



**Telecom New Zealand Submission on the draft
Commerce Commission Mobile Co-location STD**

Executive Summary

Public Version

22 August 2008

EXECUTIVE SUMMARY

1. Telecom supports many parts of the Commerce Commission's ("**Commission**") draft Standard Terms Determination ("**draft STD**") and recognises that it is a significant piece of work. However, there are a number of areas where Telecom requests that the Commission further consider its proposals.
2. Telecom's comments are based on its experience as a mobile network operator. Many of Telecom's comments on the draft STD are made in order to enhance the workability of the Commission's proposals so that they adequately reflect the commercial reality of the landscape in which it will operate.
3. Telecom has concerns that in a number of places in its draft STD, the Commission is undermining the Government's objective of ensuring that faster mobile broadband is available to more New Zealanders by inhibiting Telecom's ability to deliver these services. In particular, the Commission's proposals in regard to forecasting, Greenfields builds and antenna minimisation have the potential to do this. We discuss these issues in greater detail below.

Service Description

4. The draft STD seeks to regulate beyond the scope of the specified service in Schedule 1 to the Telecommunications Act 2001 ("**Telecommunications Act**") by proposing to regulate "greenfields" sites – namely those which are not currently being used for the transmission or reception of telecommunications.
5. The wording of the specified service is expressly limited to the relevant facilities which *are* owned, managed or leased by the Access Provider, and *used* by the Access Provider for the *transmission or reception* of mobile telecommunications. Where there is no such transmission or reception use, a structure is outside the scope of the service description.
6. The service description does not seek to include structures which are *likely to be* or *might be* used for transmitting or receiving mobile telecommunications in the future, or structures which are *likely* to be or *might* be owned, managed or leased by an Access Provider in the future.
7. A purposive interpretation should not be overlaid over a clear literal meaning in order to read in words that are not, and were not intended to be, there. The practicalities of the proposal are illustrated by taking it to its logical conclusion. It would have unforeseen consequences for any company operating a mobile

network when combined with the new definition of Mast. In Telecom's case these definitions might mean 3,500 buildings (approximately) could be caught on the basis that it might be possible to use them for the transmission or reception of telecommunications via a cellular mobile network. There is no other basis, short of adding words which are not in the service description to refine that outcome. This simply highlights the strain of the approach proposed.

8. A regulated greenfields process would be likely to distort, and possibly disincentivise or slow, the workability of an operator's network roll outs. This is because construction deploying a cell site requires an operator to work through a number of difficult issues including obtaining landlord approval and gaining Resource Management Act ("**RMA**") consent. In some cases, for time and/or cost imperatives, it will not be practical or desirable to force that party to add in the additional process steps and complexity that are inherent in a multi-lateral Greenfields process. For example, in most cases, having multiple operators on a single site will rule out slim-line mast designs which comply with national environmental standards and for which resource consent timeframes and processes are streamlined. This is not to say that Greenfields site sharing will never happen – to the contrary, Telecom is committed to undertaking commercial Greenfields builds where this is feasible. However, Greenfields site sharing will not make sense in all instances and will need to be balanced against the costs of added time and complexity of build on a site by site, operator by operator basis, which can only sensibly be done on a commercial basis.
9. Another example of why commercial agreements are preferable is the fact that in many cases, local authorities have shown a preference for having equipment on two sites (particularly on lighting pole sites) rather than a joint build for reasons of amenity, safety and space. In this situation the regulation of the Greenfields process would force a party to go after a joint build even though local authorities do not want it to occur.
10. The TCF working party on mobile co-location agreed that the Greenfields process should be voluntary and Telecom urges the Commission to listen to the industry on this matter.
11. Telecom has looked at overseas jurisdictions to see if it could find examples of workable Greenfields regulation. Australia has a voluntary Greenfields process that is similar to the voluntary approach proposed by Vodafone in its STP. It is the only country that Telecom has been able to identify where a process has been adopted by a regulator. The Australian approach should provide a clear signal that

Australian authorities have considered regulating Greenfields builds and opted not to take this approach.

Levels of interference

12. Telecom agrees with the Commission that an appropriate balance is required between the interests of users of existing networks and the benefits of potential competition from new networks. However, we propose that this balance is best achieved by having 0.5 dB as the threshold level of loss to the Link Budget.
13. If the regulations allow for 1.0 dB of interference some customers will lose coverage. In particular:
 - (a) coverage will be lost at the cell edge in urban and rural areas. For example, some houses in rural areas that previously received coverage will be stranded and some rural areas that previously received fringe outdoor coverage will have no coverage at all;
 - (b) customers will also lose coverage in buildings where a strong signal is needed to be able to make and receive calls. This is likely to effect customers in urban office towers; and
 - (c) the availability of high speed data services in urban and rural areas will be reduced. This would occur at a time when Telecom is rolling out a new network to ensure delivery of these services which the Government has identified as a key component of New Zealand's economic transformation.
14. While it is very difficult to predict the exact effects of 1.0 dB of interference on an average cell site, as the interaction between the extra interference and local environmental factors will differ from one cell-site to another, a loss of cell site coverage will increase the likelihood that some customers will no longer be able to use their mobile phones in places they have previously been able to. It is questionable whether it will be economic to replace that coverage. In a worst case scenario this could affect some customer's ability to contact emergency services. We cannot assess the exact number of customers who will no longer be able to contact these services, but do know that annually 57% of 111 calls, or 2.4 million calls a year, are made from cellular telephones.
15. These types of coverage issues are best dealt with at the network planning phase, when interference occurs after the planning stage has been completed it will take coverage away from the existing network.

Antenna minimisation

16. Antenna minimisation is a matter that requires a flexible approach to reflect commercial realities. While on the face of it antenna minimisation may seem an effective way of maximising co-location options for new entrants and therefore encourage new entrants, our experience in managing multiple mobile networks is that antenna minimisation will in many cases prove inefficient in the long-term, and will in all cases be a highly complex solution requiring decisions to be made on a site by site basis. A blunt rule imposed through regulation cannot appropriately balance the competing factors on a site-by-site basis.
17. For example, dual band antenna minimisation will remove network operators' ability to optimise their network, as when multiple spectrum bands are required to be shared on a single antenna, that antenna can only be positioned, or optimised, for one of those spectrum bands. Network optimisation must be managed having regard both to the optimisation of a particular cell-site and the optimisation of a cluster of adjacent cell-sites; the imposition of inflexible regulations in this area is highly likely to result in inefficiencies both in optimisation and in network roll out. Telecom optimises its Network to deliver better service to its customers. These regulations have the potential to restrict Telecom's ability to do this. In the past the Commission has recognised network operator's property rights to ensure that regulation does not distort investment decisions. This is equally important in the case of mobile co-location.
18. If the Commission seeks to regulate a solution for making space available on towers, it should make provision for mast replacement, revision or extension. This is the solution that is commonly adopted in overseas jurisdictions and provides a long term solution that increases the likelihood that a number of parties will be able to co-locate in a sustainable fashion and in a way that allows for each parties' future requirements. For example, mast replacement is regulated in Australia under the ACCC code of Access to Telecommunications Transmission Towers, Sites of Towers and Underground Facilities. Mast replacement is also regulated in the EC regulations for Sharing of Infrastructure.
19. Mast replacement, extension or revision should be the preferred option because it provides a long term solution and increases the likelihood that a number of parties will be able to co-locate on a mast. Antenna minimisation only provides a short term solution and does not resolve the long term issues.

Forecasting

20. Telecom's experience is that a network roll out is a complex process and takes longer than 2 years. Telecom started acquiring sites and initiated detailed planning for its WCDMA roll out in 2004. After three years of planning Telecom was finally able to get Board approval for the investment in mid 2007. Work has continued since that date and a progressive launch will start at the end of 2008 and it is expected that the final roll out will be completed in 2011. The lack of certainty associated with a two year time frame will undermine parties' abilities to build an effective business case for a network roll out as we could not guarantee which cell sites would be available for use for that roll out. It is important to remember that the Telecommunications Act allows parties to reserve space to enable this type of roll out to occur. The Commission should be slow to undermine parties' abilities to do this.
21. Similarly, technology and service development and deployment timeframes, which Telecom must factor into its network planning, often extend beyond two years. When Telecom can offer any new mobile service is typically determined by what happens in other markets - while Telecom can make firm commitments to a technology path such as GSM/EDGE (2G) followed by WCDMA/HSPA/HSPA+ (3G) and towards LTE (4G), by purchasing spectrum and having internal sign off for the business case, how quickly a new technology or service will be able to be offered will depend on what happens in larger markets. For example, Telecom does not have the international scale to influence when a manufacturer can supply the handsets it will need to deliver a service. Economies of scale dictate that this will happen when other countries also require these handsets and it is only at that point that it will become economic for Telecom to support the service and install any necessary upgrades to its network. This does not mean that Telecom is not committed to delivering a service, it is just that the final delivery date is out of its control. This is one of the key reasons why the Ministry of Economic Development opted for a five year "use it or lose it" period as a condition in their mobile spectrum auctions.
22. It is these types of real world issues that should guide the setting of a timeframe; Telecom is concerned that a short timeframe will undermine companies' abilities to plan for new services. Telecom would urge the Commission to be pragmatic and to opt for a five year timeframe.

Using an Access Provider's forecast space

23. There is a significant risk that the Commission's proposal of a shortened forecast timeframe combined with a proposal that reserved space is used within that period by an Access Seeker will force Access Providers into the unenviable position of having to decide whether to shut off mobile services from an Access Seeker's end-users. If an Access Seeker needs co-location access in any particular area, this suggests it will prove difficult for that Access Seeker to deploy its own infrastructure in that area within a reasonable period of time. In this situation, it is foreseeable that there is a significant risk that the Access Seeker who has placed equipment on a mast may not want to remove it. Even if there were very clear and strict obligations placed on the Access Seekers, a desire to serve their existing customers may mean that compliance with an obligation to remove equipment from a mast may not be in an Access Seeker's commercial best interests. Any delay in removing their equipment and the consequential continued service to their customers, may ultimately be worth more to them than the cost of defending an action to remove the equipment.
24. This forces the Access Provider either to accept the situation or force the Access Seeker to remove its equipment. In a world where an increasing number of end-users are replacing their household's fixed line voice services with mobile services, the removal of the Access Seeker's equipment could result in the loss of a household's primary communications link. It is unimaginable that any Access Provider would in practice risk completely removing another parties' end-users' primary telephone link. We consider these real-world practicalities outweigh any possible benefits of this proposal.

Service levels

25. The Commission has now issued, or has pending, seven STD processes. During each of those processes the industry and the Commission have tested and refined the approach to service levels. There is significant advantage for all if service levels are consistently applied in light of that refinement. Telecom cannot see a clear justification for the different approach that is being proposed here.
26. In addition to this the service levels proposed in the draft STD seek to impose enhanced service levels. Enhanced service levels will result in a more expensive service. In the past when the Commission has regulated services it has provided a basic service, leaving it open to the parties to negotiate enhanced service levels.

Telecom understands from some Access Seekers that they would prefer a more cost effective service, with the option to ask for more.

Implementation

27. Telecom is committed to developing quality operational support systems to support the mobile co-location service. It will continue to work on these systems while the STD is being developed, but will not be able to finalise them until the final STD is released. Accordingly, it does not think that the five working days that the Commission has given parties to finalise these systems will be sufficient and asks that the Commission to extend this time frame to 40 working days. This will give Telecom the time needed to finalise and test the systems before their "go live" date.
28. Similarly, Telecom will continue to work on its common format site database up until the release of the final STD. However, because this requires Telecom to bring together the nine different databases that are currently in existence, it will need longer than five working days to finalise this once the final requirements for the database are released. Telecom would recommend that the Commission revert to the timeframes Telecom set out in its submission on the Vodafone Standard Terms Proposal.