

18 May 2005

Osmond Borthwick
Manager Network Access
Commerce Commission
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Dear Osmond

Consultation on service description for mobile termination

1. We refer to your letter of 10 May 2005 enclosing a further revised proposal for a possible mobile termination service description and inviting submissions on the revised service description. The Commission has again asked:
 - Will the revised service description achieve the effect of regulating the termination of 2G voice calls while excluding from regulation all 3G voice calls? If not, why not?
 - Could the service description be improved? If so, how?
2. While Vodafone supports a 3G exclusion to any proposed MTR regulation, we are seriously concerned that the Commission's current proposed 3G exclusion will most likely allow Telecom to circumvent the MTR regulation by claiming that voice calls to large parts of its 027 customer base fall under the exclusion. Vodafone considers that this opportunity for Telecom to escape regulation would make a complete nonsense of any MTR regulation and introduce an unacceptable competitive asymmetry in the market that was never envisaged. It would totally undermine the Commission's analysis to date and would significantly escalate the potential for disputes, judicial review, and declaratory proceedings in the High Court.
3. Vodafone believes there is, however, a relatively simple definition that can be included that would reduce or eliminate Telecom's opportunities to escape regulation.
4. In its latest draft the Commission proposes two separate, but 3G-related, criteria to meet the 3G exclusion. For the exclusion to apply, the access provider must be able to show that voice calls:

- “terminate on a third generation cellular telephone network”; and, do so
- “using a third generation cellular telephone network voice air interface for the conveyance of the voice call to the handset”.

Telecom’s 3G Network

5. Telecom is firmly of the belief that its 1XR TT/EVDO network already meets the definition of 3G under the Telecommunications Act (see Mr Parkes’ comments on page 389 of the MTR conference transcript).
6. We understand that Telecom has upgraded its CDMA-2000 cellular mobile network to 1XR TT/EVDO across much of the country. We also understand that most of Telecom’s 027 customers use the 1XR TT/EVDO network. Telecom’s 025 customers use its AMPS network, which could not be argued to fall within the 3G exclusion.

Telecom will continue to assert its 027 network is a 3G network

7. We believe that Telecom will successfully claim that the upgrade to EVDO has meant that its entire 027 network (or at least those parts that have 1XR TT/EVDO coverage) is a third generation cellular telephone network, as defined under the Telecommunications Act.
8. ITU recommendation Rec. ITU-R M.687-2 (International Mobile Telecommunication-2000 (IMT-2000)) outlines the capabilities that a 3G system has to meet. These capabilities are general in nature and Vodafone believes that Telecom’s 1XR TT/EVDO network will be able to meet these requirements. For example, one of the key requirements of 3G systems is to provide user bit rates up to approximately 2Mbps. The 1XR TT/EVDO network meets this requirement.
9. The ITU 3G standard does not provide a sufficiently “water-tight” reference point in the context of a CDMA network such as Telecom’s in the transitory phase from 2G to 3G. The ITU 3G standards are certainly not free of ambiguity; a considerable degree of licence has been taken by network operators internationally as to what has been described as 3G.

Telecom will also maintain that it uses a 3G voice air interface

10. We also believe that, without further definition, Telecom will most likely successfully claim that the voice calls that terminate to its 1XR TT/EVDO network will use a “third generation cellular telephone network voice air interface”.
11. The reference to a third generation cellular telephone network voice air interface, without further definition, is ambiguous. The reference to a voice air interface is by itself a meaningless qualifier. 3G is a system able to deliver 3G capability and functionality. It is not correct to characterise in isolation individual components, such as the “voice air interface”, as being necessarily 2G or 3G.
12. However, despite the fact that voice calls to its 027 customers are currently carried over the 1XR TT air interface, we believe Telecom will have a strongly

arguable case that (with EVDO in place) it is using a "third generation cellular telephone network voice air interface".

13. Vodafone believes that Telecom's view would be supported by the ITU recommendations. Section 7 of Rec. ITU-R 1035 (Framework for the radio interface(s) radio subsystem functionality for International Mobile Telecommunications-2000 (IMT-2000)) states that a 3G system can use multiple air/radio interfaces to deliver the 3G capabilities defined in Rec. ITU-R M.687-2. Thus, 1XRTT is one of the air interfaces the CDMA 2000 technology uses to deliver the 3G capabilities.
14. Vodafone believes that the Commission cannot rely on Rec. ITU-R M.1457 (Detailed Specifications of the Radio Interface of International Mobile Telecommunication-2000 (IMT-2000)) to identify the 3G interfaces. The development of these interfaces in the standards bodies have been driven mainly by market forces and not by what was originally submitted by the standards bodies to the ITU.
15. For the above reasons, Vodafone believes the Commission cannot be at all confident that its present draft service specification will capture existing voice call termination on Telecom's 1XRTT/EVDO network. To the contrary, Vodafone submits that it will provide Telecom with the ability to argue strongly that a large proportion of its calls terminating to its 027 mobile customers fall within the 3G exclusion.

Implications if calls to Telecom's 027 network are excluded

16. This is far more than simply a "leakage" problem. A service description that allows Telecom the opportunity to escape regulation for such a significant part of its customer base will not only undermine the entire regulation but will introduce a competitive distortion and asymmetry between Vodafone and Telecom harmful to competition and consumers.
17. While Telecom concedes that not all of its 027 customers are on its 3G network,¹ Telecom will have every incentive to claim that voice calls to increasing numbers of its 027 customers fall within the 3G exclusion.
18. The potential competitive distortions in the mobile market of this asymmetric regulation are an additional indirect cost that would need to be considered in the Commission's analysis, and that is not captured by the Commission's current approach to the treatment of indirect costs.
19. We attach a copy of a report that we have commissioned from Covec on the implications for the Commission's cost benefit analysis if calls to all, or most of, Telecom's 027 customers fall outside the scope of regulation.

¹ See Mr Parkes' comments, MTR Conference, page 389, lines 8-9

The way forward

20. Given that the exclusion of these voice calls to Telecom's 027 customers cannot possibly be the Commission's objective, the Commission needs to more precisely define the voice traffic that it intends the MTR regulation to apply to.

Clarity over the term "3G cellular telephone network voice air interface"

21. While Vodafone remains of the view that it would be preferable to define precisely what is being regulated, rather than rely on a carve-out, we have considered ways to maintain the "structure" of the Commission's service specification, and not take a completely different approach, such as one based on the use of particular frequencies as suggested in our previous submissions.
22. We believe an appropriate change that the Commission can make would be to clarify and define what it means by "third generation cellular telephone network voice air interface" so as to remove any possibility for Telecom to argue that its 1XRTT air interface that it currently uses for voice calls would fall within its scope.
23. This definition would provide that:

 "third generation cellular telephone network voice air interface" means a voice air interface based on either W-CDMA or CDMA-2000 EVDV standards".
24. This definition would not include a voice air interface based on 1XRTT standards. EVDV is a further upgrade that is expected to be made to the Telecom 027 network, but we consider this to be an acceptable juncture for Telecom to claim that voice calls terminating on this network should be excluded from the scope of MTR regulation.
25. If the definition that we have suggested is included in the service specification, it would significantly reduce Telecom's opportunity for gaming the regulation.

The Commission needs to convene a workshop to further refine its service specification

26. We again encourage the Commission to convene a workshop on the service specification at the earliest possible opportunity. A workshop where all parties are present is clearly the best way forward to resolve the issues arising from the Commission's draft service specification.
27. Should the Commission not be inclined to call an industry workshop on this issue, Vodafone requests an urgent opportunity to meet with the Commission to explain its position and elaborate on any aspect of our concern. We can also make available our technical experts to you at any time and they can provide further detailed information as required on the technical aspects of this submission.
28. In conclusion, Vodafone is deeply concerned with the Commission's proposed service specification. It would be an unreasonable regulator who would proceed

with regulation that displays such clear ambiguities and enables avoidance and gaming of the regulation by Telecom.

29. Please do not hesitate to contact me if you wish to discuss these issues further.

Yours sincerely

Vodafone New Zealand Limited

Tom Chignell

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