

**Review of Methodologies for Calculation of  
Interconnection Charges for  
Value-Added Services and Public Mobile Radiotelephone Services  
and Local Access Charges**

**Statement by  
the Telecommunications Authority of  
Hong Kong**

**25 October 2000**

**Introduction**

On 8 February 2000, the Telecommunications Authority (TA) issued a consultation paper to solicit the views of the industry on the methodologies for the calculation of the following charges related to the usage of the network of Cable & Wireless HKT Telephone Limited (CWHKTC):

- (a) Interconnection charges between CWHKTC and value-added services (VAS) providers (the interconnection charge applicable to VAS is commonly called the “PNETS (Public Non-exclusive Telecommunications Service) charge”), and between CWHKTC and mobile operators<sup>1</sup>; and
- (b) Local access charge (LAC) paid by the operators of external telecommunications services (ETS) to CWHKTC.

2. By the closing of the consultation, the TA received a total of 11 submissions as follows:

- (a) Cable & Wireless HKT Telephone Limited

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<sup>1</sup> In this paper, the term “mobile operator” means an operator licensed to operate the Public Mobile Radiotelephone Services or Personal Communications Services.

- (b) Hutchison Global Crossing Limited
- (c) New T & T Hong Kong Limited
- (d) New World Telephone Limited
- (e) SmarTone Mobile Communications Limited
- (f) Hutchison Telephone Company Limited
- (g) Mandarin Communications Limited
- (h) Cable & Wireless HKT CSL Limited
- (i) New World PCS Limited
- (j) A T & T Asia/Pacific Group Limited
- (k) City Telecom (HK) Limited

A summary of the submissions is given in the Annex. Having studied the submissions, the TA issues this Statement giving his final view on the methodologies for the calculation of the charges in question.

## **Interconnection Charges for VAS Providers and Mobile Operators**

### ***Calculation Methodology***

3. The existing calculation methodology is based on a top-down fully distributed cost approach (employing historical cost data). The cost data is supplied by CWHKTC from its accounting systems. The TA used a cost model based on this methodology for the determination of interconnection charges in the past three review exercises. In the consultation paper, the TA invited comments from the industry on the appropriateness of continuing the use of the existing cost model for the setting of the interconnection charges.

4. The fixed telecommunications network services (FTNS) operators generally supported the continuous use of the existing model since there has been no suggestion of any fundamental change in cost behaviour or the underlying principles of cost causality.

5. The majority of the submissions from the mobile operators suggested that the present charging principles of interconnection between mobile operators and FTNS operators should be reviewed. They were of the view that the principle of “originator paying terminator” in the case of interconnection among FTNS operators should apply in the context of

interconnection between fixed and mobile networks as rapid technological development and growing mobile market are breaking down the distinction between fixed and mobile networks.

6. The TA recognises the rapid development of mobile services and the convergence in due course of fixed and mobile networks. However, the current charging principles governing the traffic between the mobile operators and FTNS operators are based on the structure of the retail pricing of the respective services. It is the responsibility of the operators (which receive a revenue from their customers for the supply of specific services) to pay the interconnecting operators which have provided conveyance services to enable delivery of the services supplied to the customers. In Hong Kong, since the introduction of the public mobile radiotelephone services in the mid-eighties, the cost structure of the mobile services has been such that it is the customers of the mobile services who pay for the incoming calls to them and thus the cost of delivery of those incoming calls. On the other hand, the fixed line customers pay flat monthly charges which have not included the cost of making calls to customers of mobile services (and also VAS). It is based on the underlying cost recovery principle that the TA considers the present charging arrangement of interconnection between mobile operators (and VAS providers) and FTNS operators should continue to apply to the traffic between these two respective groups of operators.

7. On the question of different charging arrangements for interconnection applying to fixed and mobile operators, the TA observes that the present regulatory regime in Hong Kong still draws a distinction between fixed and mobile operators. The TA expects that there would be convergence in the future, but the distinction cannot be removed at this stage because of substantial differences in operating rights and obligations between the fixed and mobile operators.

8. Based on the above considerations, the TA considers that it is appropriate to maintain the existing cost model for the setting of charges for interconnection between CWHKTC and VAS providers or mobile operators.

### ***Fully Distributed Cost vs Long Run Average Incremental Cost***

9. At present, interconnection charges among the FTNS operators are based on long run average incremental cost (LRAIC), which includes the cost of capital for the assets used. As the interconnection charges between CWHKTC and VAS providers or mobile operators are based on tariffs, a fully distributed cost (FDC) approach has been adopted. In the consultation paper, the TA sought the views from the industry on the cost standard adopted in calculating the interconnection charges for the VAS and mobile services.

10. In the submissions from the FTNS operators, they generally supported the continuous adoption of FDC standard in the setting of interconnection charges for the VAS and mobile services. They were of the view that the VAS and mobile services traffic is now a part of the core traffic of their networks and they expect that these groups of service providers and network operators should make a fair contribution to the costs of the networks in delivering the traffic.

11. On the other hand, the other submissions considered that LRAIC should be used as the cost standard for the interconnection charges for the VAS and mobile services. They considered that interconnection charges calculated on an incremental cost basis are fair and adequate to compensate the incumbent network operator for the delivery of the traffic concerned.

12. The interconnection traffic for mobile services and VAS constitutes a significant percentage of the total traffic handled by the public switched telephone network (PSTN) of CWHKTC. From the traffic data of CWHKTC, the mobile services and VAS interconnection traffic currently constitute about 21% and 22% respectively of the total network traffic. Given the vibrant state of the mobile market, the fact that the number of mobile customers already exceeds that of fixed customers, and the explosive growth of the Internet service market, the proportion of the interconnection traffic associated with the mobile services and VAS is expected to increase further. The pricing of interconnection services based on an incremental cost approach for

mature services like VAS and mobile services will not be able to fully compensate for all costs incurred in the delivery of the services through the incumbent FTNS operator's network because indirect fixed costs are omitted in the calculation of incremental costs. The FTNS operators would then be subsidising the mobile operators and VAS providers in the provision of interconnection services. At the current state of development of the mobile services and VAS market, it would only be fair to require the mobile operators and VAS providers to take on the responsibility for bearing a reasonable proportion of the interconnection network operator's indirect fixed costs and thus a FDC approach would seem to be justified.

13. Having taken into account the views from both groups of operators and the possible subsidy that could result from the use of incremental cost standard, the TA decides to continue to adopt the FDC approach in setting the interconnection charges for VAS and mobile services.

### ***Transit Charges***

14. The tariffs currently published by CWHKTC for interconnection services provided to mobile operators does not give recognition to whether a mobile call is transiting its network or not. Where CWHKTC conveys a call from one mobile operator to another mobile operator, CWHKTC functions as a transit carrier. As a transit call is routed through an interconnection gateway exchange (ICG), or in some cases two ICGs only, a transit call does not consume the same amount of network resources as an originating or terminating call from or to CWHKTC's network. The unit cost incurred by CWHKTC in delivering a transit call is inevitably less than the unit cost incurred in delivering an originating or terminating call. Thus, the present price of providing transit services does not accurately reflect the underlying costs and ignores the characteristics of the network and service elements which are used to perform the particular transit function. In the consultation paper, the TA invited comments from the industry on the desirability of setting a separate transit charge as a published tariff of CWHKTC for the mobile operators.

15. A number of submissions from mobile operators supported the introduction of a separate transit charge since the provision of transit services involves different network resources and elements as compared to the supply of originating/terminating services. However, CWHKTC and Cable & Wireless HKT CSL Limited preferred the present single charging structure for originating, terminating and transit calls. They pointed out the availability of alternative competitive suppliers of transit services to which the mobile operators could switch. Also, CWHKTC and some mobile operators have dealt with the lower cost of transit services through commercial interconnection agreements. SmarTone Mobile Communications Limited (SmarTone) supported the introduction of a separate transit charge but submitted that the charge should be negotiated commercially rather than being set by regulation.

16. The TA recognises the existence of market forces in negotiating the price for transit services between CWHKTC and some mobile operators. However, this does not necessarily deny the desirability of having a separate transit charge of CWHKTC's interconnection services. The present commercially negotiated arrangements are not transparent. The charges negotiated with one mobile operators are not available to other operators. The terms and conditions for interconnection to a dominant operator should in principle be publicly available. Taking into account the benefits of economic efficiency which would result from the full reflection of costs of network resources and elements in a separate transit charge and the desirability of having transparent terms for interconnection with the dominant operator, the TA considers it appropriate to introduce a separate charge for the provision of transit services under the tariffs for interconnection services of CWHKTC.

### ***Charging Structure***

17. In the consultation paper, the TA sought views from the industry on the feasibility and desirability of a two-tiered charging structure for interconnection based on the number of call attempts and call holding time.

18. CWHKTC preferred a single-tiered charging structure

because, in their view, this charging arrangement would achieve an optimal balance between the accurate measurement of costs based on the relevant cost drivers on the one hand, and the desirability of avoiding unnecessary costs in implementing the charging structure on the other. In its view, a two-tiered charging structure is more costly and complicated to implement. New T & T Hong Kong Limited (New T & T) anticipated practical difficulties in implementation and the cost of interconnection would have to be increased for the equipment and recording system enhancement. Most of the mobile operators held a different opinion. They supported the principle that the structure of interconnection charges should reflect the behaviour of the underlying costs which would enable the operators to make economically efficient decisions. However, Hutchison Telephone Company Limited (Hutchison) pointed out that the introduction of a two-tiered charging structure would increase the administrative costs of operators. New World PCS Limited supported the two-tiered structure but considered that a transit period would be required to implement the new structure.

19. The TA is mindful of the pros and cons of adopting a two-tiered charging structure. The principal merit is that such a structure would be self-adjusting to suit future evolution of calling patterns of different types of services. He, however, notes the comments received in the consultation that implementing the two-tiered charging structure might increase the level of interconnection charges due to possible additional administrative cost and cost required for enhancing the equipment and recording systems. Although he believes that such costs could be avoided by the mobile operators and VAS providers relying completely on the call records of CWHKTC, this might not be an acceptable arrangement to some operators. To assess the cost-effectiveness of implementing the two-tiered structure, the TA undertook a study to estimate the monetary impact of the two-tiered charging arrangements on a mobile operator. The TA used the traffic statistics for the three-month period from March to May 2000 of CWHKTC (since it accounts for 97% of the fixed lines market) coupled with the relevant data drawn from the 1988/99 cost model to calculate the respective interconnection expenses of the mobile operators corresponding to the two charging structures. The monetary difference of the payments of the individual mobile operators under a single-tiered and a two-tiered

charging structure ranged from 1% to 5%. The TA notes that the monetary difference between the two charging structures is at this stage relatively small. The difference is attributed to the difference in traffic patterns (namely, the average number of call attempts per minute of call holding time) of customers on different networks, but given that the mobile operators provide similar services, there is no reason why the traffic patterns of a particular network should always be materially different from the average pattern of usage in Hong Kong. Thus the difference should even out over a sufficiently long period.

20. The TA notes that it has been the practices of most Internet Service Providers to pass on the PNETS charge to customers. In the consultation paper, the TA was of the preliminary view that as the two-tiered charging pattern would apply to charges payable by the mobile operators or VAS operators and would not necessarily affect the structure of the charges paid by the consumers. However, unless the TA would determine at the same time a single-tiered charge for the purpose of charging consumers, the operator might be tempted to pass on the two-tiered charge to the customers. A two-tiered interconnection charge would probably be too complicated and confusing to the average customers. The TA therefore considers that at this stage there are still advantages of retaining the existing simple single-tiered charging structure, and decides to continue, until a review is conducted in the future, employing a single-tiered charging structure for the interconnection charges paid by mobile operators and VAS providers to CWHKTC.

## **Local Access Charge**

### ***Appropriateness of Retaining the LAC***

21. In the consultation paper, the TA explained in detail the rationale for setting up the LAC framework. The LAC framework was introduced to replace the “delivery fee” upon the commencement of liberalization in the external telecommunications services market. The LAC framework aimed to ensure, on the one hand, a fair charge to the external service operators for their use of the local networks and, on the other, a fair and sufficient compensation to the local FTNS operators. As

the framework has been in place for more than one year, the TA sought views from the industry on the appropriateness of retaining the framework. One possible proposal is to replace the LAC with the interconnection charge. However, in the consultation paper, the TA stated that the policy objective to encourage rollout of the local fixed networks, particularly the rollout of the customer access networks, remained valid. Thus he considered that it was premature to replace the LAC with the interconnection charge at this stage.

22. The FTNS operators generally supported the retention of LAC. They were of the view that LAC provides a fair, cost-based return for the FTNS operators in local infrastructure investment. If inadequate return were provided to local infrastructure investment, investors would prefer operation of external services to local network investment. The LAC would avoid such distortion of market development.

23. Hutchison Global Crossing Limited (HGCL) commented that the current cost-based LAC is too low in comparison with the settlement rates of major countries and this would give rise to undesirable imbalance between inpayment and outpayment. Under such low level of LAC, local FTNS operators are subsidizing foreign carriers for their less efficient traffic termination. It proposed to establish the LAC with reference to the weighted average of the settlement rates charged by carriers in the major destination countries.

24. In response to HGCL's view, the TA opines that the whole purpose of replacing the "delivery fee" with the LAC was to provide for a mechanism whereby the external service operators, who use the resources of the local fixed networks, are required to pay the local fixed network operators a charge based only on the cost of the resources consumed. A cost-based charge would ensure that the prices for outgoing external services would be economically efficient and the cost of terminating incoming calls in Hong Kong is competitive. The benefit to Hong Kong resulting from the economic efficiency would offset any consideration of balance of settlement payment which is not totally relevant to the overall policy objective. International settlement rates could be affected by other factors such as the inter-relationship between carriers, the degree of market liberalization, and even political considerations and thus are not

cost-based and do not stimulate a competitive market price that would assure economic efficiency.

25. In supporting the retention of the LAC, New T&T commented that the TA should factor in market reality that new FTNS operators are facing price disadvantages compared with the incumbent and suffering higher unit costs due to the lack of scale economies. New T & T also suggested that the TA should, in addition to the review of the LAC, conduct an overall review of the regulatory regime on external services, including transit charges of external service traffic, reporting and reconciliation procedures among operators, and the determination and operation of the Universal Services Contribution (USC), etc.

26. The TA does not disagree that it is necessary to review the matters raised by New T&T in due course, but the issues are outside the scope of this consultation exercise on the continuation, or otherwise, of the LAC framework. These issues are more appropriately addressed in other consultation exercises.

27. The operators of external telecommunications service operators who responded to the consultation paper, however, considered that it is not necessary to retain the LAC mechanism.

28. SmarTone considered that the principle of subsidizing the local network operation through the profit from the external telecommunications services is no longer valid today as the profit margin of external services has been reduced significantly over the past years. Also, the licensing of five wireless FTNS licensees has demonstrated that there is sufficient commercial incentive for the rollout of fixed networks and the protection of the investment of the three new wireline operators through the extension of the moratorium for licensing wireline-based local FTNS has also preserved such incentive. Accordingly, there is no need for the LAC to continue for the purpose of providing commercial incentive for investment in the local network infrastructure.

29. The TA has noted such developments in the external services market but considers that the LAC is not intended to be a mechanism to subsidize the operation of the local fixed networks. Therefore the

rationale for the LAC does not depend on the profitability of the external services. Even if the external services are just earning normal level of profits, it is still fair for the external service providers to pay for the resources they consume in the local fixed networks for the operation of the external services. If the payment is cost-based, the question of subsidizing the local fixed networks by the external services does not arise. The continued existence of the LAC also does not depend on whether the local fixed networks are being operated at a loss. Even if the tariffs for the local fixed lines are fully balanced, it would still be fair for the external services to cover the cost of conveyance of the services over the local fixed networks through a cost-based payment.

30. Mandarin Communications Limited (Sunday) considered it unfair for the external service operators to pay higher cost for interconnection than the FTNS and mobile operators as the cost of switching and transmitting external traffic through the local fixed networks is identical to that of switching and transmitting other types of traffic within the same networks. AT&T Asia/Pacific Group Limited (AT&T) opined that charges to interconnect with CWHKTC's network should not be discriminated by the categories of operators if the operators use the same services of the CWHKTC's network.

31. The TA considers that the LAC and the interconnection charges for mobile services and VAS originated from two separate and different policy objectives and therefore it is possible that the methodologies of calculation and actual level of charges are different. The LAC should ensure continuous and sufficient commercial incentive for investment in the local infrastructure, avoid wasteful duplication of facilities, deliver the correct "build-or-buy" signal to the external service operators, particularly those operators which are also licensed infrastructure operators, and thereby minimize their reliance on the incumbent's network. On the other hand, the interconnection charges for VAS and mobile networks have since their introduction in the mid-eighties been set as tariffed charges for the customers. The "build-or-buy" decision is not necessarily relevant as the customers (i.e. the mobile operators and VAS providers) do not normally consider to build the local fixed networks. As the dominant local fixed network operator has the vast majority of the fixed line customers connected, the interconnection

charges aim primarily to protect the customers from the monopolistic or dominant market power of the incumbent. Thus fair compensation of the actual costs (based on historic cost data from reports in accordance with the Accounting Manual) of the incumbent, plus a reasonable return, is the main consideration. The TA considers that these different policy objectives and implications on the customers would justify different charging principles of the PNETS and LAC models.

32. As the TA pointed out in the consultation paper, he has been closely monitoring the development of the external and local telecommunications markets since the establishment of the LAC framework on 25 November 1998. Despite the fact that additional local networks would be coming on stream, the rollout of the local fixed networks is still in progress. The policy objective to encourage rollout of the local fixed networks, particularly the rollout of customer access networks, and the TA's considerations in setting the LAC level on 25 November 1998 remain valid. The TA also opines that it is logical to consider the external service operators as customers of the FTNS operators and a pure carrier status for them would not be appropriate, taking account of the commercial reality and the policy objective to promote infrastructure investment. Taking into consideration the received comments, the TA considers that it is premature to replace the LAC with the interconnection charges at this stage, but will review regularly the level of the LAC.

### ***Inclusion of Local Loop Costs in the LAC***

33. The consultation paper consulted the industry on the methodology for the calculation of the level of LAC. It discussed the different cost components of the LAC, namely, switching and transmission cost, number portability cost, cost of capital, administrative cost and cost of local loops. A significant issue commented upon by the submissions was the inclusion of the local loop costs in the calculation of LAC.

34. Some submissions opined that the local loop costs should be excluded from the LAC for various reasons. City Telecom (HK) Limited (CTI) considered that the local loop cost component in the LAC

should be compensated by the rental from the customer connected to the loop instead of revenues from external calls. SmarTone opined that CWHKTC should be able to recover the local loop costs with the rebalancing of monthly rental of direct exchange lines (DEL). It considered that as CWHKTC has been raising the local tariff to compensate for its local loop costs, the LAC should be revised to reflect the declining deficit. Sunday opined that the monthly rental of DEL has already included the costs of the local loop and therefore such costs should not be recovered through the LAC mechanism. If FTNS operators choose to levy lower tariff to remain competitive in the local telephone market, it is not appropriate that the external service operators should subsidize them in the form of the LAC. AT&T opined that local loop costs are not incremental to increased external service traffic and thus should not be included in the LAC. Inclusion of local loop subsidy would only encourage investment in the local loops for customers with high volume of external traffic.

35. The TA considers that it is arbitrary that the costs of the local loops should be attributed to the local telephone service and not the external services when the local loop is used by the customer to gain access to both types of services. As one of the major policy objectives of the LAC mechanism is to encourage investment in the customer access network, to allow the external service operators a “free ride” over the local loops is inconsistent with the accomplishment of this policy objective. The FTNS operator operating the local loops would not recover the costs of the local loop twice, from the rental for the DEL and the LAC from external service operators, because under a fully rebalanced tariff, the rental of the DEL would be adjusted to the level which, together with revenue from LAC and other relevant services, would be capable of covering all the relevant costs, including the relevant cost of capital. Thus it is reasonable that the local telephone service and the external services should bear fair shares of the costs of the local loop.

36. Regarding the determination of the costs of the local loops, the TA considers that the LAC is established as a cost-based rather than deficit-based charge. Thus the costs of the local loop should be based on the capital cost and operating cost of the loop, rather than the deficit in investing in and operating the loop. The objective of a cost-based LAC

is to compensate the cost incurred by the local fixed network operators as a result of the usage of their networks by the external service operators in delivering external traffic. It is economically justifiable that a cost-based charge could simulate a competitive market mechanism and assure an efficient allocation of resources. Charges based on deficit or profit of the operators would instead create disincentive for investment and improvement in productivity, especially when, for instance, cost saving performance and productivity gain would raise profit but in consequence, the network operators would be penalized by a corresponding reduction in interconnection charges and revenues. As such, the TA considers that the tariff re-balancing and thus the reducing deficits of the fixed network operators are not relevant in the calculation of the LAC.

37. CWHKTC agreed with the TA that commercially agreed charges largely reflect efficient market price of unbundled local loop. However, it pointed out that the current HK\$42 per month only applies to urban areas. Costs in rural areas are much higher. It therefore believed that a territory-wide estimation of local loop cost must be applied in the LAC model, not just the \$42 applicable to urban local loops.

38. SmarTone considered that the proposed benchmark of HK\$42 per month Type II interconnection charge would over-estimate the local loop cost as this benchmark probably includes a profit element. Therefore, the local loop cost component in the LAC should be lower than the Type II interconnection charge of HK\$42 per month. CTI considered that even if the local loop cost of HK\$42 per month per line is to be shared by the LAC, the portion for external calls should be very low.

39. The TA notes that since the Type II interconnection charge of HK\$42 was arrived at through commercial negotiation (with TA's mediation), the operators involved should have taken into account all the commercial considerations, including the local tariff structure, and the cost structure in different regions of the territory, etc., and thus would closely simulate the competitive market price of the relevant network usage. However, in the actual review of the level of the LAC after this Statement is issued, the TA will re-examine the basis of the local loop costs of HK\$42 per month in the LAC calculation. Moreover, the

external services would share the local loop costs based on the proportion of external traffic over the total incoming and outgoing traffic through the local loop. This proportion should provide a fair basis for the sharing of the local loop costs.

### ***Other Cost Components***

40. With regard to the review of the LAC level and methodologies for updating the LAC cost components, there was general acceptance from the industry that the level should be updated based upon current market information. On some individual cost components, CWHKTC pointed out that technological advancement has created the problem of increased technical obsolescence of equipment and thus shorter asset lives and higher depreciation charges. In addition, the cost of labour today is also higher than that when the existing networks were built. As such, forward-looking approach would result in higher overall costs. CWHKTC similarly argued that database dipping charges for the implementation of number portability might increase marginally, as CWHKTC's actual and necessary investment was higher than in its original investment proposal. Other factors such as the increased competition with new local FTNS operators, and the needs to invest in higher bandwidth infrastructure, etc., would actually increase uncertainty and result in higher risk of infrastructure investment, which would require a re-assessment in cost of capital.

41. CWHKTC agreed that administrative cost mark-up should be adjusted to 26.4%. It also agreed that commercially agreed charges are a good reflection of efficient market price of unbundled local loop. Moreover, it agreed to provide latest sample data on surveyed outgoing and incoming traffic to update the traffic-sensitive cost components.

42. On the other hand, SmarTone claimed that since number portability is an obligation of FTNS operators and switching an external service call is equivalent to switching an FTNS, VAS or mobile call, the delivery of external service should in fact be treated as an interconnection service and therefore the same charging principles should be applied in calculating the administration costs, instead of applying an overhead mark up to LAC.

43. NWT commented that if external traffic constitutes only a small proportion of total PSTN traffic, a LAC that charges an administrative overhead would defeat the objective to allow competing operators to gain foothold in the market. Moreover, using the industry cost of capital of 21.5%, which is higher than CWHKTC's 18% would lead to over-compensation of the incumbent. The TA's explanation of that was that such an over-compensation has been offset by a reduction of USC as applicable to traffic over Category A routes (see paragraph 32 of the TA Statement of 25 November 1998 establishing the LAC framework).

44. However NWT argued that the existing arrangement suffered a major flaw as follows. Under the existing arrangement, Category A traffic is subjected to LAC and faces a reduced USC of 6.8 cents per minute whilst Cat B traffic is subjected to wholesale interconnection or PNETS charge and has cost-based USC at 10.6 cents per minute. As all traffic delivered in bypass of the incumbent's gateway through international private leased circuits is subjected to LAC payment, traffic over Category B routes delivered via international private leased circuits would be subjected to both the LAC and the cost-based USC. This would reflect a double compensation of 3.8 cents per minute for CWHKTC on Category B traffic. The TA considers that this imperfection of the existing arrangement is just a transitory phenomenon because if there is sustained traffic through the international private leased circuits in bypass of the incumbent's gateway, the routes in question would soon be re-classified as Category A (subjected to LAC plus the reduced USC). Furthermore, the external service operators would not pay more because if the external traffic over Category B routes through international leased circuits were subjected to the reduced USC instead of the cost-based USC, the USC reduction per minute would be reduced as more traffic minutes would be sharing the same amount of "over-compensation" of CWHKTC as a result of the use of the higher cost of capital.

45. CTI estimated the average inbound conversation duration per call based on its own record, and the resultant 5.32 minutes per call appears much higher than CWHKTC's estimated 1.8 minutes. It thus

argued that the cost per dip would be over-estimated using the incumbent's figures.

46. Separated from the above opinions, most submissions generally agreed to the proposed updating of cost components. New T&T urged the TA to take account of the higher cost of capital of the new wireline FTNS operators.

47. The TA will consider the views received and update the relevant costs in calculating the new LAC levels so as to ensure that they could reflect the latest industrial, technological, and market development. In particular, the TA will engage financial consultants to update the cost of capital of the incumbent operator and new entrants in the review of the level of LAC.

### ***Responsibility of Payments***

48. In addition to comments on the method for the calculation of LAC, the operators who have responded to the consultation paper also made comments on the responsibility for paying LAC, i.e. which operator should pay LAC or interconnection charges under certain scenarios of interconnection.

49. To ensure that CWHKTC is not over-compensated by the LAC, New T&T proposed that the following payments should all be based on Type I interconnection charge:

- (a) the LAC payment for indirect access to external call services of another FTNS operator;
- (b) the LAC payment for incoming external calls from an FTNS operator and terminating on another FTNS operator; and
- (c) interconnection payment between FTNS operators in case of transit.

50. Under the existing LAC framework, external services operators under PNETS Licences are treated in the same manner, as far as

payment of LAC is concerned, as FTNS operators which also provide external services. New T & T's proposals would amount to giving FTNS operators more favourable treatment in that calls to and from services of FTNS operators are exempt from the LAC payment while corresponding calls to and from external services operators under PNETS Licences are subjected to the LAC. The TA sees no particular reason to implement such a differential treatment which is not conducive to fair competition in the market.

51. SmarTone raised an issue relating to a scenario where a mobile customer originates an external call using the service of an external service operator directly connected to the network of an FTNS operator. This call would be routed through the mobile network, the fixed network of the FTNS operator and then the external service operator (Figure 1). The FTNS operator receives an interconnection charge from its directly connecting mobile operator, and also, according to SmarTone, receives the LAC from its directly connecting external service operator. This would become a double compensation to the FTNS operator at the expense of the mobile and external service operators.

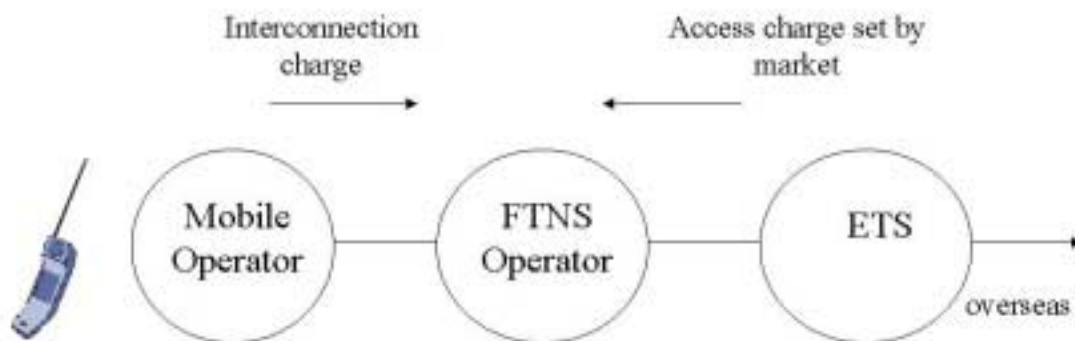


Figure 1

52. The TA disagrees to the claim of double compensation to the FTNS operators. As stated in the TA Statement of 25 November 1998 setting up the LAC framework (paragraph 60), the TA does not stipulate that the LAC would be payment by the external service operator to the FTNS operator in the scenario described by SmarTone. The charges levied by the FTNS operator would be set by market forces. This is illustrated in diagram 32 in Annex 3 to the TA Statement of 30 December 1998 on the “Implementation of Local Access Charge and Modified Delivery Fee Arrangements”.

53. SmarTone commented that mobile operators should have the same status as the FTNS operators and should be compensated by the FTNS or external service operators connecting behind the FTNS for external service calls originated/terminated to a mobile.

54. The TA considers that the costs of investing in the mobile networks are recovered through the usage charges paid by the mobile customers. Therefore in the TA Statement of 25 November 1998 establishing the LAC framework, the TA did not see the need to determine the access charge for mobile networks. The TA sees no change in the market environment which warrants regulatory determination of the access charges for mobile networks.

55. Hutchison in its submission described a scenario where an external service operator would provide a “roaming mobile service” for customers of a mobile operator. In such a scenario, when a mobile customer is overseas, all calls originated from a local fixed network to the mobile number of the customer in Hong Kong would be call-forwarded in the mobile exchange through another local fixed network to a designated number of the external service operator which would then route the calls to the mobile customer overseas (Figure 2). Such an arrangement has been described in detail in the TA Statement of 1 February 2000 entitled “Barring by Mobile Network Operators of Calls Forwarded to “300” Numbers”. Hutchison considered the existing arrangement unfair in that the mobile network operator has to pay interconnection charges to both local fixed network operators. Hutchison suggested that instead of the external service operator paying the LAC only to the directly connecting

FTNS operator, it should be the party paying interconnection charges to both the directly connecting FTNS operator B, and the mobile operator and FTNS operator A connected behind as the external service operator is the only beneficiary in this interconnection arrangement.

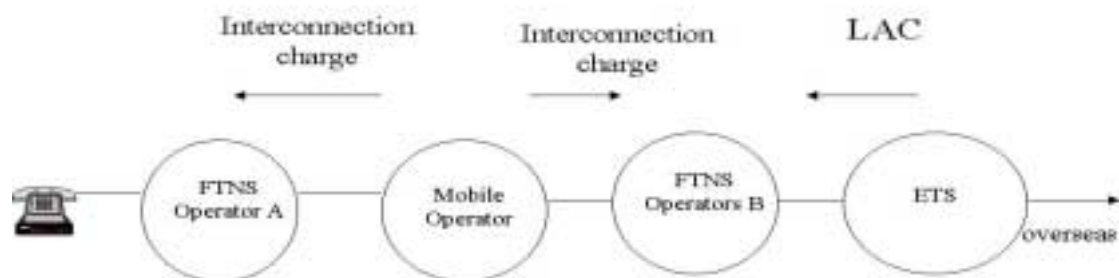


Figure 2

56. The TA considered that the proposal from Hutchison was a departure from the principles established for other scenarios under the LAC framework. The TA considers that the call forwarding to the designated number of the external service operator should be no different from other call-forwarding functions. The interconnection charges are costs in the operation of the call forwarding function. The mobile operator has charged the mobile customer for this call forwarding function, or provided this function as a feature of the mobile services. The call forwarding function has consumed the resources in two local fixed networks (or in two connections within the same local fixed network) and it is not unreasonable for two interconnection charges to be paid by the mobile network operator to the FTNS operators in the scenario described by Hutchison.

### Summary of TA's Decisions

57. A summary of the TA's major decisions in this Statement is

given below:

### ***Interconnection charges***

- ◆ The existing cost model will continue to be used for the setting of the interconnection charges for interconnection between CWHKTC and VAS or mobile operators (paragraph 8);
- ◆ The FDC remains to be the cost standard in calculating the interconnection charges for VAS and mobile operators (paragraph 13);
- ◆ It is desirable to set a separate transit charge as part of the published tariff of CWHKTC for interconnection service for the mobile operators (paragraph 16); and
- ◆ A single-tiered charging structure should continue to be adopted for the interconnection charge paid by the mobile operators and VAS providers to CWHKTC (paragraph 20).

### ***LAC***

- ◆ It is premature to replace the LAC with the interconnection charge at this stage, but the level of the LAC will be reviewed (paragraph 32);
- ◆ It is fair for the LAC to continue to bear a fair proportion of the costs of the local loops (paragraph 35); and
- ◆ The TA will update the relevant cost components in the review of the LAC level (paragraph 47).

### **Way Forward**

58. After completing the review of the calculation methodologies of interconnection charges for VAS providers and mobile operators and LAC, the TA has proceeded with the review and revision of the actual levels of the interconnection charges for VAS providers and mobile

operators. The result of the TA's review has been published in a separate Statement issued on the same date as this Statement. The TA will proceed with the review and revision where necessary of the actual levels of the LAC.

**Office of the Telecommunications Authority**  
**25 October 2000**

**Summary of Comments on the Consultation Paper titled  
"Review of Methodologies for Calculation of Interconnection  
Charges for Value-added Services and Public Mobile Radiotelephone  
Services and Local Access Charge"**

| Operators | Comments   |
|-----------|--|
| CWHKTC    | <p><b>Policy Objectives &amp; Market Liberalisation</b></p> <p>The PNETS review has become a regular review. However, there are a lot of changes since the Telecommunications Authority (TA) undertook the first review. The market became more liberalised with increasing number of players. Hence, the policy of regulatory asymmetry between the access charges set for CWHKTC and other providers of equivalent services is no longer appropriate. Also, the ongoing downward revisions to CWHKTC's charges is inequitable as it would further lower the already marginal return due to intense competition.</p> <p>Treating Mobile Operators like Fixed Telecommunication Network Services (FTNS) Carriers for Access Charging Purposes</p> <p>It is very clear that the status of a mobile operator is different from that of an FTNS licensee and the mobile operators should not have the same rights as FTNS licensees.</p> <p>It is appropriate to maintain the existing interconnection charging principles in the case of traffic between the mobile operators and FTNS carriers. Mobile operators should be required to pay interconnection charges both for traffic originating on a fixed network and terminating on a mobile network and for traffic originating on a mobile network and terminating on a fixed network.</p> <p><b>Appropriateness of Existing Cost Model</b></p> <p>The existing cost model continues to be appropriate for the setting of interconnection charges in the future as there is no suggestion of a fundamental change in cost behaviour of the underlying principles of cost causality.</p> <p>Fully Distributed Cost (FDC) versus Long Run Average Incremental Cost (LRAIC)</p> <p>Mobile and Value-added (VAS) traffic are now part of the core traffic on the CWHKTC network and they must take a fair</p> |

| Operators | Comments   |
|-----------|--|
|           | <p>contribution to the cost of supporting the core network. FDC is the fair cost standard in this case.</p> <p>And if the TA is minded to employ LRAIC approach, then a current (not a historical cost) cost basis should be applied. The use of a current cost base would be consistent with the principles of economic efficiency which underlie the concept of LRAIC.</p> <p><b><i>Two-tiered Charging Structure</i></b></p> <p>The different level of charges for mobile and VAS services have already reflected their respective call attempt and occupancy patterns. The adoption of a single-tiered structure has sought the optimal balance between the accurate measurement of cost drivers and the administrative cost in implementing the two-tiered charging structure.</p> <p>Also, the likely future developments in mobile call types (i.e. increase in the traffic of mobile data services) do not lend support to the introduction of two-tiered charging structure. Mobile data calls will be routed directly from the mobile networks to the appropriate data network and this type of traffic will not affect the PNETS charge model.</p> <p><b><i>Transit Charges</i></b></p> <p>It maintains that the single charging structure for transit and other calls does not provide a subsidy either between different mobile operators or to a less efficient operator, or in the context of the overall PNETS charges paid by mobile operators.</p> <p>Also, there are other alternative competitive suppliers and means of transit services to which the mobile operators could switch and CWHKTC has to offer lower cost commercial arrangements to compete with these alternatives.</p> <p>The introduction of a separate transit charge would result in a lower charge for these call types but the charges for originating and terminating calls would increase.</p> <p><b><i>Appropriateness of Retaining the LAC</i></b></p> <p>LAC enabled FTNS to earn a fair, cost-based return as international revenues under increasing pressure from new entrants, who had no obligation to invest in local infrastructure but could "cream-skim".</p> <p>Cancellation of LAC would disrupt investment plans of new</p> |

| Operators                                   | Comments  |
|---|---|
|   | <p>FTNSs.</p> <p><b><i>Methods for Updating the LAC Cost Components</i></b></p> <p>Technological advancement makes early obsolescence of equipment and thus shorter asset lives and higher depreciation charges. Cost of labour today is also higher than that when the existing networks were built. Thus, forward-looking approach will result in higher overall costs.</p> <p>Dip charge may increase marginally as CWHKT's actual and necessary investment was higher than in original investment proposal.</p> <p>Factors such as increased technical obsolescence of equipment, additional local FTNS, need to invest in high bandwidth infrastructure actually increase uncertainty and higher risk, which needed to be assessed in cost of capital.</p> <p>Agrees that administrative cost mark-up adjusted to 26.4%.</p> <p>Agrees that commercially agreed charges reflect efficient market price of unbundled local loop. But the current HK\$42 per month agreed only applied to urban areas. Cost in rural areas is much higher and thus a territory-wide cost must be applied.</p> <p>Agrees to provide latest sample data on surveyed outgoing and incoming traffic.</p> |
| <p><b>Hutchison<br/>Global Crossing</b></p> | <p><b>Appropriateness of the Existing Cost Model</b></p> <p>Consider the historical cost-based model is generally appropriate for setting the interconnecting charges for VAS and mobile operators.</p> <p>However, costs of land and buildings should be determined on a current or replacement basis.</p> <p><b><i>FDC versus LRAIC</i></b></p> <p>In view of the vibrant mobile and VAS market, it supports the adoption of a FDC approach.</p> <p><b><i>Two-tiered Charging Structure</i></b></p> <p>Agree to the principle of having interconnecting charge structures fully reflect the characteristics of the underlying costs. Support the suggestion of changing the current structure from single-tiered</p>  |

| Operators | Comments   |
|-----------|--|
|           | <p>to two-tiered.</p> <p><b>Replacement of LAC with Interconnection charge</b></p> <p>LAC should never become an equivalent of interconnection charge given different circumstances.</p> <p>LAC based on costs give rise to undesirable imbalance between inpayment and outpayment since HK's LAC of about US 2cts per min. even lower than settlement rates of major countries that range from US 4-15 cts.</p> <p>With such low LAC, local FTNS subsidize foreign carriers for their less efficient traffic termination; offering below costs termination service hurts local FTNS's business; and huge settlement deficits cause net outflow of foreign exchange.</p> <p>Therefore propose to shift towards determination by reference to the weighted average of the settlement rates charged by carriers in other major countries.</p>  |
| New T&T   | <p><b>Appropriateness of Continuing the Use of the Existing Cost Model for the Interconnecting Charges</b></p> <p>It believes it is appropriate to continue the use of the existing cost model and accepts different level of charges for interconnection of CWHKTC with mobile and VAS operators respectively.</p> <p><b><i>FDC versus LRAIC</i></b></p> <p>Should continue to use FDC approach as both mobile and VAS markets are relatively developed. They should be responsible for the relevant direct and indirect costs incurred by the interconnection service provider.</p> <p><b><i>Two-tiered Charging Structure</i></b></p> <p>Agree that the structure of the interconnection charges should reflect the behaviour of underlying costs. However, it anticipates practical difficulties in implementation and the cost of interconnection will have to be increased for the equipment and recording system enhancement. Thus, it does not support the adoption of a two-tiered charging structure.</p> <p><b><i>A Separate Charge for Transit Traffic</i></b></p> <p>It is desirable to determine a separate transit charge as a published tariff of CWHKTC for the mobile operators.</p> |

| Operators | Comments  |
|-----------|---|
|           | <p>Where a transit charge is payable by a mobile operator in addition to interconnection charge, it suggests that the transit charge should be a component of the interconnection charge (i.e. currently 5.9 cents per minute), such that the total cost of conveyance for a call is at the same level of interconnection charge whether or not it goes through a transit network.</p> <p><b>Appropriateness of Retaining the LAC</b></p> <p>Supports TA that it is premature to replace LAC with interconnection charge.</p> <p>In reviews, TA should factor in market reality that new FTNS face price disadvantages to CWHKTC and higher unit costs due to lack of scale economies.</p> <p>TA should conduct a review of overall regulatory regime on external services including transit charges ETS traffic reporting and reconciliation among operators, USC.</p> <p>LAC for CWHKTC is high and overcompensate it for its sunk investment built during decades of monopoly. Other users have to pay for its inefficiency.</p> <p>TA should consider LAC payment for indirect access to external call services of another FTNS operator should be based on Type I charge.</p> <p>LAC payment for incoming external calls from an FTNS operator and terminating on another FTNS should be based on Type I charge.</p> <p>Interconnection payment between FTNS should be based on Type I even in case of transit.</p> <p>LAC payable by ETS pursuant to PNETS license should be based on FDC. In case of charges to CWHKTC, this should be regulated by the TA, whilst charges by new FTNS are set through commercial negotiation.</p> <p>No objection to proposed updating of cost component except urge the TA to take account of the higher cost of capital of new wireline FTNS.</p> |

| Operators     | Comments  |
|---------------|---|
| New World PCS | <p><b>FDC versus LRAIC</b></p> <p>It supports the use of LRAIC as mobile operators are qualified as a carrier. The use of FDC would inevitably include irrelevant cost which are not necessarily incurred for the provision of interconnection services.</p> <p>Also, historically mobile operators pay interconnecting fixed network operators for both originating and terminating traffic. This arrangement is no longer applicable as CWHKTC has been given the flexibility to rebalance its exchange line rental progressively under the Framework Agreement.</p> <p>Adopting a Two-tiered Charging Structure</p> <p>Support the adoption of a two-tiered charging principle provided that appropriate transition arrangement for the migration from a single-tiered pricing to 2-tiered charging structure is available and operators are given sufficient time to adapt to the new system.</p> <p><b><i>Transit Charge</i></b></p> <p>It agrees that the transit charges should be distinguished from origination or termination charge. Notwithstanding that CWHKTC has dealt with transit call with individual mobile operators on a commercial basis, the transit arrangement is not available to all the mobile operators interconnecting to its network. A separately published transit charge by CWHKTC is absolutely necessary.</p> |
| Smartone      | <p><b>Charging Principles of Interconnection between Mobile Operators and FTNS Carriers</b></p> <p>A mobile network is more or less the same as a FTNS network and it does not make sense for a mobile operator to pay the FTNS licensee for both mobile originating calls and terminating calls. It is suggested to have mobile operators responsible for calls terminating on fixed networks and FNTS operators paying mobile operators for call termination on mobile networks.</p> <p><b><i>FDC versus LRAIC</i></b></p> <p>Mobile operators should be regarded as carriers and LRAIC model should be adopted in calculating the interconnecting charges for the mobile services. It is unfair to ask the mobile operators contributing indirect common or joint costs since these costs are not directly attributable to interconnection services.</p>   |

| Operators   | Comments   |
|---|--|
|   | <p><b><i>Two-tiered Charging Structure</i></b></p> <p>Support the two-tiered charging structure and this will also provide the flexibility to future evolution of the calling pattern of different types of services using different technologies.</p> <p><b><i>Transit Charge</i></b></p> <p>Support the TA's view on transit charge but the charge should be commercially agreed between parties rather than a determined price.</p> <p><b>Local Access Charge</b></p> <p>With lifting of monthly rental of DEL, FTNS should be able to recover cost of local loop. If the rental is not high enough to recover the cost, it is their commercial decision.</p> <p>HK\$42/month Type II interconnection charge overestimates actual provisioning cost and probably includes a profit element.</p> <p>Number portability is an obligation of FTNS and switching an ETS call is same as switching FTNS, VAS or mobile call. Thus not appropriate for ETS to pay higher compensation with higher costs of capital.</p> <p>Delivery of ETS is in fact an interconnection service and same principles as for other interconnection services should be applied in administration costs instead of applying an overhead mark up.</p> <p>Already sufficient incentive for rollout of fixed networks and high LAC not appropriate as cross-subsidization from profitable IDD service no longer valid as margin falls.</p> <p>FTNS received PNETS charge from its directly connecting mobile operator for ETS calls originated/terminated to a mobile, and also receives LAC from its directly connecting ETS operators. This represents a double compensation to FTNS.</p> <p>Mobile operators should have same status as FTNS and should be compensated by FTNS or ETS operator connecting behind the FTNS operator for ETS calls originated from /terminated at a mobile operator.</p> |
| <p><b>Hutchison Telephone Company Limited</b></p> | <p><b>Charging Principles of Interconnection between Mobile Operators and FTNS Carriers</b></p> <p>Seriously urge the TA to accord the mobile operators with carrier</p>   |

| Operators | Comments  |
|-----------|---|
|           | <p>status and apply carrier-to-carrier charging principles in mobile-fixed interconnection. The originating operator should pay the terminating operator for the interconnection charges.</p> <p><b><i>FDC versus LRAIC</i></b></p> <p>Mobile operators should be treated as the counterpart of FTNS operators in respect of interconnecting arrangements and LRAIC should be used as the cost standard for calculating interconnecting charges.</p> <p>Also, the use of FDC approach would result in anti-competitive situation and would lead to operators having efficient operation subsidizing inefficient operators.</p> <p><b><i>Two-tiered Charging Structure</i></b></p> <p>The adoption of a two-tiered structure is neither beneficial nor satisfactory at the present moment. The call pattern or behaviours of consumers of different mobile operators under the same market will not deviate much from each other. There should not be much cross-subsidization between different mobile operators in terms of different call pattern or type of services. The introduction of a two-tiered charging structure will increase the administrative costs of operators without having any substantial advantages.</p> <p><b><i>Transit Charges</i></b></p> <p>Support the setting of a separate transit charge and Office of the Telecommunications Authority (OFTA) must ensure that sufficient identification code would be attached to each call so as to identify who should be paid with a transit charge.</p> <p>Concerning transit call, it has great concern in some ETS providers hijacking roaming traffic of mobile operators through call-forwarding arrangement resulting in mobile operators losing roaming revenue on one hand and paying extra interconnecting charges on the other hand.</p> <p><b><i>Local Access Charge</i></b></p> <p>In view of recent ETS hijacking roaming traffic of mobile operators through call-forwarding arrangement, suggest instead of ETS paying LAC only to the directly connecting FTNS, ETS should be the party paying all interconnection charges (to both the directly connecting FTNS and the mobile operators behind) as ETS is the only beneficiary in the whole interconnection arrangement.</p> |

| Operators                   | Comments   |
|-----------------------------|--|
| Sunday                      | <p data-bbox="486 273 1029 304"><b>Existing Interconnection Charge Model</b></p> <p data-bbox="486 344 1361 631">The rapid technological development and growing mobile market are breaking down the distinction between fixed and mobile networks. The existing model must be reviewed to reflect the carrier status of a mobile operator. The model of carrier-to-carrier interconnection arrangement should apply the same for mobile operators and FTNS licensees. The principle of "originator pays terminator" should apply in the case where FTNS traffic terminates at the mobile networks.</p> <p data-bbox="486 676 751 707"><i><b>FDC versus LRAIC</b></i></p> <p data-bbox="486 748 1361 927">Mobile operators are delivering the same, if not more than, traffic volume for the FTNS operators. In consideration of this fact, the same costing standard for FTNS should therefore apply to a mobile operator. LRAIC is a fair arrangement to adopt for the calculation of the interconnection charge.</p> <p data-bbox="486 972 895 1003"><i><b>Two-tiered Charging Structure</b></i></p> <p data-bbox="486 1043 1361 1223">Support the principle that the structure of interconnection charge should reflect the behaviour of the underlying costs, which would enable the carriers to make economically efficient decisions. Welcome the TA's intention to study the feasibility of a two-tiered charging structure.</p> <p data-bbox="486 1267 687 1299"><i><b>Transit Charge</b></i></p> <p data-bbox="486 1339 1316 1406"><i>Agree to a lower cost of transit charge should be determined for the mobile operators.</i></p> <p data-bbox="486 1451 767 1482"><i><b>Local Access Charge</b></i></p> <p data-bbox="486 1523 1353 1662"><i>Local loop cost should not be incorporated since monthly rental of local DEL already includes such cost. FTNS operators choose to levy lower tariff to remain competitive does not mean that ETS operators should pay subsidy to them in LAC.</i></p> <p data-bbox="486 1706 1326 1809"><i>Unfair for ETS to pay higher cost for interconnection than FTNS and mobile operators. Cost of switching ETS traffic is same as switching other traffic within local network.</i></p> <p data-bbox="486 1854 1348 1886"><i>Urge TA to replace LAC with a reasonable interconnection charge.</i></p> |
| Cable & Wireless HKT<br>CSL | <p data-bbox="486 1926 906 1957"><b>Two-tiered charging Structure</b></p> <p data-bbox="486 1998 1361 2029">The existing single-tiered charging method is the easiest way to</p>   |

| Operators                    | Comments   |
|------------------------------|--|
|                              | <p>capture information from the switches and the least engineering effort for consolidating the changes. There may not be savings via the introduction of two-tiered charging structure but induce additional burden for all operators.</p> <p><b><i>Separate Transit Charge</i></b></p> <p>There is many alternative choice available to the mobile operators for conveying calls between mobile and mobile. It believes the interconnection for transiting mobile to mobile calls is already operated by competitive market forces so that mobile operators can negotiate its best commercial terms with various suppliers. Hence, there is no need to file a separate charge for transit.</p>   |
| <p><b>AT&amp;T Corp.</b></p> | <p><b>FDC versus LRAIC</b></p> <p>The FDC approach likely yields prices that do not reflect the latest technologies and practices that a new operator would employ in constructing a new local network. By basing interconnection charges on CWHKTC's historical costs, the TA is both unintentionally sanctioning any inefficiencies in CWHKTC and allowing inefficiencies in the other FTNS operators.</p> <p><b><i>Transit Charges</i></b></p> <p>The WTO Reference Paper requires that interconnection charges be unbundled so that interconnectors only pay for those network elements they actually use. The transit charge should be correspondingly less than the charges for origination and termination.</p> <p><b><i>Local Access Charge</i></b></p> <p>Local loop costs are not incremental to increased external service traffic and thus not appropriate in LAC. Inclusion of local loop subsidy only encourages investment for high volume customers.</p> <p>Best incentive for investment in local network is cost-based prices for rental of telephone lines. Deficits only arise in cases that customers cannot afford to pay the direct cost of local loop. This can be recovered through a separate USC.</p> <p>Charges to interconnect with CWHKTC's network should be based on LRAIC and there should be no difference by category of operators. FTNS, mobile, VAS etc. should all pay interconnection charges at same rate.</p> |

| Operators                           | Comments  |
|-------------------------------------|---|
| <p><b>New World Telephone</b></p>   | <p><b>Replacement of LAC with Interconnection Charge</b></p> <p>Agrees to keep LAC from interconnection charge but since CWHKTC has control over almost 100% of local market and after rebalancing of local tariff it will fully recover cost, the current LAC including local loop cost would overcompensate CWHKTC.</p> <p>Charges should converge in 2001 with rebalancing of local tariff. LAC thus cover only switching and inter-switching transmission network only.</p> <p><b>Review of LAC level</b></p> <p>As CWHKTC raise local tariff and compensate local loop cost, LAC should be revised to reflect declining deficit. Therefore, local loop component in LAC should not be HK\$42 per month but should be the remaining deficit of the local loop.</p> <p>If external traffic constitute only a small proportion of total PSTN traffic, charging an administrative overhead on LAC defeat the objective to allow competing operators to gain foothold.</p> <p>Using industry cost of capital of 21.5%, higher than CWHKTC's own 18% leads to overcompensation that would be adjusted by reducing USC. However, USC for cat B traffic subject to wholesale interconnection charge or PNETS charge has cost based USC at 10.6 cts per min., while cat A traffic subject to LAC has reduced USC of 6.8cts per min. to reflect over-compensation of CWHKTC on LAC.</p> <p>Thus cat B traffic using alternative means (non HKTI gateway) is subject to both inflated LAC and cost based USC: a double compensation of 3.6cts (<i>sic</i>) per min. for CWHKTC.</p> |
| <p><b>City Telecom (HK) Ltd</b></p> | <p><b>FDC versus LRAIC</b></p> <p>Suggest to use LRAIC instead of FDC. It is because an interconnection charge calculated on an incremental cost basis is fair and adequate to compensate the incumbent.</p> <p><b>Others</b></p> <p>Concern about the interconnection charge between FTNS operators for VAS calls (which is subject to commercial negotiation) not being reviewed simultaneously with the PNETS charges for IVANS.</p>   |

| Operators | Comments   |
|-----------|--|
|           | <p data-bbox="485 271 916 304"><b><i>LAC Calculation Methodologies</i></b></p> <p data-bbox="485 344 1351 416">Support LAC replaced by interconnection charge because local loop cost should be compensated by rental from customers.</p> <p data-bbox="485 456 1351 528">High LAC overcompensate FTNS/EFTNS, who attain better position in international market competition.</p> <p data-bbox="485 568 1351 707">Outbound LAC (15.1 cts per min.) high compared to overall delivery cost in fully liberalized countries (15.5-11.6 cts per min.), making other operators losing market share to HKT since it has better margin of at least 15.1 cts per min.</p> <p data-bbox="485 748 1351 853">Inbound LAC of 15.8cts also high. Non-HKT operators could not compete w/ HKT who has 15.8cts margin more and subsidize the outbound traffic.</p> <p data-bbox="485 896 1351 1001">Based on its own record, average inbound conversation duration per call is 5.32 min., much higher than HKT's fig of 1.8 min. Thus per dip cost should be much lower.</p> <p data-bbox="485 1041 1351 1146">Same local legs involved for either international or local call terminated to same FTNS. Thus same interconnect charge principle should be applied.</p> <p data-bbox="485 1187 1351 1258">Even if local loop cost of HK\$42 per month per line is to be shared by LAC, portion for international call should be very low.</p> |