



Telecom New Zealand Limited

Cross Submission in respect of the

**Commerce Commission's Draft Determination on
the multi-party application for determination of
'local telephone number portability service' and
'cellular telephone number portability service'
designated multinetwork services – cost
allocation**

4 March 2005

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A EXECUTIVE SUMMARY

- 1 Telecom welcomes the opportunity to respond to submissions made by the industry on the Commission's Number Portability Cost Allocation Draft Determination.
- 2 Telecom notes that there is agreement within the industry participants in a number of areas. The key areas of contention are:
 - 2.1 The economic theory behind the allocation of costs;
 - 2.2 How industry common set up costs should be allocated; and
 - 2.3 The magnitude and allocation of conveyance costs.
- 3 Whilst TelstraClear and Vodafone purport to agree with the Commission's allocation of industry common set up costs¹, both parties have raised some very real issues on a practical level about methodology and implementation. In contrast, Telecom's proposals are economically justifiable, certain and simple to implement.
- 4 Telecom's position in relation to the three main categories of cost can be summarised as follows:
 - 4.1 **Industry Common Set-up Costs** – The allocation of these costs must account for the benefit obtained by carriers and end-users through portability. The cost allocation methodology must also allow for efficient recoupment of cost from entrant network operators. Telecom proposes that existing carriers should bear the total capital cost to set up the IPMS, in proportion to their number of local and cellular subscribers, but they should be able to recoup 50% of the cost paid by way of a fixed levy charged on a per-port basis.
 - 4.2 **Per-line Set-up Costs** – There is broad agreement that the Donor Network Operator ("DNO") should be able to recover its per line set up costs from the receiving network operator ("RNO"). Telecom and Vodafone agree that parties should be left to negotiate an appropriate charge and that reciprocity will act as an effective mechanism to reduce costs.

¹ TelstraClear submission dated 7 February 2005, paragraph 16; Vodafone submission dated 7 February, paragraph 23.

- 4.3 **Conveyance costs** – These costs, which are not insignificant, should be determined by commercial negotiation between the network operators.
- 5 Telecom does not intend to repeat its submissions here, and refers the Commission back to its submissions dated 7 February 2005. Telecom's position has not changed, but the following submissions do expand upon its earlier submissions to deal with some of the implementation issues highlighted by other carriers. Telecom limits its submissions that follow to responding to issues raised by other carriers. If an issue is not addressed this document should not necessarily be taken to mean that Telecom agrees with the submissions made. The structure of these submissions is as follows:
- Part B - Cost allocation - objectives and principles;
 - Part C - Cost allocation; and
 - Part D - Other Issues.

B COST ALLOCATION - OBJECTIVES AND PRINCIPLES

- 6 As highlighted by both Telecom and Vodafone, the objectives and principles identified by the Commission are problematic, and require further consideration and reasoning.
- 7 Telecom has previously submitted that three groups benefit as a result of number portability:
- 7.1 End-users who port a number: these end-users clearly benefit from number portability as they have made use of the service. There is also a subset of these users who gain an additional benefit because they would not have switched carriers without number portability.
 - 7.2 Network operators who offer to port numbers on to their network (the RNO): the fact that an RNO offers customers number portability clearly indicates that they will benefit; assuming that they are profit maximising. If the network operator chooses not to offer customers number portability then it would be based on the decision they would not benefit.
 - 7.3 End-users of telecommunications services in general: these end-users benefit from having the choice or the option to port numbers, even though they do not choose to actually port a number.
- 8 Efficient recovery of the costs of number portability requires identification of these beneficiaries. Failure to recognise any one of these groups will result in a "free rider" problem. Vodafone and TelstraClear agree that end-users benefit. However, they fail to note that RNOs will also benefit from number portability; as a result RNOs are free riders under their proposals.
- 9 Customers who port numbers and carriers who offer porting will benefit more than end-users in general. However, the proposals of the Commission, Vodafone and TelstraClear place a greater burden of the cost of number portability on the general telecommunications end-user than the RNOs and end-users that port numbers. This is not consistent with section 18 of the Act.
- 10 While "generally agreeing" with the Commission's proposed cost allocation principles, Vodafone expresses the concern that an attempt to align costs and benefits "seems to risk unfocussed assessments of the perceived fairness of different cost allocations".² Telecom takes a different

² Vodafone submission dated 7 February 2005, paragraph 6

perspective because it recognises that the Commission has no mandate under Section 18 of the Telecommunications Act to consider the *fairness* of different cost allocation mechanisms (where we assume fairness means ability to pay). The Commission is directed to consider the efficiencies that result from the proposed cost allocation methodology.

11 Thus, Telecom submits that Vodafone's objection to the principle of aligning costs with benefits is mistaken, and that the objections to cost allocation that Vodafone makes in paragraphs 7 – 16 are therefore based on a mistaken premise.

12 Telecom further submits that there are important flaws in some of Vodafone's specific objections to cost allocation. Vodafone states³:

"Cost minimisation – Operators need to be incentivised to minimise the total costs of providing number portability. This implies that operators should bear their own costs in the first instance (although they will recover those costs from end-users in the long-run)."

13 It is true that if a party does not bear the costs of their actions then they may not act efficiently. In addition, a party must receive the benefits of their actions otherwise they may not act efficiently. These are fundamental requirements for the efficient operation of a market. Therefore, naively following the principle of cost minimisation without consideration of the benefits will lead to inefficient or unintended outcomes. These unintended outcomes, highlighted in previous submissions, will result in either over or under provision of number portability and other telecommunications services.

14 Telecom does not agree with Vodafone's arguments regarding cost causation and benefits, as highlighted by its proposed principle:⁴

"Wide spread of fixed costs – For any costs that are not 'caused' by any party, the widest feasible spread of costs is likely to be the most efficient (since this will minimise negative consequences for economic efficiency). This includes both the shared industry IPMS build costs as well as each operator's setup costs."

15 It is not clear what is meant by any costs that are not "caused" by any party, as the costs under consideration do not arise randomly. These costs are the result of the expectation that end-users and carriers will benefit

³ Vodafone submission dated 7 February 2005, paragraph 9

⁴ Vodafone submission dated 7 February 2005, paragraph 10

from number portability. This is why the investment is being made. Therefore, the costs are best recovered in line with the benefits.

- 16 This misunderstanding of the nature of the benefits and causation is revealed when Vodafone agrees with TelstraClear's proposed overriding principle⁵:

"The cost allocation overall must reduce barriers to customer switching - This is the key intended impact of number portability. Unless number portability reduces the barriers to switching between operators, it will generate no net benefits. Since there is an externality said to be associated with portability (it increases the level of competition), it could be argued that porting customers should not bear all the costs of porting numbers."

- 17 First, it is wrong to state that there is an externality associated with number portability simply because it increases the level of competition. By definition, competition is not an externality. This is because the market will internalise the benefits that number portability provides for competition. Enhancement to competition therefore cannot be used to motivate the use of efficient taxation principles for the allocation of the costs of creating those competitive benefits.
- 18 Secondly, number portability may reduce the transaction costs of customers switching carriers. The best way to think about the nature of the benefits is to say that the efficiency gain is the difference between the transaction costs of switching without the portability regime and the true costs of switching with the portability regime in place. The costs of porting numbers on networks must be lower than the transaction's cost to consumers who switch in the absence of a portability regime. So customers obtain the benefit of a lower cost of switching carriers even when they pay the true cost of switching under the portability regime. If customers and carriers porting numbers do not pay the full cost of this service the Commission will have created a subsidy to switching, rather than just reducing switching costs, and this would be inefficient.
- 19 Whether or not an individual does switch will depend on an individual's valuation of the total benefits and costs of switching between carriers. The Commission's costs allocation regime must ensure that consumers see the true costs and benefits if consumers are to make efficient decisions.
- 20 Therefore, cost allocation says nothing about the barriers to switching, since it is the introduction of the portability regime itself that addresses this issue. Telecom has argued in its earlier submission that the cost allocation

⁵ Vodafone submission dated 7 February 2005, paragraph 11

must be consistent with the principle of allocative, productive and dynamic efficiency as this will maximise the long-term benefits to end-users. If costs are not aligned with benefits then this will result in externalities leading to a reduction in the long-term benefit of end-users.

C COST ALLOCATION

- 21 Telecom sets out its position in relation to the classes of cost identified by the Commission, and responds to submissions made by industry participants.

Industry common system set-up costs

Telecom's position

- 22 These costs are better characterised as: *"The cost associated with developing the technical specifications and design and build of the industry portability management system ("IPMS") and other common systems, including the cost of system hosting implementation services and ongoing management services."*
- 23 The allocation of these costs must account for the benefit obtained by carriers and end-users through portability. The cost allocation methodology must also allow for efficient recoupment of cost from entrant network operators. It must also be certain and simple to implement.
- 24 It would be more efficient to charge each receiving network the incremental cost plus an appropriate share of common costs for each customer whose number is ported. As a practical solution Telecom suggests that:
- 24.1 Existing carriers pay 100% of the capital cost to set-up the IPMS, in proportion to their number of local and cellular subscribers as at the date of the final determination.
- 24.2 50% of each of the existing carriers' payments towards the IPMS set-up costs will be absorbed by those carriers; while the remaining 50% will be repaid to the existing carriers over a five year period by way of a fixed IPMS usage levy charged on a per-port basis to the RNO.⁶
- 24.3 The fixed per-port levy would also cover ongoing industry common costs (such as maintenance of the IPMS, software and hardware support and hosting etc).

⁶ A five year period in effect provides for a SL depreciation rate of 20%, as compared to the IRD's SL rate for new software of 36%. If the Commission preferred a depreciation rate closer to the IRD's rate, a three year payback period could be used, which would provide for a SL depreciation rate of 33%.

- 24.4 The fixed levy would be calculated annually based on forecasted porting volumes, with the objective being that at the end of each year (for the first three years), the amount recovered would equal:
- (a) 1/5th of 50% of the IPMS set-up costs; plus
 - (b) The ongoing IPMS operating costs for that year.
- 24.5 Ongoing IPMS operating costs would be paid out first, and any surplus remaining at the end of each year returned to the existing carriers in proportion to their original contributions to the IPMS set-up costs (until 50% of the IPMS set up costs have been returned). Any surplus or deficit will be carried through to the next year's calculation of the fixed levy. If a deficit occurs such that the IPMS operating costs are unable to be covered by the fixed levy, the then existing carriers will need to cover those costs until it can be made up from the fixed levy.
- 25 This cost allocation methodology recognises the benefits that number portability provides to:
- 25.1 All end-users of telecommunications services in general, who get the choice of being able to port their number (this is acknowledged by requiring existing carriers to pay 50% of the set-up costs based on their subscriber numbers as at the date of the final determination); and
 - 25.2 carriers who port numbers (this is acknowledged by requiring all carriers to pay a fixed per-port levy each time they port a number, which will also cover 50% of the industry common set-up costs, as well as the ongoing costs).
- 26 Telecom does not consider that it is necessary for the Commission to include prescriptive details about implementation in its determination. Such issues can be resolved by the carriers. For example, the TCF could calculate the IPMS port charge as the calculation is straight forward and the TCF members will have every incentive to set a reasonable charge if the IPMS is not to operate with a deficit. The TCF members are all aware of the costs of IPMS and they are in the best position to forecast the number of ports.
- 27 As carriers may regard their number portability forecasts as commercially sensitive, an option to address this issue is for the TCF to appoint an accountant to carry out the calculation. In this case each TCF member would only have access to their own forecast and the total number portability forecast.

- 28 Under Telecom's proposed solution, there is no need to treat new entrants any differently from incumbent carriers with respect to the charges going forward. That is, both new entrants and the incumbents will pay the same per port charge for customers that they port to other networks. As a result, Telecom's proposal is competitively neutral. Both Vodafone and TelstraClear recognise the difficulty with cost recovery from an entrant with very small initial market share. TelstraClear's proposal for a one off charge is arbitrary and may not be competitively neutral.

Response to TelstraClear and Vodafone submissions

- 29 TelstraClear purports to agree with the Commission's approach, but it highlights a number of implementation problems and it goes on to propose a "two part tariff" for new entrants.⁷ New entrants would be charged an initial fixed fee, which would be adjusted at the end of the first year, depending on usage. Whilst this addresses the same difficulties as Telecom's proposal, Telecom considers its proposal to be less complicated, and competitively neutral.
- 30 Vodafone also raises issues about new entrants.⁸ Vodafone's primary concern is how industry common costs would be allocated to resellers, or other parties who would not qualify as "access seekers". Telecom's position is that this should be a matter for commercial negotiation between the reseller and the party from whom it is purchasing its numbers and this should not be regulated.

Per-line set-up costs

Telecom's position

- 31 There is broad agreement that the Donor Network Operator ("DNO") should be able to recover its per line set up costs from the receiving network operator ("RNO"). The parties should be left to negotiate an appropriate charge.
- 32 Telecom's position is that reciprocity will act as an effective mechanism to reduce costs. Vodafone agrees.⁹ Contrary to TelstraClear's submissions,¹⁰ there is no evidence that making the charges reciprocal is likely to have

⁷ TelstraClear submission dated 7 February 2005, paragraph 22.

⁸ Vodafone submission dated 7 February 2005, paragraphs 31-33.

⁹ Vodafone submission dated 7 February 2005, paragraphs 25, 26

¹⁰ TelstraClear submission dated 7 February, paragraphs 23-29

little effect in levelling up the bargaining position between Telecom and other participants. The process of commercial negotiation, with the backstop of a regulated price, will ensure that the per-line set up cost is minimised. Commercial negotiations have worked well to date, resulting in a charge which is lower than that being charged by international carriers.

Response to TelstraClear and Vodafone submissions

- 33 **DNO charges to end users:**¹¹ Telecom considers that prohibiting out-porting charges by the DNO to its out-porting customer would, in effect, be regulating the retail price. Telecom's position is that section 18 of the Act provides for the regulation of telecommunications services *between service providers* and does not provide for the regulation of retail prices.¹² Section 40(1)(g) of the Act is subject to section 18, therefore the Commission does not have the power under that section to prohibit a DNO from levying a charge on a customer. Telecom notes, however, that it does not intend charging its out-porting customers for porting-associated costs.

Call conveyance costs

Telecom's position

- 34 This category of costs needs to be clarified. Telecom submits that it comprises "*those conveyance costs which arise because the call is ported, and are therefore additional to an originating carrier's normal costs of carrying calls to the interconnection handover point (excluding the costs of call termination on a receiving carrier's network).*"
- 35 These costs should be determined by commercial negotiation between the network operators.

Response to TelstraClear and Vodafone submissions

- 36 **Magnitude of call conveyance costs**¹³ - Telecom does not agree with TelstraClear's assessment of the magnitude of costs within each category. Telecom agrees with the Commission's assessment of the magnitude of costs¹⁴, save for call conveyance costs. Telecom's assessment of the

¹¹ TelstraClear submission dated 7 February 2005, section 6.3

¹² TelstraClear agrees that the Act does not legally provide for the Commission to set or influence a retail price: Mobile Termination Conference, day 3, transcript page 411.

¹³ TelstraClear's submission dated 7 February 2005, paragraph 9

¹⁴ Draft determination, paragraph 53

TSLRIC cost for Telecom of conveying calls to ported numbers will be in excess of \$4m per year.¹⁵

- 37 **“Cost causation principle”**¹⁶ – TelstraClear contends that call conveyance costs are not *caused* by the RNO or its customer. Telecom disagrees with this and, consistent with Vodafone’s submission, would class this cost in the same category as per line set up. As discussed above, Telecom defines call conveyance costs as those costs which arise *because* the number is ported.
- 38 **Impact on choice of network solution**¹⁷ - TelstraClear contends that unless operators bear their own costs of additional conveyance, there will be no incentive on the DNO to choose the most efficient network solution. Telecom’s costs will be significant regardless of the solution chosen and they will be a significant and direct cost *caused* by number portability. Telecom’s estimate of costs is based on the Commission’s preferred solution, which is the least expensive of the possible solutions from a call conveyance cost perspective.
- 39 **TelstraClear’s paragraph 37:** Telecom is not entirely certain of the argument TelstraClear is presenting in this part of its submission, so the submissions that follow respond to what Telecom understands to be TelstraClear’s argument.
- 40 TelstraClear begins by saying that additional call conveyance only occurs on the originating party’s side of the Point of Interconnection (“**Pol**”). Telecom suggests that it is conceivable that additional call conveyance costs may occur on both sides of the Pol. So, for example, if an access seeker passes a call to the access provider at a Pol which is not the closest Pol to where the call is to be terminated, then the call will need to be conveyed to the right terminating Pol. Because the access provider will have received the call, the additional call conveyance in this case will occur on the access provider’s side of the Pol.
- 41 TelstraClear says:

“...it would be contradictory for the access provider of the terminating service (the RNO) to be both a supplier of terminating access of its side of the Pol and a buyer of “originating” access on the access seeker’s (originator’s) side of the Pol.”

¹⁵ Telecom’s submission dated 7 February 2005, paragraph 89

¹⁶ TelstraClear submission dated 7 February 2005, paragraph 11

¹⁷ TelstraClear submission, paragraph 36

- 42 Telecom is of the view that there is no contradiction. It is incorrect to say that the RNO is a “buyer of originating access”. It is, in fact, the buyer of call conveyance that has to occur *because* of number portability. It is entirely consistent that a buyer of additional call conveyance costs caused by number portability would also provide terminating access on its side of the Pol.
- 43 TelstraClear goes on to consider the scenario where operators use number portability solutions which do not link directly with the IPMS – i.e., donor re-routing. Where an operator does not link to the IPMS directly it will still need to link indirectly to the IPMS by contracting another operator to route calls appropriately for it. This will represent an additional conveyance cost to the operator who is not linked with the IPMS. This additional cost should be the subject of commercial negotiation as such an arrangement for call routing may exist even in the absence of number portability. We note that this position aligns with Vodafone’s view.¹⁸
- 44 Telecom remains of the view that any call conveyance costs that arise *because* a number is ported should be subject to commercial negotiation. In addition, any donor re-routing scenarios should be subject to commercial negotiation, as these arrangements may exist even in the absence of number portability.

¹⁸ Vodafone submission dated 7 February 2005, paragraph 28

D OTHER ISSUES

- 45 **Commission's power to make cost allocation determination in absence of technical solution**¹⁹ – Telecom does not perceive that it is necessary to respond to the TelstraClear's submission on this point, in view of the fact that it is likely that the cost allocation determination (pursuant to section 31(b) of the Telecommunications Act 2001) will be combined with the functions and standards determination (pursuant to section 31(a)). Telecom relies on its earlier submissions.
- 46 **Telecom's status as access seeker** – TelstraClear has misunderstood Telecom's position in relation to whether it is an access seeker for the purposes of subpart 2, schedule 1 of the Telecommunications Act 2001.²⁰ Telecom refers to its submissions dated 7 February 2005.²¹
- 47 **Commission's powers under sections 58 and 59 of the Telecommunication Act 2001**²² – TelstraClear argues that the Commission should include a high level of detail in its determination about implementation, in view of constraints on the Commission's powers to revisit a determination under sections 58 and 59 of the Act. Telecom's position is that the Commission must make the appropriate determination, in light of the purpose statement in the Act. The Commission must take a reasonable view on what level of detail is necessary. Telecom submits that it is unnecessary for the Commission to be unduly prescriptive and it notes that TelstraClear's comments about sections 58 and 59 are not relevant in this context.

¹⁹ TelstraClear submission dated 7 February 2005, paragraphs 44-56

²⁰ TelstraClear submission dated 7 February 2005, paragraphs 11, 26, 27c

²¹ Paragraphs 12-16

²² TelstraClear submission dated 7 February 2005, paragraph 17(b)