

# **Walker Wireless Limited**

Submission on the Commerce Commission Paper  
'Interconnection Pricing Methodology'

7 June 2002

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## **Executive Summary**

1. Walker Wireless supports the conclusion of the Commission that interconnection for local calls (both data and voice) should be priced on the basis of a hybrid bill-and-keep arrangement.
2. The Pricing Paper does not explicitly address the method for setting interconnect payments for national calls. We believe that, subject to far-end handover, the regime for setting charges for the termination of national calls should be the same as that for local calls.
3. The hybrid method recommended by the Commission should include a specified limit for out-of-balance traffic, and we believe that the limit of 30% set in the Telecom and Clear and Telecom and Telstra-Saturn agreements is appropriate. If this threshold is exceeded the originating network operator will pay termination charges for any traffic above the threshold and not for all out-of-balance traffic. We agree with the Commission's view that deducting calls to call sinks from total traffic figures when calculating whether the threshold has been met will improve the application of the hybrid bill-and-keep arrangements.
4. The Pricing Paper should accommodate charging where two networks do not interconnect in every calling area in which they have customers on their networks. In particular, if a new network operator does not have comprehensive interconnection with Telecom the Pricing Paper should contemplate that, even if the call is not handed over in the relevant calling area, the local termination portion of the call should be subject to the bill-and-keep regime while the network operator reimburses Telecom for the additional cost of conveyance in these circumstance.
5. We understand the terms "local calling area" and "local calls" to reflect historical market conditions and the network architecture of existing operators, in particular Telecom. The Commission should adopt a flexible definition of "local calling areas" and "local calls" which contemplates a regime which recognises the network architecture and retail charging of both operators.
6. We support the Commission's recommendation that interconnection charges for toll-bypass, toll-free and mobile-to-fixed calls should be set on the basis of forward-looking costs.

## **TSO**

7. Walker Wireless has argued, and maintains the position, that the obligation of network providers to contribute towards the cost of the TSO should be abolished. In preparing this submission, Walker Wireless has recognised the existence of the TSO and its impact on the market. This should not be taken as an indication that Walker Wireless accepts the current position.

## **The Commission's Approach**

8. Walker Wireless welcomes the Commission's general approach to the determination of an interconnection pricing methodology. In particular, we agree with the Commission's view that using a bill-and-keep method for interconnect pricing for local calls will best achieve the purposes of the Telecommunications Act 2001 ("the Act").
9. As a prospective network provider, we agree with the Commission's view that the hybrid bill-and-keep method will give network providers an incentive to build networks and to do so in an efficient manner.

### **Local Calls**

10. Walker Wireless agrees with the Commission that setting interconnection charges for local calls below cost is appropriate and is more likely to achieve the results set out in paragraph 114 of the Pricing Paper. In particular, setting interconnect charges for local calls will be more likely to promote competition among local network providers in residential areas.
11. Should interconnection charges be set above cost, Walker Wireless believes it would be extremely unlikely that a telco would be able to build a network for residential customers which would be able to compete with Telecom. In this regard, we agree with the views of the Commission set out in paragraphs 98 to 106 of the Pricing Paper. In particular, the TSO has resulted in a residential pricing structure which leaves little scope for network providers to compete with Telecom. Imposing interconnection prices above cost would significantly compound this problem.
12. We disagree with the views of the Commission regarding the implications for network providers of residential customers who are net originators of local voice calls if interconnection prices are set above cost (paragraphs 127 to 131 of the Pricing Paper).
13. We believe that there may be a significant number of residential customers who are net originators of calls. If this the case, setting origination charges above costs will significantly disadvantage the local network provider. As the Commission points out, Telecom will not have the same exposure to this problem as other network providers as the TSO ensures that Telecom will recover the costs of the provision of local services.
14. We believe that the Commission can best address this problem with the hybrid bill-and-keep method for setting interconnect payments.
15. Walker Wireless agrees with the Commission's conclusion that the same method should be used to set interconnection prices for local voice calls and local data calls.

### **Hybrid Bill-and-keep**

16. Walker Wireless generally supports a hybrid bill-and-keep approach to setting

interconnect prices for local calls. However, it is concerned that the method adopted by the Commission sets parameters (including out-of-balance thresholds, callsinks and charges for out-of-balance traffic) which will achieve the benefits of the bill-and-keep method set out in the Pricing Paper.

#### *Thresholds*

17. A hybrid approach which does not provide for a threshold for out-of-balance traffic is unlikely to achieve the goal of the Commission to encourage the building of local networks. An interconnect pricing method which only off-sets calls in balance will not result in a net cashflow between the two network providers. What is required is a pricing method which:
  - limits the circumstances in which network operators will be required to make interconnection payments to each other
  - minimises the implementation costs of the pricing system by reducing the need for parties to negotiate charges, undertaking greater traffic monitoring and undertaking additional invoicing and payment
  - reduces the likelihood that the Commission will be called upon determine the value of forward-looking costs.
18. We believe that the threshold of 30% employed by Telecom and Clear and Telecom and Telstra-Saturn is appropriate. A 30% threshold will achieve the stated aims of the bill-and-keep method in encouraging network build while not unfairly disadvantaging the network terminating the call. A threshold which is lower than this will increase the likelihood that the undesirable results set out in the previous paragraph will occur.

#### *Excess Minutes*

19. Walker Wireless submits that if the threshold is exceeded the network operator originating the greater number of calls shall pay interconnect charges only for the calls in excess of the threshold. We read the Telecom and Clear and Telecom and Telstra-Saturn agreements to provide for this.
20. We do not believe that once the threshold is exceeded the network provider with the larger volume of calls pays for all of the calls out-of-balance. Such a provision would largely defeat the benefits of the bill-and-keep method. It would also distort traffic flows as operators (both originating and terminating) would have incentives to skew traffic flows in order to work the threshold in its favour. This effect would be largely negated if charges were levied for calls in excess of the threshold only.
21. The method we prefer is anticipated in Part 2 of Schedule 1 of the Act as the initial and final pricing principles refer to:

“a pure bill-and-keep method applied to two-way traffic in balance (or to a specified margin of out-of-balance traffic) and a forward-looking cost-based pricing method/TSLRIC applied to out-of-balance traffic (**or traffic beyond a specified out-of-balance margin**)”

We believe that the originating network operator should pay for the traffic beyond the specified margin only, and not all out of balance traffic.

*Callsinks*

22. Walker Wireless agrees with the reasoning of the Commission in paragraphs 151 to 155 of the Pricing Paper. It is most efficient for the terminating operator to recover the termination costs from the business with which the calls are terminating. Furthermore, because of the structure of retail pricing in New Zealand, the originating network operator is unable to recover these costs from the retail customer.
23. Walker Wireless supports a hybrid bill-and-keep approach which provides for no interconnection charges to be levied by a network operator for terminating calls where those calls are to callsinks. Similarly, calls to call sinks to be excluded from origination/termination volumes when considering whether the thresholds have been exceeded.
24. The Pricing Paper makes no conclusion on the best method for defining callsinks, except to say that it is unproductive to define calls by call type. Generally, Walker Wireless supports the definition of callsinks by call characteristics (as is discussed in paragraph 154 of the Pricing Paper).

**National Calls**

25. The Pricing Paper does not specifically deal with the issue of interconnect pricing for national calls.
26. Telecom's current pricing arrangements treat the origination and termination of national calls as if they were toll by-pass calls. We understand that this is largely the result of the way in which these traffic types developed with toll by-pass preceding national calls. We further understand that the volumes of toll by-pass traffic still exceed the volumes of national calls originating or terminating on networks other than Telecom's.
27. Walker Wireless believes that this arrangement is not efficient. These charges may reflect the historical origin and mix of traffic but are not appropriate for charging interconnect traffic between two network providers.
28. For the reasons set out below, charges for the termination of national calls should be levied in the same way that charges are levied for the termination of local calls. The bill-and-keep methodology should apply to the termination of national calls provided the originating network operator hands over the call at a POI within the calling area in which the terminating number is located.
29. *National Calls Behave Similarly to Local Calls*  
It is not appropriate to treat national calls in the same way as toll by-pass services for billing purposes. This is because national calls are very different in nature from toll by-pass calls and very similar in nature to local calls. The volumes of local calls and national calls between two networks will be

approximately equal. In contrast, toll by-pass calls are largely a one-way service.

30. *The Terminating Service is Identical to that of Local Calls*

Furthermore, provided the national call is handed over to the terminating network at the POI located in the relevant calling area, the terminating network operator will provide an identical service as if the call was a local call. For this reason, termination of a national call should be treated in the same way as termination of a local call.

31. *Best Long-Term Interests of Consumers*

Applying the bill-and-keep method to termination of national calls will be in the best long-term interests of consumers. Such a regime will result in cheaper retail prices – by allowing network operators to expand the areas in which customers may make unmetered calls and introducing innovative toll pricing plans. The current regime places a large disincentive upon a network provider from establishing larger boundaries within which its customers may make unmetered calls to other telephone users. This is because such calls are metered at the wholesale level, leaving the originating network operator exposed should it terminate a large volume of calls. Similarly, the current regime discourages network operators from offering cheaper toll pricing plans.

32. *Will Not Result in Inefficient Retail Pricing*

Applying a bill-and-keep method would provide better incentives to network providers – it would enable a network operator to lower its toll call prices for the benefit of consumers as it would not be constrained by cost-based charging which overstated the terminating network operators cost. At the same time, a network operator will be constrained from offering prices which do not reflect the true cost of origination and termination. This is because the network provider will be aware that its competitors will match its prices, increasing volumes of toll calls and requiring the operator which first reduced its prices to terminate additional calls for no charge. Overall, we anticipate that each operator will originate and terminate roughly equal numbers of national calls. This balance will therefore force network operators to set efficient toll prices.

33. The additional benefit of this is that each operator will set retail prices which reflect its own costs of origination and termination. This will permit an efficient network operator to set retail prices that are lower than its competitors. This will attract end-users to the most efficient network, which will be in the best long-term interests of consumers generally.

34. *Benefits from consistency with local calls*

In paragraph 143 of the Pricing Paper, the Commission came to the conclusion that there were benefits to be had from treating local voice and local data calls in the same way. Walker Wireless believes that the same argument applies such that national calls should be treated in the same way as local calls. Doing so will enhance the benefits on the bill-and-keep method. In particular, if national calls do not fall within the bill-and-keep arrangement, it is likely that the Commission will be called upon to determine the forward-looking costs of terminating

national calls from a POI to a user. Avoiding this need was one of the perceived benefits of the bill-and-keep regime.

35. *Avoid incentive for distortion*

Not treating the termination of local and national calls in the same way will create a distortion in the market, with network operators originating calls having an incentive to disguise the call as a local call, if possible. Such an incentive is unproductive generally and may lead to inefficient behaviour.

36. *Will not unfairly disadvantage terminating network*

Extending the bill-and-keep regime to the termination of national calls would not disadvantage a terminating network operator as:

- it is providing an identical service with these calls compared with local calls;

- the balance of national traffic will be roughly equal between network providers (and any imbalance is dealt with the hybrid bill-and-keep arrangements).

37. For these reasons, Walker Wireless submits that termination of national calls should be subject to the bill-and-keep regime proposed in the Pricing Paper.

**Local calls where the Point of Interconnect is outside the Local Calling Area**

38. The current Telecom interconnect agreement requires a new network operator to establish a point of handover in every major LICA in which that new network operator builds any network. As a result, the current pricing agreements (and the Pricing Paper) focus on local calls where the originating caller, the terminating caller and the point of interconnect all fall within the same local calling area.

39. It may be the case that a new network provider decides that it is inefficient to have this many points of interconnect given the cost of establishing each one (e.g. the network provider may have insufficient traffic in a particular LICA in which it has customers to make it efficient to have a point of interconnect in that area). To get around this problem, the network provider may backhaul local calls originating in this area and hand them over at a POI in an area other than that in which the calls terminate. If it is to do this, under current pricing structures the traffic may be treated as national calls and so not be subject to the bill-and-keep regime. This would disproportionately impact on the network operator originating the call.

40. In the short term, we believe that the Pricing Paper should be drafted so as to anticipate a situation where the two network operators do not have points of interconnect in every calling area in which they have customers on their network. In particular, while a new network operator may acknowledge that it is required to reimburse Telecom for the additional cost of conveyance in these circumstances, the segment of the call equivalent to the termination of a local call should fall within the bill-and-keep regime.

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41. This is consistent with Walker Wireless's conclusion (and subject to much of the reasoning) set out above regarding national calls.
  42. In the medium to long term, as Walker Wireless develops a network requiring points of interconnect, it is likely to review the requirement in Telecom's current interconnect agreements that a network operator interconnect with Telecom in every LICA where it has built a network and has customers. We do not accept that it is necessarily most efficient to interconnect with Telecom in every Telecom LICA in which Walker Wireless may build a network and originate traffic. Similarly we do not expect Walker Wireless to prescribe the efficient number of interconnect points with Telecom based solely upon Walker Wireless's network architecture. Rather, we anticipate a review of interconnect arrangements by telcos to determine what level of interconnection is most efficient given the parties' respective networks and traffic profiles. An industry-wide solution would be most preferable. We would be happy to provide the Commission with a paper setting out our proposal should the Commission wish.
  43. In light of this, we believe the Commission should amend the Pricing Paper to provide flexibility and accommodate changes to interconnection arrangements which might result from this review.

#### **Definition of the Local Calling Area**

44. As discussed above, under Telecom's current interconnect regime, charges for terminating local calls are applied differently from those for national calls, even where the service provided by the terminating network operator is identical. For the reasons discussed above, we do not believe that this should continue and that termination of national calls should fall within the bill-and-keep regime (subject to handover by the originating network operator in the calling area in which the call is to terminate). This will alleviate some of the impact on new network providers of the requirement that interconnection terms are currently based upon Telecom's network architecture, not a consideration of both networks.
45. If the Commission determines a pricing regime which reflects these submissions then the problems for new network operators caused by the current definition of local calling areas are partially solved. If the Commission does not accept these provisions then Walker Wireless believes that a definition of "local calling area" should be adopted which will reflect networks and retail charging regimes other than Telecom's.
46. In paragraph 57 of the Pricing Paper, the Commission refers to local calls as being "calls within the same local calling area". No further explanation is given as to the meaning of this term and we can find no guidance in the Act.
47. We understand the term "local calling area" is used generally in New Zealand to refer to the areas within which Telecom does not levy charges on calls made by its residential customers. These areas are, for obvious reasons, set by Telecom.
48. Walker Wireless does not believe it is in the best interests of consumers to limit

the opportunity for network providers to extend the areas in which consumers may make free local calls. Doing so prevents a network provider from establishing larger boundaries within which its customers may make unmetered calls to others telephone users.

49. Using the boundaries defined by Telecom for the purposes of determining the calls to which the bill-and-keep regime applies would entrench the current local calling areas, preventing other network operators from offering pricing plans for free calls in larger "local calling areas": if another network provider wished to offer free calls to its residential customers within an area of New Zealand which currently comprises two or more local calling areas then many of those calls would fall outside of the calls to which the bill-and-keep regime would apply. Termination charges, especially if set at a price above forward-looking costs would place an unnecessary upper limit on price reductions which network providers could offer their customers.
50. Another unwanted result of using the Telecom-defined areas is that it may result in more POIs than is efficient. This is because network providers' decisions to build POIs will be driven by the regulatory pricing structure and not by network economics.
51. We believe the problem is best solved in the short term by implementation of our proposal on national calls above (i.e. that termination of national calls be subject to the bill-and-keep regime).
52. In allow to provide a better solution in the future, the Commission should adopt a flexible definition of "local calling areas" and "local calls" which contemplates a regime which recognises the network architecture and retail charging of both operators.
53. As discussed above, Walker Wireless intends to review Telecom's existing interconnection regime prior to interconnecting with Telecom. The result of this may be that the number of POIs which Walker Wireless has with Telecom is much less than would be the case if we applied the existing regime. Because of this, the area covered by each POI will be larger than the current LICAs. The definition of "local calls" will, therefore, need to be flexible. If it is not, the interconnect charging regime may force network providers to either have more POIs than is efficient or pay termination charges for what, given that network providers network architecture then existing, are local calls.

#### **Interconnection for Toll Calls**

54. We support the Commission's recommendation that interconnection charges for toll-bypass and toll-free calls should be set on the basis of forward-looking costs.

#### **Mobile-to-fixed Interconnection**

55. Similarly, we agree with the Commission's reasoning and conclusions with respect to interconnect pricing methodology for mobile-to-fixed calls.

**Forward-looking cost-based prices/ TSLRIC**

56. We are conscious that the Pricing Paper addresses the choice the Commission faces of setting interconnection charges using cost-based method or a bill-and-keep method. For this reason we have not in our response addressed issues specific to the details of calculating forward-looking costs, including issues such as whether an on-peak and off-peak split would be appropriate.