



**SCHEDULE 3 INVESTIGATION INTO
REGULATION OF MOBILE TERMINATION**

**SUBMISSION ON ISSUES PAPER
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1 EXECUTIVE SUMMARY

1 Telecom appreciates the opportunity to comment on the Commerce Commission (**Commission**) Issues Paper on the Schedule 3 Investigation into Regulation of Mobile Termination (**Issues Paper**).

2 The Commission's rationale for considering the regulation of mobile to mobile (**MTM**) termination rates is not clearly, nor rigorously, articulated in the Issues Paper. The Commission's "theory of the case" appears to be that:

- (a) retail mobile prices in New Zealand are high; and
- (b) MTM termination rates in New Zealand are above cost,

yet entry has not occurred, therefore there must be a barrier to entry. The Commission suggests that this may be due to the on-net and off-net retail pricing, which it refers to as "strategic",¹ and that regulation of MTM termination rates would lead to lower retail mobile prices.

3 In Telecom's view, such a theory of the case is overly simplistic. In particular:

- (a) mobile retail and MTM termination rates cannot be analysed in isolation of each other. This is because a mobile network is a two-sided platform and interconnection is two-way;
- (b) if MTM termination rates are above cost, then this is consistent with competitive behaviour in a properly defined mobile market;
- (c) on-net and off-net pricing occurs in European countries where there are several networks, and is consistent with competitive behaviour;
- (d) when forming judgments about mobile retail prices, the Commission has not controlled sufficiently for variables that can affect costs. More generally, the Commission's competition analysis is not rigorous enough; and
- (e) the likely impacts of regulation of MTM termination rates on retail mobile prices and consumer welfare are quite ambiguous. The level of MTM termination rates can affect the vigour of retail competition and the structure of retail tariffs. Regulation is most likely to transfer wealth between consumer groups, which is not the purpose of the Telecommunications Act 2001 (**Act**).

¹ Page 10 of the Issues Paper

- 4 The Commission has traversed termination rates exhaustively over the past 5 years. There is now a Deed between Telecom and the Government covering Fixed to Mobile (**FTM**) termination rates and which Telecom's model mobile interconnection agreement mirrors for MTM termination rates at the wholesale level.
- 5 The commercial offers in place deliver valuable certainty to the industry and end-users. Telecom therefore queries why the Commission feels the need to look at mobile termination rates again. Another investigation adds to further industry uncertainty and we question the benefits of the investigation given we have a glide-path that goes down close to where the Commission thinks the cost-based rate is already. The Commission should be slow to intervene in this situation unless it can be absolutely confident that there is a material issue that still needs to be addressed.
- 6 The industry is also currently consulting on the long-term IP interconnection model for fixed and mobile IP traffic. This consultation is intended to result in an industry report on a likely IP interconnection model by the end of July 2009. Once that model is agreed, the very complex transition issues associated with the introduction of any new interconnection model will start to be resolved. These are not insignificant issues, and will take careful consideration to resolve. The IP interconnection model will influence the counterfactual against which any benefits of regulation would be measured. As a result, it is not appropriate to determine the counterfactual until the industry has completed this work.
- 7 Telecom does not consider that any regulatory invention is necessary as the mobile services market is workably competitive. Any regulatory intervention in respect of mobile termination rates will not improve competition and in fact is likely to result in a reduction in dynamic efficiency. As a result, Telecom considers that there is insufficient evidence to justify the cost of launching a Schedule 3 investigation.
- 8 Should the Commission decide to investigate the provision of mobile termination rates between mobile operators, then any decision to recommend regulation must meet the purpose of the Act. That is, in order to make a recommendation to regulate, the Commission must show that regulating the supply of certain telecommunications services between service providers will promote competition for the long term benefit of end users. In order to show this the Commission must carry out the following steps:
 - (a) analyse the market and the state of competition;
 - (b) explain how the proposed regulatory intervention will promote competition;
and

(c) carry out a cost benefit analysis (**CBA**) to ensure that regulation will, over all plausible scenarios (including appropriate sensitivity analysis), deliver net benefits (accepting that regulation imposes costs).

9 The Commission's process to consider these matters, if it decides to initiate a formal investigation, is also important.

10 We summarise our high level comments on each of these elements below.

Market definition

11 The Commission, in the Issues Paper, has approached its market definition analysis as if it is dealing with a conventional set of vertically related markets. That is, the Issues Paper treats mobile termination as an upstream input into a downstream market for retail services.

12 However, mobile markets are more complicated than this, for two reasons:

(a) mobile markets are "two-sided"; and

(b) mobile networks interconnect, allowing consumers on each network to call consumers on the other network therefore interconnection provides "two-way" access.

It is vital that the competition and welfare analysis recognises the "two-sided market" features of mobile services and "two-way access" of interconnection between mobile operators.

13 Recognising the two-sided market aspect of mobile services means recognising the direct link between subscriptions for mobile services, origination, and termination services. These services cannot be considered in isolation. The costs of mobile services can be met from either of the two sides of the market: by any combination of subscription charges, origination charges, termination charges, and (as in some countries) charges for receiving a call. Mobile operators must carefully balance termination and origination rates (keeping them low enough for mobile users to feel confident that originators will call them) against subscription prices (keeping them low enough so that people will want to subscribe). The Issues Paper fails to account for the two-sided market element of the mobile termination market.

14 The two-way access aspect of interconnection means an operator's interconnection revenue for terminating calls on its network and interconnection payments for terminating calls on other operators' networks will substantially offset each other (depending on symmetry). The effect of termination revenues and payments substantially offsetting each other is that there is no *a priori* reason to suppose that there is an unequivocal link between a reduction in mobile termination rates and a reduction in the retail prices of mobile services. In

contrast, in the case of one-way access where a wholesale service is an input to a downstream retail market, it is reasonable to expect that a reduction in the wholesale price of the service will directly lead to some reduction in retail prices. However, in the case of two-way access the effect is much more ambiguous.

- 15 The Commission recognised the two-sided market aspect of mobile services (and the consequential “waterbed effect”) in its previous Schedule 3 investigation into regulation of mobile termination (**Previous Investigation**). This effect remains equally relevant to the Commission’s current investigation and therefore needs to be taken into account.

Competition analysis

- 16 Recognition of the two-sided market informs the market and competition analysis by providing a coherent framework for considering the interrelationship of mobile termination rates and competition for customers at retail. The costs of providing subscription and termination are joint; and mobile operators set prices jointly for origination, termination, access and value-added products. Therefore these prices and costs cannot be meaningfully separated. An operator’s ability to attract subscribers to its network and encourage use of the network depends on balancing these interacting factors, including:

- (a) mobile termination revenue for inbound calls;
- (b) mobile termination payments for outbound calls;
- (c) the effect of mobile termination rates on retail prices; and
- (d) retail competition for market share and the effect on mobile termination revenue and payments.

- 17 A narrow one-way access and one-sided definition risks missing key interactions and compromising the subsequent competition analysis. A two-sided market with two—way access definition is necessary to recognise that:

- (a) an operator has the potential to reduce its exposure to mobile termination charges by competing for customers with different preferences;
- (b) entry decisions are made holistically and pricing decisions are made on both sides of the market; and
- (c) competition will force the joint revenues earned for all services down to economic cost (i.e. on both sides of the market) – not necessarily on each service.

- 18 Telecom reiterates the point it has previously made that the mobile services markets are extremely competitive. “High” retail prices are not necessarily the

result of a lack of competition. The benchmarks against which mobile prices have been compared do not take into account a number of differences in the New Zealand context, including:

- (a) the particular costs of building and operating a mobile network in New Zealand;
- (b) the effect of free local calling; and
- (c) very competitive text pricing.

19 Telecom is not earning above normal rents. This was illustrated by Telecom's Economic Value Added (**EVA**) analysis, which we presented in the Previous Investigation. The Commission raised concerns then that the EVA results were not sufficiently transparent or verifiable for the Commission to rely on, and could not be used to make assumptions about the financial returns achieved in the majority of the mobile markets supplied by Vodafone. However, it is for the Commission to positively satisfy itself that regulation is required and beneficial. If the Commission is of the view that Telecom's EVA is inadequate, Telecom would be happy to discuss that view with the Commission and to address any concerns it may have.

20 Therefore we do not consider that the pre-condition for regulation, limited competition, exists. In fact, we consider that mobile markets are workably competitive and there is a credible threat of new entry. This threat is demonstrated by TelstraClear's announcement this week of a new residential mobile offering.² TelstraClear's entry suggests that there is indeed a valuable competitive dynamic and that the two networks are open to providing access to other players, which is further evidence that Telecom and Vodafone compete. In any event it is not clear that any link exists between "high" mobile termination rates and entry into the market.

Cost Benefit Analysis

21 The Commission has an obligation to ensure that the benefits of regulation clearly outweigh the costs, including across a range of plausible scenarios with appropriate sensitivity analysis of key parameters. The Commission does so by comparing the factual of the future with regulation to the counter-factual of the future without regulation. In order to be certain that regulation is indeed appropriate, it is essential that the Commission carries out a rigorous and robust CBA. If the Commission is intervening in a particular market, it should be confident that regulation is required. This requires a high degree of certainty.

22 Telecom submits that the appropriate CBA is a public benefits test, which captures all the benefits and costs of regulation but not wealth transfers. This approach is

² See TelstraClear's media release, "TelstraClear offers third mobile service to consumers", 2 September 2008

consistent with the section 18 purpose statement of the Act, which makes it clear that regulation under the Act is about competition driving efficiency. Economic regulation is a poor tool to deal with the numerous value judgements required in assessing the trade-offs that must be made if wealth transfers are taken into account. We note that the Commerce Act Amendment Bill has recently recognised the limitations of a pure net benefit to acquirers type test.

- 23 If the Commission intends to attempt to make such policy trade-offs, Telecom submits that a very different consultation process is required to ensure that the Commission has all the necessary information required to make these kinds of value judgements. There is not one single "end-user" in the relevant telecommunications markets. Regulation of MTM termination rates will affect various end-user groups differently.
- 24 Again, the Commission's CBA also needs to take into account the two-sided market. The general proposition of the economic literature on two-sided markets is that the *structure* of prices matters. Interventions by the regulator need to consider any effects that altering the structure of prices may have.
- 25 There is a key distinction between the regulation of FTM and MTM termination rates. Regulation of FTM termination rates results in a benefit to fixed customers, which then is offset by a detriment to mobile customers. In respect of regulation of MTM termination rates both the benefit and detriment affects mobile customers (as here mobile customers are both making and receiving calls). This has important implications for any CBA the Commission may conduct.
- 26 In its Previous Investigation, the Commission recognised in its CBA for the regulation of mobile termination for FTM calls, that mobile termination is in fact part of a two-sided market. The Commission recognised this two-sided aspect of the market in the CBA model by passing through a change to the mobile termination rates to retail prices for FTM calls and the retail prices of mobile services. The "waterbed effect" is the economic outcome of a rational service provider taking into account the inter-relationship between subscriptions for mobile services and the value of terminating off-net calls on their network. The current Issues Paper, however, makes no reference to linkages of this kind.

Process

- 27 If, following submissions on the Issues Paper, the Commission determines to initiate a formal investigation, then Telecom would like to better understand the process going forward.
- 28 We submit that the consultation process should include at least the following steps, this is generally consistent with the way the Commission approaches other regulatory inquiries of a conceptually similar nature:
- (a) consultation on a much more detailed issues paper;

- (b) consultation on the structure of the CBA and the information required to populate it prior to the release of the Commission's draft determination;
- (c) consultation on the draft determination and draft CBA - submissions;
- (d) cross-submissions on the draft determination and draft CBA;
- (e) conference; and
- (f) the Commission releases its final determination.

29 As set out above, if the Commission considers it can include wealth transfers in the CBA, it will consequentially also need to address the relevant social policy questions that must be answered. Telecom would like to understand how the Commission intends to carry out such consultation.

2 INTRODUCTION

Previous Investigation

- 30 The background to this Issues Paper is the Commission's Previous Investigation into whether FTM mobile termination should become a designated or specified service. During that process, both Telecom and Vodafone made commercial offers to the Minister for Communications to reduce their rates. Telecom also undertook to reduce its FTM prices for retail customers by the amount of the fall in FTM termination rates if the commercial offers were accepted in place of regulation. This commercial agreement is reflected in Telecom's deed with the Minister (**Deed**). The Commission has now determined to investigate whether regulation is still required.
- 31 There are obviously similarities between this current process and the Commission's Previous Investigation. The Issues Paper adopts the general approach the Commission took last time. However, there are also a number of new matters that need to be considered.
- 32 This submission is set out in the following structure:
- (a) market definition;
 - (b) competition analysis;
 - (c) CBA, including the wealth transfer issue; and
 - (d) the process going forward.

3 MARKET DEFINITION

- 33 Before carrying out the CBA the Commission must be sure that competition in the relevant market is limited. If the market is workably competitive, there is no need for regulation to promote competition (the Act's section 18 purpose). As a first step then, the legal framework of the Act requires the Commission to define the relevant New Zealand market.

Two-sided market

- 34 The Commission's market analysis in the Issues Paper adopts a conventional vertical view of the market. The Issues Paper describes the relevant market as a (one-way access and one-sided) wholesale market for MTM termination services, viewing mobile termination as an upstream input into the downstream retail mobile services market. This narrow definition of the market for mobile termination mistakenly ignores many interactions that have an influence on the MTM termination rates and upon which those termination rates also have an influence.

- 35 The two-sided market arises due to the fact that both the calling and called parties need, and benefit from, each other. The market for mobile services would not exist without both:
- (a) callers to mobiles; and
 - (b) mobile subscribers.
- 36 An important consequence of recognising the two-sided market for the competition analysis is that it provides a coherent framework for considering the interaction between MTM termination rates and competition for customers in the retail market for mobile services. Interacting factors include:
- (a) mobile termination revenue for inbound calls;
 - (b) mobile termination payments for outbound calls;
 - (c) the effect of mobile termination rates on retail prices; and
 - (d) retail competition for market share and the effect on mobile termination revenue and payments.
- 37 Analysing mobile telephony in the proper “two-sided” framework has several implications:
- (a) an operator can reduce its exposure to termination payments and revenue by competing for customers with different preferences. These trade-offs must be recognised in the competition analysis and CBA;
 - (b) investment decisions will be made holistically, not on the basis of just one side of the market. Mobile operators must balance their pricing decisions on both sides of the market. Both the price level and the price structure are important; and
 - (c) it is wrong to identify market power by comparing prices and costs on just one side of the market or platform - competition will force the joint revenues earned for all services down to the cost of the platform.
- 38 As we submitted in the Previous Investigation, an essential feature of this two-sided market structure is that the cost of the platform is a joint cost: prices do not and cannot follow marginal costs on each side of the market. This is partly because the products have joint costs of production that make it difficult to distinguish the production costs of the individual products, but it is mainly because products are priced in order to maximise demand for the services of the platform. Platforms price to one side of the market to “get it on board” with the knowledge that the other side will follow.

- 39 It is wrong to analyse the impact of regulation of MTM termination rates on the retail market as one would analyse lower input costs based on a narrow market definition. In this narrow market definition based on vertically related markets, a price reduction in the upstream market will lead to a price reduction in the downstream market. But the mobile space contains inter-dependencies - a price reduction in the "upstream" market may in fact raise and lower price elements of mobile service packages offered in the "downstream" market.
- 40 As set out above, the fact that the mobile industry is a two-sided market means that subscription costs and prices must also be taken into account when considering whether termination prices are too high. Subscription and termination are joint products; mobile operators set prices jointly for origination, termination, access and value-added products. Therefore the costs of subscription and termination cannot be meaningfully separated.
- 41 In order to convince customers to join the mobile network, mobile operators need to consider entry prices (handsets and access charges). On the basis that customers are generally more price sensitive to upfront costs than to the ongoing costs of mobile services, mobile operators tend to:
- (a) minimise/lower upfront costs by subsidising handsets, which (with dealer margin etc) means that the customer is initially cash flow negative for the operator;
 - (b) try to receive a return from the customer's ongoing use of mobile services (through termination revenue and charges to the mobile user); and
 - (c) attempt to manage operating costs, overheads, and common costs better than competitors.
- 42 This means that the calculation of termination prices depends on much more than the incremental cost of a call, and in turn termination prices affect other aspects of the viability of mobile services operation. By spreading the cost of obtaining a customer across the lifetime of that customer, mobile operators aim to make it more attractive to become a mobile customer, thereby increasing customer numbers, allowing the network to be used as efficiently as possible.
- 43 So for example, when setting the price for handsets, the retail price the customer pays may not cover the full purchase cost price of the handset upfront. Instead it is recovered within a reasonable timeframe. Telecom carries out modelling of expected revenue, the upfront one off costs, and the ongoing monthly costs of providing service. Our revenue calculation considers outbound calling paid for directly by the customer and inbound calls to the customer from fixed lines and non-Telecom mobiles.

44 There is a key distinction between the regulation of FTM and MTM termination rates. Regulation of FTM termination rates results in a benefit to fixed customers, which then is offset by a detriment to mobile customers. In respect of regulation of MTM termination rates both the benefit and detriment affects mobile customers (as here mobile customers are both making and receiving calls). This has important implications for any CBA the Commission may conduct.

45 In its Previous Investigation the Commission recognised, in its CBA for the regulation of mobile termination for FTM calls, that mobile termination is in fact part of a two-sided market. The Commission recognised this two-sided aspect of the market in the CBA model by passing through a change to the mobile termination rates to retail prices for FTM calls and the retail prices of mobile services. The “waterbed effect” is the economic outcome of a rational service provider taking into account the inter-relationship between subscriptions for mobile services and the value of terminating off-net calls on their network. The current Issues Paper, however, makes no reference to linkages of this kind.

Substitutes for mobile termination

46 An additional aspect of the market definition that the Commission will need to incorporate is the fact that mobile subscription is a substitute for mobile termination, in the sense that a mobile operator can seek to attract a subscriber onto its own network as a substitute for paying another mobile network operator to terminate calls to that subscriber. Fixed phone and mobile phone services are also substitutes to some degree, which the Commission’s conceptual framework and analysis needs to take into account.

47 Once the Commission has defined the market it must then analyse the state of competition within that market.

3 COMPETITION ANALYSIS AND ECONOMICS OF OPERATING A MOBILE NETWORK

48 The Commission’s view in the Issues Paper is that:

- (a) both the wholesale and retail mobile markets indicate that New Zealand markets are subject to lower competitive pressure than in other OECD countries;
- (b) retail prices are relatively high compared to other OECD countries and mobile volumes are lower compared with other jurisdictions, whereas the average return rate per minute tends to be above average; and
- (c) mobile termination rates in the wholesale market are currently at 16 cents per minute, whereas the median benchmark is 10.76 cents per minute.

- 49 However, the Commission cannot jump to conclusions based on price benchmarking. The question is whether the mobile markets are workably competitive, and whether regulation would increase competition to the long-term benefit of end-users. The Commission should take a view on what competition should look like.
- 50 In analysing whether the market is currently workably competitive, the Commission needs to carefully consider a number of factors, including:
- (a) the dimensions on which mobile operators compete – for example, while price is likely to be a key dimension, so are features such as the ability to roam, functionality of network-compatible handsets, and coverage;
 - (b) investment in new services and technologies (and the technology leap-frogging by Telecom and Vodafone);
 - (c) the existence or otherwise of switching costs (and the implications of number portability);
 - (d) the nature of mobile cost drivers in New Zealand; and
 - (e) the (economic) profitability of the mobile operators, properly assessed over time and across the mobile platform.
- 51 The Commission suggests that there may be a “barrier to entry” to the mobile market, and that this barrier may be “strategic”.³ In Telecom’s view, the Commission should be very careful before concluding that there is a barrier to entry, particularly in light of TelstraClear’s recent announcement and the fact that on-net and off-net pricing occurs in European countries with several mobile networks. Furthermore, a lack of facilities-based entry is entirely consistent with the proposition that the market is already competitive.

Market concentration

- 52 The Commission notes in the Issues Paper that comparable countries have four or more mobile operators. On initial analysis it seems to Telecom that some of these “four or more” mobile operators may be regional operators, or operators with partial coverage using roaming over other networks to fill any coverage gaps in their own networks. For example, information available on the GSM Association’s website indicates that one of Finland’s four operators is only a regional operator, and only one of Sweden’s four providers operates a fully national network.⁴

³ Page 10 of the Issues Paper

⁴ From www.gsmworld.com

53 The Commission needs to make a “like for like” comparison. If the Commission wishes to make these types of comparisons it must demonstrate that the networks in those countries are configured similarly to those in New Zealand.

Retail prices, penetration and usage

54 In a workably competitive market, like mobile, competition forces revenues overall down to cost.

55 Factors such as low penetration and low minutes per subscriber could, superficially at least, suggest an uncompetitive market. However, above cost pricing on one “side” of the market does not prove market power.

56 The benchmarks that the Commission uses to reach the conclusion that New Zealand’s retail prices are too high must also be considered in more detail. Telecom’s EVA illustrates that it does not earn monopoly profits therefore prices overall are not above cost. The economics of operating a mobile network have not changed since Telecom submitted its EVA during the Previous Investigation. Our current new investment in the W-CMDA network roll-out means that we are in fact spending additional capital. This additional capital investment then requires a fair return.

Minutes per subscriber

57 In addition, low minutes per subscriber must be viewed in the context that New Zealand has a very high proportion of subscribers on pre-paid plans, which generally have a higher per minute price to reflect the flexibility they offer the subscriber. Standard theory on price discrimination predicts that providers will offer both a high usage and low usage plan that will be designed so that consumers self-select the contract that matches their preferences. Thus low minutes per subscriber could simply reflect a customer preference for flexibility. By offering different packages with different tariffs, the operator can cover fixed costs more efficiently by maximising use of the network by a range of users with different priorities. In contrast, the table below illustrates that New Zealanders have high texting usage. Text usage on prepaid overall is about [] **TNZCOI** and about [] **TNZCOI** on postpaid plans. We estimate that the average is about [] **TNZCOI**. Customers may choose to text rather than to call.

Teligen baskets

58 The Issues Paper relies on the Teligen basket of low, medium and high usage mobile subscribers to rate New Zealand’s retail mobile services and comes to the view that retail plans here perform relatively poorly.

59 The Teligen benchmark calculates the total spend for three usage profiles (i.e. high user, medium user, and low user) based on mobile plans offered by the two largest mobile operators in each OCED country. The benchmark simply compares and ranks these total spends. Although it may provide some indicative data to

inform general policy discussion regarding how mobile plans might compare, the Teligen benchmark is of no real value for a detailed market and competition analysis.

60 The limitations of the basket mean that the data is not of sufficient quality to be relevant for determining the state of competition in the New Zealand market. These limitations of the basket include:

- (a) the usage baskets rely on a usage profile that may be indicative of the customer demand in some of the OECD countries, but it does not capture the usage profile of mobile customers in New Zealand, as the following table illustrates:

	Voice calls per year	Texts per year
Teligen high usage	1680	660
Teligen medium usage	780	600
Teligen low usage	360	396
Telecom average usage	[] TNZCOI	[] TNZCOI

The table clearly shows that the number of text messages sent by Telecom customers is significantly greater than the Teligen basket usage; and

- (b) the Teligen usage baskets do not capture the benefits of price caps, which are common a feature of mobile packages in New Zealand and presumably in other countries. This is because the usage profile for high, medium and low users assumes that usage does not vary. The usage profiles assume that users make exactly the same number of calls, or send exactly the same number of text messages each month. This is unrealistic as customers' usage patterns do vary and they value the certainty that caps provide.

61 In addition, the Teligen baskets attempt to compare retail prices, but they, do not take into account a number of differences in the underlying cost of providing the mobile services relevant to the New Zealand context:

- (a) the particular costs of building and operating a mobile network in New Zealand;
- (b) the effect of local free calling;
- (c) extremely competitive text pricing.

Costs

- 62 The Commission cannot assume that the costs of supplying services are uniform as between New Zealand and other countries. Return on invested capital in the mobile market is modest. New Zealand is likely to be a relatively high cost country.
- 63 There are a number of factors contributing to the costs of building and operating a mobile network in New Zealand's unique conditions. The Resource Management Act results in mobile operators building shorter towers (with resultant reduced coverage) than in other countries. Rugged landscapes further limit the reach of some towers. High wind zones and earthquake-prone locations mean that towers must meet more stringent building standards and are therefore more costly to build. Many sites are difficult to supply with power and need CAPEX- and OPEX-intensive standby or standalone power sources. The cost of transporting network components and handsets to New Zealand can also be high.
- 64 New Zealand's low population means base stations serve smaller populations than they might in more densely populated countries. There are few large population centres to support cell sites with higher numbers of users. The small scale of a New Zealand mobile network also means that Telecom does not enjoy the economies of scale and buying power associated with some European networks which have presence across Europe.
- 65 Telecom is not earning above normal profits. Telecom has previously presented accounting evidence (its EVA) to demonstrate that it is not earning excessive economic profits, reflecting the fact that it is operating in a competitive market. Telecom considers that this evidence supports its case that the mobile market is workably competitive – as the returns being made are no more than normal.

Free local calling

- 66 Free local calling and near total landline penetration influence New Zealand's mobile use profile. In particular, as fixed and mobile telephony are, at least to some degree, substitutable, the cheaper fixed telephony is then the less incentive there is likely to be to purchase mobile telephony.

Calling and text profiles

- 67 As noted above, Teligen's calling profiles are much higher than Telecom's customers', and the Teligen model does not account for text price capping and use. On average, Telecom's mobile customers send [] TNZCOI texts each per month. (Prepaid customers, who send an average of around [] TNZCOI texts each per month, make up more than half of Telecom's mobile customer base.)

On-net and off-net prices

- 68 The Commission appears to be particularly concerned that high termination rates and the corresponding differential in retail off-net and on-net call prices pose a

barrier to entry. Off-net/on-net pricing differentiation is a feature of many European mobile markets that have several networks. It is Telecom's view that the more likely deterrent to entry is that the market is small and already competitive.

4 COST BENEFIT ANALYSIS (CBA)

Robust CBA required

- 69 If the Commission determines that there is an issue sufficient to warrant consideration of a regulatory intervention, then the Commission must explicitly set out its hypothesis regarding how the regulation of services between operators will promote competition for the long term benefit of end users.
- 70 Sections 18 and 19 of the Act require the Commission to demonstrate that any proposed regulatory intervention in telecommunications markets is warranted. The onus on the Commission to demonstrate that regulatory intervention is warranted is at its highest when it is considering any new intervention.
- 71 Those provisions, and the principles of good regulation, require that the minimum level of regulatory intervention necessary to meet the desired policy objectives should be a guide. It is only appropriate to regulate where the market has failed or is likely to fail to meet policy objectives in the absence of regulation, and the benefits of regulatory intervention materially exceed the costs, resulting in a net benefit to society. If the Commission cannot be confident that both these criteria are met, the balance should be struck against regulatory intervention.
- 72 The Commission must be confident that its decision "best gives, or is likely to best give" effect to the section 18 purpose. It is therefore crucial that the CBA carried out by the Commission is robust and clearly indicates that there is material benefit in regulatory intervention. We consider that the Commerce Amendment Bill's proposed new Commerce Act CBA is an appropriate model to follow as it reflects the latest thinking on best regulatory practice. The Commerce Amendment Bill's section 52F is intended to be the minimum threshold in deciding whether regulation is permissible.
- 73 The Bill aims to address, amongst other things, the perceived concerns around:
- (a) inefficient decision making processes;
 - (b) regulatory uncertainty; and
 - (c) constraints on regulatory approaches.
- 74 Part of the overall package of proposed changes to the Commerce Act to address these concerns is the proposed section 52F CBA: a more conventional, qualitative

test for when regulation may be imposed. Under the proposed test regulation should only be imposed when:

- (a) there is little or no competition and no likelihood of a substantial increase in competition;
- (b) there is substantial scope for the exercise of market power; and
- (c) the benefits of regulation clearly exceed the costs of regulation.

75 In carrying out its CBA under the Telecommunications Act, we consider that the section 52F test in the Bill is appropriate.⁵ The Commission should only consider recommending the regulation of the wholesale service if: “the benefits of regulating the goods and services ... materially exceed the costs of regulation.”

76 We note in particular the move away from the more controversial net acquirers benefit test, which requires a trade-off between the net economic cost to New Zealand and benefits to consumers. The explanatory note to the Government Bill states that the test was removed because it was considered that this comparison could not be made in a meaningful way.

77 It is also noteworthy that the Bill requires the Commission, when conducting an inquiry into the need for further regulation, to assess and quantify material distributional and welfare consequences for suppliers and consumers. This reflects government policy that distributional consequences be made very transparent.

Welfare transfer

Effect of regulating MTM termination rates on the welfare of consumers of mobile services

78 Any change in the termination rate for MTM calling is unlikely to affect the level of profits that mobile operators earn.⁶ Instead, any change in MTM termination rates is likely to be profit neutral. However, changing the termination rate is likely to

⁵ (1) Goods or services may be regulated under this Part only if –

- (a) the goods or services are supplied in a market where there is both –
 - (i) little or no competition; and
 - (ii) little or no likelihood of a substantial increase in competition; and
- (b) there is scope for the exercise of substantial market power in relation to the goods or services, taking into account the effectiveness of existing regulation or arrangements (including ownership arrangements); and
- (c) the benefits of regulating the goods or services in meeting the purpose of this Part materially exceed the costs of regulation.

(2) In any consideration of this test, the part of the test in subsection (1)(c) need not be considered unless the parts of the test in subsection (1)(a) and (b) are satisfied.

⁶ Mark Armstrong “The Theory of Access Pricing and Interconnection”, chapter 8 of Cave et al (ed) 2002 *Handbook of Telecommunications Economics, Volume 1* page 372

affect the structure of the pricing packages that are offered to customers. The consequence of these two points is that simply lowering the MTM termination rate is unlikely to result in transfers of any surplus from producers to consumers. It is more likely to result in transfers among customer segments with different preferences, incomes, and general usage characteristics. This has important implications for any analysis of the effect of regulation on total welfare.

Structure of tariffs for mobile services

- 79 An important feature of retail prices for mobile services is that customers can select from a menu of packages where each package differs according to the connection fee, monthly rental, peak and off peak call charges, bundles of non-charged-for minutes, price caps, text messaging rates, and in some cases on-net and off-net prices. This type of pricing is referred to as non-linear pricing, as opposed to linear pricing which is a single per-unit price-point. The reason for offering such a range of tariffs is that it best meets the demand characteristics of different customer segments, thus expanding output compared with linear tariffs.
- 80 Due to the expansion in output, non-linear tariffs are welfare enhancing compared with a linear tariff. It follows that a menu of non-linear tariffs, from which the customer can select, will further enhance welfare. In addition, competition between Telecom, Vodafone and TelstraClear, which affects the menu of packages on offer, will also further enhance welfare.
- 81 MTM termination rates have an influence on the structure and range of the non-linear tariffs on offer.

Effect of the change in the MTM termination rate on profit

- 82 Mark Armstrong,⁷ in his analysis of the extent to which a two-way access termination rate might act as a mechanism for collusion between operators competing in a retail market, suggests that where the retail services are priced using non-linear tariffs, the termination rate has no effect on the profits that the firms earn. In other words, the termination rate cannot be used as an instrument to sustain profits greater than what would be earned in a competitive market.
- 83 The intuition behind this result is that the MTM termination rate is only one instrument with which to influence and co-ordinate the behaviour of operators. Even if operators were competing using a simple two-part tariff, they would compete using both the access fee and the usage price. Therefore, the single termination rate is not sufficient to control both the access fee and usage price, in order to co-ordinate retail prices and earn excess profits. However, this does not mean that a regulated change in the MTM termination rate would have no effect on retail prices. Rather it suggests that a change in the termination rate will affect the structure of retail prices but not the level.

⁷ Mark Armstrong "The Theory of Access Pricing and Interconnection", chapter 8 of Cave et al (ed) 2002 *Handbook of Telecommunications Economics, Volume 1*

84 This conclusion is based on an additional assumption that there is no on-net/off-net pricing. Where there is on-net/off-net pricing, Armstrong's analysis shows that the two operators would have an incentive to set the termination rate below marginal cost, not greater than the marginal cost. This result seems to contradict the Commission's justification for reducing the MTM termination rate. However, the theory indicates that there are a number of important considerations that need to be taken into account. In this two-sided market the challenge for Commission is to articulate how regulation will increase competition.

Welfare implications

85 The fact that changing the MTM termination rates is likely to affect the structure of tariffs but not their level has important implications for the welfare analysis:

- (a) a reduction in the MTM termination rates will not lead to surplus being transferred from producers to consumers - it is profit neutral. (In fact, if there is on-net and off-net pricing, then a reduction in the mobile termination rates may lead to a reduction in consumer surplus.)
- (b) the change in the MTM termination rates will affect the structure of the tariffs on offer. This change is likely to mean that some consumers may benefit from the change in structure, while others may suffer a detriment. The net effect may be positive or negative. This is a challenging empirical question. Such an analysis would require a detailed segmentation of consumers into groups based on access, calling and texting preferences (including information about their demand characteristics).

86 Competition promotes economic efficiency. Economists consider that regulation should replicate the outcomes of competition to promote efficiency. For this reason competition is about driving efficiency. This is central to the CBA the Commission is required to carry out. The appropriate approach to conducting a CBA is therefore to treat transfers between consumers and producers as welfare neutral. Competition and market regulation is a poor vehicle for addressing wealth transfer issues.

87 If wealth transfers are to be included as a benefit or detriment, this requires policy judgements – redistributive and social policy goals are being created. If the Commission considers it is able to carry out this kind of analysis there is a wider range of potentially affected parties who would need to be involved in this process to decide where trade-offs should be made between, for example, different consumer groups.

Pass through

88 A key input for the cost benefit analysis will be the assumption regarding the percentage change in MTM termination rates between the counterfactual and factual that will pass through to the retail prices. The two-sided market means that an operator's termination revenue and termination out-payments will

influence their valuation of the mobile termination and therefore the retail price for the service. In this situation it is unclear if a change in the MTM termination rates will have any net effect on retail prices.

- 89 In contrast, pass through of reductions in termination rates for FTM calls might be expected to be greater than for MTM calls. In the former case there is only one (unambiguous) effect – a decrease in FTM prices. Whereas for MTM calling a change in the termination rates has an ambiguous effect – a lower input cost leading to lower retail prices, but also lower termination revenue leading to higher retail prices. Therefore, in this case mobile network operators will receive termination revenue and make termination payments which will to some extent offset each other. Therefore the net-effect may be negligible.
- 90 In any case, in calculating the likelihood of pass through of any reduction in MTM termination rates, the Commission of course cannot take into account the level of pass through observed in relation to FTM prices. That pass through was mandated in the Deeds entered into between mobile operators (Telecom and Vodafone) and the Government.

5 PROCESS ISSUES

- 91 The Commission states in the Issues Paper that it considers that there appear to be reasonable grounds for commencing an investigation into MTM termination rates, so is testing the issue further by releasing the Issues Paper and calling for submissions.
- 92 This process is different in that in previous Schedule 3 investigations the Commission has released an issues paper after the commencement of an investigation, which outlines the Commission's view of the issues to be addressed.
- 93 If, following submissions on the Issues Paper, the Commission considers that an investigation is required, then Telecom submits that the next step in the process needs to be a more detailed issues paper. As the Commission points out itself, the current Issues Paper is only to determine whether or not to launch a Schedule 3 investigation. The current Issues Paper does not present a complete analysis of the markets, and competition in them, nor does it adequately identify other relevant issues, including the CBA.
- 94 Telecom considers it would be useful if the industry was able to meet with the Commission to discuss the structure of the CBA and the information required to populate it prior to the release of a draft determination. There are a large number of analytical questions to be addressed before the Commission carries out a CBA. At a high level, Telecom's main issues in the Previous Investigation centred on how the Commission framed up, and presented, the calculation of the benefits and costs of regulation in its CBA.

- 95 Further, if the industry is not able to engage early with the Commission on the CBA, then we consider that this will require substantial time to understand and work through the model later in the process.
- 96 In any event Telecom considers that, for meaningful consultation on the draft determination, the CBA model should be made available at the same time as the draft determination. We assume that the Commission will adopt the same process for submissions on the draft determination, cross-submissions and a conference.
- 97 In summary, we submit that the consultation process should include the following steps:
- (a) consultation on a much more detailed issues paper;
 - (b) consultation on the structure of the CBA and the information required to populate it prior to the release of the Commission's draft determination;
 - (c) consultation on the draft determination and draft CBA - submissions;
 - (d) cross-submissions on the draft determination and draft CBA; and
 - (e) conference.
- 98 If the Commission considers it can include wealth transfers in the CBA and therefore address the relevant social policy questions that must be considered, then we would like to understand how the Commission is going to carry out consultation with the relevant/affected parties. Given the offsetting effects of termination revenues and payments and the competition for mobile customers, trade-offs between consumer groups will be required.

6 RESPONSE TO SPECIFIC QUESTIONS RAISED IN ISSUES PAPER

- 99 In the Appendix to this submission Telecom responds to the specific questions raised by the Commission.

APPENDIX

Response to specific questions raised in Issues Paper

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?***

Telecom does not consider that the Commission's market definition is appropriate. The Commission's market definition must recognise that mobile termination operates in a two-sided market. The costs of providing subscription and termination services are joint; mobile operators set prices jointly for origination, termination, access and value-added products. Therefore the costs of subscription and termination cannot be meaningfully separated.

The Commission accepted that mobile termination operated in a two-sided market during its Previous Investigation and built its CBA on this basis. It seems odd that the Commission has not acknowledged the two-sided market in its Issues Paper.

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

An additional aspect of the market definition that the Commission will need to incorporate is the fact that a change in the price of termination will affect the quantity of subscription.

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)?***

Termination services are part of a two-sided market. They are not bottlenecks.

The Commission's analysis leads it to conclude that mobile services are a "bottleneck" but it is simply a consequence of incorrectly framing the market.

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

Given the two-sided market, the fact that subscription and termination are interdependent, and that there are competing mobile service operators, the resulting effect of these interactions on mobile retail prices will need to be worked through.

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

“Predation” is a concept typically analysed under section 36 of the Commerce Act. The section 36 “counterfactual” test asks whether a firm without market power, otherwise in the same position as the defendant, could reasonably have engaged in the conduct to which the complaint relates.

It is quite clear that mobile operators in markets with several operators (e.g., in Europe) engage in on-net and off-net pricing. Therefore on-net and off-net pricing is consistent with competitive behaviour.

The main factor leading to on-net/off-net discounts will be that there is a customer segment which values this tariff structure. New entrants and incumbents may engage in on-net/off-net pricing to compete for customers.

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)?***

There is a tension between the range of services on offer, changes in customer preferences, the total cost of building the network, and economic depreciation due to ongoing technological progress and competition.

Any new investment, whether it be expanding the network or adding a new technology, involves fixed costs. Therefore average costs must initially be higher. But then as subscriber numbers and traffic increases, average costs decrease.

- (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?***

The reduction in the FTM retail rates cannot be explained by the pass through of reduced wholesale rates. Pass through was mandated in the Deed agreed with the Minister. Accordingly, lessons from the FTM experience are limited in the MTM context.

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

Business customers and residential customers have different preferences – reflected by the different packages available. From Telecom’s perspective the differentials between business and residential customers also reflect the competitive price offerings that customers are seeing from Vodafone and to which

we need to respond. In addition residential customers have a “free” option for local calling provided by the TSO, which is a substitute for mobile calling.

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

The average call to a Telecom mobile lasts about [] TNZCOI.

(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.***

Current wholesale voice termination rates for FTM services match the MTM tariffs contained in Telecom’s standard mobile interconnection agreement, available for acceptance by any mobile network operator meeting Telecom’s standard terms and conditions.⁸ [

] TNZCOI

(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.***

Simply taking the median from a sample of countries and noting that New Zealand is above that median and thus must be above cost ignores the fact the New Zealand may be a more expensive country in which to operate a mobile network. If the Commission wishes to compare New Zealand’s mobile termination rates against international rates, it must examine country-specific cost drivers to determine whether or not New Zealand is likely to be more or less costly.

In the recent Optus determination a number of factors which drive the cost of operating a mobile network were discussed:⁹

- cost of capital;
- exchange rate;
- geographic terrain;
- land and labour costs;
- network purchasing power;
- network usage and scale;
- population density;
- spectrum allocations;
- technology choices; and
- whether operators have fixed and mobile networks.

None of these factors appears to have been examined in the Commission’s benchmarking exercise.

⁸ www.telecomwholesale.co.nz/wintercon

⁹ ACCC (2006), “Optus’s undertaking with respect to the supply of its domestic GSM Terminating Access Service (DGTAS)” *Final Decision: Public version*, February 2006

- (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?***

Due to the two-sided nature of mobile, it is not appropriate to consider mobile termination as a bottleneck service. It may be quite efficient (and consistent with a competitive market) for termination rates to exceed the long-run costs of mobile termination (even if those could be separately identified).

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

Telecom's publicly available standard mobile interconnection agreement provides for the vast majority of voice calls to be charged for a full minute per call, and on a per-second basis thereafter. Text messages are billed on a per message basis. The agreement also provides for multi media messages to be billed on a per message rate, which increases in increments as the size of the message increases[

] TNZCOI

Question 6.1

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

As already noted in the body of this submission, as prices for retail mobile services consist of a menu of non-linear tariffs, a reduction in the MTM termination rate may result in a reduction in some price elements of the tariff but any reductions are likely to be offset by an increase in other elements of the tariff. The overall effect may benefit some consumers but at the detriment to others. The Commission needs to consult to make these kinds of trade-offs.

In the Previous Investigation, the direction of the price changes in the fixed and mobile retail "markets" was unambiguous. However, the net effect of a regulated reduction of the MTM termination rate on retail mobile prices is ambiguous.

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

A change in the MTM termination rate is likely to affect different customer groups differently. As already noted above and in the body of this submission, some customer groups may benefit from a reduction but at the detriment of others.

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

If there is a regulated reduction in the MTM termination rate, the net effect on the retail market would be ambiguous because of the two-sided market with two-way access pricing combined with competition in the retail market for customers. Any attempt at predicting the effect of such a change on the retail market would involve analysing each of these factors and their interactions, therefore the analysis would be complex. A further complication would be to determine the trajectory that the pricing elements of retail packages would take and the time that it would take for any change in the termination rate to completely flow through to the retail market.

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

As already noted, retail prices for retail mobile services consist of a menu of non-linear tariffs or multipart tariffs, therefore a reduction in the MTM termination rate may result in a reduction in some price elements of the tariff, and an increase in other price elements. As the net effect is likely to be ambiguous it is unclear what form any encouragement may take.

In contrast, the pass through for FTM termination rate was one-way – i.e. a reduction in the termination rate for FTM calls would be passed through to the fixed line caller – so the effect on retail prices was less ambiguous.

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

Given the large number of interactions at play, it is difficult to predict what the effect of, say, a reduction in MTM termination rates for voice services might have for other services.

Question 6.2

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

[

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TNZCOI

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

Telecom provides a publicly available version of a sample interconnection agreement for mobile. In the past Telecom has negotiated commercial interconnection agreements for mobile termination and expects this to continue.

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

As stated above, Telecom has mirrored the FTM Deed price glide path with MTM in its standard mobile interconnection agreement, so that is the appropriate counterfactual.

The industry is also currently consulting on the long-term IP interconnection model for fixed and mobile IP traffic. This consultation is intended to result in an industry report on a likely IP interconnection model by the end of July 2009. Once that model is agreed, the very complex transition issues associated with the introduction of any new interconnection model will start to be resolved. These are not insignificant issues, and will take careful consideration to resolve. The IP interconnection model will influence the counterfactual against which any benefits of regulation would be measured. As a result, it is not appropriate to determine the counterfactual until the industry has completed this work.

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)?***

If the service is regulated then competition will not be affected, nor will the likelihood of entry. Regulation will only result in transfers between consumers. Any regulatory intervention in respect of MTM termination rates is likely to result in a reduction in dynamic efficiency and to increase regulatory uncertainty.

(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?***

As above.

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

Customers have a choice of making a voice call or sending an SMS. One of the factors customers take into account in making this decision is price. For this reason there is a menu of pricing packages for customers to choose from.

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

The introduction of new specified or designated services would not make new entry more viable.