

**Appendix One: TelstraClear response to Commissions Issues Paper  
Schedule 3 investigations into amendments to the roaming and co-location services  
Public version**

Question		TelstraClear response
3.1	(a) To what extent are commercial negotiations being undertaken for the services <sup>1</sup> ?	<ul style="list-style-type: none"> <li>TelstraClear is launching its Tauranga GSM HSDPA network “Unplugged” in 2007. As a part of this development, [ <b>]</b>TCLRI</li> </ul>
	(b) What is the likelihood of commercial agreements being reached for the services?	<ul style="list-style-type: none"> <li>[ <b>]</b>TCLRI TelstraClear considers that the key question for the Commission is not whether commercial agreements have been reached but whether maintenance of the status quo is likely to result in commercial agreements that would result in outcomes consistent with s.18 of the Act.</li> </ul>
	(c) What is the likely counterfactual for the services?	<ul style="list-style-type: none"> <li>The counterfactual for roaming services should be the status quo. That is, roaming remains a specified service as currently set out in Schedule 1 of the Act.</li> <li>The counterfactual for co-location services should be the status quo. That is, co-location remains a specified service as currently set out in Schedule 1 of the Act.</li> </ul>

<sup>1</sup> ‘Services’ – national roaming and co-location services

	Question	TelstraClear response
3.2	(a) What is the likely factual? What would be an appropriate designated roaming service and co-location service? How would the service compare to the services available under the counterfactual (in particular, in terms of pricing)?	<p>There are two factual scenarios that must be considered for roaming and co-location respectively:</p> <p><b>Roaming Services</b></p> <p>Roaming Factual 1: Enhanced roaming regulation</p> <p>Factual scenario 1 is amending the existing regulated roaming service. Under this factual, the national roaming service would become a designated service with the service description and conditions clarified to provide increased certainty for efficient new entrants, while maintaining incentives for further investment by the incumbent.</p> <ul style="list-style-type: none"> <li>• The factual of regulated roaming should have the following characteristics: <ul style="list-style-type: none"> <li>a) a technology agnostic description of roaming services covering voice and SMS services, but excluding value-added data services;</li> <li>b) initial rollout requirement changed from a ‘network that covers no less than 10% of the area in which the NZ population normally lives or works’ to a ‘network that covers no less than 10% of the NZ population’;</li> <li>c) national cellular mobile network defined to be a network covering 70% of the population;</li> <li>d) initial price based on international benchmarking of TSLRIC pricing of comparable services;</li> <li>e) final price based on TSLRIC; and</li> </ul> </li> </ul>

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	<p>f) access to service no longer available once network build reaches 70% of population or after the expiration of the specified network build period, whichever is earlier.</p> <p><u>Roaming Factual 2: Acceptance of Vodafone Undertaking</u></p> <ul style="list-style-type: none"> <li>• Factual scenario 2 is the acceptance of Vodafone’s undertaking provided under Schedule 3A of the Act, coupled with the removal of the existing roaming service in the Act.</li> </ul> <p><b>Co-location Services</b></p> <p><u>Co-location Factual 1: Co-location regulation moved from specified to designated service</u></p> <p>Factual scenario 1 is amending the existing regulated co-location service. Under this factual, the co-location service would move from to a designated service from a specified service.</p> <ul style="list-style-type: none"> <li>• The factual of regulated co-location would have the following characteristics: <ul style="list-style-type: none"> <li>a) Initial pricing principle: benchmarked forward-looking cost-based co-location rates; and</li> <li>b) Final pricing principle: TSLRIC.</li> </ul> </li> </ul> <p><u>Co-location Factual 2: Acceptance of Vodafone Undertaking, with amended regulated co-location service for carriers other than Vodafone</u></p>

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	<p>Factual scenario 2 is accepting Vodafone’s undertaking in respect of co-location under Schedule 3A of the Act, coupled with an amendment to the existing regulated co-location service moving it from a specified to a designated service, but excluding Vodafone as an access provider given the acceptance of Vodafone’s undertaking in lieu of regulation.</p> <ul style="list-style-type: none"> <li>• The factual of regulated co-location would have the following characteristics: <ul style="list-style-type: none"> <li>a) Initial pricing principle: benchmarked forward-looking cost-based co-location rates;</li> <li>b) Final pricing principle: TSLRIC; and</li> <li>c) Access provider definition amended to exclude Vodafone.</li> </ul> </li> </ul>
(b) How would such changes to the current specified 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?	<p><b>Roaming</b></p> <p>TelstraClear considers that Roaming Factual 1 (enhanced roaming regulation) will best give effect to section 18 for the following reasons:</p> <ul style="list-style-type: none"> <li>a) Clarity around the initial build and network rollout requirements will remove the existing ambiguity in the present service description;</li> <li>b) TelstraClear submits that 10% of population coverage is a reasonable initial network build requirement, requiring significant initial network investment;</li> <li>c) Requiring that an access seeker demonstrates a build-out requirement to cover 70% of the population over a period of time agreed by the Commission provides an incentive for build out and</li> </ul>

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	<p>avoids regulation in perpetuity;</p> <ul style="list-style-type: none"> <li>d) Roaming should be limited to 2G-type services, such as voice and SMS services, but be agnostic to the type of network over which the service should be delivered. TelstraClear considers that roaming should be available as an interim measure to facilitate entry only, and should not interfere with investment by access providers of higher value services such as 3G data services;</li> <li>e) The service should include the ability to regulate prices using a cost-based pricing principle. Given the current monopoly held by Vodafone in respect of GSM Services, the provision of regulated pricing will ensure that access seekers are able to gain roaming through commercial negotiation because regulated pricing will act as a backstop, or alternatively, the Commission is able to determine regulated prices where commercial negotiations fail; and</li> <li>f) removing access to the service once either the access seeker's network build reaches 70% of population or after the expiration of the specified network build period provides strong incentives on the access seeker to complete the national build and, once achieved, continue to extend coverage. At the same time, 70% coverage should be sufficient to ensure meaningful commercial negotiations for seeking roaming in areas not covered by the access seeker.</li> </ul> <p>The Vodafone roaming undertaking in its current form would not best give effect to the Act. Appendix 2 provides a clause-by-clause analysis of Vodafone's undertaking.</p> <p>TelstraClear considers that benefits over the long-term are most likely to</p>

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	<p>occur through infrastructure investment. Vodafone’s undertaking provides a trade-off between the emergence of a national network and roaming in perpetuity for a higher charge.</p> <p>However, if the concerns identified in Appendix 2 were addressed, TelstraClear submits that a revised undertaking with appropriate safeguards in place, may better give effect to the purposes of the Act than revision of the improved regulated service under Schedule 1 for the following reasons:</p> <ul style="list-style-type: none"> <li>a. Acceptance of an undertaking would provide immediate access to the service, in contrast to a backstop service under Schedule 1 where an access seeker would be required to apply for a determination, or a standard terms determination would need to be made, to gain regulated access.</li> <li>b. The benefits of an undertaking would be felt sooner than under a determination process, and the regulatory costs to both access providers and seekers would be lower.</li> </ul> <p><b>Co-location</b></p> <p>TelstraClear considers that Co-location Factual 2 (Acceptance of Vodafone Undertaking with amended regulated co-location service for carriers other than Vodafone will best give effect to section 18 for the following reasons:</p> <ul style="list-style-type: none"> <li>a. Cost-based prices will ensure that access seekers face the same</li> </ul>

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	<p>costs of providing services as incumbents, which would remove barriers to entry and promote competition for the long-term benefit of end users. Cost-based pricing also ensures that only efficient entry occurs.</p> <p>b. Improved co-location regulation for access to co-location sites (other than Vodafone's) will ensure that a regulatory backstop is available for access to co-location sites of other access providers.</p>
(c) What is the interrelationship between the roaming and co-location services? How does the price of one service affect the other?	<ul style="list-style-type: none"> <li>• Roaming and co-location are not (perfectly) substitutable services. A roaming service is required from the time of entry by a new entrant (i.e. from deployment of localised network), as consumers generally require national coverage. A co-location service is desirable during rollout to reduce entry costs.</li> <li>• Although not substitutes, there is a connection. If the price of roaming is low compared to the build option, and/or the roaming service has no time limit imposed, the incentive to build the network is reduced and free riding on existing infrastructure might result.</li> <li>• In addition to price, the non-price terms and conditions for co-location also determine, in part, the speed to which an access seeker build network, and consequently the timeframe in which an access seeker is dependent on roaming to provide a viable competitive offering.</li> </ul>
(d) To what extent would amendments to the regulated service reduce barriers to entry?	<ul style="list-style-type: none"> <li>• Tauranga is [</li> </ul>

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	<p style="text-align: right;"><b>JTCLRI.</b> The amendments suggested in Roaming Factual 1 scenario would increase the level of future certainty necessary for further investment.</p> <ul style="list-style-type: none"> <li>• A co-location service with a competitive price equivalent reduces rollout costs, thus increasing the viability of the business case for national rollout.</li> </ul>
3.3	<p>(a) In principle, what benefits and costs do respondents consider would result from designating the services (that would not eventuate in the absence of such designation)?</p> <p>Co-Location</p> <p>Benefits:</p> <ul style="list-style-type: none"> <li>• Designating co-location improves business case for entry by lowering the costs of rollout out of a network. The resulting increase in competition is likely to increase the range of services and lower prices for end-users of mobile services.</li> <li>• Designation would provide an effective backstop for commercial negotiations and would promote commercial agreements, as it would provide incentives for incumbents to offer co-location on reasonable commercial terms.</li> <li>• If designation leads to increased levels of co-location, this will assist in reducing any environmental impact resulting from the increase in mobile infrastructure because of an increase in the number of mobile providers.</li> </ul> <p>Costs:</p> <ul style="list-style-type: none"> <li>• Designation of co-location carries a risk that the regulated price may be below cost, which would act as a disincentive to further</li> </ul>

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	<p>infrastructure investment and induce inefficient entry.</p> <p><u>Roaming</u></p> <p>Benefits:</p> <ul style="list-style-type: none"> <li>• Designating roaming would lower the barriers to entry to the mobile market by ensuring that new entrants were not disadvantaged from being unable to offer national coverage for the period that they were installing their network.</li> <li>• Designating roaming would also prevent the monopoly GSM incumbent from raising its rivals' costs by imposing a roaming price above the cost of providing the service. Provided roaming prices were cost-based, any entry that occurred would be efficient and entrants would be able to compete on the same cost basis as the incumbent.</li> <li>• Designating roaming would provide an effective backstop for commercial negotiations and would promote efficient commercial agreements as it would provide incentives for incumbents to offer co-location on reasonable commercial terms.</li> </ul> <p>Costs:</p> <ul style="list-style-type: none"> <li>• Designation of roaming may act as a disincentive for future efficient infrastructure investment if the roaming price is set below cost.</li> <li>• Designation of roaming risks promoting inefficient entry if the roaming price is set below cost.</li> </ul>

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3.3	(b) Should these benefits and costs be evaluated in qualitative or quantitative terms (or a combination)? Is there any particular modelling approach that should be adopted to best evaluate the benefits and costs?	<ul style="list-style-type: none"> <li>Quantitative costs and benefits are difficult to accurately estimate ex ante.</li> <li>The complexity of the interaction between roaming and co-location, and consideration as to whether an undertaking should be preferred to improved regulation under Schedule 1 of the Act, mean that a combination of quantitative (where possible) and qualitative analysis should be used.</li> </ul>
3.3	(c) To what extent have parties themselves conducted or intend to conduct a quantitative assessment of the impact of designating roaming and co-location services in New Zealand (for example, by modelling the impact of designation on the business case of a new entrant)?	<ul style="list-style-type: none"> <li>TelstraClear has not conducted a quantitative assessment of designating roaming and co-location services. However, quantitative business models have the ability to vary cost inputs.</li> </ul>
3.3	(d) What empirical evidence is available from overseas jurisdictions on the impact regulating roaming and/or co-location services (or the threat of regulation) has made on new entry?	<p><b>Roaming</b></p> <ul style="list-style-type: none"> <li>It is difficult to prove regulation in overseas jurisdictions categorically caused entry. It has been recognised, however, that regulation, or the threat of regulation, provides a basis for negotiating roaming and therefore an element of certainty for new entrants.<sup>2</sup></li> <li>OECD jurisdictions tend to licence 3G mobile network operators, and if a 3G mobile network operator also has a 2G network, licensing conditions usually require the mobile network operator to allow 3G mobile network operators without a 2G network to roam on</li> </ul>

<sup>2</sup> The Irish Regulator noted that regulation provided certainty for non-SMP operators that their national roaming agreements and negotiations are underpinned by a regulatory obligation. ComReg *Consultation Paper: Market Analysis – Wholesale Mobile Access and Call Origination*, 27 January 2004 page 83

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	<p>incumbents' 2G networks. Regulations generally provide a fixed time period for roaming and new entrant rollout requirements, but price is a matter of commercial negotiation.</p> <ul style="list-style-type: none"> <li>• <b>Australia</b> – ACCC found roaming would not assist end users of GSM network services, as Telstra and Vodafone currently compete in providing roaming services. Optus and Hutchinson are also potential suppliers.<sup>3</sup></li> <li>• <b>Belgium</b> – 3G licences were granted via auction, but obligations for site sharing and national roaming are imposed through licences. Roaming between 2G and 3G is to be commercially negotiated (same as it is for 2G operators). Disputes can be referred to regulator, which can impose an agreement between a 2G operator who has obtained a 3G licence and a 3G licensee who does not have a 2G network, provided that the new entrant covers 20% of population with 3G network. New entrants' roaming is limited to 8 years.</li> <li>• <b>Finland</b> – Telecommunications Market Act (proposed amendments) will provide for mandatory national roaming between 3G and 2G networks, subject to certain conditions. For example, mandatory roaming will arise only after 6 months of unsuccessful commercial negotiations and once the network of the 3G operator requesting roaming covers 20% of the inhabitants of its own licence area. Mandatory roaming will normally last for 8 years, except that the</li> </ul>

<sup>3</sup> ACCC, *Mobile Services Review: Mobile Domestic Inter-carrier Roaming Service: Final report on whether or not the Commission should declare a mobile domestic inter-carrier roaming service*, December 2004.

<sup>4</sup> ComReg, *Market Analysis - Wholesale Mobile Access and Call Origination* document number 04/118 and 04/118a, 9 December 2004, paragraph 6.74, page 72

<sup>5</sup> EC report 2000 *Overview of implementation in the Member States*

<sup>6</sup> EC report 2000 *Overview of implementation in the Member States* p252

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	<p>statutory obligation to permit roaming will end two years after the date the operator's own 3G network covers 80% of its licence area. In sparsely populated areas the statutory roaming obligation will be unlimited in time.</p> <ul style="list-style-type: none"> <li>• <b>France</b> – Four licences allocated for 3G which allow for new entrants to the 3G market to roam on one 2G network for 5 years, provided they meet obligations relating to effectively rolling out their own network.</li> <li>• <b>Germany</b> – There is no obligation on mobile operators to provide access to their networks. However, regulations provide that network operators (including mobile network operators) must supply their offerings in such a way as to allow service providers to market such offerings in their name and on their own account (this is resale not roaming).</li> <li>• <b>Spain</b> – national roaming is guaranteed by the obligations on operators who hold GSM licences to provide national roaming to operators who obtain a 3G mobile licence.</li> <li>• <b>Ireland</b> – ComReg included mandatory roaming condition in the 3G licence conditions of existing GSM networks. This provides entrant with national roaming on Vodafone and 02s' 2G networks once the entrant had covered 20% of the Irish population with its 3G network. ComReg can intervene if parties fail to reach commercial agreement, and has indicated that it will set prices should parties fail to reach agreement as follows: <ul style="list-style-type: none"> <li>• <i>“Following the principle of cost orientation, ComReg needs to consider what mechanism to use to set the efficient charge if appropriate. Alternatives may include setting the target 'efficient charge' level on</i></li> </ul> </li> </ul>

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	<p><i>the basis of costs, benchmarking or some combination of those. A 'retail-minus' price may restrict the competitive pressures which an access seeker can bring to the market, as there is an incentive for the SMP MNOs [significant market power mobile network operators] to maintain retail prices above the competitive level, as retail prices and costs are used to set the wholesale access charge, but it may be a good starting point to be used before other detailed cost based information is available. Cost orientated prices focus on the wholesale costs and can set a wholesale price where the SMP MNO is allowed to make a normal profit in the market. This pricing methodology does not restrict the access seekers' ability to compete in the retail market. The judgement between these alternative pricing methods or combination of methods hinges, in part, on how desirable the existing nature of prices is seen to be and the relevant risks attached to the return on infrastructure investment for the MNOs.”<sup>4</sup></i></p> <ul style="list-style-type: none"> <li>• <b>Italy</b> – Licensing provides that new entrants can compete with 3G licensees with GSM networks by enabling roaming between 2G and 3G networks.</li> <li>• <b>Portugal</b> –3G licences require mobile network operators to offer roaming for at least 5 years. Any disputes are to be resolved by the regulator.</li> <li>• <b>Sweden</b> – (oligopoly situation with incumbent holding 50% mobile market share and two mobile network operator each with 25% market share). Regulator therefore took steps to increase competition including the licence requirement that certain mobile network operators were to give access to their networks to new entrants with a network licence who did not have coverage. Access</li> </ul>

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		<p>terms are to be commercially negotiated, but have a fixed term of 7 years. Some operators consider that this is too weak to have any real effect on the market, as it is limited to mobile network operators who do not have any network of their own.<sup>5</sup></p> <ul style="list-style-type: none"> <li>• <b>United Kingdom</b> – Two existing 2G operators agreed to a modification of their licences to incorporate a roaming condition allowing 3G licence holders without 2G networks to roam on their networks. The condition provides for the regulator to determine a roaming agreement if the parties cannot reach agreement through commercial negotiation. Before the roaming is triggered, the new entrant must build out its network to cover 20% of the UK population, and any mandated roaming agreement will last until 2009. The report noted that the decision to require roaming reflects earlier consultation with the industry and was seen by prospective new entrants as an essential measure to help them compete on a more nearly equal basis.<sup>6</sup></li> </ul> <p><b>Co-location</b></p> <ul style="list-style-type: none"> <li>• Most jurisdictions appear to support co-location. The ACCC has established a code of access, which includes pricing principles should parties fail to reach commercial agreement.</li> </ul>
3.3	(e) Do respondents have a view on how any interplay between roaming and co-location should be accounted for in the Commission’s assessment of the benefits of any amendments?	<ul style="list-style-type: none"> <li>• Roaming and co-location are not (perfectly) substitutable services. National roaming alleviates the problem of consumers wanting national coverage immediately and co-location reduces the cost of rollout.</li> </ul>

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		<ul style="list-style-type: none"> <li>• However, roaming and co-location are connected. Roaming is a requirement during the initial stages of rollout, and is therefore the first step in creating the customer and revenue base sufficient to enable a national rollout. As the rollout progresses, co-location increases in relative importance.</li> <li>• It is likely to be difficult to quantify the net impact of the interplay between roaming and co-location. Accordingly, the Commission is likely to have to rely on qualitative analysis to assess the significance of this interplay.</li> </ul>
3.3	(f) Could one service act as a substitute for the other? If so, under what conditions?	<p>Roaming and co-location are only partial substitutes:</p> <ul style="list-style-type: none"> <li>• Roaming provides instant access to an incumbent's entire network. It therefore enables an entrant to offer a service to customers with at least the same coverage - though not necessarily the same services – as the incumbent. Accordingly, if customers seek national coverage – and in TelstraClear's view most are likely to – roaming enables an entrant to compete for these customers from the time that it has access to roaming;</li> <li>• Co-location does not confer national or even local coverage but enables an entrant to offer services using the same sites for cellular equipment as an incumbent. As a result, co-location reduces the disadvantages of later entry to the market by reducing the likelihood that entrants are prevented from utilising the most attractive sites for locating their equipment;</li> <li>• While both services offer different benefits to the entrant, both will have an impact on the viability of a business case for entry. Lack of access to roaming will limit an entrant to competing for</li> </ul>

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		<p>those customers that do not seek services beyond the footprint of the entrant's network. Lack of access to co-location will prevent an entrant from locating its equipment on many, if not all, of the most attractive sites and the presence of incumbent equipment in an area may make it harder for a new entrant to obtain resource consents than it was for the incumbent.</p> <ul style="list-style-type: none"> <li>Because both services affect the business case for entry, there is an inter-relationship between the cost of one service and the relative importance of the other for entry, ie the lower (higher) the roaming price, the lesser (greater) the impact of co-location on the viability of entry.</li> </ul> <p>Of the two, TelstraClear considers the availability of roaming more critical for making entry viable. While co-location would lower the cost of entry, without roaming, a new entrant could not compete for all customers in a region if at least some expected coverage beyond the reach of the entrant's network. In contrast, entry would potentially be viable with roaming alone. This is because an entrant should still be able to install at least some equipment and could compete for all customers within the footprint of its network, including those customers that sought coverage beyond it.</p>
4.1	(a) Should the requirement to cover 10% of the area in which the New Zealand population normally lives or works before accessing the roaming regulation still be in place?	<ul style="list-style-type: none"> <li>The current requirement is ambiguous. The requirement could be interpreted as either the area in which 10% of the population normally lives or works – ie an area covering approximately 420,000 people – or 10% of the total inhabited area of New Zealand – which TelstraClear estimates to be roughly 18,800 sq km, which exceeds the area covered by the Auckland Regional Council (which is 16,104 sq km).</li> </ul>

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		<ul style="list-style-type: none"> <li>TelstraClear submits that a requirement on the access seeker to have an initial rollout of 10% of the habited New Zealand land area is onerous for an access seeker. An appropriate threshold is 10% of the population, which is 15,000 more people than the population of Auckland City<sup>7</sup>.</li> </ul>
4.1	(b) If so, what should the 10% cover – population or area?	<ul style="list-style-type: none"> <li>'Population' is a less onerous threshold for the new entrant, is more certain, and is consistent with Parliament's original intention. In particular, the Minister of Communications, in his Second Reading speech on the Telecommunications Act 2001, stated "access seekers...will have to roll-out a network to at least 10% of the population before the regulatory requirements take effect".</li> </ul>
4.1	(c) Should an access seeker still be obligated to commit to rolling out a national network?	<ul style="list-style-type: none"> <li>TelstraClear considers that efficient competitive infrastructure investment is most likely to best meet the purpose of s.18 of the Act.</li> <li>However, the current regulatory requirement for a national rollout is vague, and should be consistent with an initial network build requirement of 10% of the population.</li> <li>TelstraClear recommends that the 'national rollout' requirement should be for a network covering 70% of the population. This is equivalent to the total populations of the territorial local authorities for Auckland City, North Shore, Manakau, Hamilton, Wellington City, Christchurch, Whangerei, Rodney, Waitakere, Papakura, Franklin,</li> </ul>

<sup>7</sup> 2006 Census. <http://www.stats.govt.nz/NR/rdonlyres/C9A86DBD-5B34-402D-8947-7F705104026B/0/RegionalSummaryTablesTerritorialAuthority.xls>

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		Hastings, Napier, Tauranga, New Plymouth, Rotorua, Palmerston North, Wanganui, Porirua, Upper Hutt, Lower Hutt and Dunedin, for example.
4.1	(d) If national rollout is unnecessary, should there be a minimum rollout (% of population)?	See above
4.1	(e) Should roaming cease to be available in particular areas as a new entrant builds out its network?	<ul style="list-style-type: none"> <li>TelstraClear would be open to considering removal of roaming as an entrant achieved coverage in a particular area but would like to understand how this might occur in practice. Determining when an entrant had achieved an adequate level of coverage in a particular area may lead to protracted regulatory debate for little benefit. Moreover, entrants would have incentives to avoid utilising roaming as they would be able to offer more, differentiated services in areas where they achieved adequate coverage.</li> </ul>
4.1	(f) Should there be a sunset clause for the provision of roaming?	<ul style="list-style-type: none"> <li>Roaming regulation should only be available for a defined period during the build-out commitment and for a defined extent of coverage. Once an entrant's build-out commitment is achieved, access by the entrant to regulated roaming would cease.</li> <li>The ongoing benefit of the regulation of roaming would need to be assessed as competition emerges. Section 1(3) of Schedule 3 of the Act requires that "the Commission must consider, at intervals of not more than 5 years after the date on which a designated service or specified service comes into force, whether there are reasonable grounds for</li> </ul>

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		commencing an investigation into whether the service should be omitted from Schedule 1 under section 66(b)". Because of this provision, there is no need for an explicit sunset clause.
4.1	(g) Should the amended roaming regulation include 3G-3G roaming?	<ul style="list-style-type: none"> <li>• As a matter of general principle, forward-looking regulation should avoid technical specifications and should be service based instead. A combination of 2G and 3G services are likely to be offered for some time yet, with users switching between 2G and 3G during and between voice calls. If regulation were to be based on the 2G / 3G distinction, there would be confusion for both mobile network operators and end-users, as they would have no way of knowing what type of network technology is carrying their voice call, and therefore whether roaming is available. Technology neutrality is also required to ensure that the access provider could not withdraw access to roaming by replacing its 2G equipment with 3G.</li> <li>• Roaming regulation should be restricted to 2G-like services, such as voice and SMS. This will maintain incentives for access providers to continue further 3G investment, without a requirement to provide higher value data services to access seekers. A limitation to roaming for 2G-like services only will also provide an incentive for access seekers to efficiently roll out their own 3G networks.</li> </ul>
4.1	(h) Do value-added services, as set out in the current roaming service description, include data services? Should data services be specifically included in the roaming service description?	TelstraClear considers that value-added services do include 3G data services but not SMS, for example. This provides incentives to access seekers to roll out their 3G networks and to maintain investment incentives for the access provider. In addition, requiring 3G data services to be offered by roaming may have implications for incentives to roll out

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		local loop unbundling and broadband services by other means.
4.1	(i) What provisions need to be made to facilitate data roaming?	<ul style="list-style-type: none"> <li>• 3G data services should not be included in the specified roaming service, to preserve investment incentives for access seekers, access providers and other providers of broadband services.</li> </ul>
4.1	(j) Are there any technical issues associated with voice roaming which the Commission should be aware of?	<ul style="list-style-type: none"> <li>• Successful roaming implementation requires technical cooperation from both the access provider and access seeker. It would be possible for a party wanting to avoid roaming on its network to delay or lengthen the process by debating features requiring bilateral agreement, detailed investigation and requiring rigorous testing.</li> </ul>
4.1	(k) Are there any technical issues associated with data roaming which the Commission should be aware of?	<ul style="list-style-type: none"> <li>• See above.</li> </ul>
4.1	(l) Should inter-network roaming (roaming between different technology types) be considered?	<ul style="list-style-type: none"> <li>• Although roaming between different technology types is technically possible, its commercial feasibility is questionable. While Telecom offers a dual mode GSM-CDMA handset, it is intended for international roaming.</li> <li>• While technically possible, the very limited range of dual mode handsets available means inter-network roaming is likely to be unattractive to customers and, therefore, new entrants.</li> <li>• TelstraClear does not seek inter-network roaming as it considers that GSM-based services are likely to be more attractive to New Zealand</li> </ul>

Question		TelstraClear response
		customers than CDMA. Coverage via roaming over Vodafone's network is sufficient for providing a transition for the rollout of a national network.
4.1	(m) Is inter-network roaming feasible within the time period usually used to assess new entry (2-3 years)? If so, on what types of networks should the service cover?	<ul style="list-style-type: none"> <li>• Inter-network roaming requires dual CDMA/GSM handsets. We understand Telecom is only offering one such handset, so there would be no viable business case if inter-network roaming were relied upon. Inter-network GSM/CDMA roaming is unlikely to be commercially feasible within the next 5 years.</li> <li>• Multimode handsets that operate using WiFi and GSM and/or Bluetooth are also available and may potentially be available for technologies such as Wi-Max. However, TelstraClear does not consider it necessary for the Commission to make roaming available for these technologies as there is no demand for roaming using these services. Providing for roaming using these technologies would not address the barrier to entry problem resulting from the GSM monopoly.</li> </ul>
4.1	(n) If inter-network roaming is considered, does this affect the markets already defined? If so, how?	<ul style="list-style-type: none"> <li>• The Commission has previously defined two separate markets for roaming: (1) national wholesale market for roaming services on GSM mobile networks; and (2) national wholesale market for roaming services on CDMA mobile networks. This is because the Commission determined that roaming services from the two incumbents in these markets is not substitutable.</li> <li>• The Commission should continue to assess competition in the roaming services market. When inter-network roaming is commercially feasible,</li> </ul>

Question		TelstraClear response
		<p>the Commission can reconsider its definition of the roaming markets and the need for regulation. As noted above, TelstraClear considers that inter-network roaming is unlikely to be feasible within the next 5 years.</p> <ul style="list-style-type: none"> <li>• TelstraClear does not consider that the availability of inter-network roaming will affect how the Commission has defined the market unless the availability and range of dual mode handsets increases significantly. Even with the availability of dual-mode handsets, TelstraClear considers that an entrant is likely to seek to enter using GSM technology and is unlikely to seek to offer dual-mode handsets unless it is prevented from roaming on the Vodafone network.</li> </ul>
4.1	(o) What are the technical issues that need to be considered for inter-network roaming?	<ul style="list-style-type: none"> <li>• See above</li> </ul>
4.2	(a) What is the most appropriate pricing methodology for access to roaming services – retail minus or cost based?	<ul style="list-style-type: none"> <li>• Cost based pricing is the most appropriate methodology for access to roaming services. Cost-based pricing ensures that entrants face the same costs as the incumbent, which ensures that any entry is efficient. This is consistent with s.18 of the Act. Retail minus pricing has a high risk of a roaming price in excess of cost because the current duopoly means that prices are likely to significantly exceed cost, as international benchmarking demonstrates. A roaming price in excess of cost would mean efficient entry would be deterred. A cost-based pricing methodology such as TSLRIC provides the flexibility for the Commission to utilise a Weighted Average Cost of Capital (WACC) that appropriately reflects the relevant investment return based on the risk</li> </ul>

Question		TelstraClear response
		of the investment.
4.2	(b) If retail minus, what would be the various components of such a price look like (for example, what would be the appropriate retail prices(s), would it be necessary to impute a retail price, what would be the avoided costs)?	<ul style="list-style-type: none"> <li>• There is no retail price for domestic roaming, so the alternatives are retail prices for voice calling and SMS. Given Vodafone’s monopoly in the GSM market, these services are subject to limited competition. Prices of these services are therefore likely to exceed costs. While the discount would seek to take this into account, just like the monopoly situation, elimination of all mark-up in excess of costs is likely to be difficult.</li> <li>• Avoided costs would include those retail costs avoided as a result of an entrant’s customers purchasing services off the entrant rather than the incumbent. This would include costs such as billing, marketing, some call centre costs, etc. Avoided costs would also include a share of common costs avoided as a result of the access provider offering services to fewer retail customers. An adjustment would also be required to reflect the fact that the New Zealand mobile duopoly results in prices significantly in excess of costs.</li> </ul>
4.2	(c) Should a single retail minus price cover both voice and data? How should the retail minus price be constructed to cover both voice and data?	<ul style="list-style-type: none"> <li>• TelstraClear’s preference would be separate voice and SMS prices because of the availability of relevant retail proxies.</li> </ul>
4.2	(d) If cost orientated pricing is the preferred pricing principle, is TSLRIC pricing the only viable option?	<ul style="list-style-type: none"> <li>• TelstraClear considers that TSLRIC is the appropriate pricing principle because of its use in relation to other regulated services in New Zealand where the pricing principle is cost-based. TelstraClear notes that the Commission recommended TSLRIC as the appropriate pricing principle</li> </ul>

Question		TelstraClear response
		for mobile termination. <sup>8</sup>
4.2	(e) Would cost based mobile termination rates be an appropriate benchmark for a cost based roaming service?	<ul style="list-style-type: none"> <li>TelstraClear agrees that mobile termination rates may provide an appropriate proxy for the roaming price, as the infrastructure involved for providing the service, and therefore the cost basis, are similar. However, unlike mobile termination some roaming calls may also involve origination as well and the price would need to reflect this cost. The roaming price in Vodafone’s undertaking appears to be based on [ ]TCLRI.</li> </ul>
4.2	(f) What are the implications of each pricing principle (retail minus and cost based) in terms of promoting new entry?	<ul style="list-style-type: none"> <li>Cost-based pricing is superior to retail minus for promoting new entry because it is likely to better ensure that the costs facing the new entrant are the same as the incumbent. This means that the new entrant would not suffer a competitive disadvantage from accessing roaming services while it installed its network.</li> <li>Retail minus pricing provides much less certainty that the entrant will face the same costs as the incumbent. While the discount will attempt to eliminate the access provider’s retail costs and a share of common costs it may not eliminate any price premium that results from the limited competition in the New Zealand mobile market. Consequently, even when prices have been adjusted for the relevant discount, the resultant roaming price may still be in excess of cost, which would confer a competitive advantage on the incumbent.</li> </ul>

<sup>8</sup> Commerce Commission, *Telecommunications Act 2001: Schedule 3 Investigation into Regulation of Mobile Termination, Reconsideration, Final Report*, 21 April 2006.

Question		TelstraClear response
4.2	(g) In what ways could access seekers and access providers be encouraged to continue to invest if a cost based pricing principle was used? For example, would it be appropriate to have a roaming price that rises over time? If so, what are the appropriate bounds?	<ul style="list-style-type: none"> <li>• TelstraClear recommends that roaming be limited to 2G-like services, such as voice and SMS. A key driver of 3G investment has been the delivery of mobile data services to end-users. TelstraClear expects this driver to continue.</li> <li>• By limiting roaming to 2G-like services, a strong incentive is provided for an access seeker to build out its network in order that its customers experience high-speed data services.</li> <li>• Limiting the period in which roaming would be available would also provide strong incentives for the access seeker to continue to invest in network.</li> <li>• The WACC could be adjusted if there was a concern that there was a significant risk of inadequate investment.</li> <li>• A roaming price that rose over time would not be consistent with cost-based pricing. Recent estimates by the ACCC have identified that the mobile termination price has fallen, not risen, and roaming prices would be expected to reflect this. Moreover, a key driver to moving from 2G to 3G networks is the cost advantages of the latter.</li> </ul>
4.2	(h) Should the pricing of voice roaming differ from that of data roaming? If so, how?	<ul style="list-style-type: none"> <li>• The pricing of voice roaming and data roaming should reflect the different costs involved in providing these services.</li> </ul>
4.3	(a) For each likely final pricing principle, what is the appropriate interim pricing principle that would	<ul style="list-style-type: none"> <li>• Cost-based: Given the absence of regulated roaming in most other jurisdictions, and regulated roaming prices in particular, a</li> </ul>

Question		TelstraClear response
	provide an appropriate estimate?	<p>benchmarked price based on regulated prices for mobile termination from comparable jurisdictions that use TSLRIC pricing would be an appropriate initial pricing principle. The interim pricing principle would need to take into account of the fact that roaming may also involve mobile origination.</p> <ul style="list-style-type: none"> <li>• Retail minus: retail price less 16%. A discount of 16% is used for regulated services subject to a retail minus pricing principle where competition for the service is limited.</li> </ul>
4.3	(b) Is benchmarking appropriate and practical?	<ul style="list-style-type: none"> <li>• Benchmarking using comparable regulated roaming prices may not be straightforward because of the lack of availability of regulated roaming prices. Accordingly, TelstraClear recommends benchmarking based on regulated termination rates, with an adjustment for the fact that roaming involves origination as well as termination. Commercial domestic roaming prices may be appropriate benchmarks for determining the initial price, where these are available.</li> </ul>
4.3	(c) Could cost proxies be used, and if so, which ones?	<ul style="list-style-type: none"> <li>• See previous question.</li> </ul>
4.3	(d) Is there a close relationship between roaming rates and mobile termination rates?	<ul style="list-style-type: none"> <li>• There is a relationship because the infrastructure and therefore the cost base for providing both services is similar. However, roaming involves both origination and termination (both will be involved if a roaming customer is calling a customer of the provider or a roaming entrant customer, but only origination would be involved if a roaming customer was calling a non-roaming entrant customer and only termination if an incumbent customer called a roaming entrant</li> </ul>

Question		TelstraClear response
		customer).
	(e) Would an estimation process be more appropriate to use in the situation where there are few relevant benchmarks?	<ul style="list-style-type: none"> <li>TelstraClear considers that there are relevant benchmarks available that would be appropriate proxies, namely termination prices. An estimation process may be appropriate if the Commission disagreed with this view but the difficulty with this would be that it may take too long to establish an initial price. An alternative may be an initial price using a retail minus discount but a final price using TSLRIC.</li> </ul>
4.4	(a) What is an appropriate final pricing principle for roaming services?	<ul style="list-style-type: none"> <li>As discussed above, TelstraClear considers the final pricing principle should be TSLRIC. This is most likely to estimate a price that reflects costs and therefore achieve an outcome consistent with s.18 of the Act.</li> </ul>
4.5	(a) Do respondents have any views on the wording of the other parts of a service specification for roaming and whether any new parts are needed?	<ul style="list-style-type: none"> <li>As noted above, the service description currently states that national roaming is ‘a service ...generally accepted internationally as second generation cellular mobile services’. TelstraClear is of the view that the description of roaming services should not refer to technical specifications, and instead refer to 2G-like services, including voice and SMS services.</li> <li>Condition (c) – (noted above) currently states that the access seeker must have rolled out a new cellular network that covers not less than 10% of the area in which the New Zealand population normally lives or works. TelstraClear is of the view that this should be amended to 10% of the New Zealand population.</li> <li>Conditions (d), (e) – currently state that the Commission must have approved a plan setting out milestones and rollout of national cellular network. The Commission must also be satisfied that that the access</li> </ul>

Question		TelstraClear response
		<p>seeker has the ability to comply with the agreed rollout plan. TelstraClear is of the view that this creates a level of uncertainty in that the Commission must approve TelstraClear's business plan before it can be eligible for regulated roaming services.</p> <p>TelstraClear provides suggested wording for the designated services in Appendix 3.</p>
4.5	(b) What is the most appropriate description of an access seeker?	<ul style="list-style-type: none"> <li>• TelstraClear considers the description of an access seeker provided in the current specified roaming service is appropriate.</li> </ul>
4.5	(c) Should there be alignment between the access seeker and the access provider definitions?	<ul style="list-style-type: none"> <li>• No, there should not be alignment. The definitions should remain as they are currently drafted. The access provider is defined as a cellular mobile telephone network operator who (currently) operates a cellular mobile telephone network. The access seeker is defined as an <i>existing</i> or <i>potential</i> cellular mobile telephone network operator. This distinction is appropriate.</li> </ul>
4.5	(d) Should the definitions be more forward looking to cater for fixed mobile convergence?	<ul style="list-style-type: none"> <li>• TelstraClear does not consider it necessary to amend the definition to cater for fixed-mobile convergence. The competition problem is barriers to entry to the mobile market resulting from Vodafone's GSM monopoly. Roaming is required to enable construction of competitive GSM networks to address this monopoly. Providing for fixed to mobile convergence by, for example, enabling an operator to offer services using Wi-Fi/GSM handsets will not address the problems resulting from Vodafone's GSM monopoly.</li> </ul>

Question		TelstraClear response
4.6	(a) Should co-location pricing be based on a specified formula?	<ul style="list-style-type: none"> <li>• TelstraClear prefers cost based pricing for co-location.</li> <li>• TelstraClear accepts the pricing proposals in Vodafone’s undertaking including the methodology.</li> </ul>
4.6	(b) Could co-location be classified into a number of generic site types/forms?	<ul style="list-style-type: none"> <li>• TelstraClear notes that Vodafone’s undertaking, via the TCF’s approved code, includes classification of co-location facilities.</li> </ul>
4.6	(c) Could a cost allocation formula be used to determine the price depending on the type/form? If so, how?	<ul style="list-style-type: none"> <li>• See above.</li> </ul>
4.7	(a) How should the initial pricing principle (for co-location) be distinguished from the final pricing principle?	<ul style="list-style-type: none"> <li>• The initial pricing-principle to be benchmarked against internationally available wholesale co-location rates.</li> <li>• The final pricing principle should be TSLRIC.</li> </ul>
4.7	(b) What is an appropriate interim pricing principle (for co-location)?	<ul style="list-style-type: none"> <li>• See above.</li> </ul>
4.7	(c) What is an appropriate final pricing principle (for co-location)?	<ul style="list-style-type: none"> <li>• See above.</li> </ul>

