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Panel on Information Technology and Broadcasting

Meeting on 25 February 2004

**Background brief on
the policy and regulation of Type II interconnection
in the local fixed telecommunications network services market**

Purpose

This paper provides a summary of past discussion on issues relating to Type II interconnection in the local fixed telecommunications network services (FTNS) market.

Background

2. In a multi-network environment, interconnection is important to enable :
 - (a) customers connected to one network to communicate with customers, or to have access to services, connected to another network (Type I interconnection); and
 - (b) customers to be reached by one network operator through the customer access network of another network operator (Type II interconnection).

3. In essence, Type II interconnection enables a new FTNS operator to compete with the incumbent operator as it can provide its service to customers without having to roll out its own network first. The terms and conditions of interconnection arrangements (including interconnection charges) are subject to commercial negotiation between the FTNS operator providing the network and the FTNS operator which seeks to use the network.

4. Competition in the local FTNS market was introduced on 1 July 1995 when Hutchison Telecom (Hong Kong) Ltd (now Hutchison Global Crossing Limited (HGC)), New T&T Hong Kong Limited (now Wharf T&T Limited (Wharf T&T)) and New World Telephone Limited (NWT) were licensed as FTNS operators in addition to the former monopoly operator, Hong Kong Telephone Company Limited (now PCCW-HKT Telephone Limited (PCCW)). It was also the date when Type II interconnection was introduced for narrowband services. In early 2000, the Telecommunications Authority (TA) issued a number of local wireless FTNS licences to enable operators to provide fixed services via wireless technology. Among them, Hong Kong Broadband Network Limited has now completed construction of a network that covers over 3000 buildings. Type II interconnection was also extended to broadband services as announced by TA's Statement entitled "Broadband Interconnection" issued on 14 November 2000. The FTNS market has been fully liberalized with effect from 1 January 2003.

The current regulatory framework

5. In the course of market liberalization, the Administration has developed its policy on Type II interconnection with the objectives of facilitating effective competition, enhancing consumer choices and encouraging investment in networks. It has also included the obligation to interconnect promptly and efficiently in the licence conditions of FTNS operators. At present, PCCW, HGC, Wharf T&T and NWT are required to make available their copper-based local loops for Type II interconnection to each other. Under the existing policy, three types of customer access networks are open to Type II interconnection:

- (a) Copper-based local loops between telephone exchange buildings and customer premises;
- (b) Coaxial cable portion of hybrid fibre coaxial cable systems; and
- (c) In-building wiring systems.

6. On TA's regulatory role, the Administration has stressed that the existing framework was based on well-established market-driven principles. Operators should seek to reach agreements on interconnection through commercial negotiation, failing which TA may make a determination in accordance with section 36A of the Telecommunications Ordinance (Cap.106). TA may also resolve disputes over interconnection by way of informal mediation. With a view to ironing out operational problems in effecting Type II interconnection, an industry forum has been set up by TA and a Code of Practice has also been drawn up in 1999.

Past deliberations at Panel

7. The Panel has exchanged views with the Administration and deputations on Type II interconnection per se and in connection with the liberalization of the FTNS market. A chronology of meetings where such issues were discussed is at the **Appendix**.

8. During past discussions, the Panel has noted that on one hand, the incumbent operator PCCW has raised concern that the current Type II interconnection regime and the unbundling requirement are unfair to it and will reduce incentives in facility-based investment. On the other hand, members have also received submissions from a number of FTNS operators on the problems encountered by them when effecting Type II interconnection arrangements with PCCW. The major issues of contention included whether Type II interconnection has become a disincentive to network investment, the charging principles and the manner in which interconnection has been effected by the parties concerned.

9. Members have followed closely changes in the market landscape during the past few years. They have noted that as at end December 2002, PCCW had a market share of 81.7% in narrowband services. Of the remaining 18.3% market share of the other FTNS operators, 9.7% was via self-built networks and 8.6% was via Type II interconnection. For broadband services, PCCW and the other FTNS operators had a market share of 55.3% and 44.7% respectively. The market share of the new entrants has been achieved mainly through self-built networks. Meanwhile, with HGC, Wharf T&T and NWT having fulfilled their roll-out commitments made in 1999 in connection with the moratorium on the issue of further local FTNS licences, over 50% of the residential customers now have the choice of an alternative service provided by one of the three new operators.

10. In examining the current policy and regulatory framework for Type II interconnection, members have raised the following concerns for the Administration's consideration :

- (a) In view of changing market conditions and investment environment, which are very different from those in 1995 when Type II interconnection was first introduced, it is necessary for TA to critically re-examine the existing policy so as to strike the right balance between promoting competition on one hand, and maintaining the incentives for investment in telecommunications infrastructure on the other.
- (b) As a result of changes in the market structure and the advent of new technologies, TA should conduct a more in-depth analysis on

the complaints received on Type II interconnection so as to ascertain the nature and parties involved in the disputes, which may be different from those in the early years of market liberalization.

- (c) In regulating Type II interconnection, TA should have due regard to the tendency of new entrants to roll out their networks in commercial districts and densely populated urban areas where higher profits can be expected, while neglecting the service needs of customers in rural or less populated areas where there may be a less compelling business case.
- (d) It will be useful if reliable performance indicators are formulated for determining the effectiveness or otherwise of Type II interconnection, and whether there is a continued need for the current arrangements, given the prevailing competition environment.

Issues raised by the Director of Audit

11. In its Report No. 38 published in March 2002, the Director of Audit highlighted the need for the Office of Telecommunications Authority (OFTA) to monitor the time taken for conducting major interconnection negotiations between the incumbent and the new operators and to take appropriate measures to facilitate the early resolution of interconnection disputes. On making determinations, OFTA should closely monitor the progress of all determination cases to ensure that they are completed as soon as possible and within the time limits specified. It was recommended that OFTA should carry out a detailed post-determination review on the completed cases to ascertain the factors that have contributed to the long processing time and so on. OFTA has taken on board these recommendations for improvement.

Consultation exercise

12. In January 2003, the Secretary for Commerce, Industry and Technology announced that one of the major tasks of the Commerce, Industry and Technology Bureau (CITB) in 2003 was to conduct an overall review on the policy and regulatory regime on Type II interconnection. The Administration has taken into account the operational experience in the past seven years, changes in market landscape and views expressed by the industry and other interested parties. It has issued a consultation paper on the review of the policy and regulation of Type II interconnection on 23 May 2003 inviting views on key matters including :

- (a) whether Type II interconnection policy remains relevant and applicable;
- (b) qualifying conditions for Type II interconnection;
- (c) points of interconnection;
- (d) extension of interconnection to fibre networks;
- (e) narrowband and broadband services; and
- (f) the time at which the local loops were installed.

13. The consultation period ended on 22 August 2003 and a total of 11 submissions were received. Having analyzed the views received, the Administration issued a second consultation paper on 16 December 2003 inviting comments by 24 February 2004. Some of the major proposals in the second consultation paper on which views are being sought include :

- (a) Type II interconnection to copper-based customer access networks at telephone exchanges should be withdrawn in buildings connected by at least two self-built consumer access networks offering both narrowband and broadband services to the occupants of the building;
- (b) Type II interconnection should not be extended to fibre-based customer access networks so as to encourage investment in the roll-out of competitive fibre-based telecommunications infrastructure to provide innovative, high-capacity and high-speed telecommunications services;
- (c) Type II interconnection at individual building level should be maintained in view of the physical and economic constraints faced by operators when installing in-building telecommunications systems; and
- (d) a proposed set of transitional arrangements for implementing the withdrawal of Type II interconnection obligations.

14. The formulation of an updated regulatory policy on Type II interconnection to facilitate competition and promote investment in telecommunications is one of CITB's new initiatives in the 2004 Policy Agenda to foster a vibrant economy.

Latest position

15. As the key proposals in the second consultation paper represent important changes in the regulatory policy on Type II interconnection, members have decided to discuss the subject with deputations and the Administration at the meeting on 25 February 2004.

Council Business Division 1
Legislative Council Secretariat
19 February 2004

Panel on Information Technology & Broadcasting

**Panel meetings where FTNS - related issues have been discussed
(up to February 2004)**

Date of meeting	Issue
1. 28 July 1998	1998 Review of Fixed Telecommunications
2. 3 September 1998	Briefing by the Secretary for Information Technology and Broadcasting on 1998 Review of Fixed Telecommunications
3. 25 September 1998	"The 1998 Review of Fixed Telecommunications - A Considered View" (Meeting with deputations and the Administration)
4. 9 November 1998	1998 Review of Fixed Telecommunications - the Administration's response to concerns raised by non-government organizations (including concerns about the local access charge)
5. 8 February 1999	1998 Review of Fixed Telecommunications
6. 5 May 1999	1998 Review of Fixed Telecommunications
7. 10 May 1999	1998 Review of Fixed Telecommunications
8. 12 July 1999	Moratorium on the issue of further FTNS licences
9. 13 September 1999	Progress report on the moratorium on the issue of further local fixed telecommunication network services licences
10. 8 January 2001	Interconnection issues
11. 12 February 2001	Interconnection issues (Meeting with deputations and the Administration)
12. 12 November 2001	Implementation of the full liberalisation of the local fixed telecommunications network services market from 1 January 2003

13. 10 December 2001	Progress of interconnection issues (including the provision of fixed communications network services at public housing estates in new towns)
14. 14 January 2002	Implementation of the full liberalization of the fixed telecommunications network services market from 1 January 2003
15. 10 June 2002	Progress of interconnection issues (Meeting with deputations and the Administration)
16. 9 June 2003	Consultation paper on "Review of the policy and regulatory regime for Type II interconnection"
17. 25 February 2004	Second consultation paper on Review of the regulatory policy for Type II interconnection (Meeting with deputations and the Administration)

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