

**VODAFONE NEW ZEALAND LIMITED
SUBMISSION TO THE COMMERCE
COMMISSION**



**Telecommunication Act 2001: Schedule 3 Investigation
into Regulation of Mobile to Mobile Termination Issues
Paper**

September 2008

Public Version

CONFIDENTIALITY

Confidentiality is sought for that information included in square brackets in the confidential version of this submission (ie [c-i-c]).

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Should the Commission decide to make the information available following a request, despite the reasons set out above, please provide Vodafone with not less than three working days notice so that it has the opportunity to seek to protect its position.

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Executive Summary

1. Vodafone welcomes the opportunity to respond to the Commerce Commission's Issues Paper in respect of a possible Schedule 3 Investigations into the Regulation of Mobile Termination.
2. The Issues Paper does not make a case for the regulation of Mobile to Mobile (**MTM**) Termination Rates for both Voice and SMS. It does not establish an evidence-based argument that on-net pricing might disadvantage a new market entrant. Nor does it establish a link between MTM termination rates and the ability of Mobile Network Operators (**MNO**), large or small, to use on-net pricing as a means of attracting customers.
3. Vodafone is concerned by references in submissions and in the Issues Paper to Fixed to Mobile (**FTM**) termination rates. A three-year investigation into FTM termination rates was settled last year with an outcome that has been very positive for consumers. This is because it has ensured that reductions in FTM termination rates have been passed through to consumers rather than being pocketed by fixed-line carriers. This can be contrasted with FTM regulation in Australia where FTM termination rates were reduced but the majority of the reduction has not been passed on in full by Telstra to consumers in the form of lower FTM calling retail prices.¹ The NZ solution also set termination rates at a level close to that benchmarked by the Commission at the time and on a downward path.
4. It may be sensible for the Commission to enter into discussion in 2011 on FTM termination rates prior to the cessation of the deeds between Vodafone and the Crown and Telecom and the Crown in 2012. However, an investigation into MTM termination rates is not the appropriate forum in which to reconsider the issue.
5. On the issue of whether to further consider the regulation of MTM termination rates, we believe there are major short-comings in the Commission's preliminary analysis of this issue.
6. First, the Commission links on-net pricing with an inability of a new entrant to compete. The rationale is that if an MNO has 50 percent market share, an on-net discount potentially applies to 50 percent of calls made by a subscriber to that network. If an MNO has 10 percent market share, however, only 10 percent of calls are potentially

¹ Telstra Corporation's Annual Reports show that its average revenue per minute from providing FTM calls has only fallen from 38.5 cpm in the 2003-04 financial year to 35.5 cpm in the 2007-08 financial year. In the same period, the regulated price of FTM termination services has fallen from 21 cpm to 9 cpm.

subject to an on-net discount. Thus, the larger network has an advantage as there is more potential value in on-net pricing.

7. However, the fact is that we, as consumers, do not spread our calls across the entire mobile market. Most of us place the vast majority of our calls to a small group of family, friends and co-workers. For example, [c-i-c] percent of Vodafone's customers called five or fewer numbers in June 2008. It is because of this tendency to have small calling circles that on-net pricing is actually used in many markets by smaller operators to gain market share. A new entrant could use on-net pricing to target those groups such as families and businesses if they chose to do so. The experience across European markets is that many small operators have used this strategy effectively for gaining market share.
8. Second, the Commission attempts to build a rationale for regulating MTM termination rates on a market snapshot that does not take into account the effects of recent and current regulatory processes designed to facilitate increased competition in the mobile services market. In particular, it does not acknowledge the effects of regulatory interventions in relation to national roaming or co-location, and the commercial agreements the regulatory processes stimulated. Further, it does not acknowledge the fact that NZ Communications is already building a network and has a fully implemented national roaming service available to it from Vodafone to enable it to already provide services to consumers. Vodafone has also signed three wholesale agreements that will lead to further entry into the market in coming months (one of them - Black and White – has already commenced a soft launch of its network). Telecom has announced its move to GSM and also has a wholesale agreement with TelstraClear, which has recently launched aggressive retail mobile pricing plans into the market. In 2009, therefore, New Zealand consumers will have a choice of as many as seven service providers.
9. The Commission should let the new regulatory and commercial arrangements take effect before it decides whether further regulation is required.
10. Building a case for regulation based on the market analysis but ignoring these changes is puzzling. It seems equivalent to doing an assessment on whether or not to regulate a fixed line service and conducting a market analysis that does not mention the establishment of Local Loop Unbundling.
11. Third, the Commission does not adequately demonstrate linkages between MTM termination and on-net pricing. On-net pricing is a feature of nearly all mobile services markets including those with regulated MTM termination rates and those with a Bill and

Keep system in place.

12. Fourth, the Commission has applied too narrow an analytical framework to assess the implications of changes to MTM termination that does not reflect the reality of how mobile operators price services provided over their networks. It has treated it like a simple access bottleneck arrangement. The reality of MTM termination is quite different and is better characterised as a bilateral bargaining activity. This is essentially because mobile phone subscribers expect to be able to make and receive calls and they expect to be able to do this across all networks in a country and most networks across the world. To enable this, MNOs have to have interconnect arrangements in place with networks all over the country and around the world. Further, if they attempted to extract monopoly rents, the other carrier would recoup the cost of that by doing the same thing in return. This significantly impacts upon the rationale for whether or not there should be a presumption that regulation is required. In New Zealand, MTM rates have typically been the same in both directions. In other jurisdictions where there are asymmetrical rates, the asymmetry has been in favour of new entrants.
13. Finally, the benefits of regulation are difficult to establish. Traffic flows across networks are symmetrical given similar customer profiles. Therefore, if MTM rates were lowered there is unlikely to be a significant difference in net interconnection revenue and there may be very little impact on the downstream markets. Alternatively, to the extent there are asymmetrical traffic flows and/or asymmetrical termination rates set by regulation, there would be an impact on interconnect revenues in which case there would be a 'waterbed effect' where lower revenue in one area would be recouped in another area. This may be through, for example, slowing the pace of price reductions or slowing new investment.
14. Traffic flows are dictated for the most part by the pricing structures and market segments pursued by an MNO. For example, if a strategic decision is made to target high ARPU customers, it is likely there will be higher than average traffic outflows as these consumers tend to make more calls than other users. This has to be weighed against the revenue made from charging the customers and is a strategic call MNOs make when making pricing and marketing decisions.
15. The Commission would have to consider the impact of setting cost-based regulated prices on the new entrant's network. It would be regulating a network before it has even been built. Should the Commission decide to regulate prices on the new entrant's network at a higher price (asymmetrical termination rates) it would have to consider the distortions this would create. The distortions caused by asymmetrical

pricing have been a major concern for the European Regulator's Group which is recommending they be phased out in European member states to eliminate the market distortions they create.²

16. The Commission would have to weigh these potential negatives against the fact that we have some of the lowest retail rates and highest usage of SMS in the world. We have had the highest growth in voice minutes in the Vodafone group over the previous two years, our revenue per minute for voice is approximately the same as other European Vodafone companies and we are about to move into a period of much more intense competition which will place further downward pressure on prices as a third GSM network is built and up to four MVNOs enter the market.
17. In summary, New Zealand's mobile services market is currently undergoing significant structural change. The impact of MTM regulation is very unclear and could be negative. Vodafone strongly encourages the Commission to have faith in recent regulatory and commercial arrangements that are in place and in progress as a result of its work on FTM termination rates and Co-location and National Roaming, and allow carriers to focus on implementing those arrangements and on further improving offerings in the marketplace.
18. Without evidence that recent regulatory mechanisms have failed, there is little justification for the Commission to alter existing regulatory and commercial agreements between Vodafone and the Government.

² See *ERG's Common Position on symmetry of fixed call termination rates and symmetry of mobile call termination rates*, European Regulator's Group, ERG (07) 83 Final 090312.

Introduction

19. Vodafone welcomes the opportunity to respond to the Commerce Commission's Issues Paper in respect of its Schedule 3 Investigation into Regulation of Mobile Termination.
20. In its Issues Paper, the Commission asks parties to comment on a number of aspects relevant to its consideration of whether to regulate termination of:
 - mobile-to-mobile (**MTM**) voice calls;
 - MTM SMSs; and
 - fixed-to-mobile (**FTM**) voice calls.
21. Each of these services is a necessary input used by telecommunications service providers to provide retail services to consumers. FTM and MTM termination services enable fixed and mobile consumers to make calls to mobile phone users; while SMS termination services enable mobile phone users to send text messages to other mobile phone users.
22. In short, Vodafone does not believe there is a good reason to conduct a Schedule 3 Investigation into the regulation of any of these services.
23. Vodafone's submission to the Commission's Issues Paper contains four main components:
 - a set of high-level comments on a number of aspects relevant to the Commission's consideration;
 - answers to each of the specific questions raised by the Commission in its Issues Paper;
 - a report prepared for Vodafone by COVEC, which specifically addresses economic issues associated with MTM termination; and
 - a series of papers dealing with on-net pricing issues produced by Vodafone Group.
24. The high-level comments referred to above relate to:
 - FTM voice termination;
 - SMS termination;
 - MTM voice termination;
 - On-net pricing;
 - The fallacy of suggestions that small network operators will, by definition, send more traffic to larger networks than they receive and that this is a problem that requires regulatory remedies

- [c-i-c

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25. Each of these matters is addressed, in turn, below. The answers to the Commission's specific questions, the COVEC report and a Vodafone Group document are provided as attachments to this submission.

FTM voice termination

26. Over the period from May 2004 to April 2007, the Commission, the Minister of Communications (**Minister**) and industry participants engaged in an exhaustive process to determine appropriate prices for the termination of FTM voice calls on mobile operators' networks. During this process the Commission:
 - produced an Issues Paper and received submissions and cross submissions on it;
 - produced a draft report and received submissions and cross submissions on it;
 - held a conference to discuss the draft report;
 - produced and consulted on the service description for mobile termination;
 - issued a final report; and
 - produced, and received submissions and cross submissions, on a draft reconsideration report.
27. Clearly the issue was given full and thorough consideration by all relevant stakeholders. Many millions of dollars would have been spent by industry and Government on consideration of this issue.
28. The key issue of concern for the Minister when rejecting the Commission's recommendations on this issue related to the question of FTM pass-through. FTM pass-through refers to the extent to which reductions in FTM voice termination rates lead to reductions in retail FTM prices for consumers. While some parties argued for lower FTM voice termination rates for this service, no party was able to guarantee that reductions in the price of the termination service would be fully passed-through to consumers of FTM calls. If reductions in mobile termination rates (**MTRs**) were not passed-through to consumers in full and in a timely manner, the outcome of any regulatory action would be mixed. While consumers might enjoy some of the reductions in MTRs in the form of lower prices for FTM calls, the remainder of the reduction in input costs would simply be pocketed by fixed-line operators (or fixed-lined operators may delay passing through MTR reductions, delaying any fixed-line consumer benefit). In other words, in the absence of a mechanism to ensure FTM pass-through occurred, there was a significant risk that a substantial amount of any reduction in mobile termination charges would simply represent a wealth transfer from mobile operators to fixed-line operators – with consumers missing out on the benefits they should have received.
29. In this regard, it is noteworthy that the most recent annual report from Telstra in Australia shows that while FTM termination rates have fallen by 12 cents per minute

(cpm) since June 2004, Telstra has only reduced its average retail price for FTM calls by 3cpm – i.e. pass-through has only been occurring at a rate of 25 per cent of reductions in the price of FTM termination.³

30. In the meantime, reductions in mobile termination charges would mean mobile operators would receive less revenue when calls were made to their consumers. In turn, this would change the profitability of consumers who subscribed to their network. As a result of this, MNOs would likely increase the prices of other services they provided to their consumers in order for them to remain profitable. That is, reductions in FTM termination rates would likely be followed by increases in the prices of retail services provided to mobile phone users, or reduce the extent to which they might lower retail prices in the future. This is the so-called “waterbed effect”, where reductions in mobile termination charges would be expected to lead to increases in the price of other retail mobile services. This risk of this effect was recognised by the Commission in its recommendations to the Minister.⁴ It has also been recognised by both regulators in other overseas jurisdictions⁵ and by economic experts familiar with this issue.⁶
31. Accordingly, it was not clear that regulation of FTM termination services would generate significant overall benefits for telecommunications consumers as a whole if it carried the risk of higher prices for retail mobile services and the prospect of only limited reductions in the prices of FTM calls.
32. A significant advantage of the regulatory regime in New Zealand is that carriers are able to provide binding offers to the Crown to reduce the prices of services in lieu of more formal regulation of these services. Such arrangements have the advantage of providing greater certainty to providers of services over the prices they will be able to

³ Telstra Corporation’s Annual Reports show that its average revenue per minute from providing FTM calls has only fallen from approximately 38.5 cpm in the 2003-04 financial year to approximately 35.5 cpm in the 2007-08 financial year. In the same period, the regulated price of FTM termination services has fallen from 21 cpm to 9 cpm.

⁴ *Reconsideration final report on whether mobile termination should become a designated or specified service*, Commerce Commission, 21 April 2006, p 40

⁵ See, Competition-Commission, *Vodafone, O2, Orange and T-Mobile: Reports on References Under Section 13 of Telecommunications Act 1984 on Charges Made by Vodafone, Orange, O2 and T-Mobile for Terminating Calls Made by Fixed and Mobile Networks*, HMSO, London (2003); Ofcom, *Wholesale Mobile Voice Call Termination: Statement*, Office of Communications, London (2004); and Ofcom, *Mobile Call Termination: Statement*, Office of Communications, London (2007).

⁶ Genakos, C. and T. Valletti, “Testing the waterbed effect in mobile telephony”, CEP Discussion Paper No. 827, October 2007 (available at <http://cep.lse.ac.uk/pubs/download/dp0827.pdf>) and K. Andersson and B. Hansen, “Network competition: Empirical evidence on mobile termination charges and profitability”.

charge into the future, and can ensure consumers can enjoy the benefits of price reductions sooner rather than later. It can also ensure that the costs of long, drawn-out, regulatory disputes can be avoided if offers are put forward to the satisfaction of either the Commission (in the form of Undertakings) or the Crown in the form of a Deed.

33. Following many years of debate on this issue, Vodafone and Telecom were both able to eliminate the need for further disputation by putting forward Deeds in relation to the price of FTM termination. The key features of these Deeds were that they:
 - involved Vodafone and Telecom voluntarily offering to reduce the prices they charged for FTM termination over a number of years; and
 - ensured these reductions would be passed-on, in full, in the retail price of FTM calls provided by both Telecom and Vodafone.
34. While the reductions in FTM termination rates may have been greater than Vodafone and Telecom initially would have preferred, and may not have been as large as some access seekers had argued for, they did have the significant advantage of ensuring consumers would fully benefit from these price reductions. To put this in perspective, the MTR Deed put forward by Vodafone ensured the price of mobile termination would fall from 20 cpm on 31 March 2007 to 14 cpm by 1 April 2011. In turn, this would lead to a 6 cpm reduction in the price of FTM calls over this same period. If pass-through was occurring at a rate of only 25 per cent – as has been the case in Australia since July 2004 – such a 6 cpm reduction in the price of FTM termination would have led to only a 1.5 cpm decrease in the retail price of FTM calls for consumers.
35. Vodafone notes that if a decision were made to regulate the price of FTM termination services, the MTR Deed would cease to be binding on Vodafone and Telecom. This would re-introduce considerable uncertainty into the industry and remove the unique achievement here in New Zealand of ensuring reductions in MTRs are passed on, in full, in the retail prices of FTM calls – to the detriment of New Zealand consumers.
36. Vodafone believes that the current arrangements contained in the MTR Deed, which only commenced in April 2007, should be allowed to continue until the end of these arrangements in March 2012. Any suggestion that these arrangements should be abandoned only 16 months into their five-year operation would greatly undermine aspects of the New Zealand regulatory regime that have been designed to provide carriers with an opportunity to prevent lengthy regulatory disputes by giving them the opportunity to voluntarily make offers to the Crown regarding the prices they can charge for their services. Commencing a fresh inquiry so soon into the operation of the MTR Deed would provide a great disincentive for any telecommunications service

provider in the future to make an offer to the Crown to voluntarily charge lower prices for their services if any such arrangements could be over-turned shortly after a carrier had reduced its prices. It also subjects the industry to further rounds of exhaustive discussions about an issue that was debated at length for over three years and only recently resolved last year.

37. Overall, it simply seems premature to re-open discussion of an issue a little over one year into a five year solution agreed to by a Minister of the Crown. To suggest this arrangement is no longer appropriate questions the wisdom of the relevant Minister in this matter.

SMS termination

38. Vodafone does not believe there is sufficient reason for the Commission to conduct an inquiry into whether to regulate SMS termination services.
39. In the first instance, the Commission's Issues Paper provides no reason to suggest that consumers are experiencing excessively high prices for SMS services in New Zealand. In particular, its assessment of the state of competition in mobile markets in New Zealand provides little, if any, consideration of retail prices and usage levels for SMS services for consumers.
40. Vodafone submits that prices for SMS services in New Zealand are exceptionally low by world standards, and that usage levels per consumer are high. Consumers can now purchase a range of offers from mobile operators that enable them to make large numbers of texts at very low retail prices. For instance, Telecom currently offers a \$10 text offer, which enables its consumers to make up to 500 texts per month to any mobile network in New Zealand. Similarly, Vodafone offers TXT 600 which enables consumers to send up to 600 texts to any network each month for only \$12.95 per month. Telstra Clear has only recently released an offer that enables consumers to send up to 500 texts to any network as part of a bundle of services.
41. There can be no doubt that SMS prices in New Zealand are very low by world standards. It is also noteworthy that the average revenue Vodafone receives from SMS services has fallen by over [c-i-c] per cent in recent years in New Zealand.⁷ This has contributed to strong growth in SMS usage in New Zealand over the same period, with SMS usage per customer increasing by approximately [c-i-c]. Vodafone notes that its average revenue from SMS services makes it amongst the lowest priced of all its operating companies in the world, and its usage per subscriber amongst the highest of any consumers in the world.
42. These are not the signs of a service that is in need of serious regulatory attention. It is hard to see how consumers of SMS services will benefit from any regulatory intervention.
43. Further, Vodafone notes that even if it appeared that SMS services were highly priced and under-used, the case for regulating SMS termination services is particularly weak. Only one regulator in the world (ARCEP in France) has chosen to set regulated prices for SMS termination services. No other regulator in the world has chosen to do so.

⁷ The average revenue Vodafone receives per SMS fell from [c-i-c] cents per text (cpt) in January 2004 to [c-i-c] cpt in December 2007.

44. The reason for this is simple. The nature of SMS services is such that when a consumer sends a text message to someone, the recipient of that text message usually replies. While different retail marketing strategies adopted by different carriers can have some impact on consumer texting behaviour, traffic flows between carriers do, on balance, tend to roughly balance each other out over time. Hence, if the amount of text messages one network sends to another is roughly matched by the number of text messages it receives back, then traffic flows between interconnecting operators will tend to largely offset each other. This is the case irrespective of network size. Consumers on large networks don't normally ignore texts received from others simply because they are on a smaller network.
45. Provided network operators set equal prices to terminate SMSs on each other's networks, interconnection payments between carriers should cancel each other out. That is, while a reduction in SMS termination prices will reduce the interconnection revenue one carrier receives from another, it will also decrease the amount the first carrier pays to the second by a similar amount.
46. It follows, therefore, that the two-way nature of SMS communications means that reductions in SMS termination rates should have little net bearing on mobile network operators. For this simple reason, it should have little impact on the ability of a mobile operator – small or large – to compete on its merits to provide retail mobile services to consumers.
47. Regulating SMS termination rates can only influence the ability of mobile operators to compete with each other if they are set on an asymmetric basis. That is, if one carrier is able to set a higher charge for terminating SMSs on its network than another carrier. With roughly balanced traffic flows, this will enable the carrier able to charge a higher rate to extract a net payment from its competitor.
48. It is widely recognised, however, that setting asymmetric termination rates between mobile network operators gives rise to a series of distortionary effects. Principally, it protects a firm that might be less efficient from having to increase its efficiency because it effectively becomes subsidised by its competitors. For these reasons, the independent European Regulators Group (ERG) has recently recommended that all asymmetric termination rates with regard to voice termination rates should be phased out in Europe by 2011.
49. While subsidising a less efficient, or smaller carrier, by setting asymmetric termination rates may ensure an extra operator is able to remain in the market, this is not consistent with the promotion of efficient competition. It is a fundamental tenet of

competition policy that competition is not to be promoted for its own sake. Competition is to be promoted because of the benefits it provides to consumers. Principally, this is because it can encourage firms to develop new and more efficient ways to provide services in order to lower the costs of servicing consumers and improve their quality of service. In short, efficient competition enables efficient carriers to displace less efficient ones. This pressure is ultimately good for consumers. To relieve smaller or less efficient carriers of this pressure simply in order to keep them in the market will, in the long-term, provide little real benefit to consumers. Indeed, the additional cost of subsidising an inefficient competitor could mean higher costs for consumers. Accordingly, subsidies from one set of carriers to smaller or less efficient carriers is not likely to promote competition in a way that will be to the long-term benefit of consumers.

50. In any case, Vodafone notes that its SMS termination rates do not appear high compared to those it sets with other operators in a range of overseas jurisdictions. In this regard, Figure 1 below shows that Vodafone New Zealand's SMS termination rates compare favourably with those set by Vodafone operating companies in a number of other well developed jurisdictions, including [c-i-c

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[c-i-c

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51. It is also noteworthy that new entrants have been able to enter and thrive in these markets in recent years despite commercial SMS termination rates being set at these levels. In other words, it does not appear to have been necessary in a number of these jurisdictions for regulators to set SMS termination rates in order for new entrants to enter these markets.
52. Overall, therefore, the combination of existing highly competitive prices for SMS services at the retail level and the minimal impact of SMS termination rates on an efficient carrier's ability to compete means there is little reason to believe regulation of SMS termination services will generate any meaningful impact that will be to the long-term benefit of New Zealand consumers of mobile telecommunications services.

MTM voice termination

53. Under typical competition analysis of whether to regulate access to an infrastructure service, three key steps are undertaken:
- First, the analytical framework to analyse how the markets for providing these services interact is established. This is the so-called “market definition” process;
 - Second, the state of competition in relevant markets is considered; and
 - Third, if the state of competition in certain markets is thought to be less than effectively competitive, regard is given to whether regulatory intervention might improve that situation to the benefit of consumers. This is done by considering the outcome that would be likely to occur under regulation (the factual) with the outcome that would occur in the absence of that intervention (the counter-factual).
54. In its Issues Paper, the Commission takes the first steps towards establishing this framework for considering whether to regulate MTM termination services. It:
- describes MTM termination as being a bottleneck service that is needed in order for carriers to provide retail mobile services to consumers;
 - concludes that the prices charged for MTM termination are likely to be above the underlying cost of providing the service, and that the state of competition in the downstream retail mobile services market is less than effectively competitive; and
 - establishes a welfare economics framework to demonstrate how reductions in MTM termination might be expected to lead to reductions in the price of retail MTM calls for consumers, with consequent gains in allocative efficiency.
55. On the basis of this preliminary analysis, the Commission appears to conclude that MTM termination rates should be regulated.
56. Vodafone appreciates that the Commission’s analysis of this issue is still at a preliminary stage. However, Vodafone believes the Commission’s:
- market analysis of the way in which MTM termination services and retail mobile services interact with each other is too simplistic and not reflective of the way in which mobile operators consider the prices they set for services they provide to consumers;
 - assessment of the state of competition in the market within which retail mobile services are provided is too heavily focused on just one aspect of mobile services (voice) without having regard to the prices charged for (and usage of) other services provided by mobile phone operators; and
 - assessment of the state of competition in the future without regulation (ie the counter-factual) is too static in its nature and does not properly consider the range of regulatory measures it has taken in recent years and the changing structure of the market going forward.

57. As a result of these factors, we believe the Commission's analysis leads it to an incorrect conclusion that regulating MTM termination would be likely to lead to significant welfare benefits for consumers. We believe this is a hasty conclusion that needs further re-consideration in light of:
- the more complex interactions that are well understood between MTM termination (as a source of revenue and cost for mobile operators) and other sources of revenue for mobile operators (such as retail prices for voice, SMS, mobile broadband and other services); and
 - [c-i-c].
58. Vodafone believes that once these matters have been taken into account, the justification for formally launching an investigation into whether or not MTM termination should be regulated will be largely removed.
59. In support of these views, the remainder of this chapter considers:
- the appropriate analytical framework for analysing the impacts of different prices for MTM termination;
 - what drives traffic flows between mobile network operators;
 - the Commission's assessment of the state of competition in the markets within which retail mobile services are provided; and
 - the impact of MTM termination rates on the ability of a new entrant to profitably provide mobile services to consumers.
60. Based on this consideration, Vodafone concludes there is little reason to believe that tinkering with MTM termination charges would be likely to promote competition to the benefit of end users of telecommunications services in New Zealand.

MTM termination is not a typical access bottleneck problem

61. In its Issues Paper, the Commission provides welfare analysis [at paras 82 to 95] that implies there is a simple relationship between MTM termination rates and the price of mobile voice calls. The implication of this analysis is that a move to reduce the price of MTM termination towards underlying cost should lead to reductions in the price of retail MTM voice calls.
62. The Commission's analysis in this regard is well suited to the kind of simple access regime problem one would expect for traditional industries such as gas, where production chains are fairly "one-way" in their nature. It is not, however, appropriate in the case of MTM termination.

63. In reality, when a customer subscribes to a particular mobile network, they bring with them a series of different revenue streams. In particular, mobile operators receive revenue from:
- retail voice calls and SMSs made by the subscriber;
 - incoming interconnection revenue they receive from other consumers making calls (and sending SMSs) to this subscriber;
 - network subscription charges; and
 - revenue from the sale of additional services, such as mobile handsets.
64. In addition to this, mobile network operators must also consider that providing services to their mobile subscribers involves a number of costs. Included in these are the costs of interconnecting with other network operators.
65. As a result of this, mobile operators have regard to a number of cost drivers and revenue flows when determining the prices they should set for all of the services set out above. Further, these revenue flows and cost drivers are inter-related such that a change in the price of one service can generate changes in the demand for other aspects of the bundle. For instance, an increase in the price of network subscription might be expected to lead to a reduction in demand for subscription to a given mobile network. In turn, this will lead to a reduction in the revenue a mobile operator might expect to get from interconnection, as there are less subscribers to the network who would be expected to generate interconnection revenue from received calls.
66. Similarly, setting asymmetric MTM termination charges would be likely to generate incentives for mobile network operators to change the way they structure retail prices for consumers in order to attract particular types of customers. For example, if one operator was able to charge higher prices to terminate calls on its network than it had to pay to terminate calls on a rival's network, it would have an increased incentive to attract consumers that were "net receivers" of calls from other networks. Hence, it would be likely to have a strong incentive to offer subsidised rates for those callers – such as budget conscious pre-pay customers – who might tend to make fewer calls than they receive.
67. The key point is that altering the price of MTM termination services will have a number of ripple effects that will alter the optimal profit-maximising pricing strategy for a mobile operator across a large range of services. Put simply, MTM termination is a service that sits within a far more complex analytical framework than that envisaged by the Commission in its preliminary thinking.

68. These views are supported by the attached report from COVEC which finds, among other things, that:
- MTM termination is not an example of a simple bottleneck access problem;
 - that changes in the price of MTM termination rates will have a number of effects on retail prices for mobile phone usage that will positively impact on the prices paid for some services, but will also likely lead to increases in the prices of other services;
 - negotiations between network operators over MTM termination rates is not like that between a typical buyer and seller of a simple monopoly service – rather, it is one better described as a situation of bargaining between two parties who each have bargaining power with respect to providing termination of calls to carriers on their network (irrespective of their market size);
 - in consequence of this, the Commission’s preliminary welfare analysis is too narrow in its focus. The Commission must use a properly specified and complete welfare analysis if it is to properly evaluate the effects of any proposed regulatory intervention.
69. As a result of these considerations, Vodafone submits that the Commission needs to conduct significantly more work to understand the analytical framework within which MTM termination prices are set before it can confidently conclude that reductions in MTM termination rates from current levels will be likely to generate welfare gains for consumers as a whole.

Customer calling profiles are the main drivers of traffic flows between interconnecting networks

70. In Vodafone’s response to the Commission’s initial letter to interested parties on MTM termination dated 8 May 2008, Vodafone provided detailed argument to demonstrate that traffic flows between networks are not related to network size or market share. Accordingly, Vodafone considers that as traffic flows are likely to be close to symmetrical, MTM rates do not represent a significant issue in terms of interconnection revenue.
71. Further, when determining prices to charge for the range of services provided over their networks, MNOs have regard to the series of factors relating to the profitability of their consumers that were outlined in pars [63] and [64] above.
72. Vodafone believes that any proper consideration of altering MTM termination rates should have regard to the implications changing just one of these factors will have on the prices charged for these other factors. As indicated in the report prepared for Vodafone by COVEC, there are just as many “waterbed effect” considerations to have

regard to in the context of MTM termination pricing as there are when considering regulation of FTM termination.

73. Vodafone's main concern with the analysis set out by the Commission in its Issues Paper is that it has no regard to the complex interactions that exist between MTM termination rates, traffic flows between interconnecting operators and retail prices for mobile telecommunications services. Instead, the Commission simply treats MTM termination as an input to the provision of a simple downstream service (MTM phone calls) without any regard to the other interactions that are likely to occur.
74. Mobile network operators have considerable control over their own pricing structures. They are also, subject to competitive constraint, able to design retail pricing structures that stimulate on-net traffic. Doing so increases the amount of traffic terminating on-net and reduces the proportion of traffic terminating off-net. However, favourable on-net pricing should not, of itself, make the traffic flows between networks unbalanced.
75. On-net pricing incentives encourage customers to care about the network to which their preferred calling parties (so-called "B-parties") are connected, and to make more frequent contact with potential B-parties on the same network. This imposes some burden on consumers as they have to consider whether a call is on- or off-net; lower on-net call prices are the compensation networks offer for that burden – this is magnified with the existence of mobile number portability.
76. All networks have the ability to offer reduced on-net pricing. The ability to attract subscribers through such pricing arises because subscribers are sensitive to the price for calls to the people they call and receive calls from the most.⁸ This tariff-mediated network effect is not directly affected by the size of a mobile network – i.e., there is no reason why a small network cannot capture it – rather, it is influenced by the subscription pattern of the members of a caller's calling circle. It is a common and long standing fact that the vast majority of calls made by a subscriber are to a very small number of other subscribers. This was first recognised publicly by the UKCC in 2003.⁹ Vodafone confirms that this is consistent with actual New Zealand subscriber behaviour.
77. It is certainly plausible that a new entrant would have more to gain from aggressive on-net pricing than an incumbent network. This strategy, combined with appropriately targeted marketing, has quite strong viral elements which could magnify its influence.

⁸ It is quite intuitive to recognise that subscriber behaviour is not affected by the price to call people which they never call.

⁹ See, Competition-Commission, *supra* note 4, p. 255.

Once one person finds the offer attractive, they have a strong incentive to “convert” their friends and family because doing so validates (and increases the value of) their own decision to switch. Vodafone’s experience in Europe demonstrates that most late entrants have used this strategy to gain market share (see Appendix II)

78. A large network may not respond immediately to such a strategy, because it would be very costly for a large network to cut on-net prices across the board in response to a campaign that is most attractive to marginal subscribers. Research by Frontier Economics demonstrates that it is not economically viable for a large network to use on-net discounts as a barrier to entry, or as a tipping strategy (see Appendix II).
79. This suggests that a new entrant has considerable “first mover” opportunity in the short term to influence the direction of traffic flows for a period of time. However, competitive responses will likely mean that traffic flows will rebalance over time. For example, a new entrant could aggressively push off-net pricing. This could prompt its customers to call to other networks more often than they might in the absence of such a strategy. This would mean a net outflow of connection revenues. However, if such an approach meant that the new entrant was gaining market share due to the popularity of such plans, it should be expected that competitors would be likely to respond with similar pricing initiatives. This would mean a greater number of outgoing calls and a likelihood of a return to traffic symmetry.
80. Actual market evidence demonstrates that on-net/off-net differential is a feature of highly competitive markets, and is driven by new entrants.

The state of competition in the market for mobile services is more promising than the Commission suggests

81. In its Issues Paper, the Commission concludes that:
 - New Zealand mobile markets are subject to lower competitive pressure than in other OECD countries;
 - prices for mobile services in New Zealand remain relatively high compared to other OECD countries; and
 - mobile volumes in New Zealand’s retail market are lower compared with other jurisdictions overseas, where return per minute tends to be above average.
82. These conclusions reflect similar points made by the Commission in previous considerations of the state of competition in the New Zealand mobile services market.
83. On this basis, it would appear the Commission believes regulation of MTM voice termination services may go some way towards redressing these concerns and

facilitating new entrant into the market within which mobile services are provided in New Zealand. Crucially, if the Commission believed the mobile services market was already effectively competitive, it would greatly lessen the justification for needing to use regulatory measures to address aspects of the provision of mobile services in New Zealand.

84. Vodafone has a number of concerns with the Commission's analysis of the state of competition in the market within which mobile services are provided. In the first instance, and as indicated above, the Commission's analysis appears to give little attention to the prices for, and volumes consumed of, SMS services in New Zealand. Vodafone considers this to be a serious oversight, as mobile operators compete for mobile subscribers on the basis of both voice and SMS services provided to consumers. What is important when considering the state of competition in mobile services markets is the overall prices paid for, and volumes consumed of, the whole suite of mobile telecommunications services provided to consumers by mobile phone operators.
85. Accordingly, rather than focus exclusively on voice prices paid by mobile phone users, the Commission should focus on broader measures of the effectiveness of competition in the markets within which mobile services are provided. In this regard, Vodafone believes it would be more appropriate for the Commission to have regard to measures of average revenue per user (ARPU) for New Zealand consumers. This measure combines the total revenue a carrier receives for all of the mobile telecommunications services it provides (including voice, SMS, mobile broadband and interconnect revenues), and then divides this by the total number of consumers it serves. In essence, it shows how much New Zealand consumers spend, on average, on the full suite of mobile telecommunications services that they purchase. By considering the full bundle of mobile services purchased by consumers, the Commission would be able to view a more complete picture of the market within which mobile services are provided. In this regard, Vodafone notes that the ARPU for New Zealand consumers compares favourably with a number of overseas jurisdictions. This is demonstrated in Figure 2 below.

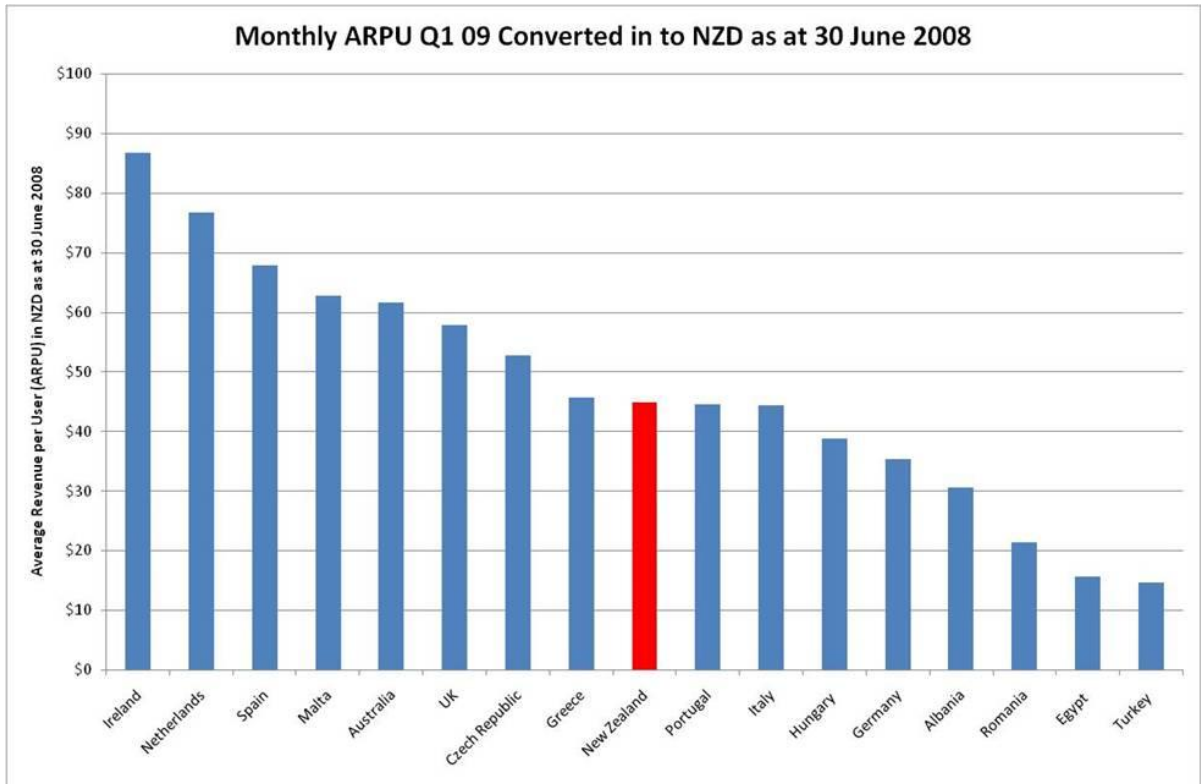


Figure 2 – Monthly ARPU as at 30 June 2008

86. Of course, ARPU figures are not, of themselves, a complete measure of the prices consumers pay for mobile telecommunications services. This is because low ARPUs may also be consistent with high prices if usage levels are also low. This is why it is important to consider usage levels in conjunction with ARPU measures. In this regard, however, Vodafone notes that usage levels for mobile services in New Zealand have risen considerably in recent years, as is demonstrated in Figures 3 and 4 below.
87. Figure 3 shows growth since 2005 compared with other Vodafone Operating Companies. Figure 4 shows growth since 2007 compared with Vodafone Operating companies. These demonstrate that usage is growing strongly and has accelerated considerably in the past two years.

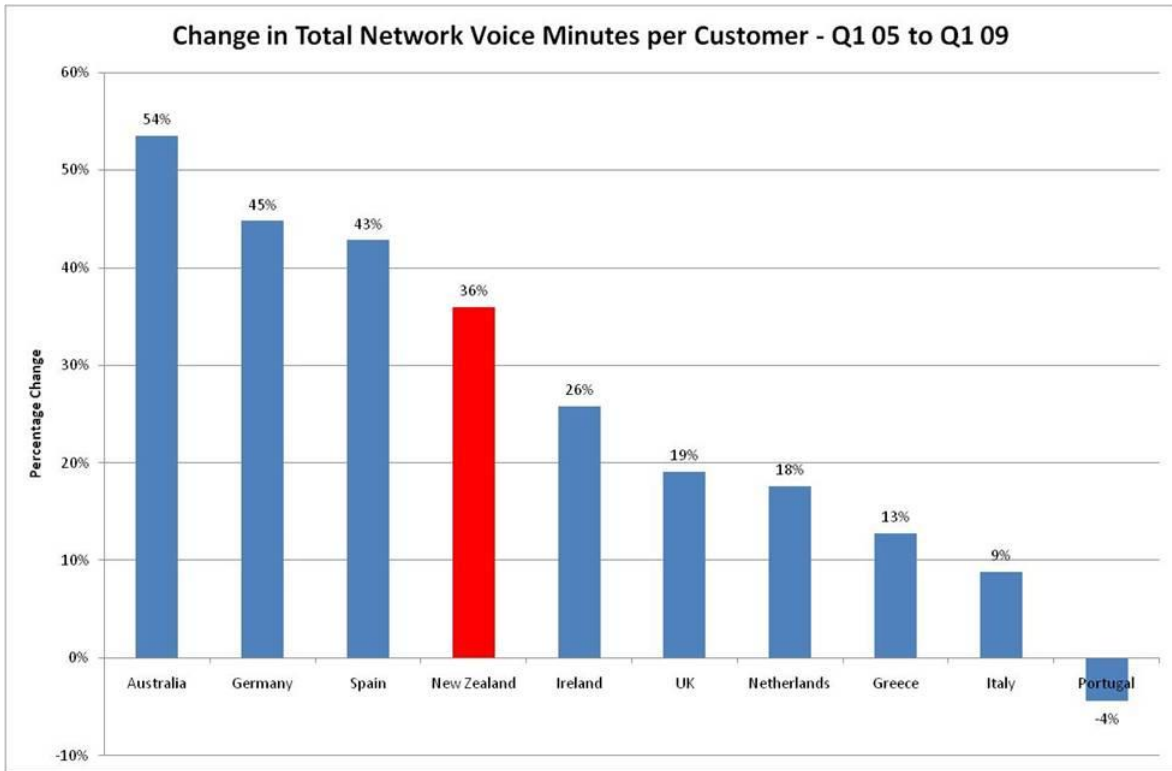


Figure 3 – percentage growth in minutes of usage Vodafone Operating Companies Q1 05 to Q1 09.

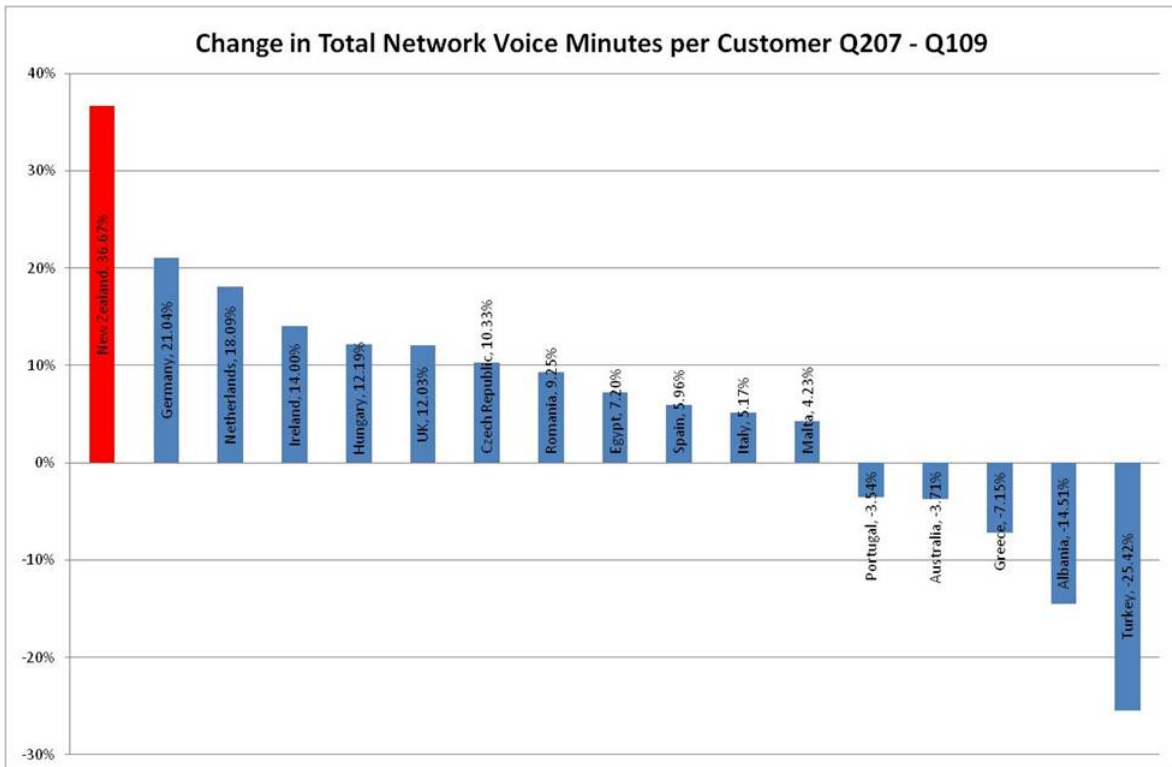


Figure 4 – percentage growth in minutes of usage Vodafone Operating Companies Q2 07 to Q1 09.

88. As a consequence of this, it is not surprising that average revenue per minute of use in New Zealand compares favourably with European/OECD countries, as was set out in the Commission's 2007 Annual Telecommunications Market Monitoring Report.¹⁰
89. Further, Vodafone is concerned that the Commission's analysis of the state of competition in the markets within which mobile services are provided is too static in its nature, and does not have regard to the significant regulatory reforms that have occurred in New Zealand in recent years. That is, much has been done in the last two years to address the Commission's concerns about the state of competition in the market within which mobile services are provided.
90. In particular, in May 2006, the Commission commenced an investigation into barriers to competition in the mobile services market. This became Schedule 3 Investigations into amendments to the Roaming and Co-location Services. These resulted in a Standard Terms Determination process for Co-location, which is currently underway and is being progressed by Vodafone in parallel with commercial negotiations for the provision of the service with New Zealand Communications. It also resulted in a recommendation on national roaming that is currently with the Minister of Communications for a decision. During the course of conducting its inquiry, however, Vodafone entered into a commercial roaming deal with New Zealand Communications that enables it to provide mobile services to consumers in areas where it does not have network coverage. Churn between providers is also greatly assisted by the implementation of Local and Mobile Number Portability.
91. Thus, the Commission has already been involved in a number of regulatory actions that are likely to have significant impacts on the state of competition in mobile services markets in New Zealand in the near future.
92. In addition to this, Vodafone notes that the number of providers of mobile telecommunications services in New Zealand will increase markedly over coming months. In this regard, New Zealand Communications is currently in the process of rolling out its network and Vodafone's supporting national roaming service is fully implemented. Vodafone also notes that both it and Telecom have sold spectrum to NZ Communications in the 900MHz range,¹¹ and that recent changes to spectrum banding by the Ministry of Economic Development has further increased the value of this

¹⁰ 2007 *Telecommunications Market Monitoring Report*, Commerce Commission, 31 March 2008, p 23.

¹¹ Indeed, Vodafone notes that it sold spectrum management rights to NZ Communications in this range at a price heavily discounted as compared to the price, on a per unit basis, that it agreed to pay for its own spectrum management rights in this range.

spectrum to NZ Communications.

93. Further, Vodafone has concluded wholesale agreements with three mobile virtual network operator (MVNO) partners, with one of them (Black and White) currently conducting a soft launch of its network. Telecom also has a wholesale agreement with TelstraClear, which has recently brought to market aggressively-priced mobile calling packages.
94. This means that in 2009, New Zealand consumers will likely have a choice of up to seven providers of mobile telecommunications services in New Zealand.
95. Vodafone also notes that Telecom has announced it is rolling out a W-CDMA and a GSM network that will enable consumers to more easily switch between its network and the GSM networks of Vodafone and NZ Communications.
96. Overall, Vodafone believes these developments suggest that many factors are already in place to ensure further development in the level of competition over the provision of mobile telecommunications services in the future.
97. Unfortunately, however, the Commission's competition analysis does not appear to have sufficient regard to these developments. Instead, its analysis is overly focused on static measures of competition that only relate to one particular mobile service (voice) and has not acknowledged any of the changes that have been made and the flow on effects from these changes.
98. This static picture is then used at the end of the Issues Paper in support of the view that an Investigation should commence. The approach implies a flaw in the Commission's intervention logic. It is analogous to taking a snapshot of the fixed line market from last year and arguing that regulation is necessary but not mentioning Local Loop Unbundling, combined with Local Number Portability, and taking account of the expected effects of these regulatory interventions.
99. In such circumstances, the appropriate counter-factual that the Commission should consider is what competition will be like when all of these dynamic effects come to fruition. The question then is whether regulating MTM voice termination will be a significant additional driver of greater competition in this environment.
100. Overall, therefore, Vodafone believes a more detailed review of the state of competition in the markets within which mobile services are offered is necessary before the Commission might reach a conclusion that the market needs further regulatory reform to address competition concerns that seem focused on concerns that

existed two years ago.

It is not clear that regulating MTM termination will promote efficient competition

101. The preliminary analysis contained in the Commission's Issues Paper provides little basis for believing regulating MTM termination rates will materially promote competition over the provision of retail mobile services.
102. The Commission appears to believe there might be two ways in which regulating MTM termination might promote competition to the long-term benefit of end-users:
 - by reducing prices closer towards its belief of the underlying cost of providing mobile termination services, it will enable new entrants to compete with existing operators on-net pricing offers; and/or
 - it might lead to a reduction in MTM retail prices.
103. With regard to the first of these contentions, Vodafone notes there is little evidence to support the notion that on-net pricing is a barrier to a new entrant, irrespective of the rate of MTM termination charges. There are two main reasons for this:
 - First, while existing operators may initially have a larger market share such that on-net pricing offers are relevant for calls to a larger number of consumers, calling data discussed elsewhere in this submission shows that most calls made by consumers are made to only a small circle of family and friends. Accordingly, in order to provide compelling on-net offers to consumers, a new entrant does not need to attract all of an existing operator's market share to its network. Rather, it only needs to compete for a small circle of potential friends and families of a consumer. In this regard, we believe there is nothing to prevent a new entrant seeking to match, or better, offers such as our Family package which provide capped charging to a small circle of four consumers on our network. This issue is discussed in more detail in the next section of this submission; and
 - Second, the nature of traffic flows between interconnecting network operators tends to roughly balance itself out over time, and bears no relationship to the actual market share of interconnecting operators. As indicated in our previous submission to the Commission on whether it should conduct an investigation into this matter, market shares of interconnecting carriers does not, of itself, generate traffic imbalances between interconnecting carriers. The driver of traffic balances between networks is instead a function of the respective retail offerings carriers make, and the types of customer profile that are attracted by these offerings. This issue is discussed in more detail in a number of other parts of this submission
104. With regard to whether reductions in MTM termination prices will lead to reductions in the price of retail mobile services for consumers, Vodafone notes that:

- reducing MTM termination rates should, if done evenly for all mobile operators, of itself have little impact on traffic flows payments between networks. In turn, this should provide little basis for passing on reductions in the prices of MTM termination services to consumers. This is discussed further in our response to question 6.3 of this submission; and
- if MTM termination rates are set at asymmetrical levels, this might encourage mobile operators to target different types of consumers with their retail offerings in response to the impact this will have on the respective interconnect revenue different carriers. While this may reduce retail prices for some sets of consumers, however, it is likely to also increase prices for other types of consumers who become less attractive on account of the termination revenue they provide for the network to whom they subscribe.

105. In short, the impacts of changes to MTM termination rates are likely to be complex and vary significantly according to both the level and structure of MTM termination charges set between interconnecting carriers. Because of this, it is not clear that reductions in MTM termination rates will lead to simple reductions in the price of mobile voice calls, as the welfare analysis contained in Chapter 6 of the Commission's Issues Paper seems to imply. This matter is discussed in detail in the attached COVEC report.
106. More generally, and as indicated in the next section of this submission, on-net pricing discounts are offered in other jurisdictions all around the world – including those with larger numbers of network operators than currently exist here in New Zealand. The existence of on-net pricing discounts has not prevented new entrants from entering a number of these other markets.
107. With regard to whether reductions in MTM termination rates will be likely to lead to greater competition in the market for retail mobile services, Vodafone notes there is no evidence to suggest a causal relationship between mobile termination rates and the state of competition in markets around the world. Using data on mobile termination rates in different jurisdictions contained in a recent report by the independent European Regulators Group¹² and information on the number of market operators in relevant markets contained in the Commission's report on whether to regulate National Roaming services, Vodafone notes there appears to be no correlation between MTM termination rates and the number of players in given markets. This is demonstrated in Figure 5 below.

¹² European Regulators Group, *ERG's Common Position on symmetry of fixed call termination rates and symmetry of mobile call termination rates*, 28 February 2008, at Figure 9, p. 73.

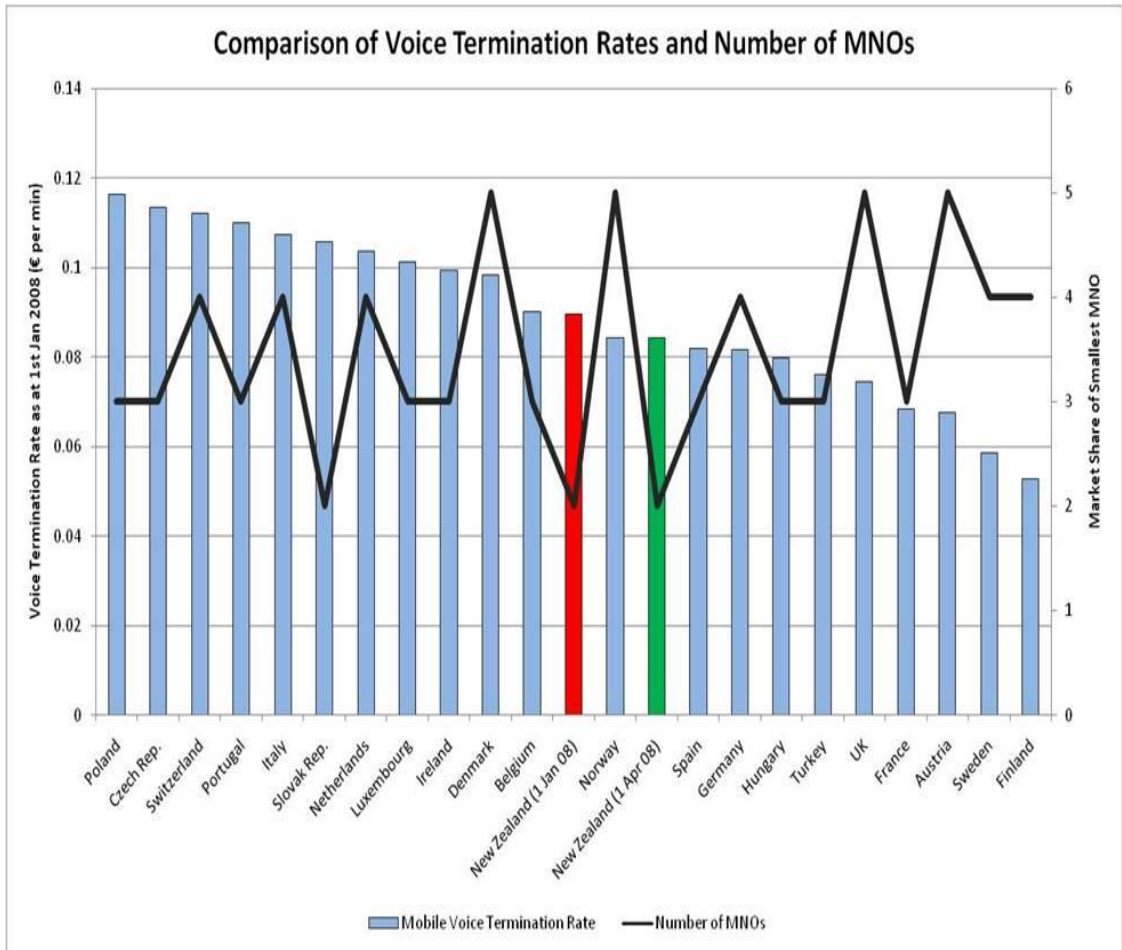


Figure 5 – Voice Termination Rates and number of MNOs

108. Further, using information on the market shares of the smallest operators in each jurisdiction surveyed in the Commission’s report on whether to regulate National Roaming, Vodafone believes it can also be demonstrated that there is no correlation between mobile termination rates and the market share of the smallest operator in a given market. This is demonstrated in Figure 6 below.

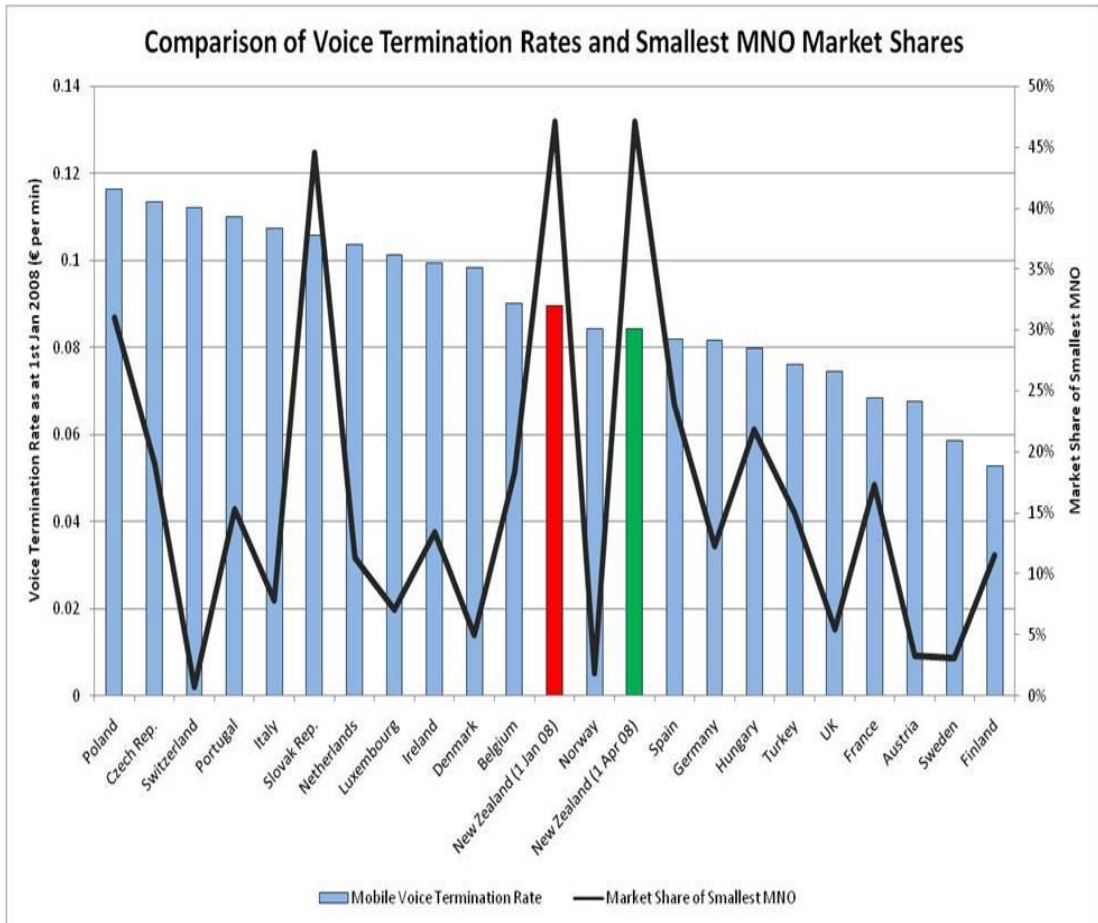


Figure 6 – Voice Termination Rates and Smallest MNO Market Shares.

109. When looked at in combination, Figures 5 and 6 make clear that there is simply no evidence to suggest that setting lower MTM termination rates has the effect of increasing the number of operators in a given market, or ensuring the smallest operator in that market is able to attain significant market share.

On-net Pricing

110. On net pricing is common to many markets. In a calling party pays environment, on-net pricing practices are a sign that competition is working since retail prices reflect lower costs of on-net calling. On-net pricing has been a feature of intensely competitive European markets and has not impacted on the ability of smaller operators to gain market share.
111. Customers can also sensitive to the price of calls within their circle of frequently-called numbers (such as friends and family) and can therefore be attracted by on-net calling tariffs. After all, why would a consumer choose a network because it is cheaper to call people which they do not know, or do not call frequently? It is completely rational for a subscriber to prefer a network which provides cheap calls to frequently called numbers, even if this means a high price for infrequently called numbers. It is therefore rational for operators to target such customers through lower on-net pricing charges. This explains the use of differential pricing even in the United States where there is a smaller differential in on-net and off-net costs.
112. Network operators in competitive markets engage in discounted on-net pricing practices. This is illustrated in Figure 7 below, which graphs the OECD's "Medium User" basket, and Teligen's "T-Basket" model for optimising the best rate plan options available. The differentials shown in these charts were constructed by comparing an exclusively on-net basket with an exclusively off-net basket.

Discounts on On-Net Calls - Medium User Basket Contract & Prepay - November 2007

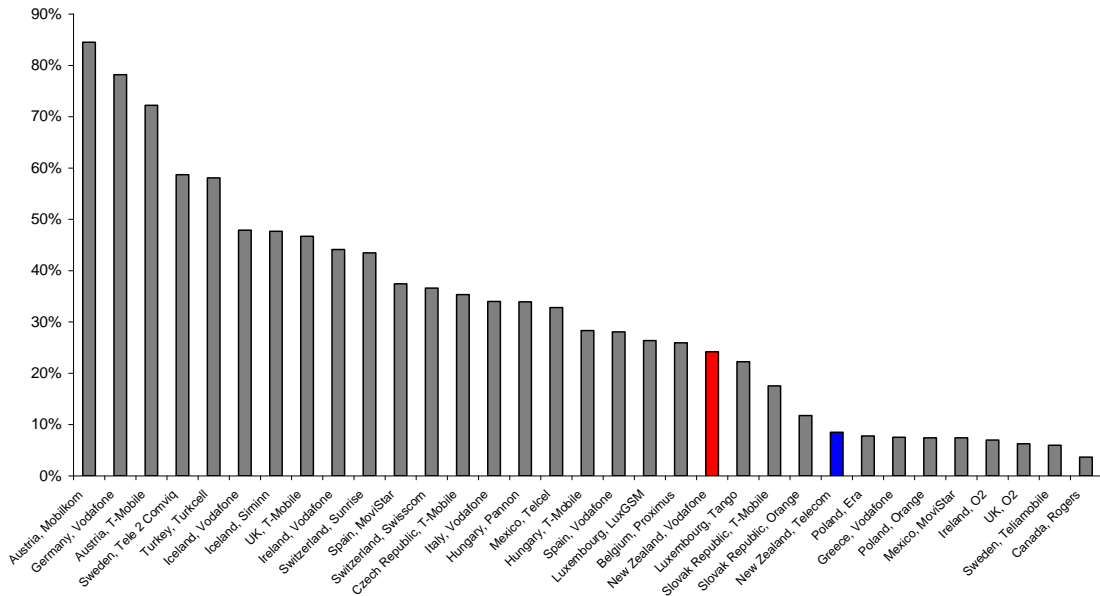


Figure 7 – Discounts for on-net calling in various jurisdictions

113. The graph demonstrates that the degree to which Vodafone New Zealand offers on-net pricing is in line with those of other jurisdictions. It also demonstrates that differential pricing is a common feature in many markets, many of which have termination rates for voice services regulated. In short, regulating MTM termination rates does not seem to stop mobile operators from setting discounted on-net prices in competitive markets overseas. This data comprises part of a wider piece of work undertaken for Vodafone Group which concluded that:

Differentiation of on-net and off-net call prices has been an enduring feature of the competition in the European mobile services market since the mid-1990s. On-net discounting is often introduced by small networks to gain market share, and by large networks to defend market share, but neither obtains a decisive advantage. There is no evidence to suggest that it is an effective predatory tool.

Although on-net discounts vary across tariff options, the “average” level appears consistent with marginal cost differentials for on-net and off-net calls.¹³

114. Critically, the work conducted for Vodafone Group suggests that on-net pricing is a practice pursued by small network operators themselves in order to attract more consumers to their network. In addition there are more effective ways for larger

¹³ Jonathan Sandbach, *Theory and Practice of On-Net Pricing 2008*, attached.

operators to compete for market share than to offer on-net pricing¹⁴. In this context, it is questionable whether the Commission should be seeking to find ways to limit on-net pricing practices at all. This is particularly the case given the benefits consumers enjoy as a result of this form of pricing.

115. The two scatter plots set out in Figure 8 below also show that there is no apparent relationship between the size of on-net discounts and the size of the network operator (in terms of either absolute size or market share). This is the case irrespective of whether the mobile network operator is a long established operator or a new entrant.

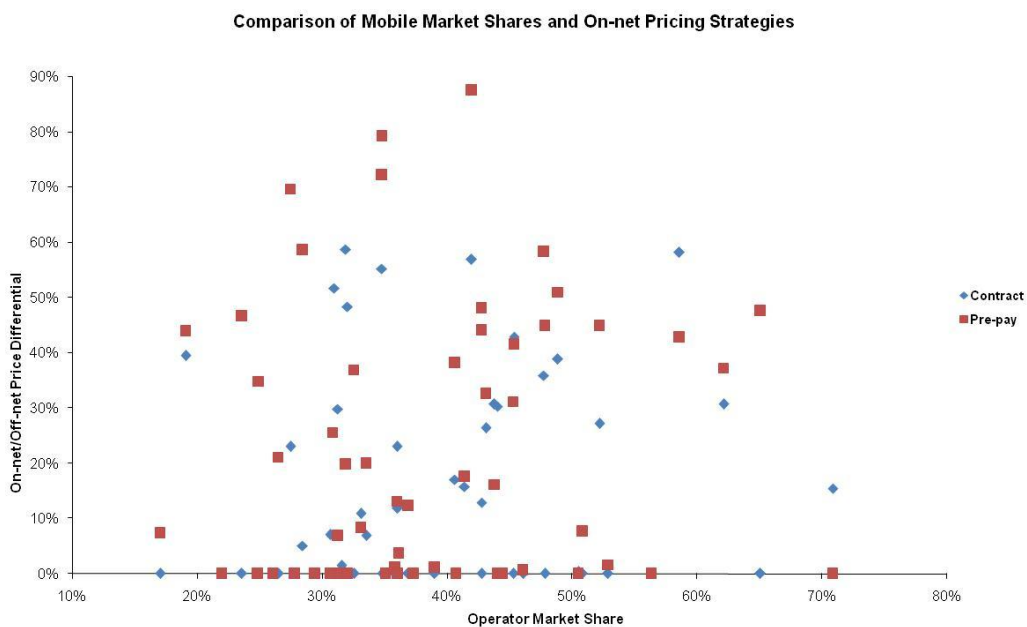


Figure 8 – Mobile Market Share and On-Net Pricing

¹⁴ See for example, Elliot, *Two Way Access Charges and On-net/Off-net Differentials*, On-Net Pricing in Mobile Vodafone Group Public Policy Series Number 8, April 2008.

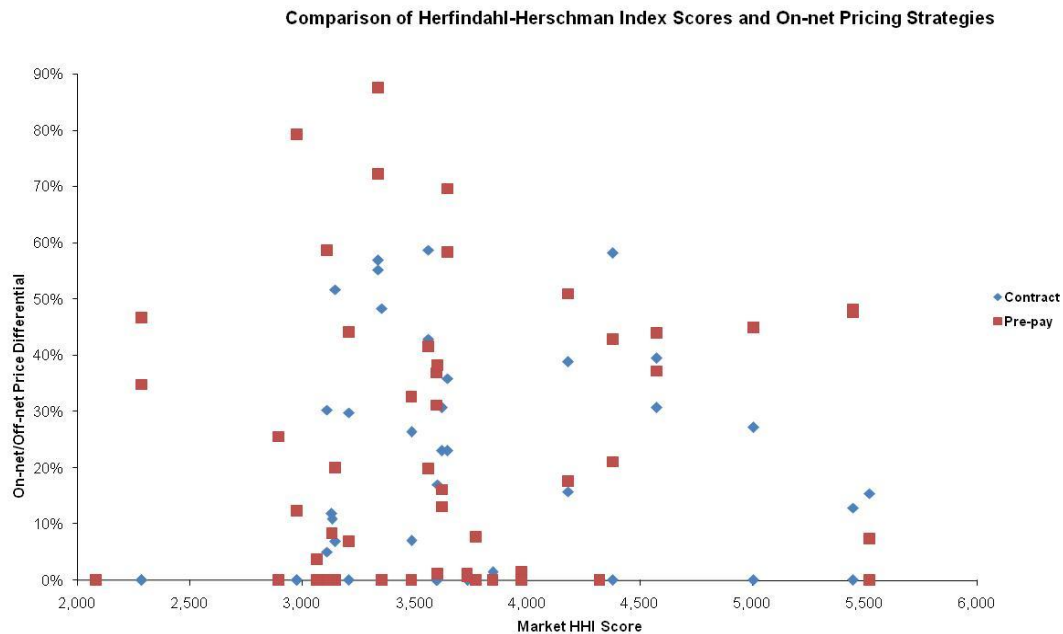


Figure 9 – on-net pricing and market share in overseas jurisdictions

Smaller Operators can compete because calling circles are small

116. Most importantly, frequent calling circles are generally small and small networks can provide the benefits of on-net calling to most market segments. For example in June 2008 [c-i-c] percent of our customers called five or fewer unique on-net numbers, [c-i-c] percent called less than three unique on-net numbers. It would seem that an entrant wanting to take market share could easily target customers with its own on-net offerings if it chose to do so.
117. It is notable that the majority of Vodafone’s on-net discounts for voice services are offered to small calling circles, for example Best Mates, Family and Talk Zone Zero business tariffs. It is not clear that there would be any barrier to a new entrant targeting similar sized calling circles.
118. Such observations suggest that the use of on-net pricing strategies does not encumber the entry of new mobile operators; and nor does the use of such pricing strategies have any correlation with the level of competitiveness in a market or the market shares of a mobile operator.¹⁵ They are simply a feature of many competitive markets.

¹⁵ In technical terms, tariff-mediated network effects are not the same as network effects. The former can be captured by any operator, so long as they gain the membership of user groups. The latter requires that subscriber benefit from growing total mobile subscription. With mandatory interconnection, this has no implication for the size of any one mobile network – it merely postulates that society benefits from growing the total number of mobile subscribers.

119. Vodafone agrees with the Commission's preliminary view that pricing differentials with regards to on-net discounts would need to be assessed as to whether they are a form of potential anti-competitive behaviour on a case by case basis. This is a far more effective way to assess and deal with any such problem than to seek to prevent it via the regulation of MTM termination rates.

The fallacy that traffic flow balances between networks depend on market share

120. In public comments made in relation to whether to regulate MTM termination charges, there has been much confusion around whether interconnection traffic flows between mobile network operators will be out of balance due to the relative size of customer bases of interconnecting carriers.
121. Any claim that a small network will, by definition, send more traffic to larger networks than it receives - simply on account of being a smaller network - may be a convenient theory for lobbying purposes, but is simply untrue.
122. Interconnection traffic flows between mobile network operators are not a function of the market share of the interconnection operators. This was clearly demonstrated in Vodafone's submission to the Commission on whether it should conduct an inquiry into MTM termination.¹⁶
123. The intuition behind this concept is simple. While a small network operator will send a large proportion of its network to larger network operators, it will also receive most of its traffic back from these operators. In other words, while a small operator with only 5 per cent market share might send about 95 per cent of its calls and SMS to rival networks for interconnection, it will receive 95 per cent of the calls and SMS for its consumers from its rival networks.
124. Accordingly, relative market shares should, of themselves, have no bearing on the balance of interconnect traffic between networks of varying sizes.
125. What does influence the levels of traffic imbalance between networks is the relative retail pricing strategies that network operators pursue. This is because different classes of consumers can tend to have different calling patterns. For instance, cost conscious pre-pay customers tend to make fewer calls than they receive. This is why mobile network operators are still prepared to make offers that attract these consumers to their network. That is, whilst a mobile operator may receive little revenue from cost-conscious pre-pay customers, these customers can still be profitable for mobile operators on account of the interconnection revenue they receive from calls made to them.
126. To the extent a mobile operator seeks to attract different customer types by launching unique retail pricing strategies into the market, this can mean it attracts more of a

¹⁶ See, for instance, Vodafone, *Submission re: Mobile to Mobile Termination*, 29 May 2008, at pars [37] – [44].

particular class of customer. For instance, if a mobile operator targets cost-conscious pre-pay customers with a series of aggressive pricing plans, it may end up attracting a greater proportion of customers to its network that are “net receivers” of calls. Where such an effect is significant enough, it can drive traffic imbalances between network operators.

127. To be clear, however, it is not the market share of network operators that drives traffic imbalances – it is the relative retail pricing strategies they pursue.
128. NZ Communications seems to believe it will attract a large number of customers who will tend to make more calls to existing operators’ networks than they receive after they launch. Accordingly, it must have in mind some retail pricing strategies that it believes will attract these customer types.
129. It might, for example, have in mind trying to target high ARPU customers who tend to make more calls than they receive.
130. Where this is the case, it would naturally like to have termination rates fall to as low a level as possible. This would mean it would make less out-of-balance payments to the networks with which it interconnects. Hence, not only would it gain the benefits of higher retail revenues from these consumers, it would have to give up less in interconnection payments to service these consumers.
131. Indeed, in these circumstances, it is not surprising that it is supportive of a pricing principle for MTM based around bill and keep pricing arrangements where mobile network operators do not pay each other to terminate traffic on each other’s networks. Alternatively, asymmetric termination rates in its favour would also ensure it pays little in terms of net interconnection payments to existing operators to attract these types of customers (and may even be subsidised via interconnection payments).
132. Ultimately, NZ Communications retail pricing strategies are its own business to determine. But we should not be misled into thinking that lower termination payments are needed to ensure NZ Communications can survive because of its small network size.
133. The Commission and industry should also ensure it is not led down a path of establishing an interconnection charging model specifically designed to support a particular business case NZ Communications might have in mind.
134. The aim of a good telecommunications access regime should be to ensure parties can compete on their merits – on the basis of their own efficiencies. It should not be

manipulated to support a particular new entrant irrespective of its own efficiency, or to underwrite a particular business case it might have in mind.

[c-i-c

Responses to consultation questions

Question 3.1

(a) Is the market definition as outlined above (market for mobile termination services) appropriate? If not, what is the appropriate definition/delineation?

1. At the outset, Vodafone notes that a finding on an appropriate market definition is not, on its own, a basis for deciding whether to regulate a particular service. A finding that a service might be a bottleneck, or provided in a particular type of market, will not, of itself, provide sufficient reason to regulate a service.
2. Market definition is instead a tool that assists in the analysis of the way services are provided. In the context of considering whether to regulate access services, considerations of market definition can assist in understanding how the provision of access services relates to the provision of other related services.
3. The key, therefore, is not to determine whether a service is indeed a “bottleneck” service or not, but rather to reach a full and proper understanding of the way in which access services are provided and in order to help develop an analytical framework for understanding whether regulation of a service might positively improve market outcomes to the long-term benefit of end users.
4. Vodafone notes that the Commission has previously indicated it believes that mobile operators have bottleneck control over the termination of calls on their network.
5. While this may or may not be the case, Vodafone believes it would be a mistake to believe this means access to mobile termination should be regulated like other traditional bottleneck access services. This is because Vodafone believes the provision of mobile termination services, and the prices set for them, have significant implications for the prices mobile network operators set for a series of inter-related retail mobile services.
6. Hence, the proper analytical framework within which to analyse the implications of different prices for mobile termination services is not within a traditional access bottleneck framework. Instead, it is more appropriate to consider the implications of price changes for mobile termination services within the context of a two-sided market framework. This analysis is even more complicated in the context of considerations of MTM termination pricing given the bi-lateral nature of negotiations between interconnecting mobile network operators.

7. In this regard, Vodafone notes that whenever there is more than one mobile network, all mobile networks both supply termination services to other networks and simultaneously require it from them. Most importantly, a mobile network must supply termination services to other networks in order to provide a complete retail service to its own customers. This is because all mobile customers expect to be able to receive calls from any network as well as to be able to make calls. There is a large proportion of subscribers who receive more calls than they make. These low-spend subscribers provide value to other subscribers through the ability to reach them (network effect). Mobile networks compete to attract these subscribers because they bring with them revenue from receiving calls. In the absence of terminating revenue, mobile operators would not target these low-spend subscribers – as occurs currently, in the US. For many mobile customers, the ability to receive calls is as or more important than the ability to make calls. For these reasons, Vodafone believes the Commission’s assertion (paragraph 26) that the termination service is not part of the retail offering needs re-visiting. This is because providing termination services to other networks (as well as buying termination services from them) is a crucial component in offering a complete retail service. Indeed, in some countries such as the US, end users are charged for the service of receiving calls.
8. Put differently, it is impossible for a mobile network to supply retail services or termination services separately. Each depends on the other, and they are produced jointly by the mobile networks. That is, mobile networks produce a composite service combining services to end users and termination services to other networks. The appropriate analytical framework within which to consider MTM termination services therefore encompasses the provision of a broader set of services, including both retail and termination services. This approach accurately reflects the way that mobile networks operate and the incentives and constraints that face them.
9. In terms of the dimensions over which the Commission seeks to define markets (product, geographical, functional and temporal), we believe the market definition framework proposed in the Issues Paper is too narrow with respect to both the product and functional dimensions. The product that mobile operators produce combines both termination and other retail mobile services, and these cannot be separated. A mobile network that offers any retail mobile services will necessarily have to provide termination services to other networks, as customers of other networks expect to be able to call the mobile network’s customers, and the mobile network’s customers expect to be able to receive calls from other networks. In economic terms, termination and retail mobile services are strong complements and it does not make sense to analyse them separately.

10. In the functional dimension, termination and retail mobile services are produced at the same level in the production chain for a mobile network. The same equipment and other resources that produce retail services also produce termination. It is simply technically not possible to separate these two types of production. There is virtually no part of a mobile network that plays a role in termination which does not also play a role in providing retail services, and vice versa. The exception being the home location register (HLR), which is only needed for terminating calls.
11. In reality, and as demonstrated in the attached Covec report, mobile networks do not make retail pricing and termination pricing decisions independently. Since the two types of service are jointly produced, this means that the prices associated with each must be set taking into account the prices associated with the other. This further reinforces the fact that it is not appropriate to consider pricing of mobile termination services in abstract from the provision of retail mobile services. Mobile networks do not set termination rates without also considering how this affects retail pricing, and vice versa. The appropriate analytical framework within which to consider this issue therefore encompasses the provision of retail and termination mobile services as a whole – that is, as goods produced by a multi-product firm.

Question 3.1(b) Are there other markets that respondents consider the Commission should be taking into account?

12. Following from our answer to question 3.1(a), we believe that the appropriate level of analysis has regard to a broad set of mobile telecommunications services (i.e. termination and retail services broadly defined), rather than simply confined to a narrow market definition approach that focuses on a market for termination that in reality does not exist. We believe that both the current state of competition and welfare analysis of any proposed regulation should be conducted at this level.
13. If, however, the Commission proceeds to use its current market definition, it is vital that the Commission also consider other relevant effects at the retail level, and effects on retail mobile prices.
14. In particular, mobile termination rates (both FTM and MTM) and retail mobile prices are linked. The link between FTM termination rates and retail mobile prices (the ‘waterbed effect’) was clearly established in the Commission’s earlier Schedule 3 investigation of FTM termination. A similar link exists between MTM termination rates and retail mobile prices. We discuss this further in our answer to question 4.1(b) below. For

now, it is sufficient to say that the Commission must also take account of all outcomes in the mobile market as a whole.

15. This will have a bearing on both the analysis of current competition, and the welfare analysis of any proposed regulation. In terms of competition, every network (whether mobile or fixed) is by definition the only possible supplier of termination services for access to its own customers. However, this does not mean that competition is limited when viewed from the correct standpoint of the overall framework within which the network competes. The link between termination and retail means that networks consider both jointly when making business decisions and compete with other networks across the entire range of services that they provide. In terms of welfare analysis, confining attention to termination will lead to an incorrect assessment of the net benefits of any proposed regulation. Without considering the mobile market as a whole, relevant potential detriments will be omitted from the analysis, which will bias the results towards finding benefits of regulation when in fact there may be none.

Question 4.1

(a) *Is the approach that termination is likely to be a bottleneck appropriate (arguments have to take into account both retail and wholesale markets)?*

16. Vodafone's view is that mobile termination in general and MTM termination in particular is not best analysed within a typical bottleneck access framework. Termination is a critical input required by every mobile network, but that is where the similarity with bottlenecks ends. For instance, while a gas distribution pipeline may be a bottleneck input where higher prices for transportation through it are directly related to prices charged for downstream retail gas services, different termination prices will affect the prices of a range of mobile telecommunications services in different ways.
17. For these reasons, we agree that both the retail and wholesale levels should be taken into account when analysing the implications of different termination charges.
18. Further, we believe it is important to recognise that termination services are part of the suite of services a mobile network operator provides to consumers when they provide them with a mobile service. In reaching the conclusion that termination is an interconnection bottleneck, the Commission overlooks the need for mobile networks to supply termination to other networks in order to provide retail services to their own customers. For example, at paragraph 32 of the Issues Paper, the Commission lists the key elements required to provide voice retail services, but omits the fact that a complete retail service cannot be provided if the mobile network does not supply termination to other networks.

(b) *What additional effects (e.g. on other markets) can arise if considering mobile termination services as an essential bottleneck?*

19. As discussed above, the effects of changing mobile termination rates (both MTM and FTM) will be felt more widely throughout the retail mobile market, as a result of the profit-maximising behaviour of all mobile networks. In short, regulation of both FTM and MTM will generate a waterbed effect, resulting in potential detriments in the retail mobile market that need to be taken into account. It is important to note that the waterbed effect occurs as a result of the natural profit-maximising incentives that face mobile networks, and not out of a simple desire to recover lost revenues wherever possible. The attached Covec report discusses the link between termination and the retail mobile market in more detail.

20. In particular, other retail mobile prices are likely to rise as a result of mobile termination regulation. For example this could lead to a reduction in the number of subscribers to mobile networks. When that occurs, the economic welfare benefits that those consumers obtained from all the mobile services that they consumed would be lost. These are additional detriments that the welfare analysis framework outlined by the Commission in the Issues Paper does not seem to anticipate. In the earlier FTM investigation, in the Commission's own modelling, detriments due to the waterbed effect were estimated to offset a large fraction of the benefits of regulation (between 60% and 88% across different cases). We expect that effects of a similar or larger magnitude could occur under MTM regulation. Therefore, it is crucial that these effects be taken into account to properly assess the net benefits of regulation.

(c) What factors can potentially lead to on-/off-net call discounts? Under what circumstances do discounts lead to predatory price discrimination?

21. The fundamental cause of on-/off-net call discounts is competition between mobile networks. All firms compete by trying to make their products relatively more attractive to consumers compared to their competitors' products. The extent to which consumers prefer one firm over another depends on prices, as well as many other factors such as quality, brand loyalty, complementary services, and so on. One way that mobile networks attempt to make themselves more attractive to consumers than their rivals is by offering on-/off-net call discounts.
22. In fact, on-/off net call discounts cause mobile networks to compete with each other more intensely than they otherwise would in the absence of such discounts. The reason is that such price discrimination generates "network effects" whereby consumers prefer to belong to the same network as people they tend to call frequently. These network effects are localised in the sense that they are confined to the relatively small groups of customers that people frequently call. As outlined previously our own data on calling patterns of customers shows that the vast majority of mobile customers only call a relatively small number of other customers each month. This suggests that the relevant "networks" that on-/off-net call discounts are designed to attract are relatively small.
23. Indeed, mobile customers tend to call relatively few different people regardless of the on-/off-net price differential. While the overall volume of calls clearly depends on prices, the decision about *who* to call depends far less on prices, as the need to make a call is generated by other factors. Given these patterns of calling behaviour,

consumers will prefer that prices are lower to make calls to those people that they call frequently. On-/off-net call discounts therefore represent a more attractive proposition to customers than a uniform price, if they belong to the same network as the people they frequently call. Thus on-/off-net call discounts can be viewed as an attempt to offer a more attractive pricing schedule to mobile customers, given the calling patterns that tend to exist in reality.

24. The network effects generated by on-/off-net call discounts raise the gains to a mobile network of attracting a new customer, and thus strengthen the overall incentive to cut prices to attract new customers. If it were possible, mobile networks would likely be better off if they could coordinate with each other to eliminate on-/off-net call discounts. However, each has an incentive to offer such discounts if its rivals do not, which leads to an outcome where all networks use on-/off-net price discrimination.
 - In terms of whether or not on-/off-net call discounts are predatory, Vodafone's view is that it is highly unlikely that mobile networks would pursue such a strategy in general, and this pricing is certainly not predatory as it is applied in the current New Zealand mobile market.
25. To be predatory, prices have to be sufficiently low to either cause a rival to exit the market or deter a new firm from entering. In general, predation is difficult to establish because it requires prices being low, but this is also a sign of intense competition, and low prices benefit consumers. In New Zealand, both Vodafone and Telecom have used on-/off-net price discrimination to compete with each other for several years. Given the market shares of both, and given that the relevant network effects generated by on-/off-net call discounts are confined to small user groups, it is not possible that this type of pricing by itself could be used to 'tip' the market towards one operator or the other.
26. Since on-/off-net call discounts have been applied for some time in New Zealand, it is also not possible to view this as a predation strategy that was designed to keep new networks from entering the market. Pricing below cost for such a long time would be extremely unprofitable, and would be an ineffective strategy for preventing entry. Furthermore, in other countries, new entrants have used the same type of strategy to compete with existing networks.¹⁷ Finally, on-net prices would have to be very low before they were below the variable costs of a mobile network.

¹⁷ Jonathan Sandbach, *Theory and Practice of On-Net Pricing 2008*, attached.

27. In any case, Vodafone agrees with the Commission that “differentiation between on-net and off-net pricing is not an issue in itself”.¹⁸ Further, we agree with the Commission’s preliminary view that “pricing differentials with regards to on-net discounts will need to be assessed as a form of potential anti-competitive behaviour on a case-by-case basis”.¹⁹
28. As indicated in our covering submission, research undertaken by Vodafone Group indicates that:
- carriers of all sizes and market shares (including new entrants) use on-net discounting offerings to attract customers to their networks and grow market share;
 - on-net price discounting continues to occur in markets with cost-based regulation of MTRs; and
 - on-net price discounting occurs in the United States in circumstances where mobile termination is provided under a “bill and keep” charging arrangement.
29. In short, regulation of MTM termination prices is unlikely to remove the legitimate competitive incentive for mobile network operators to offer on-net/off-net price differentials. Whether the particular nature of specific offers is anti-competitive will need to be assessed on a case-by-case basis.

¹⁸ Commerce Commission, *Telecommunications Act 2001: Schedule 3 Investigation into regulation of Mobile Termination – Issues Paper*, 8 August 2008, at [35], p. 11.

¹⁹ *Ibid*, at [101], p. 29

Question 5.1

(a) What effects on prices and average network costs can be expected if the geographical coverage for mobile services is increased and if new technologies are implemented (e.g. 3G networks)?

30. Network expansion is likely to increase the average network cost of providing services to end-users. This is because a network operator will normally first deploy a network over those areas where it is more profitable to do so. Expanding network coverage will normally extend the network into those areas where there are less economies of density, and where the amount of traffic over which a network operator can defray its fixed network costs of production will be less.
31. The introduction of new technologies is also likely to increase the average cost of providing services – especially in the short to medium term. 3G technology can lower per unit costs in densely populated areas by allowing more efficient use of spectrum. However, 3G networks are increasingly deployed primarily for enhanced services/competitive advantage to provide 3G broadband. In such situations the costs of 3G can be considerably higher.
32. Further, when a network operator deploys a 3G network, it is often done at a time when it is still operating a 2G network. Accordingly, in the short-to-medium term, there will be less minutes of traffic to run over both the 2G and 3G networks than was previously provided over the 2G network alone. This is likely to have the effect of increasing the average cost of providing services over both networks as low levels of traffic migrate from the 2G network to the 3G network.

(b) Can the decrease in fixed-to-mobile retail rates from 2004 to 2008 be explained by a pass-through from lower wholesale termination rates? Are there any other potential explanations for this decrease?

33. Vodafone considers that decreased FTM prices in New Zealand can be partly explained by a pass through from lower termination rates. Vodafone notes that its FTM termination rate fell from around 28 cpm in March 2004 to around 17 cpm in March 2008. During this same time period, Telecom's average revenue per minute for FTM calls fell from 41.8 cpm (excluding GST) to around 32.6 cpm for the quarter ended 31 March 2008. It follows, therefore, that an 11 cpm reduction in the price of FTM termination occurred in parallel with a 9.2 cpm reduction in the average revenue per minute of FTM calls. In other words, FTM pass-through of around 83.6 per cent

occurred. It is noteworthy, however, that the other costs of providing FTM calls (such as PSTN origination) were likely to have also decreased to some extent during this period such that the actual level of pass-through may well have been slightly lower.

34. Vodafone notes that, under the current MTR Deeds, there is no risk that pass-through will not occur. In fact, the MTR Deeds provide assurance on this point – something a regulated solution was unable to offer.
 - In many jurisdictions, however, there is no mechanism to ensure pass-through will occur. Rather, it is left to the market to determine the extent to which it occurs. For instance, in Australia, pass-through has been left to the market. Since 2004, Australian FTM termination rates have dropped from 21 cpm to 9 cpm. Over that period, Telstra's average revenue per minute for FTM calls declined by only 3 cpm, indicating pass-through of only approximately 25 per cent.
35. Vodafone emphasises the importance of ensuring timely and full pass-through of MTR reductions. In the absence of an agreement or regulation guaranteeing this, reductions in termination rates are not likely to lead to improvements in consumer welfare.

(c) What are possible explanations for price differentials between business and residential customers?

36. There is a certain amount of fixed cost per customer per month – for example, sending a bill, processing the payment, answering calls to customer care etc. Business customers generally have considerably higher volumes of calls over which to spread these fixed costs. This tends to decrease the average cost of providing services to these consumers. It also makes them more profitable to retain at any given price relative to residential consumers. Accordingly, mobile operators are likely to find it more profitable to offer lower prices to these groups of consumers. This is assisted by the fact that it is more common for business customers to sign multi-year contracts so that more of the fixed costs of servicing these customers can be recovered over a longer contract period. Residential customers tend to be less inclined to sign-up to long-term contracts so that mobile operators are less confident they can recover the fixed costs of serving these consumers over a long time horizon.

(d) What is the average duration of a phone call to mobile customers?

37. The average call duration for inbound calls to Vodafone's mobile network is **[c-i-c]**

minutes].

(e) Are current wholesale voice termination rates for fixed-to-mobile services different to tariffs for mobile-to-mobile? If so, please explain the mechanism applied the current tariff and why tariffs are different.

38. At present, Vodafone offers a standard market rate for MTM voice termination that is consistent with the prices for FTM voice termination contained in the MTR Deed.

39. **[c-i-c**

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(f) Do you agree with the Commission's approach to benchmarking termination rates against cost-based rates set in other jurisdictions? If not please explain why and what the appropriate mechanism should be.

Voice termination

40. Vodafone understands that estimating the long-run incremental cost (LRIC) of providing termination on a network can be a costly and time-consuming exercise. Accordingly, if it is decided that a cost-based rate should be set for a regulated service, Vodafone appreciates there are some practical advantages to be gained from choosing to benchmark against regulated cost-based rates set in overseas jurisdictions.

41. Against this, however, Vodafone believes a regulator has to take great care when benchmarking against rates set by overseas regulators. This is because the underlying costs of providing a service can vary between different jurisdictions for a number of reasons. In this regard, Vodafone notes that the ACCC commissioned Analysys (who had experience in estimating the LRIC of providing mobile termination

in a number of jurisdictions) to provide advice on the various factors that can influence the cost of providing mobile termination in different jurisdictions. This led the ACCC to conclude that:

The Commission believes there are many factors that influence the cost of the [mobile terminating access service] MTAS in different jurisdictions, including:

- Geographic terrain;
- Population density;
- Network usage and scale;
- Land and labour costs in different jurisdictions;
- Spectrum allocations;
- The extent to which MNOs are vertically-integrated fixed and mobile network operators;
- Network purchasing power;
- Cost of capital in different jurisdictions; and
- The mobile network technology employed in different countries (i.e. GSM or CDMA).²⁰

42. Further, the ACCC went on to note that:

By considering as broad a range of cost estimates from overseas jurisdictions as possible, the Commission believes it is able to account for differences in cost factors between different jurisdictions. Further, by choosing a target price that is at the top-end of the best estimates currently available, the Commission believes it is taking a conservative approach to setting a target price for this service...As the Commission is not specifically modelling TSLRIC+ in Australia for the purposes of determining this pricing principle, it is therefore introducing some risk into its assessment of an appropriate target price for this service. The Commission believes this risk is balanced over the period of this pricing principle, by choosing a conservative target price for this service. Were the Commission to reduce the price of the MTAS beyond its current target price in the future, it would seek to more accurately determine the TSLRIC+ of the MTAS in Australia.²¹

43. Vodafone believes this is a sensible approach for a regulator relying on a benchmarking pricing principle to take. *Prima facie*, there is no good reason to believe that the cost of providing mobile termination in New Zealand lies at the median level of all those countries surveyed by the Commission in its 2008 Roaming report. Indeed, New Zealand's relatively low population and low levels of density provide good reasons to believe the cost of providing mobile termination may lie towards the top of

²⁰ ACCC, *Mobile Services Review – Mobile Terminating Access Service: Final decision on whether or not the Commission should extend, vary or revoke its existing declaration of the mobile terminating access service*, June 2004, pp 214 – 215.

²¹ *Ibid*, p. 215

the range of estimates surveyed by the Commission. In that sense, therefore, setting a price at the median point of a range of overseas estimates is nothing more than an educated guess. Given the significant amounts of investment mobile carriers (and their shareholders) have put into building mobile networks in New Zealand, Vodafone believes it is unreasonable for a regulator to risk their returns on their investment by setting prices aggressively based on such a roughly calculated estimate of underlying costs.

44. In the absence of certainty over the specific cost of providing the service in New Zealand, Vodafone believes the Commission should adopt a conservative view and benchmark costs at a level closer towards the top of its benchmarked range. To do otherwise gambles that the costs of providing mobile termination in New Zealand are lower than in other jurisdictions. Vodafone does not believe it is appropriate to take such a gamble unless the Commission has specific information to suggest this is the case.
45. In addition to this, Vodafone notes that the Commission only references a narrow range of 9 overseas jurisdictions when considering cost-based regulated rates in overseas jurisdictions. This is despite the fact that most European national regulators seek to regulate the price of the mobile termination service in their respective jurisdictions. In this regard, Vodafone notes its present MTM and FTM termination rates (16 cpm) lie well within the range of regulated rates set in other parts of the world. This is demonstrated in Figure 10 below, which compares Vodafone New Zealand's MTR with that set by regulators in a number of other jurisdictions.

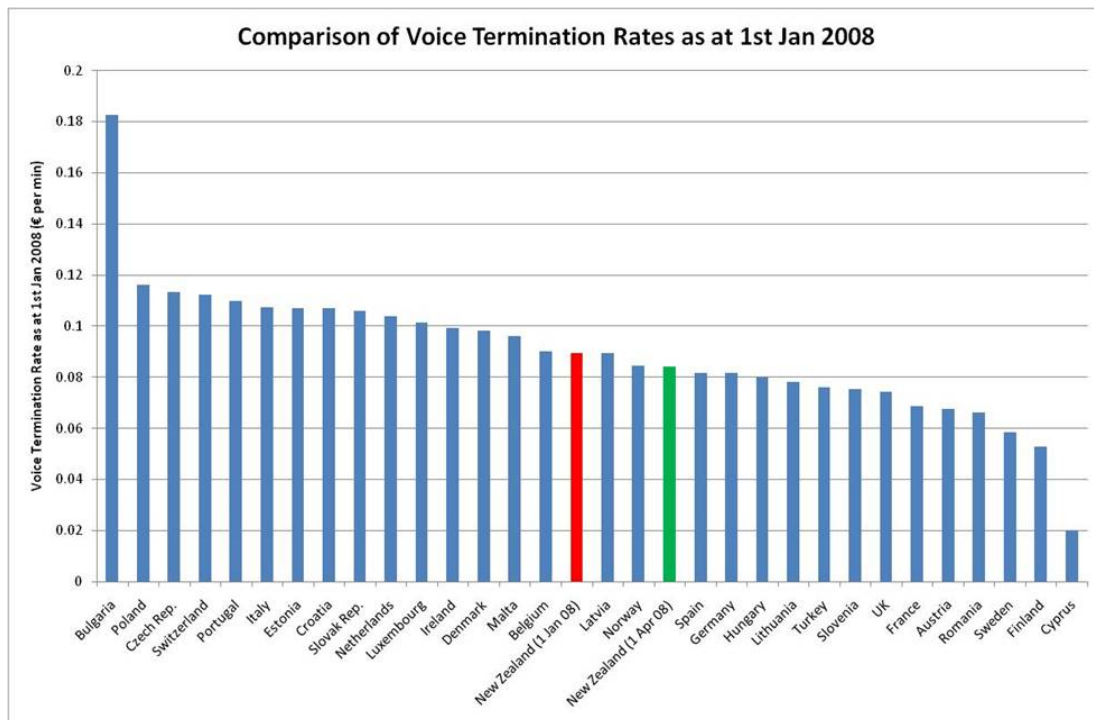


Figure 10 – comparison of voice termination rates

46. Vodafone presumes the Commission has chosen to exclude its consideration of a number of other overseas jurisdictions because it is unclear whether the regulator in these jurisdictions has set its termination rates with reference to an underlying cost model. Given there are a number of jurisdictions that now set regulated rates for mobile termination services, however, Vodafone encourages the Commission to actively investigate whether the range of cost-based regulated rates has expanded. The greater the range of jurisdictions over which benchmarks are taken, the more confidence the Commission can have that benchmarking provides a reasonable basis for determining the underlying cost of providing the service.
- In any case, Vodafone believes it would be reasonable for the Commission to adopt the approach of the ACCC and use the top end of relevant benchmarks until such time as it has constructed a model of its own to estimate the underlying cost of providing mobile termination services in New Zealand. This is especially the case given the limited range of jurisdictions from which it has taken cost benchmark estimates from. If the Commission did ultimately develop its own cost model and found that the cost of providing the service in New Zealand did lie at a level lower than the top end of the range of overseas estimates, the Commission could then consider whether it was appropriate to lower prices towards this level.

SMS termination

47. Vodafone notes it is only aware of one regulator that has sought to regulate the price of SMS termination. Vodafone believes there are good reasons why it is unnecessary to regulate the price of this service, and sets out its reasons for this elsewhere in this submission.
 48. If the Commission were minded to regulate the price of SMS termination, however, Vodafone notes that the French regulator (ARCEP) has set regulated rates for SMS termination that vary between 3 and 3.5 euro cents per text.
 49. Given no other regulator has seen fit to regulate the price of SMS termination, Vodafone believes it would be unwise for the Commission to move quickly to push SMS termination rates to levels near or below this level.
- **[c-i-c**

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(g) Do you agree with the principle described that tariffs for services with bottleneck characteristics should be set at efficient underlying long-run costs? If not, on what

basis should access tariffs to these bottlenecks be set?

50. In the first instance, and as indicated above, Vodafone does not believe it is appropriate to consider MTM termination services within the traditional “bottleneck” framework often adopted for other utility regulation services. This is because of the unique two-way nature of telecommunications services – especially in relation to MTM traffic. That is, mobile termination is not like a simple “one-way” access service, such as a gas pipeline, where access is but one stage in the production chain necessary to provide a service. The fact that mobile network operators need to interconnect with each other’s networks, and that traffic flows backwards and forward between networks, means that mobile termination is better described as being “two-way” in its nature.
51. Vodafone notes that the Commission believes that mobile operators have bottleneck control over access to termination services provided over their networks. Irrespective of whether this is indeed a correct characterisation of mobile termination, most regulators have recognised that there is a close relationship between mobile termination rates and retail prices set in both retail and fixed-line markets. This means that it is far more difficult to analyse mobile termination issues within the simple construct of a traditional access bottleneck problem. It is also far more questionable, in these circumstances, whether it is appropriate to regulate the price of mobile termination services – especially as they relate to the provision of MTM services.
52. With regard to MTM termination, overseas regulators have tended to be less convinced that there is a need to regulate MTM termination between interconnecting carriers. For instance, the UK telecommunications regulator – Ofcom – has previously noted that the appropriate analytical framework for considering MTM termination is within the construct of a bi-lateral bargaining power framework. This is because negotiations between carriers over the price of MTM termination jointly consider the prices each operator will charge to terminate traffic on each other’s network. If, as the Commission suggests, mobile operators have bottleneck control over access to calls terminating on their network (irrespective of the number of customers they have), then negotiations over interconnection rates involve two parties – each with bottleneck control – negotiating terms and conditions of access to each other’s network.
53. As a result of this, the efficient level of pricing of mobile termination services can be subject to a diverse range of considerations. Without wishing to discuss in great detail all relevant considerations at this point in the Commission’s consideration of this issue, it is noteworthy that there is a long history of detailed and sophisticated debate about whether prices for mobile termination services should seek to take account of network

externality effects arising from additional mobile subscribers to a network; call externalities enjoyed by consumers participating in (but not paying for) calls to and from mobile and fixed subscribers; and Ramsey-Boiteaux pricing principles. In this regard, Vodafone notes that Ofcom allows for a network externality surcharge when determining the appropriate price for mobile termination on UK mobile networks.

54. In these circumstances, it is not clear that a simple approach of setting the price for mobile termination services based on the underlying cost of providing the service will best achieve the legislative requirements contained in the Telecommunications Act.
55. If, however, the Commission is minded to believe a long-run incremental cost (LRIC) pricing principle is appropriate for this service, Vodafone believes it is important that such a price includes a contribution towards the common costs of providing mobile network services. In this regard, Vodafone notes that regulators have traditionally argued that prices for bottleneck services that are based on the LRIC of providing access to these services should include a contribution towards the common costs of providing services using the relevant utility infrastructure. This has often taken the form of an equi-proportionate mark-up above the LRIC of providing access to the service. Failure to account for common costs would mean that network operators would need to recover these costs from other services provided over their networks (in particular, retail mobile services).
56. Further, Vodafone notes that some regulators in overseas jurisdictions have sought to set asymmetric prices for mobile termination services. That is, some regulators have set lower mobile termination charges for larger network operators than they have for smaller operators. Vodafone also notes, however, that not all regulators have believed this approach is appropriate for mobile termination services. For instance, the Australian Competition and Consumer Commission does not set asymmetric termination rates for different MNOs in Australia.
57. Vodafone also notes that the independent European Regulators Group has recently released a report recommending that termination asymmetrical termination rates be phased out in Europe. The report notes that asymmetric regulation is sustainable only on a transitional period, because it shows a number of drawbacks including lower incentives to invest and innovate and risk of inefficient entry.²³
58. Finally, Vodafone believes that if the Commission were to believe mobile termination rates should be lowered to levels it believes are more consistent with the underlying

²³ ERG, *op. cit.*, p. 5.

cost of providing mobile termination, then any such reduction should not be immediate. That is, most regulators around the world have chosen to adopt a “glide path” which sees mobile termination rates decline towards estimates of costs over a number of periods. In this regard, the ACCC has previously argued that:

Whilst the Commission believes that a closer association of the price of mobile termination services and its underlying TSLRIC+ of production would generate a number of benefits in terms of promoting the [long-term interests of end-users] LTIE, a sudden decrease could also cause substantial adjustment costs. In particular, any move substantially to reduce the price of MTASs could generate significant disruption to the pricing and business strategies of MNOs. This, in turn, would impinge upon the legitimate business interests of access providers who have, to date, based their business plans around existing pricing structures....

59. Similar concerns would clearly arise here if the Commission were to immediately drop MTRs to its preliminary view of the underlying cost of providing the service (ie 10.75 cpm). This is especially the case given both Telecom and Vodafone have legitimately based their business plans around prices for MTRs based on Deeds provided to the Crown.
60. Vodafone agrees with the ACCC's view on an adjustment path, and believes that any regulated reductions in the price of mobile termination should similarly follow a glide path approach here in New Zealand. It notes that the MTR Deeds signed by both Telecom and Vodafone contain such a glide path mechanism.

(h) On what principle do you bill termination rates for data and for voice services (e.g. per minute, per second, per unit, etc.)?

61. Vodafone bills per minute for voice, and minute plus second rounding applies. This is measured from answer-line signal to release signal so there is no charge for the period the phone is ringing before answer, even though a circuit has been seized for that period. Only answered calls are charged. Calls less than or equal to two seconds are not charged. There is no flagfall. There is no charge for caller line identification (CLI). All mobile calls are rounded up to the next cent.
62. SMS is billed per unit. MMS is billed per unit, but with different charges applying for different tiers (sizes) of MMS

Question 6.1

(a) To what extent are price reductions in the wholesale market for termination likely to be passed through to retail markets?

63. The Commission appears to be considering reductions in the price of three types of termination service in this inquiry – SMS voice termination, MTM voice termination and FTM voice termination. We analyse below the likely impact of regulating the rates of each of these services in retail markets.

SMS termination

64. As indicated elsewhere in this report, the nature of SMS is that consumers tend to respond to a text message they receive from another mobile subscriber by sending a return text message. This is the case even if the consumers are on different mobile networks. Further, this type of relationship is unrelated to the respective size of the interconnecting networks.

65. Assuming SMS termination rates were to fall to the same, but lower, level for all mobile operators, Vodafone believes this should have little impact on net interconnection payments made between interconnecting operators. Given traffic flows should largely balance out between interconnecting networks, the net level of interconnection payment between the interconnecting operators should be largely invariant to the level of SMS termination rates.

66. Accordingly, it is hard for Vodafone to see how any net cost savings could be made by mobile operators in these circumstances that would enable them to profitably lower retail SMS prices for consumers. This is particularly the case given the current low retail prices for SMS services currently available to New Zealand consumers.

67. The situation may be different if regulation were to lead to asymmetric termination rates being set for different operators. In the presence of relatively even traffic flows between interconnecting carriers, asymmetric SMS termination rates would mean that the carrier able to set a higher termination rate would receive net interconnection revenues from the carrier setting lower termination rates. In other words, the carrier receiving higher SMS termination rates would be subsidised – via interconnection payments – by the carrier setting lower SMS termination rates. The carrier being subsidised might, in this instance, be able to use this subsidy to set below-cost retail prices in order to attract more consumers to its network. In that sense, therefore, asymmetric SMS termination rates could lead to a reduction in retail mobile prices for

consumers. Against this, however, it must be noted that the mobile operator paying higher termination rates will have to recover the cost of its subsidy to the other player, and so may need to increase the prices it charges consumers for retail mobile services. Overall, therefore, it is likely in this highly distortionary environment that while retail mobile prices might reduce for some consumers as a result of lower termination charges, they would likely increase for others.

68. Put simply, asymmetric rates – and any consequent net interconnection payment between operators – is unlikely to reduce the underlying costs of providing mobile termination service costs in the industry overall. While one party will subsidise the other such that the costs of one party go up and the net costs of the other come down, no net decrease in costs overall for the industry will occur. In these circumstances, it is hard to see how prices for consumers overall could possibly come down at the retail level. While the prices paid by one carrier's consumers may decrease, the prices paid by the other carrier's must surely increase (or not decrease by as much as time goes by).
69. More broadly, such an approach is unlikely to promote competition in its true sense. While it may increase the ability of the carrier charging higher termination rates to survive in the market, it is unlikely to be able to promote the ability of that operator to compete on its own merits. Put another way, the aim of an access regime should be to promote competition – and the process of rivalry between competitors on their merits – and not the ability of one particular party to compete over another.
70. Further, subsidisation between network operators on account of asymmetric termination charges would be highly distortionary and likely to generate significant productive and dynamic inefficiencies. This is because it would shield the carrier able to set higher SMS termination rates from competitive pressure from its rivals. Even if it was less efficient than its rivals, it would still be subsidised by the asymmetric termination rates and the cross-subsidy between interconnecting carriers that this would imply. It is for this reason that the European Regulators Group has recommended the phasing out of asymmetric termination rates in Europe, and that the European Commission has recommended the removal of asymmetric termination rates by 2011.

MTM voice termination

71. The nature of voice calls made between consumers means there is a greater likelihood that traffic flows could slip out of balance between network operators for these calls.

That is, some consumers do tend to be net receivers of calls, while others tend to be net makers of calls.

72. However, if all carriers have broadly similar pricing plans (as one might expect in the medium-to-long run under perfect competition), mobile network operators should attract a broadly similar range of consumers to their network. Hence, while some consumers on all mobile networks may be net makers of calls, others will be net receivers. In the long-run, therefore, equilibrium should be achieved at a point where traffic flows between networks roughly balance each other out – irrespective of the relative network size of interconnecting operators.²⁴
73. As indicated elsewhere in this submission, it is not the relative network size of interconnecting mobile operators that will govern whether traffic flows between networks are out of balance or not. Rather, it is the relative retail pricing offers that mobile network operators make to consumers, and the calling profiles of the consumers these offers attract. In this regard, if one carrier in isolation offers retail pricing plans that are attractive to consumers who tend, on average, to be net receivers of calls, then that carrier will be more likely to be a net receiver of calls to its network.
74. The levels of MTRs set by network operators will alter the optimal profit maximising pricing strategy for a given mobile operator. Further, if regulatory rates are set on an asymmetric basis for different mobile operators, this will likely encourage different operators to offer different retail pricing plans to take advantage of the profit maximising opportunities created by asymmetric termination rates.
75. Crucially, the extent to which retail prices for mobile services will adjust following changes to mobile termination rates is unclear. Mobile operators will have regard to changes in MTM termination rates, and adjust their retail pricing plans to take advantage of the profit maximising opportunities these changes to termination rates provide. In turn, this may mean that the prices for some retail mobile services decrease following reductions in MTM termination rates. Equally, however, the prices of some other services may rise. This is discussed by COVEC in the attached report to this submission.
76. Ultimately, if the Commission is to consider the welfare effects of changes to MTM termination rates, it will need to have regard to both the likely price increases and

²⁴ For an analysis of this effect see Vodafone, *Submission re: Mobile to Mobile Termination*, 29 May 2008, at pars [37] – [44].

decreases which will result for various mobile retail services following any change to MTM rates.

FTM voice termination

77. The extent to which reductions in FTM termination rates will be passed through to consumers of FTM calls has been a key area of debate and concern with respect to the appropriate regulation of FTM termination. Indeed, one of the key reasons regulators in many jurisdictions have sought to lower mobile termination rates is to seek to lower the input costs faced by providers of FTM calls closer to perceptions of the cost of providing the service. To the extent that FTM termination is priced at levels above cost, it would be expected that this could contribute to above-cost prices for FTM services in downstream markets.
78. It is far from clear, however, that lowering mobile termination rates will lead to a full reduction in the price of FTM calls for consumers. If competition in downstream markets is less than effective, there is no incentive for fixed-line operators to fully pass on reductions in FTM termination costs to FTM consumers. To the contrary, if a fixed-line operator is not subject to competitive pressures, it would have an incentive to hold onto large proportions of the reductions in mobile termination rates, and only pass on some of the benefit to consumers in the form of lower FTM prices.
79. Where this is the case, lowering termination rates will only provide some benefit to FTM consumers. The remainder of the reduction in mobile termination rates will simply be a wealth transfer from mobile operators to fixed-line operators.
80. Further, lowering mobile termination rates changes the profitability of certain types of consumers because it decreases a key source of revenues mobile operators receive from these consumers. In turn, this changes the profit maximising structure of retail prices that mobile operators would set for these consumers. In particular, economic theory suggests that decreasing MTRs will lead to increases in the prices of some retail services.²⁵ The existence of this effect has been recognised by the Commerce Commission, Ofcom and the Australian Competition and Consumer Commission in the past.
81. The extent to which reductions in FTM termination rates will lead to reductions in FTM prices and increases in retail mobile prices will depend on the extent of competition over both the provision of fixed and mobile services. The greater the degree of

²⁵ This is the so-called “waterbed” effect.

competition in these markets, the greater will be the respective changes in price that will follow.

82. Crucially, where there is a lack of competition over the provision of fixed-line services, reductions in FTM termination rates will not be expected to be fully passed through in the form of lower retail prices for FTM calls. Vodafone notes that the Commission concluded in its Schedule 3 Investigation into the Extension of Regulation of Designated and Specified Services that concerns around levels of competitiveness in the fixed line market were enough for it to extend regulation.²⁶ Accordingly, one would not expect that reductions in mobile termination rates would be likely to be fully passed through to consumers of FTM calls.
83. In the past, the Commission has argued that lowering FTM termination rates would help improve competition in the market within which FTM calls are provided. In turn, it argues this would be likely to increase the extent of pass-through for consumers.
84. Two observations should be made in relation to this argument. First, the argument pre-supposes that all factors that give Telecom strength in the downstream market within which FTM services are provided will be eradicated through other regulatory measures by the time reductions in FTM termination charges take effect. Vodafone does not believe this is likely to be the case in the near future here in New Zealand. Telecom stills enjoy a significant position of strength in the market within which FTM services are provided.
85. Second, similar observations were made by the ACCC when it commenced regulation of mobile termination services in Australia in July 2004.²⁷ Since that time, however, it is noteworthy that while the price of mobile termination has decreased from 21 cpm to current levels of 9 cpm, average retail prices for FTM calls in Australia have only fallen from 38.5 cpm to 35.5 cpm. That is, a 12 cpm reduction in FTM termination rates has only led to a 3 cpm decrease in the price of FTM calls. In other words, there has been pass-through of around only 25 per cent.
86. Overall, therefore, the Commission must be sure that competition is effective in the downstream markets within which FTM services are provided before it can be confident that reductions in FTM termination rates will lead to reductions in the price of FTM calls.

²⁶ *Schedule 3 Investigation into the Extension of Regulation of Designated and Specified Service*, Commerce Commission, 28 August 2006, p.19.

²⁷ ACCC, *op. cit*

(b) Would a difference in price reduction pass-through be expected between different customer groups (e.g. business or residential customers)?

87. When analysing the effects of reductions in termination rates on different customer groups, it is important to distinguish between MTM termination (of voice and SMS) and FTM termination.

MTM termination (of voice and SMS)

88. As indicated above, the nature of SMS communications means that traffic flows between mobile network operators would be expected to largely be in balance over time. Vodafone does not expect this result to vary according to whether consumers are business or residential consumers.

89. With respect to MTM voice termination, however, the analysis set out in relation to question 6.1(a) indicates that mobile operators will adjust their retail pricing offers in response to changes in MTM termination rates. The extent to which they will adjust the retail prices they set for different classes of consumers will vary according to the particular nature of changes to MTM termination rates. In general, however, it can be expected that while the prices for some types of consumers will fall as a result of reductions in the price of MTM termination, the prices offered to other classes of consumer may rise. This would especially be the case if asymmetric termination rates were set between interconnecting operators.

FTM termination

90. As indicated above, the extent of pass through of lower FTM termination rates to consumers of FTM calls will (in the absence of measures – such as the FTM Deed – to ensure pass through) depend on the extent of competition in the markets within which FTM services are provided. To the extent residential and business markets may be separate markets, and the extent of competition in these markets is different, one might expect FTM pass-through to be greater in those market segments that exhibit a greater degree of effective competition.

(c) How long is any pass-through likely to take?

91. As indicated above, it is unclear precisely how lower MTM termination rates will translate into different retail pricing structures. However, the greater the changes in mobile termination rates, the greater will be any impacts in retail markets within which

mobile services are provided.

92. With respect to reductions in FTM termination rates, the extent of pass through will depend on the effectiveness of competition in downstream markets. The more quickly a market can become effectively competitive, however, the more quickly would pass-through be expected to occur.
93. At this point in time, however, there is no good reason to believe that the market within which FTM services are presently provided is likely to miraculously become effectively competitive in the immediate future. Hence, Vodafone does not believe that full pass-through of any reductions in the FTM termination rate (in the absence of some kind of arrangement that ensures pass through such as the FTM Deed) will take effect for some time to come.
94. Accordingly, Vodafone expects that lowering the FTM termination rates will largely lead to limited reductions in the price of retail FTM services, increases in the price of retail mobile services and a transfer of some wealth from mobile network operators to fixed-line operators.

(d) Are there other actions that could be taken to encourage reductions in mobile termination rates to be passed through to end-users?

95. Vodafone believes there are two main mechanisms that could be considered to achieve pass through in the absence of effective competition in downstream markets. First, the imposition of retail price caps on the price of FTM call services could be used to ensure full pass through occurs. Vodafone notes, however, that the Commission does not have the power to regulate retail prices under the Act.
96. Second, Vodafone notes that the existing FTM Deeds signed by Vodafone and Telecom ensure that 100 per cent pass through occurs. Measures such as this provide a means for ensuring that reductions in mobile termination rates are fully passed through to consumers and not partially retained by fixed-line only operators in the form of wealth transfers.

(e) What are the potential effects on other markets such as the fixed termination market, SMS termination and data traffic?

97. As indicated above.

Question 6.2

(a) To what extent are commercial negotiations being undertaken for mobile termination services?

[c-i-c

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(b) What is the likelihood of commercial agreements being reached for mobile termination services, and the likely outcome of commercial negotiations?

[c-i-c

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(c) What is the most appropriate counterfactual for the services?

98. In the absence of regulation, Vodafone would continue to offer standard rates for FTM and MTM termination that are consistent with those contained in the MTR Deed. Vodafone would also continue to offer standard rates for SMS termination of 9.5 cents per text. As with any commercial business, Vodafone would be willing to consider variations to its standard rates provided they were mutually beneficial to both parties to the negotiation.

[c-i-c

Question 6.3

(a) What is the likely factual? How would the service(s) compare to the services available under the counterfactual (in particular, in terms of pricing)?

99. The Commission would appear to be contemplating the possible regulation of three services in its Issues Paper:

- MTM voice termination;
- MTM SMS termination; and
- FTM voice termination.

100. At the outset, Vodafone notes that agreeing non-price terms and conditions of access to all 3 types of termination services does not appear to be a significant issue of contention between industry participants. **[c-i-c**

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101. Accordingly, Vodafone does not consider that it would be appropriate to simply specify MTM and FTM termination services. If the Commission were to recommend regulation of these services, Vodafone expects it would recommend that the services should be designated.

102. If a service is designated, this opens up the possibility that regulated prices could be set for these services. It is unclear, at this stage, what prices the Commission might set for mobile termination services. However, based on the preliminary views contained in the Commission's Issues Paper, it seems reasonable to assume that the relevant counter-factual would involve:

- cost-based prices for MTM voice termination services of approximately 10.75 cpm; and
- lower prices for SMS termination services that might be expected to be heading towards either benchmarked regulated rates from overseas (of around 6 to 7 cents per text), or possibly lower at around 5 cents per text.

103. Based on the preliminary findings set out in the Commission's Issues Paper, it is unclear whether the Commission would set regulated prices that involved:

- a glide path towards these cost estimates over time; or
- asymmetric rates that enabled a smaller operator to set higher termination charges than a larger operator for a short period of time.

104. Accordingly, in considering the likely factual situation under regulation, Vodafone

notes:

- most other regulators have set glide paths for reduced termination rates towards estimates of underlying cost. Accordingly, Vodafone believes it is possible that the Commission might adopt a glide path towards the cost rates it has proposed. [c-i-c

];

- based on the Commission's preferred approach to market definition, all mobile operators (irrespective of their size) have bottleneck control over termination of calls on their networks. Hence, Vodafone assumes all mobile operators – including new entrants – would be subject to price regulation of mobile termination rates; and
- while some regulators have set asymmetric rates in a number of overseas jurisdictions, many regulators (including Australia) have not. Further, where asymmetric rates have been set in Europe, Vodafone notes the ERG found that the average extent of call asymmetry was 0.9 euro cents per minute for voice in January 2007.²⁸ Vodafone also notes that the ERG has recommended that rate asymmetries be phased out in Europe by 2011, and that only one regulator intends to set asymmetric rates in Europe beyond 2012. Hence, Vodafone believes it is reasonable to assume there will be no rate asymmetry set by the Commission in New Zealand. However, if rate asymmetry was allowed for voice, Vodafone expects this would not extend beyond approximately 2 NZ cents per minute.

(b) How would the introduction of new specified or designated services lead to long-term benefits for end-users, which would not otherwise have been forthcoming? What empirical evidence is available to support such scenarios?

105. As indicated above, Vodafone believes that industry participants are able to commercially negotiate non-price terms and conditions of access to mobile termination services in the absence of regulation. Hence, Vodafone does not expect that specifying mobile termination services would be likely to generate material improvements to the long-term benefit of end-users.

106. To the extent that mobile termination services were, however, designated, it is possible that regulated prices could be set for these services that would be different to those that would otherwise exist in the market.

107. In order to determine whether such regulated prices would be to the long-term benefit of end-users, it is important to consider whether this would:

²⁸ ERG, *op. cit.*, at p. 74

- Promote competition in telecommunications markets for the long-term benefit of end-users of telecommunications services in New Zealand, in accordance with section 18(1) of the Telecommunications Act (the Act); and
- Impact on the efficiencies that will result, or will be likely to result, from such regulation in accordance with section 18(2) of the Act.

108. In considering these effects, it is important to be clear what is meant by “promoting competition” within the meaning of section 18(a) of the Act. Importantly, the promotion of competition is not about the promotion of particular competitors *per se*. Rather, it is about promoting the ability of operators to compete on their relative merits. Put another way, end-users will not benefit from a regulatory regime that operates to promote the interests of a particular competitor if that competitor is less efficient at providing telecommunications services than existing operators. End-users will instead benefit by a regime that enables operators to compete on their merits so that efficient operators are, over time, able to displace less efficient operators. This will ensure services are provided to consumers in an efficient fashion that ensures they are provided at the lowest possible cost to society (and hence able to be offered at lower prices to consumers).

109. When considering whether a regulatory action will promote efficiency, it is usual to have regard to whether it will promote allocative, productive and dynamic efficiency.

110. The extent to which regulation of termination services will (or will not) be to the long-term benefit of end-users is considered for MTM termination and FTM voice termination are set out, in turn, below.

MTM (voice and SMS) termination

As indicated above, traffic flows between interconnecting operators tend to largely be in balance over time. **[c-i-c**

112.

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113. Overall, therefore, the extent of out of balance payments between Telecom and Vodafone is so small that it is hard to see that consumers would be made significantly better off by such decreases in MTM termination rates.
114. A similar story exists with respect to SMS termination.
115. The ability of changes in MTM termination rates to impact on new entry is considered in response to question 6.3(d) below.

FTM voice termination

116. As indicated in a number of other forums, the extent to which reductions in FTM termination rates will lead to long-term benefits to end-users depends crucially on:
- the extent of FTM pass-through; and
 - the extent to which reductions in the price of FTM termination services lead to changes in the price of retail mobile services.
117. In the absence of a mechanism to guarantee FTM pass-through, Vodafone believes the Commission cannot be sure that further reductions in the price of FTM termination below those contained in the MTR Deeds will lead to an overall increase in the welfare of telecommunications end-users as a whole.
118. In contrast, under the MTR Deeds currently in place, the Commission can be confident that reductions in the price of FTM termination services will occur, and that these reductions will be passed on, in full, to consumers of FTM calls.

(c) What is the interrelationship between the voice and SMS services? How does the price of one service affect the other?

119. Vodafone believes that voice and SMS services are often provided to mobile phone users as a part of a package of services. Further, consumers tend to view them as both compliments and, in some cases, substitutes for each other.

(d) To what extent would the introduction of new specified or designated services make new entry more viable?

120. Vodafone believes that designation of MTM termination services will, assuming it is done in a responsible fashion, have little impact in terms of making new entry more viable.

121. This is addressed, in detail, in paragraphs 99 to 107 of the attached submission.

122. **[c-i-c**

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123. Accordingly, Vodafone believes there is little reason to believe that regulation of MTM termination services will have any meaningful impact in terms of making new entry more viable.