Executive Summary

Second Consultation Paper for Review of the Regulatory Policy for Type II Interconnection

INTRODUCTION

Since 1995, the Government has progressively liberalized the fixed telecommunications facilities market and implemented narrowband Type II interconnection arrangement. In view of the rapidly changing market landscape, the advent of new technologies as well as the fact that eight years have passed since the liberalization of the local fixed telecommunications market and the implementation of the narrowband interconnection, the Government considered it an opportune time to conduct a review on Type II interconnection arrangement.

2. On 23 May 2003, the Government issued the First Consultation Paper on the review of the regulatory policy for Type II interconnection. The first consultation ended on 22 August 2003. The prime concern of the respondents to the First Consultation Paper is whether interconnection to copper-based customer access network[1] at telephone exchanges [Point A] should continue or not.

3. Government's policy objectives in Type II interconnection arrangement are very clear. We aim to encourage efficient investment in telecommunications network, facilitate effective competition in the telecommunications market and enhance consumer choice, and to promote the telecommunications industry in Hong Kong. In particular, we aim at having a competitive, advanced and high bandwidth telecommunications infrastructure that is capable of supporting demanding, new and innovative services to meet future needs and

[1] On fibre-based customer access network, we note that there is no general support from the submissions to the First Consultation for a general extension of Type II interconnection to fibre-based customer access network. Moreover, it is our aim to encourage investment in the roll-out of competitive fibre-based telecommunications infrastructure which is able to provide innovative and high capacity telecommunications services. The Second Consultation paper therefore takes the view that Type II interconnection should not be extended to fibre-based customer access network.

challenges, thereby furthering our goal of developing Hong Kong into a leading digital city.

4. The Government has reviewed the submissions and further information supplied by the respondents and formed some preliminary views. In the Second Consultation Paper, the Government presents its preliminary views and analysis and would like to seek further comments on these views.

INTERCONNECTION AT TELEPHONE EXCHANGE LEVEL (POINT A)

5. At present, the competing fixed operators[2] have achieved significant progress in securing a foothold in the market and rolling out their own networks. The networks of these operators have, or will soon have, coverage of 45% of the residential units in Hong Kong. In addition, as at end of August 2003, they have a combined market share of 24.8% in the voice market – 10.7% via Type II interconnection at Point A and 14.1% via direct access to the buildings[3]. In the broadband market, the market share of the new operators is already over 45%. These results are remarkable in comparison with any liberalized fixed networks in the world.

6. In the light of the current market conditions as set out in paragraph 5, changes to the Type II interconnection arrangement at telephone exchange level[4] are proposed in the Second Consultation Paper to enable it to meet the updated and future needs of the market in order to

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[2] This refers to the networks of Hutchison Global Communications, New World Telecommunications, Wharf T&T and Hong Kong Broadband Network. The network of Hong Kong Cable TV is excluded.

[3] Operators may need to use Type II interconnection at individual building level (Point C) to access the customers.

[4] No distinction is made between broadband and narrowband Type II interconnection. This is because most of the respondents to the first consultation exercise, including PCCW itself, did not support a distinction between narrowband and broadband services for interconnection purpose. In addition, it is not justifiable to make a distinction on the basis that the same piece of physical copper local loop is used for narrowband and broadband services. Indeed, with the advance in technologies, broadband services and narrowband services may converge (e.g. voice over IP services). Further, our survey indicates that the regulatory policies in other countries generally do not distinguish between unbundling copper local loops used for narrowband and broadband services.

further the Government policy objectives as set out in paragraph 3 above. There are three choices we can make in Type II interconnection arrangement at telephone exchange level :-

- Choice 1 – maintain *status quo*
- Choice 2 – withdraw Type II interconnection obligation in all areas
- Choice 3 – withdraw Type II interconnection obligation in some areas

Choice 1 – Maintain *Status Quo*

7. Choice 1 is to maintain current interconnection arrangement without any adjustment. If this is pursued, market competition and consumer choice will be enhanced in buildings which are not yet connected, and are unlikely to be connected for some time, by fibre-based customer access networks of the competing operators. Furthermore, consumers who are currently enjoying a choice of services via Type II interconnection but not via direct access of self-built networks of the competing operators will continue to have the choice.

8. On the other hand, this choice may discourage investment in the rollout of new higher capacity customer access networks. It will be a negative signal to the operators who have been actively rolling out their own customer access networks.

Choice 2 – Withdraw Type II Interconnection Obligation in All Areas

9. Choice 2 is to withdraw entirely Type II interconnection obligation at telephone exchange level . On the positive side, this would facilitate investment in and roll out of innovative, high capacity customer access networks. However, investment would be encouraged only for buildings for which it is commercially viable and technically feasible to roll out the alternative customer access networks.

10. The downside is that the downstream investment in the infrastructure would be adversely affected as the operators would no longer be able to gain access to some customers. Furthermore, it takes

time for networks to be rolled out to buildings and there may be potential difficulties in network roll out. Consumers who are currently enjoying a choice of services via Type II interconnection but not via direct access of self-built networks will immediately lose the choice, with no certainty of when self-built networks will be rolled out to their buildings. Lastly, an immediate withdrawal of the obligation would have a huge impact on operators which have been heavily relying on Type II interconnection at telephone exchange level.

Choice 3 – Withdraw Type II Interconnection Obligation in Some Areas

11. Noting the current progress of competing operators in rolling out their networks and the state of competition in the market as set out in paragraph 5 above, we consider that neither Choice 1 nor Choice 2 will best serve Government's policy objectives . Choice 3 would be more preferable as it would allow the Type II interconnection arrangement to be adjusted commensurate with the needs and circumstances of the areas.

12. The Second Consultation Paper therefore identifies three possible ways by which Type II interconnection arrangement can be adjusted.

- Option 1: Withdrawal of interconnection obligation in some exchanges
- Option 2: Withdrawal of interconnection obligation in buildings exceeding a prescribed number of units
- Option 3: Withdrawal of interconnection obligation in buildings connected by at least two self-built customer access networks

<u>Option 1</u>

13. This option of withdrawing Type II interconnection obligation on the basis of exchange areas would be easy to administer. However, the downside is that there will always be some buildings lying within the boundary of an area served by a particular exchange that have no alternative direct access. If Type II interconnection obligation is to be

withdrawn by reference to exchange areas, some consumers who are currently enjoying a choice via Type II interconnection will lose the choice immediately.

Option 2

14. This option of withdrawing Type II interconnection in buildings exceeding a prescribed number of units is based on the assumption of economic viability of operators to serve densely populated estates by their own self-built customer access networks. However, this assumption is not always true. Even if the number of units in a building is less than the proposed threshold, several buildings could be clustered together and the overall size of the cluster may well be economically viable to an operator. On the other hand, some leading housing estates with a large number of units on a per building basis which exceeds the threshold still do not have alternative customer access networks rolled out to them. If Type II interconnection obligation is not available to these buildings, customers who have been enjoying a choice of service via Type II interconnection in those buildings will immediately lose the choice. Moreover, the adoption of a numerical threshold in terms of number of units could be arbitrary.

Option 3

15. The option of withdrawing Type II interconnection obligation in buildings connected by at least two self-built customer access networks[5] will best serve Government's objectives :

(a) Consumers having a choice at present will continue to have a choice through either self-built network (in buildings which are connected by at least two alternative self-built customer access networks where Type II interconnection is proposed to be withdrawn) or Type II interconnection obligation (in buildings which only have one network, where Type II interconnection is proposed to be retained).

[5] "Self-built customers access networks" refer to customer access networks that are ready to offer both narrowband (voice) and broadband services to the occupiers within the building.

(b) Operators are encouraged to roll out their self-built customer access networks to buildings where Type II interconnection obligation has been withdrawn, if they want to serve the customers in those buildings. For buildings where Type II interconnection has not been withdrawn, operators will be encouraged to roll out such networks to these buildings so as to trigger the withdrawal of Type II interconnection obligation for those buildings. The roll out of alternative self-built customer access networks will facilitate the establishment of competitive, advanced and high bandwidth telecommunications networks.

16. The downside is that there may be a reduction in the number of competitors of similar service in some buildings, but consumers will, in the long term, benefit from increased availability of higher bandwidth services.

Transitional Arrangements

17. We propose a set of orderly and co-ordinating transitional arrangements for buildings where Type II interconnection is proposed to be withdrawn. Such arrangements are proposed based on the following considerations:

(a) we should aim to reduce as far as possible disruption to enjoyment of services by customers; and

(b) immediate termination of interconnection obligation would mean an immediate loss of the competition and consumer choice that are currently available in those buildings from Type II interconnection. Allowing a buffer period would enable competition and choice to be maintained until the new customer access networks are rolled out to that building, or customers decide to terminate their services.

18. The following transitional arrangements for Option 3 are therefore proposed:

- For each building connected by an alternative customer access network, there should be a three-year "transitional period" to be followed immediately by a three-year "grandfathering period".

- Type II interconnection at Point A shall continue to be allowed during the "transitional period", but it would be withdrawn upon expiry of the "transitional period".

- For those lines that remain connected at the start of the "grandfathering period" (i.e. lines that are connected either before or during the "transitional period"), they should be allowed to remain connected during the "grandfathering period" at interconnection charge based on the prevailing charging principle applicable to Type II interconnection. After "grandfathering period" is over, such lines can still remain connected, but at interconnection charge to be arrived at through commercial negotiations.

19. The transitional arrangements proposed above would be implemented as follows:

- When the review exercise is completed, a "cut-off date" will be announced (the first cut-off date). The three-year "transitional period" will start to run from the first cut-off date.

- Prior to the first cut-off date, operators are required to supply information to OFTA to enable OFTA to develop a list of buildings that are connected by at least two self-built customer access networks. OFTA will verify the list and publish the list on the first cut-off date (the first building list).

- Buildings that fall within the first building list will have Type II interconnection at Point A withdrawn at the expiry of the three-year "transitional period" that begins to run from the first cut-off date.

- The process of naming a new cut-off date and developing a new list of buildings will be repeated once a year on the anniversary of the first cut-off date. Buildings that fall within the new list of buildings will be subject to the three-year transitional period that begins to run from the corresponding new cut-off date.

- During the three-year "transitional period" and the three-year "grandfathering period", the charges of interconnection shall be based on the prevailing charging principles applicable to Type II interconnection.

- After the three-year "grandfathering period", their service providers will decide whether to continue to serve them by direct access network or via commercially negotiated Type II interconnection.

20. Our proposal to withdraw Type II interconnection obligation in buildings connected by at least two self-built customers access networks will protect consumer interest by ensuring that consumers having a choice at present would continue to have a choice, and at the same time encourage operators to roll out self-built customer access networks. The proposal is therefore pro-consumer and pro-investment. Operators would also be allowed room and time to adjust their business strategy in light of the updated and future needs of the market.

INTERCONNECTION AT STREET LEVEL (POINT B)

21. This refers to interconnection at street level [Point B]. No operators are currently using this point for interconnection. Noting that interconnection at Point B may become attractive as it could be used to provide higher bandwidth broadband services using VDSL technology in future, the preliminary view is to retain Type II interconnection at Point B.

The situation can be reviewed in a few years' time taking into account the evolvement of technology and market needs by that time.

INTERCONNECTION AT INDIVIDUAL BUILDING LEVEL (POINT C)

22. This refers to interconnection to the in-building wiring part of a fixed network operator's customer access network [Point C]. Although the local fixed network operators generally have the right to enter into buildings to roll-out their own in-building telecommunications systems, it is highly unlikely that the demand of all licensed fixed network operators to roll out networks within buildings can be accommodated given the limited space in the common parts available within buildings. Further, from the angle of effective deployment of resources, it is not economically sensible to install multiple in-building telecommunications systems to provide services to a limited number of users. The availability of interconnection at individual building level thus plays an important part to enable operators who are faced with physical and economic constraints in installing their own systems inside buildings to provide services to the end customers in those buildings. As such, our preliminary view is to maintain Type II interconnection at individual building level.

CONSULTATION PERIOD

23. The consultation period for the Second Consultation Paper issued today will last for ten weeks. Interested parties are invited to submit their views to OFTA on or before 24 February 2004. The consultation paper can be downloaded from the websites of the Communications and Technology Branch, Commerce, Industry and Technology Bureau (http://www.info.gov.hk/citb/ctb) and OFTA (http://www.ofta.gov.hk).

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