

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



**Submission on the draft Standard Terms  
Determination for the mobile co-location on cellular  
transmission sites service**

**22 August 2008**

## Executive Summary

1. Vodafone welcomes the opportunity to comment on the Commerce Commission's (**Commission's**) Standard Terms Determination (**STD**) for the mobile co-location on cellular transmission sites service (**Mobile Co-location Service**).
2. The draft STD contains a number of amendments and alterations as compared to the standard terms proposal (STP) submitted by Vodafone earlier this year. Vodafone believes that a number of these amendments will improve the way in which the Mobile Co-location Service is provided. For instance, we believe amendments introduced into the performance penalty regime around the idea of "cumulative delay days" (which allows an Access Provider who fails to meet a delivery timeframe in the STD to avoid penalty if it makes up for this delay in subsequent stages of the delivery process) are a positive for both Access Providers and Access Seekers. These provisions provide Access Providers with a better incentive to provide co-location to Access Seekers in a timely fashion. As both an Access Provider and a potential Access Seeker of this service who understands the cost savings that can be generated by co-location, Vodafone sees these provisions as a positive enhancement for the service.
3. Further, we welcome the Commission's recognition that enabling an Access Seeker to co-locate on an existing network operator's cell sites is likely to lead to some level of performance degradation to an Access Provider's services and a resulting loss of network performance. Vodafone notes such performance degradation can come in the form of reduced network coverage and increased call drop-out rates. We also welcome the Commission's concern about the impact network performance degradation will have on the ability of existing network operators to provide the same levels of Emergency Service calls as they presently do. This is a particular area of consumer concern – especially in rural areas where consumers rely heavily on mobile networks to make calls to Emergency Services – and the Commission is right to be concerned about this issue.
4. Vodafone does, however, have serious concerns about some of the other

changes introduced by the Commission and believes further consideration is still needed on these matters. These matters are discussed in detail in this submission.

5. Vodafone accepts that the Commission faces a number of competing objectives when designing an appropriate STD for the Mobile Co-location Service. On the one hand, it is seeking to ensure terms and conditions are designed to ensure competition can develop in mobile telecommunications markets without undue delay. Against this, however, it must ensure the service is specified in a way that does not unnecessarily harm the way in which Access Providers can meet their future roll-out plans or damage the existing quality of mobile services being provided to consumers. Further, it must ensure the service is provided in an efficient way so that the costs of providing it are not unnecessarily inflated. This will ensure that any efficiency gains that might be attained from co-location are not undermined.
  
6. With that in mind, Vodafone's view is that the draft STD does not achieve the balance required. We believe the desire to ensure co-location occurs as quickly as possible has overtaken the need to have sufficient regard to the potentially harmful consequences some of its provisions may inadvertently introduce. In particular, Vodafone is concerned that provisions contained within the draft STD could have the effect of:
  - generating excessive interference between the signals of co-locating network operators that will reduce existing network coverage for approximately 2,600 Vodafone customers in rural areas of New Zealand – some of whom will no longer be able to make mobile calls. It could also reduce data rates for mobile broadband services for these customers;
  
  - annually, approximately 480 calls to Emergency Services on Vodafone's network are at risk. These would be calls from rural customers who today can make Emergency Service Calls on Vodafone's existing network;
  
  - jeopardising the ability of Vodafone to roll out the planned long term evolution (LTE) of its mobile network and beyond by potentially

removing the ability of Vodafone to use its network, as it has planned, for these purposes beyond two years from the commencement of the STD; and

- providing unnecessarily high service level requirements (and proposing excessive penalties for not meeting these service levels) that go well beyond those set for Telecom in previous STDs issued by the Commission for fixed-line services. Such measures will increase the cost of providing the service, which will ultimately be borne by consumers in higher prices paid for mobile telecommunications services.
7. Overall, Vodafone believes the Commission has, in places, taken an approach to specifying the non-price terms and conditions of access to the Mobile Co-location Service that does not weigh these consequences fully. In some cases, it appears to have focused almost exclusively on the potential benefits of some of the amendments it has suggested for the STP without seeking to determine whether the size of the benefits likely to occur will outweigh the costs associated with achieving them.
  8. In addition to this, Vodafone is concerned that the draft STD includes provisions that go beyond those the Commission is empowered to include under the Telecommunications Act 2001, and contradict measures unanimously agreed to by the industry in the Telecommunications Carriers Forum Working Group set up to assist with the development of the STD.
  9. Vodafone believes these concerns can be alleviated through a number of proposed changes to the draft STD that are set out and explained in detail in this submission. Amongst other things, the submission proposes a number of specific amendments that will have the effect of:
    - reducing by half the amount of performance degradation on existing mobile networks as a result of co-location;
    - ensuring consumers will have more confidence in their ability to make calls to Emergency Services following co-location – especially in rural areas;

- enabling Access Seekers to immediately use spare network capacity on Access Providers' networks without jeopardising the ability of Access Provider's to meet reasonable forecast requirements over the next five years; and
  - reducing the cost of providing the service to Access Seekers by limiting the number of service levels to reasonable efficient levels more consistent with those contained in previous STDs issued by the Commission.
10. The attached submission outlines Vodafone's response to the draft STD and contains a number of suggested amendments the Commission should consider before finalising the STD later this year. We believe these measures will ensure the STD is better balanced and lead to outcomes that will, to the greatest extent possible, promote competition in a way that is in the best interests of End Users of telecommunications services.

## Introduction

1. Vodafone welcomes the opportunity to comment on the Commerce Commission's (**Commission's**) draft Standard Terms Determination (**STD**) for the mobile co-location on cellular transmission sites service (**Mobile Co-location Service**).
2. The draft STD contains a number of amendments that are likely to improve the way in which the Mobile Co-location Service is provided to Access Seekers. Vodafone has pointed out in the attached documents where this is the case and indicated its support for such amendments.
3. There are, however, some other amendments that Vodafone is concerned will not, ultimately, ensure the service is provided in a way that will be in the long-term interests of End Users. Vodafone respectfully submits that these amendments would benefit from further consideration by the Commission. Where Vodafone has concerns about particular provisions, it explains the source of these concerns in the attached documentation and provides specific drafting suggestions that it believes could be made to remove these concerns and improve the STD for this service.
4. The submission is structured so that it:
  - details Vodafone's concerns with respect to five key issues in the draft STD. These are:
    - the acceptable level of interference the Commission has set in the draft STD;
    - measures seeking to provide for Access Providers' future forecast requirements for their networks;
    - provisions relating to the mandating of site alterations on Access Provider networks;
    - the service level terms specified by the Commission in the draft STD; and

- measures relating to the operational and implementation timeframes and procedures in the draft STD.
- discusses how some parts of the draft STD appear to go beyond the scope of the Telecommunications Act 2001; are unnecessarily inconsistent with previous STDs issued by the Commission in relation to other regulated services; and seem to contradict findings unanimously agreed by the Telecommunications Carriers' Forum (TCF) designed to assist with the development of the STD; and
- attaches a number of additional documents that provide specific comments relating to various clauses in the draft STD, and, where appropriate, suggests remedies that would generate a better Mobile Co-location STD. We have also included marked-up version of each of the documents which make up the Mobile Co-location Terms.

## Interference

5. Vodafone and Telecom have, over a number of years, invested substantial amounts of funds into developing mobile networks to provide existing levels of quality of service to consumers. Key measures of the quality of service mobile network operators (MNOs) provide to consumers are the volume of call drop-outs; the extent of network coverage; and the speed of data services provided over these networks.
  
6. The Commission has recognised in the draft STD that mobile co-location has the potential to generate interference, with the effect of reducing network performance below existing levels. It has argued, however, that this reduction in network service quality must be weighed against the productive efficiencies that come from mobile networks sharing the costs of providing mobile services where they co-locate, and the lower prices consumers might expect to enjoy as a result of the greater levels of competition co-location might be expected to occur. Having regard to these considerations, the Commission effectively accepts in the draft STD that reductions in network quality of services are acceptable provided they do not exceed certain thresholds – defined as so-called “Unacceptable Performance Degradation”. In the draft STD, the Commission specifies Unacceptable Performance Degradation as any one or more of the following:
  - isolation of less than 30dB between the Antennae port of the Access Seeker’s transmitting equipment and the Antenna port of the Access Provider’s receiving equipment or any Existing Co-locator’s transmitting or receiving equipment;
  - a total level of loss from the Access Provider’s or Existing Co-locator’s Link Budget of more than 1.0dB in either the uplink budget or the downlink budget;
  - a total level of loss of more than 0.2dB from either the uplink budget or the downlink budget of any Antenna solely dedicated to the provision of Emergency Services;
  - an incremental 5% increase in Outages in Telecommunications

Services to End Users directly attributable to the incremental emissions of the Access Seeker from the Relevant Facility. Any increase in Outages is to be assessed:

- i. prior to Stage 1 of the Project Closure Checklist under section 21 of the Mobile Co-location Operations Manual; and
  - ii. over a period with a reasonable number of calls and a mix of call types representative of the site's traffic.
7. Vodafone provides in the attachments to this submission a number of comments on the specific drafting around these measures of Unacceptable Performance Degradation contained in the draft STD.
8. At a broad level, however, Vodafone believes:
- the Commission has set too high a level of loss from the Access Provider's Link Budget at 1.0dB. In doing so, Vodafone is concerned that the Commission has not had sufficient regard to the evidence provided by Vodafone in support of its STP that demonstrates the harmful consequences for network performance that would follow from such a high level of loss in the Link Budget. Vodafone is also concerned that the Commission has over-estimated the incremental benefits that will flow for consumers from having a loss in the Link Budget of 1.0dB as compared to Vodafone's recommended level of 0.5dB. In short, Vodafone believes that any loss for consumers that will follow from raising the level of loss in the Link Budget from 0.5dB to 1.0dB is unlikely to be compensated by an offsetting gain for consumers;
  - the decision to include recognition of loss in the Link Budget as it relates to the provision of Emergency Services is a positive move by the Commission. However, given no antennae on Vodafone's or Telecom's networks are solely dedicated to the provision of Emergency Services, the intention of the Commission to ensure there is limited damage done to the ability of consumers to make calls to Emergency Services will not be achieved by the provisions contained in the draft STD. Indeed, as drafted, the draft STD has the potential

to lead to a loss of approximately 480 emergency service calls per year in rural areas on Vodafone's network alone – where consumers are particularly reliant on mobile network coverage to make calls to emergency services – if co-location is allowed to generate 1.0dB of loss in the Link Budget; and

- the decision to place quantifiable measures of performance degradation – such as an incremental 5 per cent increase in Outages – is a sensible idea. However, Vodafone believes the draft STD is too limited in its classification of events that would represent instances of performance degradation such that the type of quantifiable measures should be extended beyond simply network outages.

9. In support of these views, the following sub-sections of this submission discuss:

- the appropriate analytical framework that should be applied to determine unacceptable performance degradation;
- the levels of network performance degradation that could follow if the Commission proceeds to allow a level of loss from the Access Provider's Link Budget of 1.0dB;
- the potential loss in calls to Emergency Services – especially in relation to call attempts made in rural areas – that could follow from a level of loss in the Link Budget of 1.0dB;
- concerns over the lack of proper empirical cost-benefit analysis conducted by the Commission in support of its contention that the benefits to consumers from allowing a level of loss of 1.0dB will outweigh the harmful consequences identified above; and
- a clarification of the meaning of ITU reports that the Commission appears to have placed reliance on when concluding that a level of loss of 1.0dB in the Link Budget is appropriate.

10. Having regard to all of these factors, Vodafone believes the Commission should re-consider its decision to allow a level of loss in the Link Budget

up to 1.0dB. Instead, Vodafone continues to believe that the maximum allowable level of loss in the Link Budget should be 0.5dB, as set out in Vodafone's STP.

*Appropriate Analytical Framework for determining Unacceptable Performance Degradation*

11. In its draft STD, the Commission appropriately recognises that co-location can give rise to detrimental impacts on the network performance of existing network operators. It also accepts Vodafone's proposed framework for determining appropriate levels of performance degradation when it recognises that "in order for co-location to on cellular mobile transmission sites to meet the objectives of the Act, the Commission must balance two competing objectives:

- the possible pro-competitive and efficiency benefits that may result for End Users as a result of co-location on a given cellular transmission site; and
- the likely detriment to End Users that will result from any performance degradation that such co-location may cause."<sup>1</sup>

12. In determining an acceptable level of performance degradation on an existing operator's network, the Commission appears to argue that it must balance the likely performance degradation that would follow against the pro-competitive benefits from co-location, including those that would follow from "a fall in the price in the retail market ... as a result of *increased competition due to co-location*"<sup>2</sup> [emphasis added].

13. Vodafone is concerned that the Commission may, in this instance, not be considering the appropriate measure of benefit when conducting its cost-benefit exercise. In particular, Vodafone notes that the issue at hand is the appropriate maximum level of loss in the Link Budget. In this regard, the appropriate analytical cost-benefit exercise is to compare the additional competitive benefits to consumers that would result from

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<sup>1</sup> Commerce Commission, *draft Standard Terms Determination for the specified service Co-location on cellular mobile transmission sites*, 25 July 2008, p. 43.

<sup>2</sup> Commerce Commission, *op. cit.*, p. 45

increasing the loss in the Link Budget from 0.5dB (as suggested by Vodafone in its STP) with the incremental loss in performance degradation that would occur.

14. Hence, the question the Commission should be asking itself is whether increasing the maximum allowable level of loss in the Link Budget from 0.5dB to 1.0dB will, of itself, generate such additional improvements in the ability of an Access Seeker to compete that this will generate benefits to outweigh the identifiable increase in damage to performance degradation that will result from this increase in the Link Budget. In other words, if most of the competitive benefits can still be achieved at a level of loss in the Link Budget at 0.5dB, then there may be a net loss for consumers in increasing the level of loss in the Link Budget to 1.0dB.
15. Further, in balancing the competitive benefit from increasing the loss in the Link Budget, the Commission has to be mindful not to attribute all the competitive benefits that might come from a new entrant in the market purely to the availability of the mobile co-location service. That is, in the absence of a mobile co-location service, a new entrant will still have access to other access services such as the national roaming service. Further, consumers should also receive some competitive benefit from the launch of a number of mobile virtual network operators in the next few months.
16. Hence, while it is arguable that the provision of the Mobile Co-location Service will provide competitive benefits for consumers, the relevant questions are:
  - how much benefit will accrue with co-location as compared to a situation where co-location was not available; and then
  - of that benefit, how much will result from increasing the loss in the Link Budget from 0.5dB to 1.0dB.
17. This incremental benefit should then be compared to the verifiable incremental damage that will likely be caused from increasing the loss in the Link Budget from 0.5dB to 1.0dB.

*Performance Degradation at 1.0dB loss in the Link Budget*

18. As outlined above, a key feature of the draft STD is that it accepts the maximum allowable loss in the Link Budget should be increased from 0.5dB (as proposed in Vodafone's STP) to 1.0dB.
19. In its submission in support of the STP, Vodafone provided evidence detailing the consequences of a loss in the Link Budget at various levels of dB. This evidence does not appear to have been challenged by the Commission in forming its draft STD.
20. Based on this evidence, Vodafone believes the possible negative impacts on network performance could follow if co-location generates a loss in the Link Budget of 1.0dB:
  - loss of network coverage – which is a particular concern for customers in rural and remote locations who may be heavily impacted by any reductions in mobile network coverage. Vodafone estimates that co-location under the draft STD could potentially lead to approximately 2,600 rural Vodafone consumers who currently receive service from us being left without mobile network coverage on our network if co-location occurred on its rural cell sites;
  - a reduction in maximum theoretical data rates consumers can experience of around 11 per cent at the cell edge, based on the Link Budget of a typical UMTS Site offering HSDPA 3.6Mbps<sup>3</sup>; and
  - a lowering in the cell coverage range over which consumers can receive maximum data rate speeds.<sup>4</sup>

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<sup>3</sup> Vodafone, *op. cit.*, para [154] at p. 54.

<sup>4</sup> Vodafone, *op. cit.*, para [153] at p.54.

21. To be clear, mobile co-location has the potential to give rise to real and verifiable reductions in the quality of service consumers experience on existing mobile networks. As compared to a lower loss in the Link Budget of 0.5dB, a loss in the Link Budget of 1.0dB will cause additional incremental losses of:
- greater reductions in network coverage for rural consumers;
  - a greater reduction in the maximum achievable data rate speeds consumers can experience on a typical GSM site offering HSDPA network speeds; and
  - a further lowering in the cell coverage range over which consumers can receive maximum data rate speeds.
22. In the face of such real and verifiable potential damage to consumer experience, Vodafone believes the Commission has an extra duty of care to make sure the incremental benefit to consumers from allowing any form of loss in the Link Budget outweighs these potential deleterious effects in customer experience on mobile networks. As outlined further below, Vodafone is concerned the Commission has not conducted sufficient empirical analysis to demonstrate this is the case.

*Loss of ability to make Emergency Service calls*

23. In addition to the loss in quality of service outlined above, a loss in the Link Budget of 1.0dB has the potential to lead to a significant reduction in the ability of consumers to use their mobile phone to make calls to emergency services. This is especially the case if mobile co-location gives rise to interference that generates a reduction in network coverage.
24. Vodafone believes that consumers in rural areas are most likely to be susceptible to losses in network coverage when they need to make calls to emergency services. This is because they are likely to have less available alternative telecommunications options for making calls to emergency services if they are on the road or working/travelling in more remote areas. Hence, any loss of coverage in rural areas is not always compensated. In urban areas, loss of coverage is more likely to be

compensated by nearby sites due to coverage overlap.

25. We note that our GSM network presently carries an average of 1800 mobile originated calls per month to Emergency Services in rural areas (based on a network average between March to July 2008). Vodafone also notes that, at present, over 50 per cent of calls to emergency services are now made from mobile phones. As indicated above, a loss in the Link Budget of 1.0dB causes a reduction in coverage area. This has the potential to impact approximately 40 Emergency Services calls per month (or approximately 480 per year) in rural areas made on Vodafone's network alone.
26. Admittedly, mobile co-location may not occur at all rural sites, although Vodafone does note rural sites are likely to be more attractive to potential Access Seekers due to the lower economies of density likely to operate outside urban areas to justify network roll-out. Even if co-location does not occur at all rural mobile cell sites, any reduction in the ability to make calls to emergency services has the potential to place consumers relying on their mobile phones to make these calls more at danger than would be the case in the absence of co-location that generated a loss in the Link Budget of 1.0dB.
27. Vodafone notes that the Commission appears to be particularly concerned about the potential for this consequence given it chose to set a maximum allowable loss in the Link Budget of 0.2dB for antenna solely dedicated to the provision of Emergency Service calls. Vodafone believes the Commission is right to hold this concern. Vodafone is concerned, however, that this measure in the Interference Management and Design document of the STD will have no meaningful impact on reducing the loss of calls to Emergency Services that might result from mobile co-location at 1.0dB loss in the Link Budget. This is because cellular mobile networks do not have separate dedicated antennae for the provision of Emergency Services. Both Emergency Services calls and normal voice and data calls are carried by the same antennas. This means that it is not possible to have different degradation thresholds for Emergency Services on the one hand and other mobile services on the other. All services provided by a site will experience the same interference and performance degradation from co-location.

28. To achieve a more limited reduction in the possible impact on calls to Emergency Services, Vodafone believes the Commission must set a lower maximum loss in the Link Budget in the Unacceptable Performance Degradation clauses in the STD. To maintain current levels of protection for consumers wishing to make calls to Emergency Services, only a 0dB loss in the Link Budget is acceptable. While the Commission may seek to trade off the safety of consumers for greater competitive benefit by allowing a higher level of loss in the Link Budget, we believe it would be dangerous to gamble too greatly on the welfare of New Zealanders by allowing performance degradation beyond that implied by a loss in the Link Budget of 0.5dB. Indeed, without compelling evidence of the incremental gain to consumers resulting from co-location at any level of performance degradation, there are still strong grounds to argue the maximum allowable loss in the Link Budget should be less than 0.5dB.

*Inadequate empirical cost-benefit analysis in support of performance degradation measures*

29. As outlined above, the Commission states in its draft STD that:

Although there is likely to be a decrease in productive efficiency as a result of the reduced performance of the Access Provider's network, and potentially the need for additional investment to fund infill sites, the Commission considers that there is likely to be an offsetting gain in productive efficiency as a result of socially wasteful or inefficient duplication of Relevant Facilities being avoided.

In addition to this offsetting productive efficiency gain from co-location, the Commission considers that there is likely to be a positive effect on efficient entry, leading to increased competition in the downstream market for retail mobile services.<sup>5</sup>

30. In support of this, the Commission provides an elegant exposition of the theoretical trade-off between the increased costs for consumers resulting from performance degradation and the welfare gains they may enjoy as a result of lower prices that increased competition may provide. This exposition is contained in a partial equilibrium economic diagram.

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<sup>5</sup> Commerce Commission, *op. cit.*, pars [247] – [248] at p. 44.

31. Vodafone accepts that, in theory, performance degradation may, up to a point, be justified on the grounds that the consequent loss in consumer welfare from poorer network performance is offset by welfare gains resulting from lower prices that result from the competition such co-location enables. Equally, however, performance degradation at some levels could give rise to such excessive performance degradation that the harmful consequences of this outweigh any benefits to consumers that may result from improved competition. In this regard, the Commission could have drawn its partial equilibrium diagram contained in Figure 3 of the draft STD to have a lower decrease in price, and a higher increase in cost as a result of performance degradation. This could have seen the theoretical net benefit from increasing performance degradation reversed.
32. Responsible regulatory practice requires that theoretical assertions must be empirically tested. It is not sufficient to simply draw a theoretical diagram showing how a net benefit could be generated without testing to see whether one is, in fact, actually likely to exist. This is particularly the case when a regulator is using such a framework to justify setting a specific number for Unacceptable Performance Degradation.
33. Vodafone is concerned, however, that the Commission does not appear to have conducted any empirical analysis to estimate whether increasing the level of unacceptable performance degradation from 0.5dB to 1.0dB will actually give rise to productive efficiency and competitive gains that would not occur in the absence of this measure.
34. The analysis presented by the Commission seems to simply assert that increasing the level of acceptable performance degradation from 0.5dB to 1.0dB will give rise to significant reductions in the price of retail mobile services for end-users, without analysing what the magnitude of such price decreases would be likely to be. In this instance, assertion does not equate to fact-based evidence.
35. Vodafone is not convinced that increasing the level of acceptable performance degradation from 0.5dB to 1.0dB will be a significant factor that unlocks significant incremental competitive gain for consumers in retail markets for mobile telecommunications services. It is also not clear that this change will be the factor that generates substantial increases in

productive efficiency by allowing co-location to occur on substantially more sites than would be the case if unacceptable performance degradation was limited to a loss in the Link Budget of 0.5dB.

36. What is clear is that there is evidence to suggest that allowing a loss in the Link Budget of 1.0dB could give rise to real performance degradation that is not to the benefit of end-users. Further, and as outlined in para 21 above, increasing the level of loss in the Link Budget from 0.5dB to 1.0dB will give rise to incremental increases in the level of performance degradation on Access Provider's networks. It will also likely double the number of calls to Emergency Service numbers that potentially would be unable to be made in rural areas as a result of reduced network coverage associated with this higher level of loss in the Link Budget.
37. So, while there is empirical evidence to show the harmful consequences of increasing the level of unacceptable performance degradation from 0.5dB to 1.0dB, there is no quantifiable evidence to show there is an offsetting welfare gain for consumers to justify a level of loss in the Link Budget at 1.0dB.
38. Vodafone encourages the Commission to reconsider its analysis on this issue and conduct more fact-based analysis of whether the evidence supports the level of Unacceptable Performance Degradation in the draft STD.

*Clarification of the meaning of the ITU reports relied upon in support of 1.0dB*

39. In reaching its view that unacceptable performance degradation should not exceed 1.0dB, the Commission appears to have placed considerable reliance on ITU reports referred to by Kordia in its submission.
40. Vodafone is concerned, however, that calculations provided by Kordia take into account only one part of the interference considered in the relevant ITU report. In this regard, the attachments to this submission demonstrate that ITU-R Report M.2030 proposed that the receiver noise floor could be degraded by 1dB. However, the ITU-R Report M.2030 did not propose that the link budget should be degraded by 1dB. Rather, and as demonstrated in the table of comments in relation to interference

management, a complete set of calculations demonstrate that Kordia's proposal is actually in line with Vodafone's proposal of 0.5dB degradation in the link budget. In this regard, Kordia's proposal results in a maximum of 0.51dB degradation in link budget.

41. It follows, therefore, that the evidence provided by Kordia tends to support Vodafone's recommendation in the STP that the loss in the Link Budget should be set at 0.5dB.

### *Summary*

42. The interference management clauses proposed by the Commission in the draft STD have the potential to give rise to significant levels of performance degradation on Access Providers' networks. This is supported by sound scientific evidence that the Commission does not appear to have disputed in its draft STD.
43. Further, the draft STD has the potential to substantially reduce the extent to which rural consumers can rely on mobile networks to make calls to Emergency Services.
44. While there is verifiable evidence to support the detriment that could be caused to consumer welfare as a result of a loss in the link Budget of 1.0dB, there is no compelling evidence presented to demonstrate that competition in the retail markets for mobile services will be significantly improved by increasing the definition of Unacceptable Performance Degradation to these levels.
45. Further, ITU reports apparently relied upon by the Commission to support a level of performance degradation at 1.0dB require further clarification. Correct application of this evidence would instead tend to support Vodafone's view that the maximum allowable loss in the Link Budget should be set at 0.5dB.

## Access Provider Forecasting

### *Policy rationale for considering future forecast requirements*

46. The Telecommunications Act 2001 specifies the limits (and additional limits) that apply to the standard access principles. In particular, one of the additional limits for the Mobile Co-location Service to the access principles relates to “the access provider’s current and reasonable forecast requirements for capacity on relevant facilities”. The Commission interprets the legislation to suggest that factors, such as this, “limit the scope of the access principles”.<sup>6</sup>
47. Vodafone believes there are sound policy reasons for seeking to ensure that access regulation does not compromise an Access Provider’s current and reasonable forecast requirements for capacity on relevant facilities. A network owner faces substantial fixed costs when building a cell site and must undertake a number of complex activities and negotiations in order to attain relevant landowner lease and RMA consents. Rather than conduct these activities, or re-build network elements every time it wants to expand capacity on its network, a network operator will usually make provision for additional capacity in order to meet future forecast needs. This could, for instance, take the form of negotiating equipment leases with a landowner that provide for greater opportunities to deploy equipment than are necessary to meet immediate needs. Such forward planning by a network operator is efficient, as it avoids it needing to incur additional transaction costs every time it seeks to increase the capacity on its network. Hence, at any given point in time, a network may have more capacity than is needed to meet existing network demands. However, this spare capacity is often intentional in order to ensure the network operator can expand capacity in the future without having the need to re-build key aspects of the network, or to re-negotiate landowner and RMA consents to ensure such increased capacity can occur.
48. Ensuring regard is had to an Access Provider’s current and future reasonable forecast requirements is important to ensure Access Providers continue to have appropriate incentives to efficiently provision

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<sup>6</sup> Commerce Commission, *op. cit.*, para [26] at p. 7.

for reasonable future forecast network requirements. That is, an Access Provider would have a significantly reduced incentive to efficiently provision for future forecast needs if any additional capacity it secures could immediately be made available to an Access Seeker on its request. It would fear that any activity it undertook to provision for future forecast needs would be compromised by an Access Seeker coming along at some later stage to secure the benefits of the Access Provider's efforts to secure this spare capacity for its own future forecast network needs. In these circumstances, consumers could be made worse off as it could introduce delays to the speed with which network operators can respond to consumer demands to increase network capacity or roll out new technologies, and increase the (transactions) costs associated with building a mobile network.

*Reasonable forecast requirements for building a cellular mobile network*

49. Vodafone believes that no reasonable person could credibly argue that telecommunications network operators don't provision for additional future forecast demand. That is, Vodafone believes it is reasonable for a network operator to have network deployment plans in place for a number of years before actually installing the relevant equipment, including on or with the Relevant Facilities, due to the long lead time between initial network conception and design to final build.
  
50. At issue in the context of developing the Mobile Co-location Service STD is how long an Access Provider should be entitled to set aside spare capacity on its network in order to meet its own future forecast requirements. In its submission to the STP, Vodafone argued, based on the experience of some of Vodafone's previous network deployment plans, that it is reasonable for an Access Provider to have forecast demands for capacity on Relevant Facilities for at least five-to-six years ahead of its actual full deployment. Vodafone continues to believe it can easily demonstrate that network lead times of at least 5 years are reasonable due to the history of its previous network builds, and the existing network plans it has for the deployment of its Long Term Evolution (LTE). In this regard, Vodafone notes that:

(a) in the case of Vodafone's GSM network, Vodafone began its

network build around 1992. Full nationwide network was not completed until 1999/2000;

(b) in the case of Vodafone's 3G network, Vodafone began its high level design and network build in 2004. After five years of network build it has reached coverage of 63% of the population. Vodafone plans to reach 97% of the population coverage in 2010. In other words, this would amount to a six year deployment; and

(c) Vodafone expects to use similar time frames to complete its LTE network roll out. Vodafone has been in discussions with potential vendors for a number of years in relation to the development of its LTE network, with the earliest commercial availability from vendors expected to range from the second half of 2009 to the first half of 2010. The Commission will be aware that Vodafone has previously indicated in some media releases that it expects to launch this network in 2010-11.

51. By way of background, LTE and faster versions of HSPA technologies require advanced antenna technology, including Multiple Input Multiple Output (**MIMO**) and four-way receive diversity capabilities. This technology is to enable the provision of high speed mobile broadband services to End Users (around 10Mbps downlink speed in the initial release). This benefit can only be realised by adding panel (RF) antennas at existing Vodafone sites so that four-way diversity can be provided, which is necessary for LTE. If advanced antenna technology is not provisioned for LTE, the network data speeds would be capped at 28Mbps.

*Current proposal in the draft STD*

52. In the draft STD, the Commission included provisions that limited the period over which an Access Provider could reserve space on its network to two years.

53. Vodafone is of the view that a period of two years as the forecast timeframe for Access Providers is too short. We are greatly concerned that this period is insufficient to enable us to meet our current roll out

plans for our high-speed LTE and MIMO network technologies. This places in jeopardy existing plans for the roll-out of high-speed broadband mobile network technology, and the consequent benefits this will provide for End Users. Vodafone does not believe this is likely to promote the long-term benefit of End Users.

54. Further, the Commission has introduced into the draft STD provisions which allow an Access Seeker to temporarily make use (within the two-year reservation window) of an Access Provider's Relevant Facilities while the Access Provider is not using this spare capacity, up until the Access Provider provides notice that it wishes to execute its forecast requirements.
55. We have several concerns with this proposal. First, when taken together with a two year forecast period, it is not clear to us that this provision would be likely to generate significant benefit for Access Seekers. Given the build period and the need for an Access Seeker to obtain third party consents, an Access Seeker may be required to vacate the facilities even before they have begun to build, or immediately after build has been completed under this proposal. If the Access Provider is required to give six months notice to vacate the site, and to install its equipment prior to the two years, then it would need to give that notice almost immediately after the Access Seeker has completed the build, if not before. Overall, it seems to us attaining access in these circumstances is likely to generate more costs and disruption for both the Access Seeker and the Access Provider for what would likely be only a very limited period over which co-location on such sites could occur. As a potential Access Seeker, we would not be attracted to this type of opportunity if we were seeking to co-locate on a cell site.
56. Second, we anticipate that if an Access Seeker is left with no choice but to vacate a site which it has occupied on a temporary basis, it may be reluctant to relinquish the site. This is particularly the case once it has gone to all the trouble of obtaining third party consents and has commenced or completed construction. By the time the Access Provider elects to execute its forecast requirements, the Access Seeker will have already invested in time and cost. Because of this we believe Access Seekers may be unwilling to vacate the site, and we believe that this

could result in the disputes resolution procedure being used as a way to extend a tenancy.

57. We can also foresee the threat of adverse publicity being used against an Access Provider that wishes to ensure compliance with their right to have an Access Seeker removed from the site. All of this will be to the detriment of Access Providers and their customers, who will suffer a delay to their access to the new technologies.
58. Overall, therefore, we believe the existing proposals around future forecast requirements in the draft STD are likely to be unworkable and place at risk the ability of Vodafone to meet its forecast network roll-out of high-speed broadband networks.

*Vodafone's alternative suggestion*

59. Viewed from a neutral perspective of being both a potential Access Seeker and Access Provider, Vodafone understands that the Commission desires that:
  - (a) Access Seekers should have access to co-location sooner rather than later;
  - (b) Access Providers should not be entitled to use forecasting for anti-competitive purposes; and
  - (c) it would be efficient to find a way to ensure spare capacity is not left idle now while waiting for an Access Provider to utilise network capacity in accordance with its future forecast requirements.
60. Against that, however, the Commission must also balance the desire to ensure that Access Providers are not prevented from implementing future technologies.
61. The challenge, therefore, is to find a workable solution around future forecast requirements that meet all of these objectives. For these reasons, Vodafone has developed an alternative solution around future

forecast requirements. As part of this, Vodafone has again proposed that the Access Provider should be entitled to forecast its future requirements for a five year period. This forecasting should be reflected in the database as is envisaged in the draft STD.

62. Vodafone recognises, however, that Access Seekers may have a need to co-locate during the five year period. To this end, Vodafone proposes that Access Seekers should be entitled to co-locate during this period, thereby giving them access to this resource sooner rather than later. By allowing the Access Seeker to use this resource during the five year period, it should be recognised that the Access Provider is allowing the Access Seeker to use whatever free space existed on the Relevant Facility in advance of when the Access Provider itself may wish to execute its forecast requirement. That is, the Access Seeker will be using those rights under the lease, and the sufficient structural capacity, that the Access Provider would have otherwise used in the future, had the Access Seeker not 'used up' those rights and capacity.
63. Vodafone therefore proposes that in the event that an Access Seeker wishes to co-locate on a site by using those rights which the Access Provider had forecasted for itself, the Access Seeker can request the Access Provider to advise its anticipated reasonable and actual costs that it would incur if, in the future, it sought to deploy its technology, and was not able to do so due to the Access Seeker's presence. In a practical sense, this would be items such as mast extension, revision or replacement. These costs would only ever become due if and when the Access Provider elected to deploy its technology. The Access Seeker is then able to make an informed decision as to whether it wishes to proceed with the co-location on that basis, or choose some other option (including undertaking the necessary works at that stage rather than waiting until the end of the forecast timeframe).
64. Then, assuming the Access Seeker elects to proceed with co-locating at the site, the Access Provider notifies the Access Seeker when it is ready to execute its forecast requirements, and the Access Seeker confirms to the Access Provider which option it chooses: either to relocate its equipment, vacate the site, or reimburse the Access Provider for those costs which the Access Provider had already notified.

65. Vodafone believes this alternative is more favourable to both Access Seekers and Access Providers than the current proposal in the draft STD. This is because, rather than the Access Seeker having a contractual obligation to vacate a site at the Access Provider's election, the Access Seeker is left with a number of options, including to "stay and pay", and it will have already had visibility of those costs prior to electing to co-locate on that site. In other words, it gives more options and certainty to Access Seeker's than would be the case under the provisions contained in the draft STD. And in the meantime, the Access Seeker obtains the benefit of co-location, rather than waiting until the end of the forecast period. Of course, the Access Seeker also has the options of (i) electing to undertake any additional works and acquire any additional consents required prior to co-locating; and (ii) investigating other options during that forecast period, such as acquiring a different site or co-locating elsewhere.
66. Separately, we note that the Commission has made amendments so that the Access Provider is to place itself in the queue in relation to its current and reasonable forecast requirements for capacity. Vodafone notes that the purpose of the queue is primarily to manage the relative positions of Access Seekers, and further notes that this is consistent with the principles unanimously agreed by the TCF. Vodafone believes that it would be illogical, for example, for the Access Provider to make applications to itself and to consider its own application extensions. Vodafone therefore submits that Access Providers should not be placed in the queue in relation to current and reasonable forecast requirements for capacity.
67. However Vodafone understands that the Access Provider's forecasting should not be used in an anti-competitive manner, and therefore agrees that the Access Provider's forecasts should be subject to the queuing policy principles of "first come first served" and "use it or lose it". In other words, Vodafone concurs that if an Access Provider does not use or reforecast its use of forecast capacity, it can lose that capacity. Similarly if an Access Provider has not forecast a requirement and an Access Seeker makes a full site application, then the Access Provider's new forecast requirements are not "first come first served", and are secondary in queuing priority to the Access Seeker. Vodafone has offered

alternative drafting to clarify these aspects.

## Site Alterations

### *Principled concerns with mandating Site Alterations*

68. In its draft STD, the Commission has sought to clarify the way in which an Access Seeker can require an Access Provider to move, add or change in any way its equipment ("**Site Alterations**"). Vodafone is concerned that the drafting is unclear in places and therefore may create the potential for disputes between the parties. Vodafone has therefore suggested amendments which it believes clarify the drafting so that it is clearer in which instances Site Alterations can be required, and how they will be implemented.
69. At the outset, Vodafone has a principled objection to the inclusions of provisions in the STD that would enable an Access Seeker to "require" an Access Provider to alter its network sites against its own wishes. Vodafone is not aware of any other jurisdiction in which an Access Provider is required to make alterations of the type contemplated in the draft STD.
70. Further, we have doubts as to whether an Access Provider can be forced to make Site Alterations under the Act. This obligation seems to go beyond what is contemplated by the service description in the Act and it is not clear to us that the long term benefits to End Users of a Site Alteration requirement outweigh the detriment to Access Providers and their customers arising out of degradation of the Access Provider's services. Site Alterations can be highly intrusive and are likely in many cases to be customer-affecting for the Access Provider.
71. Vodafone believes the principle of not forcing an Access Provider to alter its network to alter the way it provides services to Access Seekers also has support in the clear precedent from the UCLL Co-location STD, where there is no requirement that Telecom has to move its existing equipment to accommodate Access Seekers. This is despite there being an expectation that the Co-location service is provided to Access Seekers on terms and conditions that are consistent with the terms and conditions that Telecom provides the service to itself. Instead, if an exchange does not have enough space to accommodate Access Seekers, it is expected

that Access Seekers will find a nearby remote location to install their equipment.

72. Similarly, with the Sub-loop Co-location service, the TCF Recommendations paper of 9 May 2008 states in paragraph 1.12 “Where an existing Distribution Cabinet has insufficient capacity to meet demand, Telecom is not required to build a bigger Distribution Cabinet (including any new or additional Pedestal), to provide additional space, power or heat management.” This position carried through to the Sub-loop STP as clause 4.4 of the Sub-loop Co-location Service Description, although we do not yet know whether it will carry through to the final Sub-loop STD.

*Like-for-like coverage*

73. Vodafone accepts that access principle 3 requires that Access Providers provide the Mobile Co-location Service on terms and conditions that are consistent with those terms and conditions on which it provides the service to itself. Vodafone agrees that “like-for-like” should apply to the Mobile Co-location operational processes. However, Vodafone does not agree that this can be extended to mean that Access Providers must provide Access Seekers with “like-for-like” coverage. Partly, this is because coverage is an outcome of the Co-location Service that is dependant on activities under the control of the Access Seeker that the Access Provider cannot control.
74. Moreover, “like-for-like” coverage is a major challenge in mobile co-location. The fundamental assumption in “like-for-like” coverage is that an Access Seeker and Access Provider are able to co-locate the RF antennas at the same horizontal plane. Towers are typically space limited at the height that Access Providers’ antennas are currently located, as Access Providers typically maximise their antenna design height. Thus, providing “like-for-like” coverage is likely to cause performance degradation and compromise the Access Provider’s existing coverage. Vodafone accepts the Commission’s view that efforts to provide “like-for-like” coverage at existing sites must not cause Unacceptable Performance Degradation.
75. Conversely, providing “like-for-like” coverage is quite possible at a

Greenfields site as both parties' requirements can be met at the time of building a site. Thus, "like-for-like" coverage is an acceptable requirement for Greenfields sites.

*Drafting changes if Site Alterations are to be mandated*

76. If the Commission is nevertheless minded to include Site Alterations in the STD, we are of the view that the parties should be very clear about the circumstances in which Site Alterations will apply, so as to avoid the potential for disputes.
77. We believe that the issue of Site Alterations is an important one for both Access Seekers and Access Providers. We believe that the drafting provided by the Commission in respect of Site Alterations would benefit from greater clarity around the purpose of Site Alterations, and in relation to how Site Alterations may be utilised. We have therefore suggested some amendments which we believe will make clearer some of the drafting proposed by the Commission.
78. Out of the three types of Site Alterations (move, add or change) in equipment), Vodafone has most concern over antenna minimisation. Antenna minimisation prevents the independent change of antenna configurations (e.g. azimuths and mechanical downtilt), which is essential to the optimisation of different network systems (e.g. GSM and UMTS) on the same cell site. This could create significant coverage loss on existing networks. This coverage loss is not currently protected by the Unacceptable Performance Degradation in the Commission's current draft STD.
79. Vodafone believes that there are two conditions that must apply before an Access Provider can be required to make Site Alterations:
  - (i) it must be necessary for the Access Seeker to have the Site Alterations (in other words, it is the last resort); and
  - (ii) the limits to the standard access principles do not apply.
80. If these two conditions are fulfilled, then the Site Alterations should be

imposed on the Access Provider in the following order, based on the relative degree of disruption to the Access Provider:

- (i) mast replacement, extension or revision;
- (ii) if mast replacement, extension or revision is not an option, then rearrangement of the Access Provider's existing antenna on the mast;
- (iii) if neither of these are possible, then antenna minimisation.

81. Site Alterations should be considered as a last resort and be exercised with extreme caution. In particular, antenna minimisation (in other words combining multiple antennas into one) prevents the independent change of individual antenna configurations (e.g. azimuths and mechanical down-tilt) which is essential in the optimisation of different network systems (e.g. GSM and UMTS) on the same cell site. This could potentially create significant coverage loss on existing networks. Vodafone accepts the Commission's implied position that Site Alterations should not be allowed if they cause Unacceptable Performance Degradation. However, Vodafone has proposed an additional measure of Unacceptable Performance Degradation in the Interference Management and Design section of this submission to address the potential loss of coverage due to Site Alterations.

82. In suggesting these changes, we have used the basic construct of the Commission's revisions, but made clearer the process which we believe should be followed in terms of whether Site Alterations are required, and in determining which type of Site Alteration should be used.

## **Service Level Terms**

83. Vodafone supports a number of the enhancements to service levels in the draft STD. For instance, and as discussed further below, we think the Commission has introduced a set of positive incentives for Access Providers around the introduction of cumulative delay day penalties. As both an Access Provider and an Access Seeker, we support this proposal as we believe it is likely to provide Access Providers with both an incentive to meet service levels more quickly, and an opportunity to make up for delays in the early stages of providing the Mobile Co-location Service to Access Seekers.
84. We do, however, have some concerns about other aspects of the overall approach taken by the Commission in relation to service level terms, which in general has been to shorten the time frames, increase volumes and stiffen the penalties significantly beyond those contemplated for other regulated services and those measures contained in our STP.

### *“Double jeopardy”*

85. Of particular concern to Vodafone is that the Commission has, by introducing the concept of cumulative delay days while retaining performance penalties for individual service defaults, imposed a regime where Access Providers are subject to risks of “double jeopardy”. The key issue is the nature of the fine or penalty imposed. In other words, if the penalty is intended to be compensatory, the imposition of a second penalty could effectively change its character to punitive and raise issues of double punishment.
86. Vodafone considers that such a regime is inequitable and submits that the Commission should select one regime as applicable, but that it should not retain both.
87. Vodafone’s preference of the two regimes included by the Commission is that of the cumulative delay days approach, provided however that the maximum penalty applicable under that regime in respect of any one site is capped so that it does not exceed 7% of the monthly charge.
88. Vodafone is concerned that the service levels and their respective penalties go well beyond those that have been set in other STDs,

particularly those for Telecom's UCLL and UBA STDs. In particular, the Commission has increased the performance penalties for individual service level defaults from 7% of the monthly charge (as contained in Vodafone's STP and in previous STDs) to 20% of the monthly charge. The Commission appears to justify this departure on the basis of an unsubstantiated allegation by NZ Communications Limited that mobile services are more profitable to network operators than land-line and broadband, and that penalties should reflect the economic impact of co-location failures. Vodafone believes that this hypothesis is flawed. In law, liquidated damages (which the Performance Penalties are an example of) are a genuine and reasonable pre-estimation of the loss suffered and, as such, speculation of the relative profit margins of the service provider is not relevant. Given the absence of any supporting analysis and economic justification from the Commission for this hypothesis, Vodafone urges the Commission to revert to the 7% cap, as applied in previous STDs.

89. However, in the event that the Commission chooses to impose on Access Providers tighter service levels and tougher penalties for mobile co-location, then this would naturally mean that the Commission ought to reconsider the previous service levels and penalty regimes that it has imposed for fixed services, in order to align them with those proposed in the draft STD.

#### *Cost/Benefit Analysis*

90. Vodafone is concerned that the Commission has sought to make amendments which seek to speed up the co-location process, but without giving due consideration of the associated costs. However, the draft STD contains no analysis of the increase on costs which will result from the additional requirements on Access Providers in providing the service.
91. It is incontrovertible, however, that increasing the service levels required of an Access Provider will increase the costs to it of providing the service. In order to ensure that it has the resources constantly available to meet the timeframes imposed by the new service levels in the draft STD, Vodafone estimates that it will need to allocate significantly greater resources than originally contemplated by the STP. For instance, while the Commission believes the enhanced forecasting regime that it is proposing will minimise this impact, the reality is that with only five

Working Days between the issue of the STD and launch, no effective forecasts will be available before an Access Provider is at risk. Accordingly, from the outset, all Access Providers – including those that expect mostly to be Access Seekers of this service – will need to resource to levels sufficient to mitigate the SLT risk.

92. We believe that all Access Providers, as reasonable and rational commercial entities, will seek to recover these increased costs either from their Access Seekers or their consumers. In turn, this may erode some of the cost reduction benefits which flow from co-location.
93. Further, in the event that a higher penalty regime is included in the final STD, Access Providers will inevitably seek to build an appropriate risk premium into the charges applied to co-location, thereby raising the overall cost of co-location. Vodafone does not believe this is of benefit to Access Providers, Access Seekers or End Users.
94. Overall, it appears that the co-location service has become one which is 'gold plated', without any due consideration of the resultant costs or of the degree to which this gold plating will lead to an actual incremental increase in co-location and competitive benefit for End-Users.

## **Operational and Implementation Timeframes and Procedures**

95. Vodafone welcomes many of the improvements the Commission has made to the Operations Manual and the Implementation Plan. Vodafone believes, however, that a number of amendments proposed by the Commission are too onerous on Access Providers, and will not result in increased co-location. Vodafone believes that if the STD was to adhere to the terms and principles agreed by the TCF, then these things will enable co-location to occur. Additionally, Vodafone has sought to clarify the responsibilities of the parties where this is not clear and has made comparisons to how some of these issues were dealt with in the UCLL co-location STD.

### *Capacity Limit*

96. Vodafone notes that the capacity limit and priority list concepts proposed in its STP have not been adopted. The Commission has instead proposed a service level limit for the issuing of site data packs, in conjunction with a system of Access Seeker forecasting similar to that proposed by Telecom in its submission.
97. Vodafone submits that the number of site data packs an Access Provider has to issue (and still be bound to the service level term of five working days) should be decreased from the proposed 15 per Access Seeker per week, to ten per Access Seeker per week. This is because even at the reduced rate with, say, only two Access Seekers, within a month the Access Provider could be processing up to 80 applications and still be bound to meet the service level terms. At the end of two months, 160 applications could be in progress. Following the typical mobile co-location tasks target timeframes, the overall volume of applications in progress will continue to increase for several months until the number concluded starts to exceed the number being made. An additional five applications per week effectively results in a 50% increase in the volume of applications, and we believe this would put the end-to-end process under too much pressure.
98. Vodafone would also like to highlight the Commission's departure from the precedent set in the UCLL Co-location STD, in terms of the rate at

which the Mobile Co-location Service is made available to Access Seekers. Mobile co-location and UCLL co-location are not significantly different in scope and scale. The number of Telecom exchanges in New Zealand is a similar order of magnitude to the number of Relevant Facilities controlled by any one Access Provider. Similarly, the amount of work that has to be undertaken to unbundle an exchange is a similar order of magnitude to enabling co-location on or with a Relevant Facility under this STD. If anything, it could be argued that there is more work involved in mobile co-location, and in particular because RMA and lease arrangements are involved. With UCLL co-location, the Commission considered that unbundling 15 exchanges per quarter was an acceptable rate of progress in allowing competition to enter the phone line and broadband markets. This was in spite of Access Seekers calling for a faster rate. In this STD, however, the Commission has decided to depart from that precedent set in the UCLL co-location STD, and require each Access Provider to enable co-location at the rate of 15 sites per week, a rate approximately 12 times faster than UCLL co-location. In addition, this rate is per Access Provider. It should also be noted that Vodafone's proposal for the rate of site data pack Applications is significantly more than the precedent set by UCLL co-location.

99. In the absence of a total capacity limit, it is important that Access Seeker forecasting is of sufficient detail, and is encouraged to be accurate, so that Access Providers can rely upon the forecast information and ensure that sufficient resources are in place to meet service level terms for all Access Seekers. Vodafone has offered amended drafting to achieve that purpose.

#### *Greenfields Process*

100. We note that the Commission has deviated from the principle which was unanimously agreed by the TCF, that the Greenfields consultation process be voluntary.
101. We further note that the Greenfields consultation process as drafted in our STP was based substantially on the 'Co-location Consultation Process' set out in the ACCC Facilities Access Code, within which the process is also voluntary.

102. Vodafone remains of the view that Greenfields sites fall outside the definition of “Relevant Facilities” under the Act, because a Relevant Facility must be one which is used for the transmission or reception of telecommunications, and must therefore be in existence (emphasis added). Vodafone therefore submits that the process should remain voluntary, but in the event that the Commission determines that the process is to be mandatory, there are a number of requirements to be considered which we have outlined in our submission.

#### *Multi Site Process*

103. Vodafone believes that the multi site concept would benefit from the Access Seeker providing further information as part of the multi site application. This involves, in particular, an overview of how the project could proceed and the general design and type of equipment that is planned. We believe this additional information will assist the Access Provider to formulate a better multi site project plan.

#### *Common Format Site Database*

104. Vodafone agrees with the Commission that the sites entered into the database should not be subjectively selected by the Access Provider. Subjectivity was not the intention of the principle unanimously agreed by the TCF. The TCF participants recognised the practical reality that some particular types of Relevant Facilities cannot support the Mobile Co-Location Service i.e. they are not “physically compatible”, and should therefore not be in the database. We gave examples of these types of sites in our STP. It is Vodafone’s understanding that the intention of the principle agreed by the TCF was that only those masts under the control of the Access Provider should form part of the database.

105. A practical example is a roadside council pole with a licence to allow the attachment of antenna. This may be considered a “Mast”, however control of the pole remains with the relevant local authority. Furthermore, this type of support structure is physically incompatible with co-location. It is also Vodafone’s view that sites such as those on building rooftops are not a Relevant Facility for the reasons given in the General Terms section of this submission. Hence, Vodafone would have no interest, as

an Access Seeker, in having information of this type inserted into the common format site database. Having details and visibility of this type of information on another carrier's network would be of no benefit to us for the purposes of receiving the Mobile Co-location Service because we know we couldn't co-locate on this type of facility anyway. Vodafone believes requiring that this type of information be included in databases will only serve to increase the costs of providing the service without generating any material benefit for Access Seekers.

106. Vodafone has therefore suggested drafting of this section be tightened to remove any potential for subjectivity, and that a specific and limited list of the types of Relevant Facilities that are deemed not to be reasonably and/or practicably capable of supporting the Mobile Co-location Service is specified.
107. From a practical perspective, if the Commission does not accept Vodafone's submission on this point, the sites within the database will be approximately doubled in number, with associated increased cost and timeframe requirements to implement and maintain the database. We refer the Commission to the Implementation Plan section of this submission for the time delay impact to the database caused by such an increased scope. Vodafone is of the view that widening the scope in this way will not however lead to a corresponding increase in co-location, since the additional sites cannot, in fact, support the Mobile Co-location Service.
108. We note that in relation to the information to be included in the database the wording proposed in the draft STD deviates from the principles unanimously agreed by the TCF. An example of this is the spare building capacity which was not an item in the database that the TCF agreed ought to be included.
109. Finally, Vodafone submits that care must be taken so as to avoid attempting to turn the database into something it was not designed to be. The principle unanimously agreed by the TCF states that the purpose of the database is to enable an Access Seeker to identify those sites which are suitable for the Access Seeker to apply to the Access Provider. The database is not designed to be a substitute for the application process

itself.

### *Utility Services*

110. Vodafone does not agree that the Access Seeker should have the sole discretion to determine which utility services at the Relevant Facilities should form the “Utility Services” for the Mobile Co-location Service. This is because the Access Provider will be required to consider the interests of numerous third parties (including other Access Seekers) when determining which utility services may form the “Utility Services”. Furthermore, the TCF unanimously agreed that the queuing policy, including the “first come, first served” principle, is intended to apply to the inclusion (or not) of utility services.

### *Soft launch timeframes*

111. Vodafone believes that the objectives in the Implementation Plan can be achieved better through a longer Soft Launch that involves performing several iterations of the Applications procedures. Vodafone suggests that the Soft Launch provisions apply to Applications accepted for processing during the first 40 Working Day period (in which the Access Provider would accept and process up to 10 Site Data Pack Applications per Access Seeker each five Working Days); or if this is later, to the first five Applications from an Access Seeker.
112. Vodafone believes it is unreasonable to expect an Access Provider to identify and correct all faults in the supporting systems and processes, with only the information it has obtained from a single set of 15 Applications, all of which may be accepted for processing in the first five Working Days. Vodafone also believes that the Soft Launch is additionally important to the Access Seeker who needs to learn how to progress the different stages of the end-to-end process and to obtain training from the Access Provider in the use of provisioning systems and Application forms (as described in the Mobile Co-location Operations Manual).
113. Since the draft STD provides that the Performance Penalties are only waived in relation to the first 15 Applications, Vodafone is also concerned that the Access Provider may find itself in a position where the

Performance Penalties will apply to some Applications that are being processed simultaneously with the Soft Launch Applications. Vodafone's proposal for a longer Soft Launch involving a greater number of sites minimises the risk of this.

## **Other Issues**

### **The Telecommunications Act 2001**

114. In various places in its draft STD, Vodafone believes the Commission goes beyond what is provided for in the Telecommunications Act 2001 (the **Act**).
115. Vodafone is of the view that it is not the Commission's role to extend or amend in any way the scope of what is provided for in the Act and that in doing so would be exceeding the scope of its jurisdictional authority. Vodafone is concerned in this STD process that the Commission appears to be acting beyond its designated role.
116. Vodafone disagrees with the Commission that Vodafone's interpretation of the service description in the Act "fails to take into account the broader context of the description of service, including its purpose to promote competition in telecommunications markets for the long-term benefit of End Users of telecommunications services within New Zealand...". It is not for the Commission to elect to amend the service description set out in the Act in an STD, because it is of the view that such an amendment gives a better effect to the overall purpose of the Act.
117. Vodafone has pointed out in its submission where it believes the Commission has sought to amend or extend the Act and has suggested that the drafting be aligned with the Act, as provided for in Vodafone's STP.

### **Reference to and use of previous Standard Terms Determinations**

118. In paragraph 12(b) of the notice dated 8 February 2008 given by the Commission to Vodafone pursuant to section 30F of the Act, the Commission required that Vodafone's standard terms proposal (**STP**) must, where practicable, take account of the style, form and content of existing standard terms determinations. Vodafone accordingly used the UCLL Co-location STD as the basis for its STP, amended so as to ensure compliance with the Act and suitability for the Mobile Co-location Service.

119. Vodafone notes that some provisions in the draft STD differ to the correlating provisions contained in previous STDs, including the UCLL Co-location STD.
120. Vodafone believes that the STD for the Mobile Co-location Service should differ from previous STDs only where this is necessary due to the nature of the service; requirements under the Act, or where it improves the STD to the benefit of all of Access Providers, Access Seekers and End Users.
121. Vodafone believes that a number of the amendments made by the Commission to the terms contained in previous STDs are neither necessary nor justifiable. Furthermore incorporation of these changes would mean that the STD for the Mobile Co-location Service differs from previous STDs in places where it makes sense for all STDs to be aligned. Vodafone notes that, given the general industry consensus that all STDs should be aligned wherever possible, changes made to some of the provisions in the STD for the Mobile Co-location Service would logically mean that previous STDs would need to be reviewed in order to align these provisions.
122. Vodafone has pointed out in its submission where it believes the Commission has deviated from previous STDs, and has suggested that the drafting be aligned with those STDs, as provided for in Vodafone's STP.

#### **Role of the Telecommunications Carriers' Forum (TCF)**

123. In paragraph 12(b) of the notice dated 8 February 2008 given by the Commission to Vodafone pursuant to section 30F of the Act, the Commission required that Vodafone's STP include all non-price terms of supply that have been unanimously agreed by the relevant TCF working parties between the date of the receipt of that notice and the date of receipt by the Commission of the STP.
124. The paper dated 28 March 2008 titled "Recommendations for Final Agreement at the Mobile Co-location Working Party Meeting on 28 March 2008" was approved by the working party and subsequently submitted to,

and approved by, the TCF Board.

125. Vodafone therefore included in its STP those terms that were unanimously agreed by the TCF Mobile Co-location Working Party. Where those terms were in the form of principles rather than detailed provisions, Vodafone reflected those principles in its drafting, to the extent consistent with the agreed principles. Vodafone therefore complied with the requirement set out in the section 30F notice.
126. However, a number of terms which were unanimously agreed by the TCF have been amended by the Commission in its draft STD.
127. Vodafone has pointed out in its submission where it believes the Commission has deviated from the unanimously agreed terms and has suggested that the drafting return to that which was agreed by the TCF, as provided for in Vodafone's STP.

