**Review of Regulatory Guidance on the Charging Principles of Interconnection between Fixed Carriers**

**Consultation Paper**

**7 November 2012**

## INTRODUCTION

Telecommunications carriers are obliged to interconnect their services and networks with each others' to ensure any-to-any connectivity ("A2A Connectivity").[1] Terms and conditions for interconnection between carriers may be established by (a) bilateral agreement as a result of commercial negotiations between the carriers; (b) tariff published by the carrier which is open to all parties seeking to interconnect; or (c) determination made by the former Telecommunications Authority and now the Communications Authority (hereinafter collectively referred to as the "CA") under section 36A of the Telecommunications Ordinance (the "Ordinance"). For the purpose of providing practical guidance for inter-alia determination of terms and conditions of interconnection under section 36A of the Ordinance, the CA may issue guidelines under section 6D of the Ordinance.

2. In Hong Kong, interconnection charges between mobile carriers have never been subject to regulation. Interconnection charges between fixed and mobile carriers were once subject to regulatory guidance, but this was withdrawn in April 2009 and the relevant charges are now solely determined through commercial negotiations. In other words, interconnection charges between fixed carriers are the only type of carrier-to-carrier interconnection charges which are still subject to regulatory guidance.

3. The charging principles for interconnection between fixed carriers were first promulgated in a statement entitled "Interconnection and Related Competition Issues – Statement No. 7 – 'Carrier-to-Carrier Charging Principles'" ("Statement No. 7") issued in 1995 when the local fixed telecommunications

[1] Under Special Condition ("SC") 3.1 of the Unified Carrier Licence ("UCL"), A2A Connectivity means that any customer in any one network can have access to any other customer in any interconnecting network and, where directed by the CA, to any service offered in any interconnecting network. While SC 3.1 of UCL is applicable to all types of telecommunications services, the CA has so far applied the requirement of A2A Connectivity to only voice services.

market was liberalised. Statement No. 7 was subsequently revised in 1997, 2002 and 2009 to keep pace with the continual developments of the market. The latest version of Statement No. 7 mainly covers -

(a) general charging principles for interconnection between fixed carriers;

(b) charging principles for Type I interconnection[2] including -

(i) establishment charges (i.e. costs incurred in establishing the physical link between fixed networks as well as network conditioning costs for the preparation and maintenance of individual networks for interconnection); and

(ii) usage charges (i.e. the recurrent costs incurred in passing traffic from one fixed network to another fixed network via an established interconnection link, and terminating or originating that traffic within the network);

(c) charging principles for Type II interconnection[3] including -

(i) establishment charges; and

(ii) usage charges;

(d) charging principles for specific call types;[4] and

(e) charging principles for non-interconnection matters.[5]

4. It should be noted that the application of the charging principles as promulgated in Statement No. 7 is limited in scope, as the principles pertain

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2 Type I interconnection refers to the interconnection between network gateways, which can be toll exchanges, tandem exchanges, local exchanges or dedicated interconnection gateways. The point of interconnection ("POI") is a notional point in the mid-point of the link interconnecting the gateways of two networks.

3 Type II interconnection refers to the interconnection at different POIs within the customer access network. The POI can be located at the telephone exchange level (point A), the street level (point B) or the building level (point C) along the customer access network. Mandatory Type II interconnection at telephone exchange level has been sunset on 30 June 2008, whereas mandatory Type II interconnection at the street level and the building level is still maintained.

4 Please refer to paragraph 11 of this consultation paper.

5 These cover arrangements between fixed carriers not directly associated with interconnection, such as sharing of facilities and infrastructure, directory and operator services, etc.

only to the determination of circuit-switched narrowband interconnection.[6,7] With the significant market, regulatory and technological developments that have taken place over the past two decades, the competitive landscape in the local fixed telecommunications market has changed drastically. In this regard, the CA considers it opportune to initiate the current review of whether the charging principles as promulgated in Statement No. 7 should still be maintained under the present day circumstances.

5. This consultation paper sets out the preliminary view of the CA on the matter, and seeks views and comments on the issues and questions raised in the paper. For the avoidance of doubt, all the views expressed in this consultation paper are for the purpose of discussion and consultation only. Nothing in this consultation paper represents or constitutes any decision made by the CA. The consultation contemplated by this consultation paper is without prejudice to the exercise of the powers by the CA under the Ordinance or any subsidiary legislation.

## BACKGROUND

6. In June 1995, the local fixed telecommunications market was liberalised with the issue of four fixed telecommunications network services ("FTNS") licences to the incumbent fixed carrier[8] (the "Incumbent") and three new entrants[9] (the "1995 New Entrants"). In order to facilitate commercial negotiations on interconnection among the Incumbent and the 1995 New Entrants, a series of 10 statements[10] were issued from March to June 1995.

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6 In the statement entitled "Broadband Interconnection" issued on 14 November 2000, the CA decided that "interconnection of services of transmission rates up to 144kbps…should be considered under the existing narrowband interconnection framework while interconnection of services of transmission rates above 144kbps should be dealt with under the broadband interconnection framework…".

7 Please refer to paragraph 54 of Statement No.7 (Third Revision) effective since 27 April 2009.

8 Hong Kong Telephone Company Limited was granted an FTNS licence in June 1995 upon the expiry of its franchise. In June 2010, the unified carrier licence ("UCL") No. 025 was issued to replace its expired licence and is now jointly held by PCCW-HKT Telephone Limited and Hong Kong Telecommunications (HKT) Limited.

9 An FTNS licence was issued to each of Hutchison Communications Limited, New T&T Hong Kong Limited, and New World Telephone Limited in June 1995. In June 2010, UCL No. 023, 028, and 022 were issued to replace the expired licences and they are now held by Hutchison Global Communications Limited, Wharf T&T Limited and New World Telecommunications Limited respectively.

10 The 10 statements were Statement No. 1; Statement No. 2 - "HKTI to FTNS Relationships"; Statement No. 3 - "Resale"; Statement No. 4 - "Carrier-to-Carrier Relationship"; Statement No. 5 - "Exchange of Traffic between Interconnected Networks"; Statement No. 6 - "Interconnection Configurations and Basic Underlying Principles"; Statement No. 7 - "Carrier-to-Carrier Charging Principles"; Statement No. 8 - "Point of Interconnection"; Statement No. 9 - "Forecast of 'Indirect Access' Traffic and Treatment of Overflow Traffic"; and Statement No. 10 - "Guidelines on Availability of Ducts in Public Streets for Sharing".

Among these statements, Statement No. 7 provides guidance on the charging principles for interconnection between the fixed carriers which the CA would rely on in making a determination of terms and conditions of interconnection under section 36A of the Ordinance.

7. Statement No. 7 was subsequently revised on 18 November 1997 ("Statement No. 7 (First Revision)") and on 18 March 2002 ("Statement No. 7 (Second Revision)") to reflect the continually evolving competitive environment in Hong Kong and to address the interconnection issues that had arisen since the introduction of competition in the local fixed telecommunications market in 1995. Statement No. 7 was last revised on 27 April 2009 ("Statement No. 7 (Third Revision)") mainly to effect the deregulation of fixed-mobile interconnection charge ("FMIC").[11] After the removal of regulatory guidance on FMIC,[12] Statement No. 7 (Third Revision) is solely concerned with the charging principles for interconnection between fixed carriers. It should be noted that despite the revisions in 1997, 2002 and 2009, the overall framework of charging principles as set out in Statement No. 7 (Third Revision) for interconnection between fixed carriers remains largely the same with that promulgated in Statement No. 7 (First Revision) issued in 1997.

## CHARGING PRINCIPLES IN STATEMENT NO. 7 (THIRD REVISION)

8. As mentioned in paragraph 3 above, Statement No. 7 (Third Revision) covers both the general charging principles as well as the charging principles for Type I interconnection, Type II interconnection and interconnection for specific call types.

9. A summary of the **general charging principles** as promulgated in Statement No. 7 (Third Revision) is set out below -

(a) Fixed carriers must pay for the costs that they cause other fixed carriers to incur when interconnecting;

(b) In an interconnection of the Type I configuration between two fixed

[11] On 27 April 2007, the CA issued a statement entitled "Deregulation for Fixed Mobile Convergence" promulgating inter-alia its decision to deregulate FMIC.

[12] The regulatory guidance on FMIC was based on a "Mobile Party's Network Pays" arrangement. The interconnection charge is paid by a mobile carrier to the interconnecting fixed carrier for voice telephony traffic both from a fixed line to a mobile phone, as well as from a mobile phone to a fixed line.

telecommunications networks, the operators of both networks are required by their licence conditions to interconnect with each other. They therefore have equal responsibility in ensuring that the two fixed networks are interconnected promptly and efficiently;

(c) When interconnecting fixed carriers receive benefits from interconnection arrangements, the interconnecting fixed carriers should bear a proportionate share of the responsibility for interconnection costs from such arrangements;

(d) Responsibilities for charges would be assigned to fixed carriers in a manner that encourages and motivates them to use facilities efficiently and to minimise duplicated or wasteful facilities;

(e) Charges for interconnection and other related transactions will be based on relevant costs;

(f) The relevant costs of interconnection and other related transactions will be measured as the long run average incremental costs ("LRAIC"), including a cost of capital for assets used;

(g) As the telecommunications market has become mature, the LRAIC shall include a mark-up for the recovery of indirect fixed costs of the fixed carrier providing interconnection;

(h) Relevant costs should be determined with reference to the current cost measurement of assets;

(i) Cost for fixed carrier to fixed carrier transactions should reflect cause and effect relationships to the maximum extent possible;

(j) Interconnection and related services and facilities will be provided on a disaggregated basis;

(k) The structure of interconnection charges must reflect the behaviour of the underlying costs;

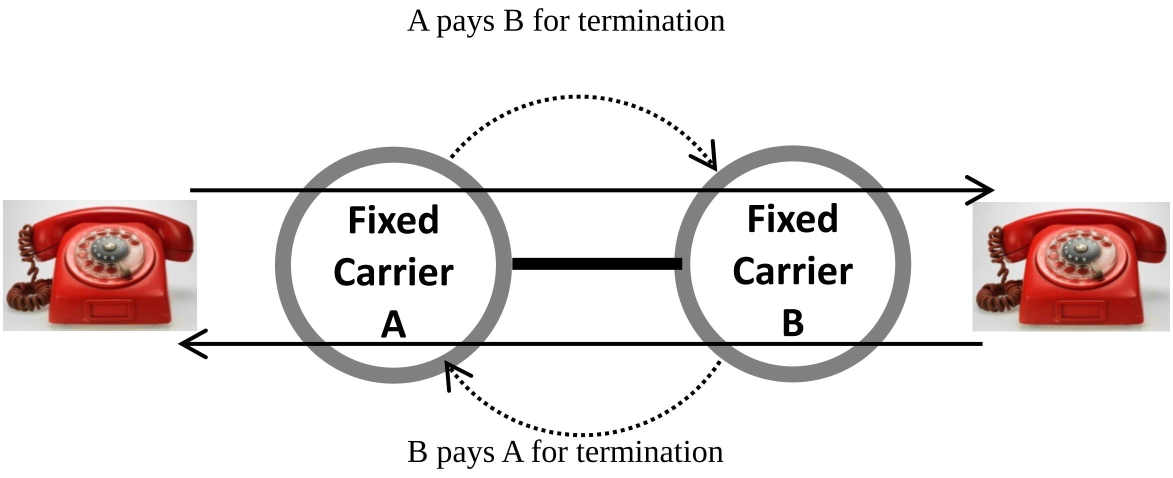
(l) If the CA makes a determination for the charges, it will base the charges on the cost of the most efficient fixed carrier, wherever appropriate, and the charges will be symmetrically applied to both interconnecting fixed carriers; and

(m) In making reference to the most efficient fixed carrier, the CA may do all things that are necessary in order to eliminate any network inefficiency and it may take into account all relevant factors in providing the interconnection service when deciding the reasonable relevant costs of interconnection.

9. For **Type I interconnection**, the charges incurred for establishing the physical link are shared equally among the interconnecting parties, whereas the establishment charges incurred for network conditioning are generally borne solely by the relevant fixed carriers themselves. In regard to usage charges, Statement No. 7 (Third Revision) provides the following guidance -

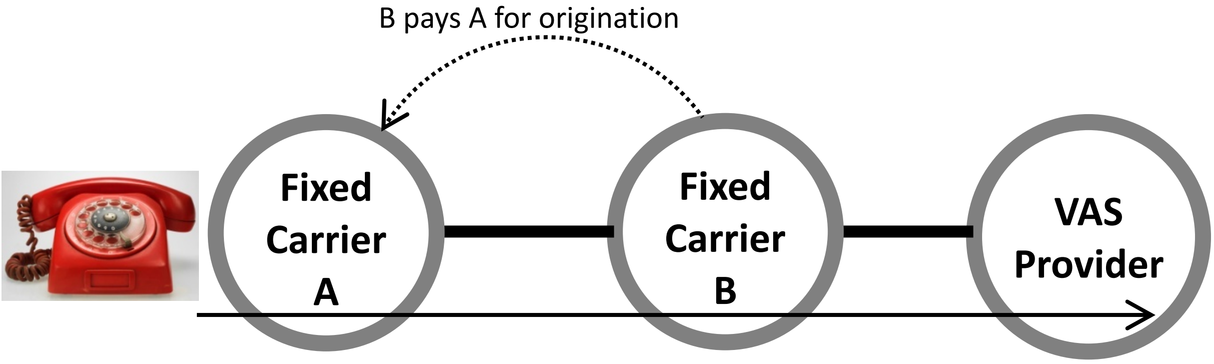
(a) For the direct interconnection between fixed carriers, the originating fixed carrier has the responsibility to pay the usage charges to the terminating fixed carrier for traffic passed over the concerned interconnection (see Figure 1 below).

**Figure 1: Direct Interconnection between Fixed Carriers**



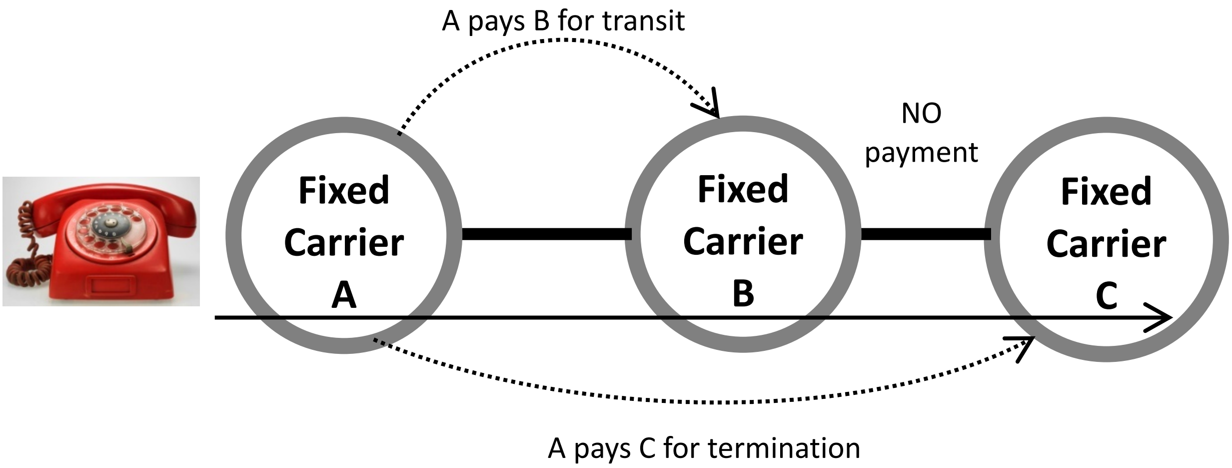

(b) When a customer of a fixed carrier elects to use value-added services offered by or connected to another fixed carrier, the usage charge is paid to the originating fixed carrier by the fixed carrier providing value-added services or providing access to such services (see Figure 2 below).

**Figure 2: Interconnection for Access of Value-added Services**




(c) When a customer of a fixed carrier accesses customers of another fixed carrier via a third fixed carrier, the usage charge is paid by the originating fixed carrier to both the transiting and terminating fixed carriers (see Figure 3 below).

**Figure 3: Indirect Interconnection between Fixed Carriers**




10. Under **Type II interconnection**, a fixed carrier may lease or acquire the existing customer access facilities of another fixed carrier. The charging principles for establishment charges of Type II interconnection are therefore concerned with determining an appropriate charge for access to the existing facilities established by that other fixed carrier. For the usage charges, Statement No. 7 (Third Revision) states that the charging principles should be the same as those applicable for direct interconnection between fixed carriers under Type I interconnection.

11. The specific call types covered in Statement No. 7 (Third Revision)

include personal numbers; ported numbers; calls to another fixed carrier's business; volatile calls; calls to service access codes; freephone calls, information service calls and calling card calls; paging calls; integrated services digital network ("ISDN") calls; and Internet Protocol ("IP") telephony (also known as voice over IP, VoIP) calls.

## JUSTICATIONS FOR THE REVIEW

12. Following the liberalisation of the local fixed telecommunications market in 1995, all sectors of the telecommunications market have since 2003 been fully liberalised. Compared with the market situation in 1995 when Statement No. 7 was first issued, the telecommunications market today has become extremely competitive, offering a large variety of new and innovative services. From the angle of facilitating competition in the fixed carriers market, Statement No. 7 has served its purpose. For reasons elaborated below, the CA sees the need to initiate the current review of whether to maintain, or to withdraw, Statement No. 7 under the present day circumstances and in view of future developments.

### Market and Technological Developments

13. Over the past two decades, Hong Kong has witnessed significant changes and developments in the telecommunications market and technology. Nowadays, broadband service has become the mainstream Internet access service[13] with 2.3 million subscribers and a residential penetration rate of 87% in July 2012. Mobile voice service, still a premium service in 1995, becomes a daily necessity with a population penetration rate reaching 222% as at July 2012. Mobile data service, which was unheard of in 1995, has been gaining popularity fast with a population penetration rate of 132% as at July 2012. Interconnection for provision of these services is not subject to the charging principles set out in Statement No. 7 (Third Revision).

14. The Type II interconnection policy was promulgated with the objective of facilitating competition at the early stage of fixed market liberalisation by requiring the Incumbent to make available its copper-based local loops to the

[13] The traffic volume of dial-up Internet access service in 2011 dropped for 99% from its peak in 2000. The total dial-up Internet traffic in 2011 was 168 million minutes, while that in 2000 was 14,989 million minutes.

1995 New Entrants. Since the decision taken in 2004 to sunset the mandatory Type II interconnection policy at the telephone exchange level in 2008, fixed carriers have speeded up the extension of their own customer access networks ("CANs") for service provision. As shown in Table 1 below, in March 2011, 86% and 76% of households in Hong Kong have a choice of services from two and three, respectively, fixed carriers using self-built CANs. As at October 2012, there were 11,900 registered residential buildings in Hong Kong with optical fibre access networks using fibre-to-the-building ("FTTB") or fibre-to-the-home ("FTTH") technologies.[14] The charging principles for Type II interconnection to copper-based local loops for narrowband services have therefore a limited scope of application nowadays.

**Table 1: Coverage of Self-built CAN**

| *% of Households having a choice of fixed services from* | **September 2004** | **March 2008** | **March 2011** |
|---|---|---|---|
| **2 fixed carriers using self-built CANs** (Note) | 60% | 81% | 86% |
| **3 fixed carriers using self-built CANs** (Note) | 34% | 58% | 76% |

Note: including the Incumbent.

15. In Hong Kong, a few carriers have already launched their next generation networks ("NGNs")[15] while others are in the process of migrating their existing networks to NGN. An NGN is basically a packet-switched network where a message (be it a voice, data or video message) to be conveyed is divided into small data packets for delivery based on IP. Currently, interconnection between NGNs for all types of traffic (including but not limited to fixed voice telephony traffic) is not subject to the charging principles as set out in Statement No. 7 (Third Revision) and the terms and conditions are negotiated and agreed commercially between the interconnecting parties. As

[14] The figure is retrieved from the Database for Broadcasting & Telecommunications Infrastructures (the "Register"). Information contained in the Register is compiled and updated based on data provided, on a voluntary basis, by individual fixed network operators and the incorporated owners/building management offices/owners of the buildings. The Register and information retrieved from the Register cannot be construed as an exhaustive list of buildings connected with optical fibre access networks. The Register is available at http://ofca.gov.hk/en/consumer_focus/fixed_telecom/registration/index.html.

[15] Traditional telecommunications networks are built around circuit-switched technologies and are primarily designed for the conveyance and provision of standalone services. With the advent of new technologies, it is now possible to build a single network for conveyance and provision of a variety of services, like fixed voice telephony service, data service, mobile service and television service. Such new networks are commonly referred to as NGN.

fixed carriers progressively migrate to NGNs, the role of Statement No. 7 will diminish and will become rather irrelevant as time goes by.

16. In view of the market and technological developments as described above, the charging principles as set out in Statement No. 7 (Third Revision), which apply to determination of circuit-switched narrowband interconnection only, appear to be increasingly out of place. The CA considers it justifiable and opportune to review critically whether Statement No. 7 (Third Revision) remains meaningful, relevant and applicable to our telecommunications market in a forward looking manner.

## Market Driven Policy

17. The implication of the market driven policy is that in making any decision to regulate or deregulate, an objective assessment should be made on whether the market itself can serve the public interest. Regulation is justified only if the market (without regulatory intervention) fails to serve the public interest.[16] Under Hong Kong's longstanding market driven policy over the telecommunications industry, interconnecting parties are encouraged to agree on interconnection charges through commercial negotiations. Regulatory intervention on interconnection issues should be treated as the last resort, to be adopted if and only if carriers are unable to reach consensus, or in cases where it is considered in the public interest to do so.

18. With market competition progressively established over the past decades, reviews of interconnection have been regularly conducted leading to a number of deregulation decisions in the interconnection regimes. In July 2004, the Government announced the decision to sunset the mandatory Type II interconnection at the telephone exchange level with a four-year transitional period. In April 2007, the CA decided to inter-alia deregulate FMIC after a comprehensive review of the impact of fixed mobile convergence ("FMC"),[17] so that starting from April 2009, whether a charge should be paid when fixed and mobile carriers exchange traffic, and the level of such charge if any, would be decided solely on a commercial basis. In June 2010, the CA decided to remove

[16] A more detailed explanation of the market driven policy was given by the CA in paragraphs 11 to 19 of the Statement on "Deregulation for Fixed-Mobile Convergence" of 27 April 2007.

[17] FMC refers to the situation that the distinctions between fixed and mobile networks and services are becoming blurred.

all *ex ante* control on interconnection related tariffs of the Incumbent. In December 2011, the CA decided to deregulate the level of local access charge ("LAC") from July 2013. To sum up, unwarranted regulatory interventions on interconnection charges have been withdrawn with the market mechanism taking an increasingly predominant role in setting the relevant terms and conditions.

19. While Statement No. 7 issued in 1995 seeks to promulgate the charging principles that would be relied on by the CA in a section 36A determination, the principles also facilitate commercial negotiations on interconnection among the Incumbent and the 1995 New Entrants for the provision of fixed narrowband services. Under the then market situation, it was justifiable for the CA to introduce regulatory intervention to facilitate competition in the market with a view to safeguarding consumers' interests. Nowadays, we have 18 local fixed carriers and facility-based competition has been well established with a wide variety of service offerings to consumers at affordable prices. Consumers' interests are safeguarded by the availability of choices, both in terms of carriers and service offerings at affordable prices. The provision of fixed services is subject to keen competitive restraints. Under our longstanding market driven policy, there is a need to review whether it is justified to maintain the charging principles as set out in Statement No. 7 (Third Revision), which can be regarded as a form of regulatory intervention, or should we withdraw the statement and let market forces take their natural course in safeguarding consumers' interest.

## PROPOSAL ON THE WAY FORWARD OF STATEMENT NO. 7 (THIRD REVISION)

20. The CA has identified the following two options on the way forward of Statement No. 7 (Third Revision) -

(a) Option 1: Maintain Statement No. 7 (Third Revision)
(b) Option 2: Withdraw Statement No. 7 (Third Revision)

### Option 1: Maintain Statement No. 7 (Third Revision)

21. Under this option, Statement No. 7 (Third Revision) will remain in force. One supporting argument for this option is that Statement No. 7 (Third Revision) consists of general and specific charging principles for interconnection between fixed carriers, which may help safeguard a level playing field among fixed

carriers, and in turn consumers' interests.

22. On the other hand, as explained in paragraphs 17 to 19, market competition has well developed over the past two decades and consumers' interests are safeguarded by the availability of a wide range of choices over carriers and service offerings at affordable prices. Also, as explained in paragraphs 13 to 16, Statement No. 7 (Third Revision) has a limited scope of application.

23. Also, maintaining Statement No. 7 (Third Revision) means the preservation of regulatory intervention in interconnection between fixed carriers only. As a matter of fact, the market has functioned well in the absence of regulatory guidance on the charging principles of interconnection between fixed and mobile carriers as well as interconnection between mobile carriers. The CA considers that unless the market, without any regulatory guidance on the charging principles of interconnection between fixed carriers, will fail or likely to fail, it is questionable, in today's market environment, whether Option 1 is still consistent with the longstanding market-driven policy that Hong Kong has all along advocated in the development of the telecommunications sector. Also, there are really little justifications to maintain such an asymmetrical interconnection regulatory regime.

Potential Impact on Carriers

24. If Statement No. 7 (Third Revision) is maintained, we do not expect any immediate impact on the existing market players in terms of interconnection charge revenue and expenditure. Issues identified in paragraphs 13 to 19 above will remain. Furthermore, the existing regulatory intervention may limit the flexibility for fixed carriers to opt for alternative arrangements on interconnection charges between them.

***Question 1: Do you think that there are justifications to maintain Statement No. 7 (Third Revision) (Option 1)? If so, please state your justifications.***

***Question 2: If you support Option 1, do you consider that (a) Statement No. 7 (Third Revision) should be maintained without any revision; or (b) certain revisions should be made to Statement No. 7 (Third***

***Revision)? If you support (b), please clearly specify the revisions that are required and provide the justifications.***

**<u>Option 2: Withdraw Statement No. 7 (Third Revision)</u>**

25. Under this option, Statement No. 7 (Third Revision)[18] will be withdrawn. Fixed carriers are free to commercially negotiate with each other on the interconnection arrangements for services currently covered by Statement No. 7 (Third Revision). Under this option, whether interconnection charges are required for establishment of interconnection and exchange of traffic between fixed carriers, and the level of such charges if any, will be solely determined through commercial negotiations. As a result, fixed carriers will have more flexibility in deciding the arrangements on interconnection charges between themselves in response to changes in technology and market environment. The removal of asymmetric regulation between fixed-fixed interconnection and other types of carrier-to-carrier interconnection should be conducive to fostering fixed-mobile convergence and fair competition in the telecommunications market.

26. As explained above, since the removal of regulatory guidance on the charging principles of interconnection between fixed and mobile carriers in April 2009, FMIC has been settled among fixed and mobile carriers through commercial negotiations. The CA notes that the industry has in general adopted the bill-and-keep arrangement for FMIC, under which interconnecting carriers agree to exchange traffic with each other without the levy or payment of interconnection charges. For interconnection between mobile networks, charging arrangements have always been determined by the market through commercial negotiations. The CA has not received any request under section 36A of the Ordinance for determination of terms and conditions of interconnection between fixed and mobile networks since its deregulation, and it has never received any such request for interconnection between mobile networks. At this moment, the CA does not foresee any insurmountable difficulties for fixed carriers to conclude, in the absence of regulatory guidance, commercial agreements on interconnection if they negotiate with each other in good faith.

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[18] For the avoidance of doubt, Statement No. 7 issued on 10 June 1995, Statement No. 7 (First Revision) revised on 18 November 1997 and Statement No. 7 (Second Revision) revised on 18 June 2002 will also be withdrawn under Option 2.

27. Statement No. 7 (Third Revision) includes references to other relevant documents in respect of the charging arrangements for international call forwarding services ("ICFS") and LAC. For the avoidance of doubt, the proposed withdrawal of Statement No. 7 (Third Revision) under Option 2, if adopted, will not result in any change to the existing regulatory regimes governing the ICFS and LAC,[19] which have been reviewed and concluded following separate consultations.

Potential Impact on Carriers

28. According to the charging principles as set out in Statement No. 7 (Third Revision), a fixed carrier pays an interconnection charge to another fixed carrier for voice telephony traffic originated from its network, and receives a charge from another fixed carrier for voice telephony traffic terminated at its network. The net amount of interconnection charges to be paid or received by a fixed carrier therefore depends on the net amount of originating or terminating traffic of that carrier. Based on the network traffic statistics filed by fixed carriers on a monthly basis, the total fixed voice telephony traffic between all local fixed carriers (excluding intra-network traffic) was 8.6 billion minutes in 2011, but the net amount of traffic that would be subject to interconnection charges under the charging principles as set out in Statement No. 7 (Third Revision) was only 0.34 billion minutes,[20] accounting for only 4% of total fixed voice telephony traffic. For the purpose of estimating the financial impact on fixed carriers, applying the charging principles as set out in Statement No. 7 (Third Revision) and using the interconnection charge between fixed networks as determined in 2003[21] at 2.65 cents per minute,[22,23] it is estimated that the total amount of interconnection

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19 Please refer to "Determination under Section 36A of the Telecommunications Ordinance in respect of a Variation of the Terms and Conditions of Interconnection for International Call Forwarding Services" issued on 19 May 2009 for ICFS charge, and the Statement entitled "New Regulatory Regime on Local Access Charge" issued on 23 December 2011.

20 A fixed carrier may have net originating or net terminating fixed voice telephony traffic. The net amount of traffic of 0.34 billion minutes was calculated by aggregating the absolute values of the net originating or net terminating fixed voice telephony traffic of each fixed carrier.

21 The CA has made two determinations for Type I interconnection between fixed networks. The first determination was made in 1998 and the last one was made in February 2003. Both determinations were applicable for historical periods only.

22 Based on the determination made in 2003 as mentioned in footnote 21, it was determined that the interconnection charges between the two relevant fixed networks should be 2.5 cents per call attempt and 1.4 cents for per call occupancy minute. Using an average holding time of 2 minutes for a local call, the effective interconnection charge per minute would be (2.5 cents+(1.4 cents*2 mins))/2 = 2.65 cents.

23 For the avoidance of doubt, interconnection charges determined under section 36A of the Ordinance apply to the relevant parties of the determination only. The interconnection charge as determined in 2003 at 2.65 cents per minute is used for the purpose of estimation of financial impact only.

charges for fixed voice telephony traffic involved among all local fixed carriers would amount to around HK$9 million in 2011.[24] As compared with the total payment of FMIC by mobile carriers to fixed carriers, which amounted to some HK$600 million per year[25] prior to the withdrawal of regulatory guidance on FMIC in 2009, the financial impact of withdrawal of regulatory guidance on the charging principles of interconnection between fixed carriers is way less significant. The CA also considers that the proposed withdrawal of the charging principles for Type II interconnection to copper-based local loops for narrowband services should not have any significant impact on fixed carriers, taking into account the extensive rollout of fibre-based CANs by fixed carriers and the diminishing demand for Type II interconnection for narrowband services using copper-based local loops. In relation to charging principles for specific call types other than charging arrangements for ICFS and LAC, fixed carriers should be able to determine the charging arrangements for these call types through commercial negotiations.

Potential Impact on Consumers

29. The charging principles as set out in Statement No. 7 (Third Revision) concern interconnection charging arrangements between fixed carriers on a wholesale level. In the fully liberalised market environment of Hong Kong, there is no *ex ante* control on the retail prices of telecommunications services and consumers' interest is safeguarded by the availability of ample choices in both the network and service providers as well as services available in the market at affordable prices. In view of the competitive environment in the fixed telecommunications market as well as the limited financial impact on fixed carriers as explained in paragraph 28 above, the CA considers that the proposed withdrawal of Statement No. 7 (Third Revision) should not have any significant impact on the retail prices of fixed services.

30. As to service continuity, as explained earlier in the paper, telecommunications carriers are obliged to interconnect their services and networks with each others' to ensure A2A Connectivity. Under the Ordinance,

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[24] A fixed carrier may pay or receive a net amount of interconnection charges for fixed voice telephony traffic to or from other fixed carriers. The total amount of interconnection charges of HK$9 million involved among all local fixed carriers for fixed voice telephony traffic was calculated by aggregating the absolute values of net payment or net receipt of interconnection charges for fixed voice telephony traffic of each local fixed carrier. The financial impact on individual local fixed carrier would therefore be much smaller than HK$9 million per year.

[25] Paragraph 76 of the Statement entitled "Deregulation for Fixed Mobile Convergence" issued on 27 April 2009

the CA may direct interconnection pursuant to section 36B of the Ordinance, on terms and conditions (subsequently) determined by agreement or the CA pursuant to section 36A of the Ordinance. While the power of the CA to enforce A2A Connectivity will be exercised sparingly, and only as a last resort, in deference to commercial negotiations between operators in the market, it will not hesitate to intervene to ensure A2A Connectivity in case of failure of commercial negotiations between fixed carriers on the interconnection charging arrangements following the proposed withdrawal of regulatory guidance on the charging principles. As such, the CA is of the view that the proposed withdrawal of Statement No. 7 (Third Revision) should not give rise to any service interruption.

Implementation Details

31. If Option 2 is adopted, the CA proposes that a transitional period should be introduced for fixed carriers to conduct commercial negotiations on interconnection arrangements. During the transitional period, Statement No. 7 (Third Revision) will remain applicable in case the CA is to make a determination on interconnection between fixed carriers under section 36A of the Ordinance. On the other hand, fixed carriers are always permitted to implement commercial agreements that deviate from the charging principles as set out in Statement No. 7 (Third Revision). In view of the limited impact of Option 2 on fixed carriers, the transitional period is proposed to be one year after the issue of a statement by the CA concluding this consultation. At the end of the transitional period, Statement No. 7 (Third Revision) will cease to be effective with no replacement guidance.

***Question 3: What are your views on the proposed withdrawal of Statement No. 7 (Third Revision) (Option 2), in particular the potential impact on carriers and consumers?***

***Question 4: What are your views on the proposed transitional arrangements for implementation of Option 2 as outlined in paragraphs 30?***

## INVITATION FOR COMMENTS

32. The CA invites views and comments on the issues and questions raised in this consultation paper. All views and comments should be submitted in

writing and should reach the Office of the Communications Authority, preferably in electronic form, on or before **7 January 2013**. The CA may publish all or any part of the views and comments received, and disclose the identity of the source in such matter as it sees fit. Any part of a submission that is considered commercially confidential should be clearly marked. The CA will take such markings into account in making the decision as to whether or not to disclose such information. Submission should be addressed to -

Office of the Communications Authority
29/F Wu Chung House
213 Queen's Road East
Wanchai, Hong Kong
Attention: Head, Regulatory 3
Fax: 2803 5112
Email: statement7@ofca.gov.hk

**Office of the Communications Authority**
**7 November 2012**