user of a fixed telephone network service to change providers of that service but to retain the same telephone number within a local calling area

160. Number portability requires a method of determining, every time a customer makes a call, whether the called customer has switched to an alternative provider and, if so, to which provider. This requires a modification to the underlying network management and/or infrastructure and, depending on the chosen number portability solution, additional conveyance of calls.

Summary of Analysis in Draft Report

161. The Commission noted that the ability for consumers to retain their telephone numbers when switching between telecommunications providers removes an impediment to the development of competitive markets by lowering switching costs. Number portability is expected to promote competition for the long-term benefit of end-users by enabling customers to switch service providers while maintaining their existing telephone numbers.[36]

162. The absence of number portability appears to hinder the competitive process by raising switching costs that customers must incur in order to change their service provider. Switching costs are generally detrimental to welfare because they are likely to make entry more difficult and markets less competitive.[37]

163. The Commission noted that it has previously identified three broad categories of benfits that accrue to porting customers, non-porting customers and telecommunications providers as a result of the availability of number portability. These are:[38]

- **Type 1 Benefits:** These benefits accrue to customers who port their numbers. These benefits include:

[36] Commerce Commission, determination on the multi-party application for determination of 'local number portability service' and 'cellular number portability service' designated multinetwork services. 31 August 2005
[37] Ibid.
[38] Ibid

- The benefits to customers who switch supplier as a result of number portability being available. For these customers, the benefits are defined as the benefits derived out of improvements in price, quality, and features that are provided by the competing service provider, less the cost of switching when number portability is available.
- The benefits to customers who would have switched service providers even in the absence of number portability. For these customers, the benefit of number portability is the difference between the switching costs when moving to another service provider on a new number and the switching cost when moving to another service provider on a ported number.

- **Type 2 Benefits:** These benefits correspond to efficiency improvements, price reductions and greater variety of products and services resulting from increased competitive pressures induced by the introduction of number portability. Because number portability facilitates switching and lowers its cost, it reinforces market competition. These types of benefits accrue to all users in those markets. Additionally, all operators also derive benefits from number portability as it makes customers more contestable.

- **Type 3 Benefits**: These benefits correspond to the convenience and cost savings enjoyed by all users as a result of fewer numbers being changed (e.g. fewer misdialled calls, directory enquiry calls, updates to directory information and changes to information stored in customer equipment).

164. The availability of number portability is likely to promote competition for the long-term benefit of end-users.

165. The Commission considered that the benefits of cellular number portability would be likely to be experienced in the retail markets for mobile services.

166. The Commission in its recent mobile termination investigation[39] examined competition in the retail mobile services market. The Commission did not form a definitive view on whether the retail mobile services market is subject to limited competition, however, the Commission did not believe that existing or potential competition at the retail level was sufficiently intense to ensure that any excess profits were dispersed through competition at the retail level.

167. The Commission considered that for the purposes of this investigation, this assessment remains valid.

168. The Commission considered that the benefits of local number portability would be likely to be experienced in the retail markets for local access and other associated services.

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[39] Commerce Commission, Schedule 3 Investigation into regulation of Mobile Termination, Final Report, 9 June 2005

169. The Commission noted that it had assessed the level of competition in one of the key downstream markets relevant to local number portability, namely the retail market for residential local access services in non-networked metropolitan areas and considers it likely that there will be limited competition in this market for the next two years. The Commission considers local number portability will enhance competition in this market, and is also likely to promote competition in other markets for local access services.

170. The Commission also noted that it has put in place a number portability determination for both cellular and local number portability that is binding on all parties to the determination.[40] Number portability is not yet available, but is expected to be implemented by April 2007. The Commission's determination will expire on the earlier of:

a. 19 December 2010; or
b. the date on which the number portability service ceases to have designated multinetwork service status because it has either –
    (i) expired under section 65; or
    (ii) been omitted from Schedule 1 under section 66.

171. The Commission concluded in the draft report that the benefits to end-users of telecommunications services from the availability of regulated number portability will only accrue if the period of regulation of number portability is extended for a further two year period in accordance with section 65 of the Act.

Submissions on the Draft Report

172. The Commission notes that no party has raised any objections to the Commission's recommendation that regulation of the number portability services be extended for a further two years.

TelstraClear

173. TelstraClear agrees with the Commission's recommendation to extend the number portability services. TelstraClear considers that the fact that number portability is regulated is a key reason why New Zealand has a target date for delivery of number portability. Retaining regulation of both fixed and mobile number portability is critical to ensuring that service is delivered by April 2007.

Vodafone

174. Vodafone supports the extension of the number portability services as it would be destabilising for the industry number portability project if the regulation were left to expire four months before the service is due to be launched.

[40] Commerce Commission, determination on the multi-party application for determination of 'local number portability service' and 'cellular number portability service' designated multinetwork services. 31 August 2005

Conclusion

175. The Commission considers that number portability will promote competition in both fixed and cellular mobile markets for the long-term benefit of end-users. Benefits from increased competition are likely to flow through to the retail markets for mobile and local access services.

176. The Commission is also mindful of the fact that if the number portability services are not extended, the number portability determination will expire before the services are even implemented within the industry. Accordingly, the Commission is satisfied that extension of the period of regulation of both cellular and local number portability for a further two year period in accordance with section 65 of the Act will best promote competition for the long-term benefit of end-users.

Recommendations

177. The Commission considers that the period of regulation of the following services should be extended for a further two year period from 19 December 2006 to 19 December 2008:

- Retail services offered by means of Telecom's fixed telecommunications network;
- Residential local access and calling service offered by means of Telecom's fixed telecommunications network;
- Bundle of retail services offered by means of Telecom's fixed telecommunications network;
- Retail services offered by means of Telecom's fixed telecommunications network as part of a bundle of retail services;
- Interconnection with Telecom's fixed PSTN;
- Interconnection with fixed PSTN other than Telecom's;
- Local telephone number portability service;
- Cellular telephone number portability service.
- National Roaming; and
- Co-location on cellular mobile transmission sites.

Views of two other members of the Commission

178. Clause 4(3)(d) of Part 1 of Schedule 3 requires the final report to include the views of two members of the Commission (other than the Telecommunications Commissioner) regarding the recommendation. Commissioner Mazzoleni and Commissioner Pickering concur with this report and the recommendations contained within it.

DATED this 28 day of August 2006

Douglas Webb
Telecommunications Commissioner