

NZ Communications Limited

**Cross-submission on the
Draft Report to the
Schedule 3 Investigation into Amending the
Roaming and Co-location Services**

RESTRICTED VERSION

18 September 2007

FINAL

1 Introduction

- 1.1 NZ Communications Limited (“**NZC**”) hereby submits its comments on the submissions of interested parties to the Commerce Commission’s (the “**Commission**”) Draft Report on the regulation of roaming and co-location services.¹
- 1.2 We notice a number of themes in our respected colleagues’ submissions:
- An effort to require the Commission to re-litigate its conclusions;
 - An effort to re-define the goals and objectives of the Act² and the ongoing Investigation;³
 - An effort to question the legitimacy of the Commission’s previous conclusions, and their preliminary conclusions contained in the Draft Report;
 - An effort to limit the interpretation of the Commission’s powers under the Act;
 - An effort to raise the spectre of decreased investment and increasing end-user prices if regulation is imposed.
- 1.3 Amidst the volume of material presented, much of which appears to lack clear basis or support, and which have been previously addressed in numerous filings and proceedings, these themes are pursued through five principle challenges:
- The goals and objectives of the Commission;
 - The market definition;
 - The assessment of competition;
 - The role of investment incentives in regulation of roaming and co-location;
 - Pricing principles.
- 1.4 We address each of these challenges below.
- 1.5 In addition, Vodafone re-presents an Undertaking and its case for pursuing an Undertaking versus direct regulation. We address this subject in our accompanying submission on the Vodafone Undertaking.

¹ Telecommunications Act 2001: Schedule 3 Investigation into Amending the Roaming and Co-location Services, dated 3 August 2007 (the “**Draft Report**”)

² The Telecommunications Act 2001 (the “**Act**”).

³ Commerce Commission, *A Review of Cellular Mobile Market Entry Issues*, 10 October 2006, and related documents following from the decision to investigate, including the Draft Report.

2 Goals and Objectives of the Schedule 3 Investigation

- 2.1 Vodafone has concluded that the
*underlying objective [of the Commission's Investigation] is actually to generate the most extensive mobile network infrastructure competition that it can.*⁴
- 2.2 Vodafone confuses the Commission's objective with the tools most likely to meet the Commission's objective. We see no rational basis for this confusion. The Commission's objective remains that cited in §18 of the Act, that is,
to promote competition in telecommunications markets for the long-term benefit of end-users of telecommunications services within New Zealand...
- 2.3 The Commission's objective is not to create facilities-based competition for the mere sake of facilities-based competition. The Commission rather is creating an environment in which wholesale competition can occur⁵
by regulating, and providing for the regulation of, the supply of certain telecommunications services between service providers.
- 2.4 Vodafone erroneously concludes that the "problem" to be remedied by the Commission is insufficient network infrastructure. That is not the case. The problem to be fixed is an absence of competition in the provision of end-user services. The Commission, however, is not authorized expressly to interfere within the retail markets. Rather, it's remit is to promote a competitive wholesale environment so that retail competition can occur.
- 2.5 The competition "problem" includes both limited retail competition, limited end-user choice, limited retail innovation, and high retail rates, as has been repeatedly emphasised by the Commission and the Government.⁶
- 2.6 Consistent with the powers granted under the Act, the Commission has made a preliminary decision to increase competition by facilitating competitive new entry into the retail mobile phone market.
- 2.7 There are two means of competitive new entry: services-based, and facilities based. Services-based competition is generally manifested through MVNO arrangements. The limited number of re-sale arrangements that have occurred, however, were pure re-selling agreements without freedom to modify prices or services, and had no discernable impact on competition. It is our view that such services-based competition cannot occur without facilities-based competition. Facilities based competition creates a competitive wholesale environment in which services-based competitors can seek commercially competitive arrangement with infrastructure service providers.
- 2.8 We believe that Vodafone here confuses the Commission's objectives with the objectives of NZC, which is to be a facilities-based competitor of Vodafone and Telecom.

⁴ Vodafone Submission, para. 33.

⁵ §18 of the Act.

⁶ See, e.g., Commerce Commission *Schedule 3 Investigation into Regulation of Mobile Termination, Final Report*, 9 June 2005; Commerce Commission *Key Statistics Quarterly Monitoring Report – December 2006, March 2007, and June 2007*; Argo Telecom Management Consultants B.V., *Report on the Competitiveness of New Zealand Mobile Services*, prepared for the New Zealand Commerce Commission, 27 May 2005; Commerce Commission *A Review of Cellular Mobile Market Entry Issues*, 10 October 2006.

Vodafone / iHug statements in this proceeding are inconsistent with their statements and interests in the LLU proceedings – they are arguing both sides of the same issue

3 Market for National Roaming.

3.1 Vodafone proposes two modifications to the market definition put forward by the Commission:

- The roaming market should be segmented into two geographic markets, one in which a new entrant will build, and one in which the new entrant will not build;⁷
- The roaming market should not discriminate between GSM and CDMA roaming markets.⁸

3.2 Geographic Dimension. Vodafone claims that geographic markets are necessary because:

- It is not feasible for a new entrant to build out in all areas;⁹ and
- NZC's current build plans will only cover 70-80% of the population.¹⁰

Vodafone's arguments for distinguishing between geographic roaming markets is ill-founded, as it is not supported by actual fact.

3.3 Efficiency: We already have precedent in New Zealand for two carriers building out nationwide coverage, and we do not see why construction of a national network would be any less efficient for a new entrant as it was for both Vodafone and Telecom. In fact, a recent review of the costs of providing service to remote rural customers for whom Telecom receives compensation under the TSO shows that it would be economically viable for a market entrant to provide mobile coverage to even these customers. We therefore see no realistic point at which building out a national network will become economically unviable.

3.4 NZ Roll-out: Vodafone also tries to use NZC's initial build plan to define the initial build/not-build geographic areas.¹¹ However, as Vodafone is aware, a network is not built in a day. NZ Communications has already adopted preliminary plans for its first three build phases, focused, as with all network roll-outs, on maximising the percentage of population covered. This cannot be read as a statement that NZC plans on building out only these area. Deployment takes time, radio network planning needs to be performed, radio sites acquired and built (not to forget to that RMA processes and an absence of co-location will cause further delays): it has always been NZC's intent to provide *nationwide* coverage.

3.5 Covec, submitting in support of Vodafone, similarly criticizes the Commission's market definition conclusion and recommends artificially dividing the roaming market into two distinct geographic areas.¹² However, a new entrant, as explored more below, is not driven by such a simple distinction. The "choice" presented by Covec and Vodafone between building and not building is not driven by an arbitrary definition of geographic markets, as the "choice" is a *fait accompli* determined by the price at which the roaming service is provided, not by the build/not build decisions of the new entrant.¹³

3.6 In addition, we continue to dispute Covec's unsupported conclusion that the cost of building networks varies widely across locations. Covec fails to take into account:

⁷ Vodafone Submission, paras 158 *et seq.*

⁸ Vodafone Submission, paras 177 *et seq.*

⁹ Id., para. 164.

¹⁰ Id., para. 173.

¹¹ Vodafone Submission, para.173.

¹² Covec Submission, 2.1.2.

¹³ The need for a build / not build price derives, as noted earlier, from Vodafone's failure to correctly grasp the objectives of the Commission. To the extent that the Commission wishes to foster facilities-based competition for the competitive benefits that would arise from wholesale competition, the Commission can do so through its approval and monitoring of the access seeker's build plan, which must be approved by the Commission as per Schedule 1, Part 3, Section (d) of the Act.

- the reduced infrastructure requirements for rural areas, where a single site can cover a much larger area than a similar site in an urban environment;
- the need for seamless coverage in high-profile but low-density areas, such as along rural stretches of highway or tourist attractions.

- 3.7 Finally, we note that there is an absence in any submission of any precedent for this geographic market distinction. We know of no current national regulatory authority that has discriminated between geographic areas, let alone the “build/not-build” geographic areas proposed by Vodafone.
- 3.8 The proposed geographic distinction is an artificial one, and does not mimic real-world conditions. We therefore must conclude Vodafone’s market definition is a poorly-disguised attempt to justify a high roaming rate in areas outside a new entrant’s initial build, that is, to return to the high roaming prices that have marked its earlier non-competitive commercial negotiations.
- 3.9 Product Dimension. Vodafone has also stated that the Commission is erroneous in concluding that there should be distinct CDMA and GSM markets.¹⁴
- 3.10 Vodafone’s claim that there is no precedent for discriminating between the CDMA and GSM roaming markets is disingenuous. First, the majority of markets that have regulated roaming are single-technology (usually GSM) markets, so there is no reason for the national regulatory authorities to discriminate between the GSM and CDMA markets.
- 3.11 Second, the few markets in which there are both GSM and CDMA operators, such as the United States, are generally marked by robust competition, so regulation of roaming is unnecessary.
- 3.12 In any event, Vodafone fails to acknowledge that, even considering GSM and CDMA as two markets, as the Commission has concluded, the roaming market is likely to remain subject to limited competition¹⁵ even with two operators. In fact, looking at international precedent, regulation of roaming has repeatedly occurred where there are two operators, or more.¹⁶ The Commission’s decision is therefore supported by both a review of the New Zealand market and international precedent.
- 3.13 Covec, too, concludes that the roaming market includes both CDMA and GSM, and that separate markets for each service are not required.¹⁷ However, its conclusion does not follow logically from its description of the choices facing the new entrant.
- 3.14 Covec assume, for an as-yet unexplained reason, that the primary driver of technology selection is the roaming agreement. It fails to take into account the predominance of other factors that dictate technology choices, not the least of which is the purchase of technology-specific spectrum. Once these external factors have dictated the technology choice, the access seeker is compelled in New Zealand to choose one operator or the other for a roaming service.
- 3.15 We think the error of Covec’s analysis is clearest if you look at NZC as a real-world new entrant. NZC cannot choose between GSM and CDMA: our choice on technology has already been dictated by, for example, the world market (in which GSM is the predominant standard), our spectrum (which is GSM spectrum only), and our equipment supply agreements. CDMA is not an option.
- 3.16 We therefore see nothing erroneous in the Commission’s conclusion.

The dominance of GSM as the preferred technology choice is demonstrated by Telecom’s decision to convert wholly from CDMA to GSM

¹⁴ Vodafone Submission, paras. 176 *et seq.*

¹⁵ Draft Report, para. 141.

¹⁶ E.g., Ireland. Spain, for example, regulated roaming in a market of three mobile operators (see, e.g., E.C. approval contained in IP/06/97, 31 January 2006.

¹⁷ Covec Submission, 2.1.1.

The GSM roaming market will continue to have limited competition until there are at least 2 same-technology operators

4 National Roaming Competition Assessment.

- 4.1 Vodafone and Telecom both challenge the Commission's assessment of the status of competition in New Zealand, offering various arguments allegedly supporting this contention despite the fact that it is at odds with the conclusions of the Commission, the OECD, and the perceptions of most New Zealanders. These claims have been dealt with comprehensively before,¹⁸ so we see no need to re-litigate Vodafone's contentions. However, we do address these claims in brief.
- 4.2 Competition in the Roaming Market. Vodafone argues against the Commission's conclusion that there is a lack of competition for roaming by citing NZC's plan to roll out a competitive network, creating potential roaming competition.¹⁹ However, it will take NZC several years to deploy a full nationwide network. In addition, Vodafone fails to mention that NZC will require access to roaming from Vodafone in order to offer services during that network infrastructure build. Therefore, NZC's proposed operations are not evidence of increased competition in the market at the present time. Once NZC has completed its network roll-out, the Commission can review the status of competition taking into account NZC's operations, and determine whether or not to extend the term of mandatory roaming.
- 4.3 MVNO / Re-sale. Telecom states also that there is "*already a dynamic market for MVNO-type arrangements (such as the Telecom-TelstraClear re-sale agreement which has been publicized recently)*".²⁰ While we are reluctant to pre-judge an arrangement of which we have no information regarding the substantive terms, we would note that a single example of an MVNO is not evidence of a competitive roaming market; such a conclusion is a generalization inconsistent with sound reasoning and overwhelming evidence.
- 4.4 A review of real-case examples of re-selling and MVNOs within this "dynamic market" shows that there is no competition for these services:
- Vodafone announced three re-selling arrangements in 2006; none of the these agreements have made an impact on the competitive market, and, other than Orcon's proposed arrangement (again under re-negotiation, below), are limited niche re-sale markets, and are not likely to create any retail competition.
 - TelstraClear-Vodafone: the relationship between TelstraClear and Vodafone ended earlier this year. Their agreement was a pure-resale arrangement, with TelstraClear merely on-selling Vodafone's retail phones and plans; there was no differentiation in pricing or services (except in certain business package bundling arrangements).
 - Orcon-Vodafone: An arrangement reached with significant public fanfare at the height of the investigation process, it was announced in early September that Orcon's MVNO arrangement was likely to be delayed while they continued negotiations with Vodafone.
- 4.5 We have seen this argument used recently (and, unfortunately, persuasively) when Telecom succeeded in persuading the Commission that there was an effective agreement in place with NZ Communications, and therefore there was evidence that there was a competitive co-location market. The failure to realise even a single co-location out of that one arrangement suggests the high degree of risk in relying too heavily on unimplemented commercial arrangements arising during the pressures of regulatory review for evidence of competition.

¹⁸ See, e.g., Argo Telecom Management Consultants B.V., *Report on the Competitiveness of New Zealand Mobile Services*, prepared for the New Zealand Commerce Commission, 27 May 2005.

¹⁹ Vodafone Submission, para. 194.

²⁰ The Telecom New Zealand Submission on Commerce Commission Draft Report "Schedule 3 Investigation into Amending the Roaming and Co-location Services," Telecom Submission, para. 12.

5 Investment Incentives.

- 5.1 An issue presented by both Vodafone and Telecom is to what extent further investment in infrastructure will arise from the Commission's proposals, and what forms of pricing will best promote such infrastructure investment.
- 5.2 We continue to think that questions regarding the relationship between the price of roaming and the scope of investment are ill-considered and unsupported. As we have previously stated, an operator's build / roam decision is based on far more reasons than the mere cost of roaming. Other factors that a new entrant must consider include:
- Maximizing the efficient use of spectrum;
 - Opportunities for competing in the sale of roaming services to domestic and international end-users, and to enter into re-selling and/or MVNO arrangements;
 - Higher profit margins;
 - The benefits of competing against the access provider on coverage;
 - The ability to shift revenue its customer's are paying to support the access provider's network to the access seeker's network.
- 5.3 Even on a pure cost-based analysis, we would not modify our decision to build nationwide network infrastructure unless the roaming rate fell below 3 cents per minute.
- 5.4 In addition, the build requirements under the current service description are a sufficient means to ensure that there is an appropriate and efficient build.
- 5.5 Vodafone, however, has publicly announced its cessation of further 3G network build pending completion of this review of the roaming and co-location services, alleging that the Commission's proposed regulation will threaten its business case for further investment. We believe this is simple brinksmanship, an unfortunate threat in a last-ditch effort to stave off regulation.
- 5.6 First, as we have previously noted, and reiterated in the discussion of pricing principles, below, TSLRIC pricing does not undermine investment incentives. Instead, it expressly includes incentives for investment *plus* a fair rate of return.
- 5.7 Second, competitive pressure from Telecom and NZC would, in any event, eventually compel Vodafone to build out its 3G infrastructure in order to compete. If Vodafone determines it is not cost-effective for them to do so, we will be happy to discuss the terms of roaming on NZC's 3G network.
- 5.8 Third, the bulk of Vodafone's 3G deployment occurred two years ago, covering an area roughly equivalent to NZC's initial network build. 3G construction has only occurred in fits and starts since then, and this halt is consistent with previous Vodafone 3G build programs.
- 5.9 In addition, it appears that the timing of this announcement closely matches with the roll-out of approximately 70-80% of the population, and the conclusion of routine build planning and deployment objectives. As we demonstrated in our March submission,²¹ the incremental cost of providing coverage over that level becomes more pronounced, so it is an easy breathing point for a carrier to step back and evaluate 3G uptake, and to develop a marketing and build strategy for the next stage of network deployment.
- 5.10 As NZ Communications has previously stated, a high roaming rate will impair the ability of NZ Communications to expand its coverage, as revenues become subsumed paying for the existing infrastructure of the incumbent operator rather than for the capital expenditures necessary to continue the network roll-out. This

²¹ See March Submission para. 18.1.

has a critical impact on NZC's investment incentives, and should be considered in the Commission's Final Paper.

Mobile, by its very definition, is *non-geographic*.

6 Pricing Principles.

- 6.1 Vodafone continues to argue in favour of its modified GDA approach.²² Our issues with this approach are addressed more fully in our accompanying submission on the modified Vodafone Undertaking.
- 6.2 Telecom, on the other hand, proposes two alternative means of ensuring investment:
- Build requirement of 70% of population over 5 years; and
 - Staggered TSLRIC-based price increases, based on the access seeker reaching targeted coverage areas within specific time periods. While not substantially different from the geographic de-averaging process in its long-term results, it does have the benefit of a known, fixed national rate consistent with the retail market pricing structure.
- 6.3 We do not consider Telecom's proposal, however, as suitable for fulfilling the objectives of this Investigation or the Act. As a fully operational nationwide competitor with SMP, Telecom's requirements are substantially different from those of a new entrant, and therefore its view of pricing is jaundiced by its desire to ensure it too can demand above-market rents once its network has been completed.
- 6.4 While Telecom deploys its GSM/W-CDMA network, Telecom will have full nationwide coverage through its own CDMA network. It has no need for a competitively-priced roaming service to provide interim coverage while it builds. However, the same does not apply to a new entrant. NZC's sole source of revenue will be its GSM network. NZC's business case and ability to compete in the retail market will be largely dictated by the roaming price. Telecom's will not be.
- 6.5 Neither Telecom nor Vodafone's proposals represent appropriate forms of pricing, and other options, consistent with promoting competitive entry, must be pursued.
- 6.6 **Overview of Pricing Options.** There are three broad kinds of access charging policy:
- Pricing access at cost;
 - Ramsey pricing: setting access charges and retail rates simultaneously to maximise overall welfare;
 - ECPR, i.e., pricing access at cost plus the incumbent's opportunity cost.
- 6.7 Cost-based Access Charges. There are three major benefits of cost-based access charges:
- 6.8 **Simplicity:** The regulator only needs to estimate the incumbents network costs (something that is needed for all other reasonable access pricing policies). No information is needed about demand, elasticities, new entrant characteristics etc is required.

²² We do note, however, that Vodafone at least now acknowledges that its pricing proposal is not cost-based. In previous submissions, Vodafone has claimed it was offering cost-based pricing. See, e.g., paragraph 2 of the Vodafone 9 March 2007 submission on the Issues Paper: "*the terms we propose for roaming in our undertaking are near to an average cost-based rate for roaming.*"

- 6.9 Correct “build or buy” incentives: For example, pricing access above cost will mean that a new entrant would prefer to bypass the incumbent’s network and build its own even when it would be more efficient to use the incumbent’s network. And vice versa.
- 6.10 Fair and non-discriminatory: Access charges do not depend upon the use that the new entrant makes of the incumbent’s network. Therefore, different new entrants will not be offered different wholesale terms.
- 6.11 Ramsey Pricing. Almost by definition, Ramsey pricing is the best way to set access charges. However, this is entirely dependant upon the regulators ability to also simultaneously set retail rates in order to maximise a specified measure of social welfare. Given that the Commerce Commission isn’t intending to regulate retail rates, Ramsey pricing isn’t a viable option for this investigation.
- 6.12 Another argument against Ramsey pricing is that it is very complex and requires far more information to properly implement than cost-based access pricing measures. As well as knowledge of the incumbent’s network costs, the regulator also needs knowledge about both demand and supply elasticities.
- 6.13 Efficient Component Pricing Rule (ECPR). The ECPR rule is only valid when:
 - the incumbent’s retail tariff is fixed in advance and not affected by the actions of any rivals; and
 - when other instruments are not available to correct for the incumbent’s retail market distortions e.g. output tax or TSO.
- 6.14 However, except for a few very special cases, ECPR is simply not appropriate as the incumbent is free to choose their level of retail tariff.
- 6.15 **Benefits of TSLRIC**. The basic objective in defining the proper roaming price is not whether any given price will encourage infrastructure building. The basic objective²³ in pricing is to encourage competitive new entry into the retail mobile market.
- 6.16 Cost-based pricing (including a fair rate of return) is the only pricing principle which gives the “correct” investment signals to both incumbents and new entrants when bypassing network build is an option. It is the only pricing principle which achieves productive, allocative and dynamic efficiency in furtherance of §18 of the Act.
- 6.17 Dynamic and productive efficiency will be promoted even if pricing is above cost, so long as it assists new entrants in entering and competing in the market putting pressure on the incumbents to improve their productivity, minimise costs (productive efficiency) and to innovate, invest, and to improve the range and quality of their services (dynamic efficiency).
- 6.18 Pricing above cost, however, will not promote allocative efficiency as it would still leave prices for mobile phone services above competitive levels. Instead prices would still incorporate a monopoly component, which would deter consumers from using mobile phone services and encourage consumers to use other, second best, alternatives such as texting and fixed line services.
- 6.19 To achieve allocative efficiency roaming charges should reflect the cost of the resources used to provide them.
- 6.20 In contrast a forward looking, estimation of efficient long-term costs, such as that provided by TSLRIC, would promote productive, allocative and dynamic efficiency in the industry. In addition, by promoting new entrants competition would enhance productive efficiency by compelling incumbents to use resources more

²³ See our discussion of the goals and objectives of the Schedule 3 Investigation, in section 2, above.

productively. By lowering prices and enabling consumers to make more economically rational decisions about what they wish to consumer (mobile voice versus mobile data and fixed line calls) allocative efficiency would also be achieved. Dynamic efficiency would be enhanced as the extra competition in the market would create incentives to firms to innovate in order to remain ahead of their competitors.

- 6.21 For existing investment in the industry a TSLRIC approach would provide sufficient returns for investors to enable the generation of a normal profit. A cost-based approach such as TSLRIC will, therefore, best promote economically efficient outcomes.
- 6.22 Arbitrarily setting roaming charges above cost, such as though a geographic pricing proposal, will not promote economically efficient outcomes, but will instead lead to distortions in the investment decisions of new entrants. New entrants will invest in their own facilities at their own pace as market conditions allow, and any attempt to force them into hasty decisions to invest could deter efficient and prudent investment in the mobile phone industry.
- 6.23 As a further benefit, there are at present some regions where the existing GSM network is underutilised and the service may be uneconomic to duplicate. Forcing new entrants to duplicate facilities in these regions instead of signing regulated roaming agreements encourages a misuse of resources and could help to create a barrier to entry. The most economically rational approach would be to regulate roaming charges to provide the access provider a normal profit on prudent investment which in these cases would encourage new entrants, increase capacity use, and provide a fair return on investment.

7 Additional Amendments to the Roaming Service Specification.

7.1 3G-3G Roaming.

7.2 We note that Telecom has agreed with Vodafone for an extended delay for access to new technologies.²⁴ However, for the reasons stated in the Commission's report and our previous submissions, it is critical that a new entrant not be vilified on a network technology level. In addition, 3G roaming would ensure that the new entrant is protected from any mass shut-down of 2G infrastructure. In addition, 3G roaming is not inconsistent with international precedent: a number of other jurisdictions have regulated, or authorized or threatened the regulation of, 3G network roaming.²⁵

7.3 International Roaming. Vodafone continues to question the Commission's rejection of any restrictions on the provision of services by an Access Seeker to international in-bound roamers.²⁶

7.4 First, as we state elsewhere, Vodafone should not be permitted to use a regulatory process used to increase wholesale competition as a tool for restricting retail competition. That would be contrary to the intent and purposes of the regulatory process and the Act.

7.5 Second, the purpose of the Act is:²⁷

to promote competition in telecommunications markets for the long-term benefit of end-users of telecommunications services within New Zealand...

7.6 The Act does *not* exclude from this broad definition non-residents of New Zealand. It is intentionally inclusive, and it is clear that an international in-bound

²⁴ Telecom Submission, para. 3, bullet point 3.

²⁵ See, e.g., the United States, where 3G roaming would be covered by the FCC's Report and Order with respect to the roaming obligations. The E.C. expressly authorizes regulation of 3G roaming.

²⁶ Vodafone Submission, paras. 32-35.

²⁷ §18 of the Telecommunications Act 2001

roamer would be “an end-user of telecommunications services within New Zealand” during their sojourn here, and therefore their interest in competitive services is within the ambit of the Commission’s authority under the Act.

- 7.7 It is our contention that Vodafone’s questions and proposed revision to “fix” the problem are a blatant attempt to undermine the Commission’s investigation and to violate the clear goals and objectives of the Undertaking process.
- 7.8 Access Seeker Revisions. We have no further comment to our preliminary submissions, other than to point out that there even Telecom appears to have questions regarding too broad a definition of those parties who can seek access to the roaming service. As Telecom notes:²⁸
- Roaming service is described in the Telecommunications Act 2001 (“the Act”) as having the function of enabling national coverage for cellular mobile services **while also facilitating an access seeker’s entry into the mobile market.** ...*
- As outlined in the Act, access to roaming services is provided on the condition that a **new entrant** has provisions for roll-out of a new national cellular mobile telephone network. This requirement highlights the intention of the regulatory framework in relation to roaming services. That is, to initially provide a **new entrant access to roaming services to enable the firm to commence competition in downstream markets.***
- 7.9 Telecom is not a new entrant, nor does it require access to roaming services in order to compete for end-users of mobile communications services: Telecom is already a substantial power in the mobile communications market.
- 7.10 Term. The roaming services must be provided to the Access Seeker for at least 5 years from request for access to the service.
- 7.11 The following three requirements are repeated as minimum requirements for the co-location service description as well:
- 7.12 Equivalency of Service. There should be an obligation that service be provided on a like-for-like basis, without discrimination in intent or in impact. There should be an express limitation on the ability of the access provider to limit, suspend, or withdraw without prior Commission consent. As noted in the Commission’s Guide to Determinations, the access provider should not be permitted to discriminate in the quality of service provided between the access seeker and the access provider.²⁹
- 7.13 Explicit Timelines. The specification should impose specific timeframes for completion of any implementation of the roaming service, and basic service level commitments to be fulfilled.
- 7.14 Industry Workshop. There is a significant number of non-price terms and conditions required, as can best be evidenced by the broad discrepancy in the simple review of non-price terms contained in our accompanying comment on the Draft Undertaking. We recommend that these details are agreed through a Commission-led technical implementation workshop similar to the LLU workshops. A discussion of the benefits of such a procedure (from the particular perspective of co-location) is discussed in Annexure 1.

²⁸ Telecom Submission, paras. 13 and 14. Emphasis added.

²⁹ Commerce Commission *A Guide to the Role of the Commerce Commission in making Access Determinations under the Telecommunications Act*, 28 May 2001, para 93.

CO-LOCATION

8 Market for Co-location.

- 8.1 Vodafone continues to contend that the co-location market definition is too narrow, and continues to suggest that buildings and third party sites (such as those of other utility providers) are substitutes for co-location.³⁰ This argument is not supported.
- 8.2 First, a building is never a substitute for a mast co-location. Due to the cost savings of a building installation versus a mast installation, the access provider would have already co-located on any useful buildings, and the new entrant would then move to do so also. Any existing mast within an urban area is therefore an indication that a building site is not available, and co-location is necessary.
- 8.3 In some circumstances, there may be an option for building a second mast. However, as we pointed out clearly in our submission on the Draft Report, there are likely to be tremendous constraints arising both from the lack of available ground space on which to build such a structure, and the reluctance of District Councils to grant consents for duplicate infrastructure. Again, co-location will be the only option available to new entrants.
- 8.4 In any event, a duplicate mast structure – whether installed on a private landowners property or a Kordia or Transpower site – is inefficient and represents a failure of competition in the wholesale market. The benefits of co-location have been previously noted.³¹
- 8.5 Finally, we would note that international precedent on the regulation of co-location – performed routinely through mandatory license requirements or, as in the case of Australia, through direct regulation – agrees with the Commission's conclusions. The European Commission, for example, expressly authorises national regulatory authorities to mandate co-location on a national basis.³² We see no need to re-visit an analysis that has been duplicated throughout the OECD, or why New Zealand should be considered to be an exception to the normal market definition.

9 Co-location Competition Assessment.

- 9.1 Vodafone challenges the Commission's conclusion that the co-location market is not competitive.³³ However, it gives no basis for disagreeing with this conclusion, nor does it provide any evidence that competitive co-location occurs. Indeed, the entire discussion appears to be more a highly emotional response to NZC's presentation highlighting the failure of co-location in New Zealand.
- 9.2 Vodafone's sole support for its claim of increased competition is the TCF code, a code marked by five years of development by a body governed by the very incumbents it was meant to regulate, and on whom the one new market entrant, NZC, did not have a vote, and by a continued failure of the code to result in any competitive co-locations.
- 9.3 The failure to realise any commercial co-location agreements, despite the execution of an agreement between NZC and Telecom, should be stark evidence of the accuracy of the market definition.

³⁰ Vodafone Submission, para.183.

³¹ It is indicative of the substantial scope of the failure of commercial co-location that Telecom and Vodafone have fewer co-locations than Vodafone has sites built on Kordia or Transpower properties.

³² See, e.g., *Directive 2002/21/EC of the European Parliament and of the Council*, 7 March 2002, as amended and updated from time-to-time.

³³ Vodafone Submission, paras. 199 *et seq.*

- 9.4 As Vodafone has previously noted, where options other than co-location are available (and meet other technical site requirements, such as clear line-of-sight in the coverage area, the necessary antenna height, and for which RMA consent is not necessary are can be reasonably obtained) mobile operators can install their transmission facilities on a number of locations: they can install on a building rooftop or non-communications structure (such as a lamp post or utility tower), or they can construct their own antenna mast.³⁴ NZC would therefore anticipate Vodafone competing with these other options in order to obtain the additional revenue and the benefit of reduced operating costs. Absent such a commitment, only regulation to alleviate this market failure will suffice.

Modifications to the Code and Co-lo services description will be required

10 Modifications to the Co-location Service Description.

- 10.1 Antenna Space Maximisation. An obligation on the part of the access provider and the access seeker to use all reasonable means, including options for space optimisation, to maximise the amount of space available for use on the access provider's mast or other structure. (See our comments under our separate Undertaking Submission for more information regarding space optimisation.)
- 10.2 Equivalency of Service. A limitation on the ability of the access provider to forbear or withdraw service due to "future use" requirements. As noted in the Commission's Guide to Determinations, the access provider should not be permitted to discriminate in the quality of service provided between the access seeker and the access provider.³⁵
- 10.3 Explicit Timelines. Consistent with the Commission's Guide to Determinations,³⁶ specific and discrete timetables for implementation, including specific completion targets and other measures of performance in order to ensure that the obligations created by Co-location Code are measurable and are fulfilled.
- 10.4 Industry Workshop. There is a significant non-price detail required. We recommend that these details are agreed through a Commission-led technical implementation workshop similar to the LLU workshops. A discussion of the benefits of such a procedure are discussed in Annexure 1.

11 Conclusions

- 11.1 NZC agrees with the Commission's decision to designate roaming, and recommends that roaming be provided on a fixed-price basis, subject to regular review, or a review mechanism, to ensure that a "price squeeze" doesn't arise due to a discrepancy between the regulated rate and the retail rate.
- 11.2 In addition, to ensure the prompt and effective implementation of a designated roaming service, NZC recommends that the Commission include in the revised service description the critical non-price terms of service discussed in the Draft Report and noted in this submission. A discussion of the benefits of this process (and the detriments of relying on the TCF) is attached as Annexure 1.
- 11.3 NZC would also recommend that the Commission hold workshops with industry, as they have done as part of the LLU process, in order to address and resolve any technical implementation issues. Resolution of a number of technical issues, such as call hand-over, can be addressed in such workshops.

³⁴ In most co-location situations, of course, there are no other appropriate sites available, any optimal sites having been already taken by the Access Provider. However, even where alternate locations may be available, such as in some rural areas, we would anticipate the Access Provider providing access on a non-discriminatory, competitive wholesale basis in order to facilitate their own network efficiency. We think it counterproductive if their prices would instead merely encourage an Access Seeker in such a situation to construct its own infrastructure in order to save costs.

³⁵ Commerce Commission *A Guide to the Role of the Commerce Commission in making Access Determinations under the Telecommunications Act*, 28 May 2001, para 93.

³⁶ *Id.*, para 85.

- 11.4 With respect to co-location, the Commission has concluded that the execution of the first Code-compliant co-location agreement indicates that further regulation of co-location, other than with respect to apportionment of costs based on actual usage of a communications site, is no longer necessary due to the execution of a co-location agreement between Telecom and NZC.
- 11.5 It is now evident, however, that this decision was premature. The failure of Telecom and NZC to actually co-locate equipment at any potential co-location site indicates that there has been a substantive failure in the Code itself. Based on the recent developments, it is clear that designation and further amendment to the Code, including but not limited to specific co-location targets and the mandatory use of antenna reduction measures and space optimization efforts, is essential to overcoming current anti-competitive barriers to effective and efficient co-location.

Annexure 1

LLU Co-location: implications for Mobile Co-location

1. Summary

- 1.1. It took five years for the TCF mobile co-location code to be concluded. It is light on detail and allows gaming and delay, as NZC's experience with Telecom shows. It leads to poor Section 18 outcomes. There are two incumbent access providers, with only one new entrant access seeker (NZC). The new entrant opposed the TCF code in its present form yet has, in effect, a weak code forced on it by the two incumbents.
- 1.2. Comparing the LLU co-location regime and the TCF mobile Code shows that the problem is severe. The underlying issues and principles for LLU and mobile Co-location are largely similar. Even to the extent the 2 services differ in nature, the difference in approach is striking and concerning. The two incumbents are benefiting from the weakness of the mobile Code, while they both benefit in fixed line (from incumbency in fixed line (Telecom) and a robust LLU regime (Vodafone)). With ever increasing convergence and fixed-mobile bundling, this creates high barriers to entry and is anti-competitive.
- 1.3. While the TCF mobile co-location process took years, in less than a year there will be an LLU regime (including for co-location) which is fulsome on detail and tight on timelines. There are around 8 new entrants and only one incumbent (Telecom). The new entrants are benefiting in fixed line. This includes Vodafone, which gets both (a) the benefit of quicker and easier access to fixed line services and (b) the benefit of having weak mobile co-location obligations. Telecom, as incumbent for both fixed line and mobile, also gets both benefits (fixed line strength and the benefit of the weak mobile co-location obligations).
- 1.4. This is critical in this era of bundled and converged fixed-mobile services. The weak mobile co-location regime will fail to facilitate competition (to the contrary, it will, both alone and combined with Telecom's fixed line monopoly and the robustness of the LLU regime, be anti-competitive). Vodafone can readily succeed in accessing the fixed line network because of the strength of the LLU regime. At the same time, it can hold back new entrants (whether for bundled fixed-mobile services or pure mobile services) via the weakness in the TCF co-location code.
- 1.5. As well as creating the problems noted above, what is happening with LLU co-location regulation demonstrates the deficiencies in the TCF mobile co-location Code.
- 1.6. A simple page count demonstrates this. It is hard to understand why the LLU co-location equivalent of the TCF mobile Code runs to over 200 pages compared with the TCF Code equivalent of less than 50 pages, a substantial proportion of which are non-substantive arbitration and confidentiality provisions.
- 1.7. The draft decision in the mobile services review would make these problems worse:
 - 1.7.1. If the mobile co-location service is not transferred from specified to designated (so that price can be regulated), the opportunity to add non-price terms, to supplement the TCF code, will be lost when an application for a determination of a specified mobile co-location service is made. There are non-price terms, in addition to the compulsory TCF Code terms, that can be added to make co-location workable and to facilitate competition.
 - 1.7.2. However, no access seeker will apply for a determination of mobile co-location if that service is not designated. Fixing non-price terms is of no value to access seekers unless price terms are fixed as well. An application will only be made by an access seeker if price terms can be fixed. This is a further, and strong, reason why mobile co-location should be designated. By leaving the mobile co-location service as specified, the service must be regarded, in practical terms, as not regulated at all.

- 1.7.3. That is the effect of making a decision not to move the service from specified to designated.
- 1.7.4. Vodafone's "further amended" draft Schedule 3A undertaking, in relation to co-location, simply implements the TCF code and the TCF Master Co-location agreement, without more. That is the effect of Schedule 8 in that document.³⁷ In its present form, the Vodafone draft undertaking is inadequate, for the reasons noted in this Appendix.
- 1.8. In this Appendix, we focus on co-location implementation, for LLU and mobile respectively, to illustrate NZC's concerns.
- 1.9. NZC submits that:
 - 1.9.1. Under the Schedule 3 investigation, the Commission should recommend that co-location is designated.
 - 1.9.2. The Schedule 3A undertaking should be accepted only if it incorporates, at minimum, changes substantial similar to those contained in Annexure 2 to our Undertaking comment, submitted contemporaneously with this cross-submission, and that fully resolves the issues and concerns addressed in the review of the current Vodafone undertaking.

2. The present position under the TCF mobile co-location Code

- 2.1. The Code outlines a process, in relation to implementation, up to the point where terms and conditions are agreed in relation to co-location at particular sites. This occurs via a desk study followed by a detailed study.³⁸ The Code is largely silent as to what happens from that point.
- 2.2. Little detail is provided even up to the point of agreement of terms and conditions for a particular co-location.
- 2.3. The main guidance for formulation of a more detailed approach (in negotiations, etc, between the parties) is the statement of standard access principles ("SAPs") in the Telecommunications Act³⁹, as limited by the exceptions to the SAPs⁴⁰. In relation to implementation (which is the illustration we are using in this Appendix), there is, for example, the first principle in the SAPs: *"the access provider must provide the service to the access seeker in a timely manner"*.
- 2.4. That is largely the level of detail in the TCF mobile Code, and, as NZC notes below, that is far less detail than in the LLU Co-location material. There is a substantial gap between a principle (timely provision) and the detailed implementation of that principle.
- 2.5. This, the other SAPs, and the limits on the SAPs, constitute only a high level description of the access providers' obligations. Much is left to be resolved as there is so little detail. NZC's experience so far with Telecom, under an agreement directly follows the Code's approach, is a very real example of the problems caused by high level descriptions. This is not just supposition.
- 2.6. To foster competition, and to avoid gaming and delay, a much more detailed implementation regime is needed.

³⁷ This does not extend far beyond implementing the minimum TCF terms. In relation to the example we use in this Appendix (Implementation), there is no material difference between the TCF Code minimum requirements (including compulsory application of some of the Master Co-location agreement) and full application of the Master Co-Location agreement.

³⁸ The process is set out in the flowchart in Annexure 2 in the TCF Code

³⁹ Clause 5 Schedule 1, but not including the 4th SAP as that was added to the Act in December 2006, after the Code was accepted by the Commission.

⁴⁰ Clause 6 Schedule 1 Telecommunications Act, as augmented by Clause 34.2 of the TCF Code.

- 2.7. It took some years for the TCF Code to be finalised (by the Commission's approval of the Code in December 2006). This happened despite the opposition from the only party that now appears to be a possible access seeker (NZC).

3. The present position under the Commission's draft Mobile Services Report

- 3.1. The same problems will continue if the Schedule 3 decision remains unchanged. A determination as to mobile co-location, following application by an access seeker (NZC), could augment the TCF Code. Additional non-price terms are possible. The Code does not cover all possible non-price terms. Using our implementation example, a determination could add a much more detailed implementation regime. However this will not happen if the service is not designated. There is no point in an access seeker applying for determination of a specified service (i.e.; one that does not fix price). The difference between a weak regime and a strong one is shown by the difference between the TCF mobile Code and the LLU Code, as NZC outlines below.
- 3.2. The position is the same in relation to the further amended draft Schedule 3A decision. Only the TCF Code and TCF Master Co-location terms will apply under Schedule 8 in that draft.
- 3.3. The Commission should only accept a Schedule 3A undertaking that contains an implementation regime with the level of detail in the LLU regime.

4. How the TCF co-location Code compares to the LLU co-location regime.

- 4.1. The LLU co-location regime also relies on the SAPs in the Act. However, much more detail has been worked through, reducing considerably delay, the risk of gaming, and poor Section 18 outcomes.
- 4.2. While there are differences, the fundamental principles around mobile and LLU Co-location are similar. Yet one regime (LLU) is detailed and the other (mobile) is sparse on detail.
- 4.3. Comprehensive documents have been submitted by Telecom, as required by the Commission in the Telecommunications Act Standard Terms Determination ("STD") process.
- 4.4. In relation to the implementation aspect of co-location, the Commission's formal notice to Telecom⁴¹ required Telecom to provide an STD proposal that included:
- i. a timeline for delivery of the Co-location Service to access seekers, including a list of all exchanges where the service is to be implemented and the proposed delivery date for the service in each exchange;
 - ii. key performance indicators (KPIs);
 - iii. a mechanism whereby Telecom is required to report to the Commission and access seekers on whether KPIs have been met;
 - iv. incentives for compliance with KPIs;
 - v. proposed remedial actions and outcomes where Telecom does not meet its KPIs;
 - vi. a process for addressing prioritisation of access seekers, including where there is a need for bulk migration of customers;
 - vii. a soft launch of the Co-location Service prior to its full implementation...
- 4.5. In response Telecom lodged an STD proposal that including an LLU implementation plan (which applies to both LLU and LLU co-location). This is around 16 pages long.

⁴¹ Under Section 30F

This is also the size of the draft document prepared by the Commission in response⁴² (the Commission has marked up changes to Telecom's draft).

- 4.6. In addition, much of the 76 page co-location operations manual deals with implementation issues in more detail. This document was also submitted by Telecom, in the STD proposal process, as required by the Commission. It also has been marked up by the Commission.
- 4.7. Additional LLU Co-location service documents submitted in the STD proposal process by Telecom, as required by the Commission were:
 - 4.7.1. General Terms (85 pages);
 - 4.7.2. Service Description (10 pages)
 - 4.7.3. Service level agreement (22 pages)
 - 4.7.4. Access Terms (17 pages)
- 4.8. This makes up over 200 pages of documents. This is for a co-location service (LLU) with many of the same attributes and underlying principles as the mobile co-location service. This contrasts with the approx 50 pages in the 25 page TCF Code and the 31 page TCF Master Co-location agreement. Most of the latter document is not compulsory: access providers have the option as to whether to apply those terms.
- 4.9. That level of detail in relation to LLU co-location is being achieved within a year, contrasting with the several years of the TCF process.
- 4.10. Returning to the specifics of the implementation aspect of co-location, the TCF Code either does not deal with, or touches only lightly on, the issues that the Commission required Telecom to handle for LLU Co-location, quoted in Para 4.7 above⁴³. For example:
 - 4.10.1. The LLU implementation plan contains detailed and relatively tight timelines and KPIs. See for example the tables in Appendix A and Para 5.2 of the LLU implementation plan⁴⁴. The TCF Code is nearly silent on this.
 - 4.10.2. One of the issues raised by the Commission, in relation to mobile co-location, is the complexity in relation to different types of sites. This, in the draft mobile services report, is said to be a reason that the Commission should not enter into the detail of Co-location. Yet, in relation to LLU Co-location, Telecom has proposed, and the Commission has accepted, treatment of different sites by categorising them (and allowing for variations within those categories). See Clause 9 of the Commission's redraft of Telecom's STD proposal, including the table outlining 5 site categories. In contrast, the TCF code is nearly silent on this level of detail, yet the issues and challenges are similar. Most of the categories used for LLU could be largely adopted for Co-location. The Commission has accepted this approach in relation to LLU yet prefers not to do so for mobile Co-location.
- 4.11. NZC consider there is no justification for such a marked difference between mobile co-location and LLU co-location. The limited approach in the TCF Code is apt to be gamed and lead to delay, thereby leading to market failure and failure to achieve s18

⁴² At the date of these submissions, the draft implementation plan has been the subject of submission and cross-submission, and the Commission is holding a conference on the standard terms determination for LLU co-location in mid-September. It is unlikely that the approach to implementation (including in the co-location operations manual) will be any less detailed.

⁴³ Further, the Commission, in its draft Decision 609 (which deals with the implementation issues for both LLU and LLU co-location) raises the question of whether more detail should be included such as tighter remedies for failure to meet KPIs. See Paras 496-528 in draft Decision 609 and para 262 in draft Decision 610.

⁴⁴ And even those timelines may be tightened: see Para 522 of draft Decision 509

outcomes. NZC's actual experience with Telecom and co-location shows that this is not just a theoretical issue. It is real.

- 4.12. The position is severely exacerbated by the bundling and convergence issues (fixed-mobile) noted in the summary above.
- 4.13. The Commission is able to remedy this:
 - 4.13.1. It can designate mobile co-location so that the TCF Code terms can be augmented on a determination (this will not happen if the service is not designated).
 - 4.13.2. It can require much more detail in a Schedule 3A undertaking, before an undertaking is accepted.