

**For Discussion  
on 14 June 2010**

**Legislative Council  
Panel on Information Technology and Broadcasting  
Review of Local Access Charge**

**Introduction**

This paper briefs Members on the outcome of the public consultation conducted by the Telecommunications Authority (“TA”) on the review of the local access charge (“LAC”) in Hong Kong and the way forward.

**Background**

2. LAC refers to an interconnection charge payable by the external telecommunications service (“ETS”) operators to the local network operators, including local fixed network operators (“FNOs”) and mobile network operators (“MNOs”), for the conveyance of ETS traffic to and from end users of the local network operators. LAC was first introduced in 1999 upon the liberalisation of the ETS market for providing a fair, cost-based compensation to the FNOs for the use of their local network facilities by ETS operators. The objective then was to encourage the FNOs to roll out their own self-built networks so as to enhance competition in the local fixed telecommunications services market<sup>1</sup>.

3. Under the LAC regulatory regime, ETS operators are obliged to pay LAC for ETS traffic originating from and terminating at FNOs. The level of LAC payable to the incumbent FNO<sup>2</sup>, i.e. PCCW-HKT

---

<sup>1</sup> To provide incentives for FNOs to roll out their self-built networks, the LAC includes a “local loop” cost component, which refers to the costs of maintaining the “last mile” of a local network connecting the customer premises with the telephone exchange. The local loop cost component aimed at compensating the cost of FNOs in building the networks.

<sup>2</sup> The term “incumbent FNO” refers to the fixed network operator which had the exclusive right in running fixed telecommunications services before competition was introduced into the market. In the case of the local fixed telecommunications services in Hong Kong, this refers to Hong Kong Telephone Company Limited, which held the exclusive franchise before the market was deregulated in July 1995. The company is now known as PCCW-HKT Telephone Limited and Hong Kong Telecommunications (HKT) Limited, which jointly hold the relevant fixed carrier licence.

Telephone Limited and Hong Kong Telecommunications (HKT) Limited, had been prescribed by a determination made by the Telecommunications Authority (“TA”) in December 1998. The level has been subsequently adjusted downward in June 2001, and the LAC ranges from 10.6 cents to 12.6 cents per minute<sup>3</sup>, and the level is still valid now. The level of LAC levied by other FNOs on ETS operators is subject to commercial negotiations between the parties, but the industry has been making reference to the level determined by the TA as a benchmark. The net LAC-related revenue collected by FNOs is estimated to exceed HK\$150 million per year.

4. On the other hand, the LAC levied by MNOs is not regulated. Whether ETS operators have to pay LAC to MNOs and at what levels are subject to commercial agreements between the ETS operators and MNOs. As observed from the market, MNOs in general are not able to collect LAC.

5. Since the introduction of the LAC regulatory regime in 1999, there have been significant changes to the telecommunications market in respect of technological advancements (such as fixed-mobile convergence), market competition and regulatory developments (such as deregulation of fixed-mobile interconnection charge). Such changes raise questions as to whether the existing LAC regime is still relevant, proportionate and conducive to the sustainable development of the industry and promotion of consumer welfare. A comprehensive review of the existing LAC regime is considered necessary. We briefed this Panel at the meeting held on 8 June 2009 that we would consult the industry on the way forward in the second half of 2009.

## **Public consultation**

6. The TA conducted a review of the LAC regime and issued in December 2009, a consultation paper on *Review of Local Access Charge* (the “Consultation Paper”) to solicit the views of the stakeholders on the way forward. An executive summary of the consultation paper is given at **Annex A**<sup>4</sup>.

7. In the Consultation Paper, the TA has identified a number of major problems of the existing LAC regime, including –

---

<sup>3</sup> The exact level varies with the route and the direction (i.e. incoming or outgoing) of the call.

<sup>4</sup> The full version of the consultation paper can be found at the following webpage: <http://www.ofta.gov.hk/en/report-paper-guide/paper/consultation/20091231.pdf>

- (a) the costing methodology for calculating the LAC level is no longer up-to-date. For example, the LAC includes a local loop cost component, which was devised to provide incentives to FNOs and compensate the cost of FNOs in rolling out their self-built networks. This arrangement is no longer appropriate as the local and external markets have been fully liberalised years ago and FNOs now focus more on the demand and competition of the market rather than this piece of incentive to expand their facilities. Moreover, the cost used to arrive at the LAC was calculated based on the then prevailing costs of the incumbent FNO determined in 1998 and subsequently adjusted in 2001. With the rapid development of the market and technology, this methodology is now no longer valid;
- (b) the existing regime is asymmetric between FNOs and MNOs where ETS operators are obliged to pay LAC to FNOs but not MNOs. This may not be conducive to fixed-mobile convergence environment where the distinction between fixed and mobile networks and services is becoming blurred; and
- (c) the regime was devised more than 10 years ago and only regulates the incumbent FNO. This may not be appropriate in the current competitive environment in Hong Kong.

Having sought the preliminary views of the stakeholders on the issue, the TA set out four options on way forward in the Consultation Paper and invited views from the stakeholders on these options.

#### Option 1: Maintaining status quo

8. Under this option, the existing LAC regime will be maintained. Nevertheless, as pointed out in the Consultation Paper, if this option is pursued, the problems associated with the existing LAC regime will remain un-addressed. The TA considers that this option is not optimal unless it is proven that any change to the existing LAC regime will have negative consequences and is demonstrably worse than the option of maintaining *status quo*.

Option 2: Maintaining the obligation to pay LAC and align regulation on FNOs and MNOs

9. Under this option, ETS operators will be obliged to pay LAC to both FNOs and MNOs. The level of LAC determined by the TA will be applicable to the whole industry. This option will address the current asymmetry in regulating LACs between FNOs and MNOs. To address the problem of the outdated costing methodology, there should be a new costing methodology to replace the existing one.

10. If Option 2 is pursued, the TA will further consider how the charge level should be set, including whether the levels of LAC for the originating and terminating ETS traffic should be different, whether the levels of LAC payable to FNOs and MNOs should be unified, whether the LAC should be applied to the Voice over Internet Protocol (“VoIP”) traffic<sup>5</sup>, the settlement mechanism, and the costing methodology. To implement the option, the TA will prescribe a transitional period such that operators may adjust their business plans for adaptation to the new regime.

Option 3: Maintaining the obligation to pay LAC and deregulate the level of LAC

11. Under Option 3, ETS operators will be obliged to pay LAC to both FNOs and MNOs but the level of LAC will be subject to commercial agreements among the connecting parties. This option will address the current asymmetry in regulating LACs between FNOs and MNOs.

12. To pursue this option, the TA will issue regulatory guidance covering the charging principles of the LAC, including the payment direction, LAC calculation methodology and settlement arrangement, to facilitate commercial negotiations between operators. As compared to total deregulation (see Option 4 below), this option has the benefit of providing more certainty to the market players when they negotiate for the exact level of LAC. When imposing LAC on ETS operators, FNOs

---

<sup>5</sup> The existing LAC regime was developed in the context of traditional circuit-switched telephone networks. The VoIP traffic differs from conventional telephone traffic by that it is transmitted not over the traditional telephone networks entirely but is partially or wholly transmitted over packet-switched IP-based networks. Whether and to what extent LAC should be applied for such VoIP traffic is an important matter to be clarified for an updated LAC regime in particular when more and more voice telephone traffic is expected to be conveyed by IP-based networks in the future.

and MNOs may make reference to the regulatory guidance. There are more than 270 ETS operators and they will particularly find the regulatory guidance a useful reference, as most of them are small to medium enterprises which may not have the necessary resources and the countervailing bargaining power to negotiate with the FNOs and MNOs. The TA will also prescribe a transitional period so that the operators may negotiate new commercial arrangements of the LAC applicable to their ETS traffic and adjust their business plans for adaptation to the new regime.

Option 4: De-regulating fully the LAC regime

13. Under Option 4, the LAC regime will be fully deregulated. The TA will not issue regulatory guidance on interconnection charge for the ETS traffic. Whether such charge should be paid and its level will be subject purely to commercial negotiations between operators. If this option is pursued, the TA will further consult the industry regarding the implementation and transitional arrangements.

**Summary of views received**

14. By close of the public consultation on 9 April 2010, the TA received a total of 11 submissions. All of them were from the industry. The list of the respondents is given at **Annex B** and their submissions are published on the website of the Office of the Telecommunications Authority.

B

15. The respondents may be broadly categorised into three groups, viz. the ETS operators, the MNOs and the FNOs. Their views are quite diverse and reflect the diverse interests of different market players.

16. The ETS operators generally considered that the LAC regime should be abolished completely and immediately. They considered that the current level of LAC, which represents one of the major cost components of the operation of ETS, is excessive. Some ETS operators considered that LAC is not justified because the concerned local network operators should have already recovered the conveyance cost in the monthly subscription charges they collect from the end users, and that the ETS traffic originating from/terminating at the end users should not be treated differently from the local call traffic. In their views, FNOs and MNOs will have double benefits by imposing LAC on ETS traffic.

17. The MNOs considered that as facility-based operators, they should enjoy the same rights as FNOs do and hence they should be similarly compensated by ETS operators when their network infrastructures are being used for the conveyance of the ETS traffic to and from their end customers. They indicated that the TA should mandate the obligation for ETS operators to pay LAC to MNOs, and such LAC should be regulated by the TA.

18. The FNOs expressed diverse views on the way forward of the LAC regime. Some FNOs were of the view that *status quo* should be maintained, whereas those FNOs which have significant presence in the ETS business advocate for the abolishment of the LAC regime altogether. It appears that whether the current LAC regime obliges an FNO to make net out-payment as compared with receiving net income (since the FNO may also act as an ETS operator and thus need to make payment to other FNOs) would determine the position of that FNO on the way forward of the LAC regime.

### **Consideration**

19. The prime objective of the review of the LAC is to chart out a fair and updated regulatory regime conducive to market and technology development. In formulating his decision on the option that should be pursued, the TA will consider, among other things, the ongoing developments including fixed-mobile convergence and the advent of new technologies, the commitments to the market-driven policy, the potential impact on consumers and the industry including ETS operators and local network operators, the practicality of the transitional and implementation arrangements, and the views of the stakeholders and members of this Panel.

### **Way forward**

20. At this stage, the TA is open to any one of the four options identified in the Consultation Paper or other options that may be proposed by the industry. The TA will carefully consider the views of the respondents in mapping out the way forward. When the TA has come to a preliminary conclusion that a specific option should be pursued, he will consider the detailed implementation arrangements and where necessary, carry out a second round of consultation to solicit the views of the

operators and the public thereon. We will update the Panel again on the way forward in due course.

**Commerce and Economic Development Bureau  
(Communications and Technology Branch)  
Office of the Telecommunications Authority  
June 2010**

**Review of Local Access Charge  
A Consultation Paper by the Telecommunications Authority**

**31 December 2009**

**EXECUTIVE SUMMARY**

**Introduction**

S.1 Local Access Charge (“LAC”) is the interconnection charge payable to the local network operators by external telecommunications service (“ETS”) providers for the conveyance of ETS traffic to and from the end users of the local network operators. The Telecommunications Authority (“TA”) first introduced the LAC regime when the ETS market was liberalised in 1999.

S.2 Under the current regulatory regime, the LAC levied by fixed network operators (“FNOs”) is regulated but that for mobile network operators (“MNOs”) is not. The existing level of LAC payable to the incumbent FNO, i.e. PCCW-HKT Telephone Limited and Hong Kong Telecommunications (HKT) Limited, was prescribed by a determination made by the TA in December 1998 and was subsequently adjusted downward in June 2001. LAC levied by other FNOs is subject to commercial negotiation, but the industry has been adopting the level determined by the TA as a benchmark.

**Problems and challenges of the existing LAC regime**

S.3 When the LAC regulatory regime was formulated in 1998/1999, it aimed to provide a fair compensation to the FNOs for use of their local network facilities by ETS operators and to encourage the FNOs to roll out their networks so as to enhance competition in local fixed service market. Since then, the telecommunications market has undergone significant changes in respect of technological advancements, market developments and changes in the regulatory environment. These changes raise questions as to whether the existing LAC regime is still relevant, proportionate and conducive to the sustainable development of the industry and the consumer welfare. Problems and challenges of existing LAC regime include:

- Whether asymmetric regulation of LAC on FNOs and MNOs remains appropriate under the fixed mobile converging environment?



- Whether the LAC regime should be applied to Voice over Internet Protocol (“VoIP”) traffic?
- Whether the LAC regime continues to be relevant for the current and the next generation network environment?
- Whether LAC should be regulated for the incumbent only?
- Whether a more predictable LAC scheme for the MNOs is necessary after deregulation of fixed mobile interconnection charge in April 2009?
- Whether the existing costing methodology is outdated?
- Whether the universal service contribution scheme should continue to take into account the over-compensation paid to the incumbent FNO under the LAC regime, which has been the arrangement over the last decade?
- Whether there is a more effective solution to combat illegal bypass?
- Whether the recent developments in international settlement should be considered?
- Whether there is a room for deregulation?

### **Options for development of LAC**

S.4 In the light of the technological, market and regulatory developments in the telecommunications market and the problems of the existing LAC regime identified, the TA considers it timely to conduct a full review of the LAC regime. Based on consideration of the initial views provided by the industry and having reviewed the latest market environment, the TA has identified the following four options for possible development of the existing LAC regime:

- Option 1: Maintain *status quo*
- Option 2: Maintain the obligation to pay LAC and align regulation on the FNOs and MNOs
- Option 3: Maintain the obligation to pay LAC and deregulate the level of LAC
- Option 4: Deregulate fully the LAC regime

#### *Option 1: Maintain status quo*

S.5 Option 1 is to keep the current LAC regime unchanged. However, if this option is adopted, the problems associated with the existing LAC regime will remain unaddressed. The TA considers that this option is not the optimal

option unless it is proven that any change to the existing LAC regime will result in negative consequences that are demonstrably worse than maintaining the *status quo*.

*Option 2: Maintain the obligation to pay LAC and align regulation on the FNOs and the MNOs*

S.6 Under Option 2, the existing obligation of the ETS operators to pay LAC to the FNOs will be maintained while similar obligation to pay LAC to the MNOs will be imposed on the ETS operators. The level of LAC determined by the TA will be averaged out on a macro basis for the whole industry instead of for individual local network operator.

S.7 If Option 2 is pursued, the TA will consider how the LAC should be set, including whether the levels of LAC for the originating and terminating ETS traffic should be different, whether the levels of LAC payable to the FNOs and MNOs should be unified, whether the LAC should be applied to the VoIP traffic, the settlement mechanism, and the costing methodology.

S.8 For implementation of Option 2, the TA will make a new determination on the level of LAC payable to the FNOs and the MNOs, the parties required to pay and settle the LAC and the parties entitled to receive the LAC. The TA will set a transition period in order to allow sufficient time for operators to adjust their business plans for adaptation to the new regime.

*Option 3: Maintain the obligation to pay LAC and deregulate the level of LAC*

S.9 Under Option 3, only the obligation of the ETS operators to pay LAC to both the FNOs and the MNOs is regulated but the level of LAC is subject to commercial agreement among the connecting parties. The TA will issue regulatory guidance including the charging principles of the LAC to facilitate commercial negotiations between operators. In order to facilitate market negotiations on the level of LAC, three sub-options are proposed:

- (a) *Option 3A* – The ETS operators and the originating/terminating network operators negotiate and agree the level of LAC. The ETS operators pay the LAC directly to the originating/terminating network operators.
- (b) *Option 3B* – The hosting operators and the originating/terminating

network operators negotiate and agree the level of LAC. The ETS operators pay the LAC directly to the originating/terminating network operators.

- (c) *Option 3C* – The hosting operators and the originating/terminating network operators negotiate and agree the level of LAC on a wholesale basis. The hosting operators pay the LAC directly to the originating/terminating network operators on a wholesale basis. The hosting operators recover the LAC from the ETS operators under separate commercial arrangement.

S.10 If Option 3 is implemented, the TA will set a transition period in order to allow sufficient time for operators to negotiate a new commercial arrangement of the LAC applicable to their ETS traffic and adjust their business plans for adaptation to the new regime. The TA would like to stress that such commercial negotiations should not jeopardize the normal flow of ETS traffic across networks or the existing any-to-any (“A2A”) connectivity requirement which allows customers to access the ETS of their choice.

#### *Option 4: Deregulate fully the LAC regime*

S.11 Option 4 is to fully de-regulate the LAC regime. Under this option, the TA will not issue regulatory guidance on interconnection charge for the ETS traffic. Whether such charge should be paid and the level will be purely the result of commercial negotiations between operators.

S.12 If Option 4 is pursued, the TA will further consult the industry regarding the implementation and transitional arrangements. Same as for Option 3, the TA stresses that A2A connectivity for access to ETS should be safeguarded under this Option.

#### **Invitation of Views and Comments**

S.13. The TA invites views and comments on the issues and questions raised in this consultation paper. All submissions should be made in writing and should reach OFTA, preferably in electronic form, on or before **6 March 2010**. Submission should be addressed to:

Office of the Telecommunications Authority  
29/F Wu Chung House  
213 Queen's Road East  
Wanchai, Hong Kong  
[Attention: Senior Telecommunications Engineer (R31)]  
Fax: 2803 5112  
E-mail: lacreview@ofta.gov.hk

Comments may also be sent by fax to 2803 5112 or by email to lacreview@ofta.gov.hk.

### **Way forward**

S.14 The TA is open to any one of the four options, or other options that may be proposed by the industry, that should be pursued for the future LAC regime. He will consider whether a particular option will adequately address the problems identified with the existing LAC regime, ensure that consumer interests be safeguarded, be consistent with the telecommunications policy objectives of the Government and the regulatory principles propounded by the TA, and be able to cope with the future technological and market developments. Taking into account the views received from the consultation, the TA will decide whether additional issues need to be further consulted with the industry before finalising any changes to the existing LAC regime.

**List of Respondents to the  
Consultation Paper on *Review of Local Access Charge***

1. Asia Pacific Carriers' Coalition
2. Asia Telecom Limited
3. China Mobile Hong Kong Company Limited
4. CSL Limited
5. Hong Kong Broadband Network Limited
6. New World Telecommunications Limited
7. PCCW-HKT Telephone Limited
8. SmarTone Mobile Communications Limited
9. The Society of Hong Kong External Telecommunications Service  
Providers
10. Wharf T&T Limited
11. Zone Limited