

**IMPLEMENTATION OF THE
FULL LIBERALIZATION OF
THE LOCAL
FIXED TELECOMMUNICATIONS NETWORK SERVICES
MARKET
FROM 1 JANUARY 2003**

Consultation Paper

A. Introduction

Following the “1998 Review of Fixed Telecommunications” conducted in April and September 1998, on 4 May 1999, the Government decided, among other things¹, the following for the liberalization of the local and external fixed telecommunications network services (FTNS) markets:

- (a) to extend the moratorium on the issue of further local FTNS licences for the construction of new local fixed wireline-based networks (the “Moratorium”) to 31 December 2002, subject to satisfactory commitments from the three existing new FTNS licensees² on further network roll-out during the Moratorium; the Government shall invite applications in advance for new licences for the construction of competitive networks for operation from 1 January 2003; and
- (b) issuing licences for the operation with effect from 1 January 2003 of external telecommunications facilities based on submarine or land cables to those who have acquired capacity through the purchase of Indefeasible Rights of Use (IRUs) of cables; the Government shall invite applications before 1 January 2003 for new licences for the provision of such services from 1 January 2003.

¹ The decisions were the issuing of licences for the operation of wireless-based local FTNS, permission of Hong Kong Cable Television Limited to provision local FTNS over its Hybrid Fibre Coaxial Cable Network subject to certain binding commitments, issuing licences for the operation with effect from 1 January 2000 of external telecommunications facilities except those based on submarine or land cables under the purchase of Indefeasible Right of Use of cables.

² The three existing new FTNS licensees are New T & T Hong Kong Limited, Hutchison Global Crossing Limited and New World Telephone Limited.

To be consistent with the decision on the Moratorium, the Government will require until 31 December 2002 that all external facilities licensees shall use the circuits of local FTNS operators for their backhaul, i.e. circuits linking their cable landing points or satellite earth stations to the international gateways.

2. Each of the three existing new FTNS licensees subsequently submitted to the Government Deeds of Undertakings on the network roll-out and the Moratorium was extended accordingly.

3. It is our firm policy to fully liberalize the local FTNS market as from 1 January 2003 when the Moratorium ends. As part of the policy initiatives announced in the Chief Executive's Policy Address in October 2000, the Government has also decided to invite applications towards the end of 2001 for licences for the operation of additional local fixed wireline-based networks from 1 January 2003. Moreover, in line with the liberalization policy announced in May 1999, the Government will issue licences for operation from 1 January 2003 of external facilities based on submarine or land cables to those who have acquired capacity through the purchase of IRUs of cables.

4. In this consultation paper, the Telecommunications Authority (TA) would like to consult the industry and any interested parties on the details of the implementation of the decided policy for full liberalization of the local FTNS market in the following areas:

- (a) Arrangements for preparatory activities of the new licensees for the operation of new local fixed wireline-based networks to be allowed before 1 January 2003;
- (b) Arrangements for the granting of rights under section 14(1) of the Telecommunications Ordinance for placing and maintaining telecommunications lines, including the ancillary facilities, in the common parts of buildings and unleased Government land; and
- (c) Arrangements for permitting existing external FTNS and local wireless FTNS operators to operate new local fixed wireline-based networks.

B. Background

Liberalization of FTNS Market – Current Position

5. Competition in the local FTNS market was introduced in 1 July 1995 when three new entrants were licensed as FTNS operators in addition to the former monopoly operator, Hong Kong Telephone Company Limited. In accordance with the policy decisions announced on 4 May 1999, the local and external FTNS market was further liberalized as from January 2000 through the granting of local wireless FTNS licences and external FTNS licences.

6. At present, the following FTNS licences have been granted:
- (a) Four FTNS licences for the operation of wireline-based FTNS and all forms of external fixed telecommunications services and facilities³;
 - (b) One FTNS licence for the operation of local wireline-based FTNS by Hong Kong Cable Television Limited over its Hybrid Fibre Coaxial Cable (HFC) network;
 - (c) Five FTNS licences for the operation of local wireless-based FTNS (the “wireless FTNS”)⁴; and
 - (d) Twenty-two FTNS and fixed carrier licences for the operation of external FTNS via land cable, submarine cable, satellite or combinations among the three (the “external FTNS”).

Regulatory Principles

7. Over the years, a set of tried and tested regulatory principles, which have contributed to the development of a vibrant telecommunications industry in Hong Kong, have been followed:

³ The four licensees are PCCW-HKT Telephone Limited, New T & T Hong Kong Limited, Hutchison Global Crossing Limited and New World Telephone Limited.

⁴ The five licensees are Hong Kong Broadband Network Limited, SmarTone Broadband Services Limited, Hua Nan - Teligent Co., Limited, Eastar Technology Limited and PSINet Wireless Hong Kong Limited.

- (a) a strong preference for market-driven solutions and regulation would act as a surrogate for market forces where competition has not fully developed;
- (b) following from the above, there should generally be no restriction on the number of licences unless there are certain physical constraints (e.g. scarcity of spectrum);
- (c) the licensing regime should be technologically neutral, allowing the market to determine the most appropriate means to deliver services; and
- (d) we have made binding commitments in the World Trade Organization (WTO) on no foreign ownership restrictions for telecommunications operators and national treatment of foreign operators.

New licensing regime for 'carriers'

8. With the enactment of the amended Telecommunications Ordinance in June 2000, the Government has introduced a new type of licence known as carrier licence and the Secretary for Information Technology and Broadcasting is empowered under section 7(2) of the Ordinance to make regulations to prescribe the general conditions as well as the annual licences fees of the carrier licences. FTNS licence, amongst others, falls within the definition of carrier licence. From now onwards, new operators of FTNS will be granted fixed carrier licences. The fixed carrier licences have a validity period of 15 years and, subject to TA's approval, is renewable for a further period up to 15 years. There will be an annual licence fee payable which consists of a fixed fee of \$1 million, a fee based on the number of customer connections, and a fee for the use of any radio spectrum assigned. All such licence fees are all set on a cost-recovery basis.

9. Under the new fixed carrier licence regime as explained in paragraph 8, the TA will impose necessary and appropriate Special Conditions specific to the relevant scope of services. With the full liberalization of the FTNS market from 1 January 2003 onwards, new fixed carrier licences may cover local fixed wireline-based services, wireless local fixed network services

and as well as external facilities services whether they operate satellites, submarine cables or overland cables. An operator will only be required to take out one single fixed carrier licence for local FTNS, external FTNS, or both, with the scope of services as proposed by it in its application for licences and approved by the TA.

Performance Commitments

10. During the early stage of liberalization, it has been a requirement for FTNS licensees to enter into certain performance commitments to ensure the licensees can deliver the pledged benefits to the society in return for the privilege of being awarded the limited number of licences. Different types of FTNS licences have different sets of performance commitments which may include the date for the launch of services, scale of network roll-out, geographical coverage of network (in terms of buildings or homes connected or passed), capital expenditures (CAPEX) for network roll-out, and others. Performance commitment has been one of the major factors, among others, in the selection process for the issue of limited number of licences.

11. When the market is fully liberalized, and if there will be no pre-set limit of number of licences as discussed in paragraph 7, the need for performance commitments will become less necessary. Players are free to enter the market and offer services on scales decided by their own business considerations. If they do not provide services in certain areas or sectors, other operators may enter the market to provide those services. The TA has decided that no performance commitments will be required from the licensees for the operation of new local fixed wireline-based networks. However, applicants for the licences will be required to submit evidence on their financial capabilities to fulfill their submitted plans. Further to that, the licensees will be required to, if so directed by the TA, make contributions to Universal Service Obligations.

Road Opening

12. We have considered any possible disruption caused by additional road openings as a result of issuing more fixed network licences. We do not consider that there would be a significant impact on the current level of road openings in Hong Kong. The level of road works required for

telecommunication services is very light compared with other types of road works and the turn around time is very rapid. Moreover, OFTA requires all the telecommunications operators to first co-ordinate among themselves on any road opening so that all the interested parties could lay their cables together in a single road opening exercise. In granting the right of access to telecommunications licensees, OFTA includes as a condition that the licensee must follow the “Guidelines for Road Opening for Telecommunications/Broadcasting Operators”, which should be able to minimise any disturbance to the environment.

13. Against these principles and policies on licensing, the TA does not see any technical constraint on the full liberalization of the local fixed telecommunications market and would wish to consult the industry and any interested parties on the implementation arrangements discussed in the following sections of this paper.

C. Facilitating the Roll-out of New Local Fixed Wireline-based Networks

14. Given the large scale of investment and work involved, it would take substantially long period of time in the roll-out of new fixed wireline-based networks. In line with the Government’s policy to facilitate the operation of new competitive local fixed wireline-based networks as soon as practicable when the Moratorium ends, the TA considers that the early award of new Fixed Carrier licences or agreement to modify licence conditions of existing licensees in 2002 will help the new entrants in their business planning. This will also enable them to undertake the necessary preparatory work for network roll-out. The new fixed carrier licences will be issued as early as possible in 2002, but will be effective only from 1 January 2003 onwards.

15. As regards the scope of preparatory work which may be undertaken by the new entrants, the following activities will be reviewed against the commitments of the Government during the Moratorium period:

- (a) Recruitment of staff, planning and design of network, acquisition and taking delivery of cables and equipment;
- (b) Negotiation and entry into contracts of interconnection, supply

of services (e.g. database dipping services for number portability) and facilities (e.g. cables), and other commercial and cooperation matters for the operation of fixed wireline-based network from 1 January 2003;

- (c) Negotiation and entry into contracts with companies having ducts, or the space for laying ducts (e.g. utility companies, Mass Transit Railway Corporation, Kowloon Canton Railway Corporation, etc.) for leasing the ducts for occupation after the end of 2002, or leasing the space for laying ducts after the end of 2002;
- (d) Participation from 2002 in road opening coordination of the OFTA and Highways Department to coordinate, and obtain approval for, road opening work after the end of 2002;
- (e) Participation in road opening projects of licensed local fixed wireline-based network operators in 2002 such that the projects would include the requirements of the new entrants, although the ducts so provided for the new entrants shall not be occupied until 1 January 2003;
- (f) Construction of ducts across public streets or unleased Government land;
- (g) Installation of telecommunications cables across public streets or unleased Government land; and
- (h) Operation of the fixed wireline-based networks.

16. The Government's commitment under the Moratorium is not to issue further local FTNS licences for the operation of new local fixed wireline-based networks before 1 January 2003. Thus the new entrants should not be permitted to undertake, before the end of 2002, any activities which would be prohibited by virtue of section 8 of the Telecommunications Ordinance unless the person is in possession of a valid FTNS licence or fixed carrier licence. Such activities would include the establishment or maintenance of a means of telecommunications for communications across public streets or unleased

Government land. As the authorization for access to land under section 14 of the Telecommunications Ordinance is granted only to licensees (meaning persons with licences which have come into effect), before the licences of the new entrants become effective, they should not undertake any activities which require the exercise of the right of way across public street or unleased Government land.

17. Having considered the Government's commitments during the Moratorium period, the preliminary view of the TA is that activities (f), (g) and (h) should not be allowed before 1 January 2003, whereas activities other than these three should be allowed before 1 January 2003. Activities (f) and (g) would involve the exercise of right of way across public streets or unleased Government land whereas activity (g) is an establishment or maintenance of a means of telecommunications. Although new licensees for the operation of additional fixed wireline-based networks cannot conduct such activities before 1 January 2003, they should be allowed to perform preparatory work of construction and accordingly participate in the road opening coordination work once the licences are issued in 2002 and their requirements should be incorporated into any road opening projects undertaken by the existing licensed operators before the end of 2002. This means that in 2002 it would still be the existing licensed local fixed wireline-based network operators undertaking the road opening and duct laying work. In accordance with the normal road opening coordination procedures, they are required to consult the other licensed operators about their duct requirements along the same route and install the ducts for them in the same road opening exercise. It is intended that the existing licensed fixed wireline-based network operators, in their road opening projects in 2002, would be required to consult the new entrants about their ducting requirements along the same route and lay the ducts required for the new entrants as well (subject of course to the usual arrangements for sharing of costs). The early participation by the new entrants in the road opening coordination and projects in this manner would not involve any exercise of right of way across unleased Government land or public streets, but would facilitate the construction of ducts and laying of their telecommunications cables as soon as practicable as from 1 January 2003. If such participation in 2002 were not allowed, the new entrants could find themselves being blocked for any road opening work for a considerable period from 1 January 2003 because of the existing policy of not allowing re-opening of public streets for a moratorium period (lasting 1 to 5 years) after the last road opening work along the same route. The TA invites

comments on this and any other suggestions to facilitate the early operation of new local fixed wireline-based networks.

D. Rights granted under section 14(1)

Access to Space inside Buildings

18. For access to space inside buildings, currently there are a total of ten FTNS licensees being granted with authorization under section 14(1) of the Ordinance to place and maintain telecommunications lines, including the ancillary facilities, in the common parts of buildings (which include the telecommunications/broadcasting equipment rooms and risers, ducts, conduits, etc. used as cabling facilities)⁵. One Satellite Uplink and Downlink licensee, Galaxy Satellite Broadcasting Limited, has also applied to the TA for authorization under section 14(1) recently. Amendments to building legislation to make the provision of in-building access facilities for telecommunications networks a mandatory requirement for new buildings have been passed by the Legislative Council and have come into operation in November 2000.

19. Nonetheless, given the limited space in the common parts within buildings, it is highly unlikely that the demand of currently licensed FTNS operators can be accommodated, if they all choose to roll-out their own in-building telecommunications systems. Similarly, it is unlikely that all demand from new local fixed wireline-based network operators to build their own in-building telecommunications systems might be met. Given the number of end-users within a building is limited, it might be uneconomical to have over-duplication of telecommunications systems within the building as the operators constructing the telecommunications systems might not be able to recoup their investment.

20. In facing or preventing any bottleneck in the roll-out of in-building telecommunications systems, the TA considers that interconnection to existing in-building telecommunications system should be more preferable to

⁵ The four wireline-based FTNS licensees and Hong Kong Cable Television Limited are granted with general authorizations under section 14(1) to access all buildings, whilst the five wireless FTNS licensees are granted with building specific authorizations under section 14(1).

the installation of additional in-building telecommunications system. Should commercial negotiation fails to conclude the interconnection, parties may seek a determination of the terms and conditions under section 36A of the Ordinance by the TA.

21. With such consideration, the TA intends to grant authorization for building access under section 14(1) to new fixed carrier licensees on a case-by-case basis. In particular a licensee will need to substantiate that no technically feasible interconnection arrangement is available in the building. Nevertheless, the TA is mindful that in certain circumstances it will still be necessary to install certain telecommunications equipment within a building even though interconnection with in-building telecommunications cables can be arranged. In such circumstances, the TA considers that the granting of authorization for building access under section 14(1), if so justified, should only be for a limited scope for the accommodation of the telecommunications equipment.

Road Opening

22. As regards road opening for the laying of telecommunications cables, the TA is of the preliminary view that the road opening rights under section 14(1) should be granted on a case-by-case basis, depending on the scope of service and road opening work to be proposed and to be carried out. The road opening work will be further subject to the administrative arrangement under OFTA's published guidelines, and the Excavation Permit regime administered by the Highways Department.

E. Existing External FTNS and Local Wireless FTNS Operators to operate local fixed wireline-based networks

23. To implement the full liberalization policy with no pre-set limit of number of licences for the operation of local fixed wireline-based networks, the TA is of the view that it is not necessary to restrict the scopes of services of the local wireless FTNS and external FTNS operators to their current scopes of services. These licensees may apply for modifications of their licences to extend their scopes of services in their licences to operate local fixed wireline-based

networks. Along with the issuing of licences for the operation with effect from 1 January 2003 of external telecommunications facilities based on submarine or land cables to those who have acquired capacity through the purchase of IRUs of cables, the non-cable based external FTNS operators and wireless FTNS operators may also apply for the extension of their scopes of services in their licences to operate such facilities from 1 January 2003.

24. Further, the TA considers that it is permissible for external FTNS operators who wish to operate local fixed wireline-based networks for the purpose of their backhaul only.

25. Existing mobile network operators rely on the fixed network operators for the provision of links between their base stations and the mobile switching centres. However, they may wish to operate their own links. There would be spectrum limitation if such links were to be based on microwave transmission. Thus the self-provision of links by mobile network operators would involve road openings. This would increase the burden of road openings on the environment. The TA therefore considers that mobile network operators, in line with private users (e.g. large corporations) who may wish to establish their own fixed links, should use the facilities of public telecommunications networks. If the mobile network operators opt to operate fixed network facilities for public telecommunications services (i.e. not for self-use), they will be required to apply for separate fixed carrier licences. Their applications will be treated on the same basis as other applications.

F. Invitation of Comments

26. The TA invites comments on the details of the implementation arrangements explained **in paragraphs 14 to 25**. All comments and suggestions should be made in writing and should reach OFTA **on or before 13 November 2001**. The TA intends to publish all views and comments received and to disclose the identity of the source. Any part of the submission, which is considered commercially confidential, should be clearly marked. The TA would take such markings into account in making his decision as to whether to disclose such information or not. Submissions should be addressed to:

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29/F Wu Chung House
213 Queen's Road East
Wanchai
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Attn: Senior Regulatory Affairs Manager (Economic Regulations) 3

Fax: (852) 2803 5112

An electronic copy of the submission should be provided by e-mail to jkklau@ofta.gov.hk.

Office of the Telecommunications Authority
16 October 2001