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Legislative Council
Information Technology and Broadcasting Panel

**Implementation of the Full Liberalization of the Fixed
Telecommunications Network Services Market from 1 January 2003**

Introduction

On 16 October 2001, the Telecommunications Authority (TA) issued a consultation paper titled "Implementation of the Full Liberalization of the Local Fixed Telecommunications Network Services Market from 1 January 2003". 23 submissions were received. In response to the consultation, the TA issued a Statement on 11 January 2002 (Annex 1) in response to the consultation. The TA also issued on the same day a set of Guidelines (Annex 2) inviting applications for licence to operate fixed telecommunications services starting 1 January 2003. This paper aims to brief members on the implementation of the respective measures.

Background

2. It is the Government's firm policy to liberalize the local fixed telecommunications network services (FTNS) market from 1 January 2003. In May 1999, the Government announced its decisions to, among others,

- (a) extend the moratorium on the issue of further local FTNS licences for the construction of new local fixed wireline-based networks (Moratorium) to 31 December 2002, subject to satisfactory commitments from the three existing new FTNS licensees (New T & T Hong Kong Limited, Hutchison Global Crossing Limited and New World Telephone Limited) on further network roll-out by end 2002. The Government shall invite

applications in advance for new licences for the construction of competitive networks for operation from 1 January 2003.

- (b) issue 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.

To be consistent with the decision on the moratorium, the Government would 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.

- 3. The TA has now finalized the preparatory measures and is ready to invite applications for licence.

TA Statement

- 4. In the consultation paper, the TA invites inputs on the following three issues:-

- (a) measures to facilitate the roll-out of new local wireline-based FTNS networks as soon as practicable;
- (b) arrangements for granting authorizations under section 14(1) of the Telecommunications Ordinance (Cap 106) to the new licensees for access to space in buildings and for road opening; and
- (c) arrangements for existing local wireless FTNS and external FTNS operators to operate new local wireline-based FTNS networks.

5. Having considered the submissions received, the TA has finalized the details of the implementation of the policy for full liberalization of the FTNS market and issued a Statement setting out his views and decisions on the matter. In summary, the implementation details are:

- a) From 1 January 2003 when the FTNS market is fully liberalized there will be no pre-set limit on the number of licences to be issued for the operation of local fixed wireline-based networks. The TA notes that majority of representations received support in principle the full liberalization policy and that there should be no pre-set limit on the number of licences to be issued.

Moreover, the TA will also consider applications and issue licences for operation from 1 January 2003 of external facilities based on submarine or land cables to applicants who have acquired capacity through the purchase of Indefeasible Rights of Use (IRUs) of cables;

- b) The TA considers that the network rollout and level of investment should best be decided by the market when the market is fully open. Accordingly no network rollout and capital expenditure (CAPEX) commitments in the form of performance bonds will be required from licensees that are licensed to operate from 1 January 2003 of local fixed wireline-based networks and/or external facilities. In order to maintain equal treatment between new and existing operators all performance commitments of existing FTNS operators that will be due on or after 1 January 2003 as initially committed to in the licences granted will be waived;
- c) The TA has separately issued today a set of guidelines “Guidelines for the Submission of Proposals Applying for Fixed Carrier Licences for the Operation of Fixed Telecommunications Network Services from 1 January 2003 in the Hong Kong Special Administrative Region” (the “Guidelines”) to invite interested parties to submit proposals applying for fixed carrier licences or extension of scopes of services of existing FTNS for the operation of local fixed wireline-based networks and/or other forms of FTNS, from 1 January 2003;

- d) The TA will not consider granting any fixed carrier licences to those applicants who intend to primarily rely on interconnection and wholesale services of other operators' infrastructure to roll out their network or provision of their services. Carrier licences are issued to those operators who establish and maintain telecommunications networks for carrying communications;
- e) The TA considers that a local wireline-based networks licensee should offer FTNS to the public, wholesale as well as retail. The TA therefore will not consider granting any fixed carrier licence to applicants who intend to supply transmission services required primarily to itself and its affiliated companies;
- f) The TA notes the concerns raised in some submissions about the need to ensure that new operators are genuine investors in Hong Kong's telecommunications market. In considering any proposal applying for fixed carrier licence, the TA will evaluate, amongst others, the benefit of the proposed network to the community, more specifically the type of services to be offered, the intended coverage area, the reasonableness of the business plan and the financial capability of the applicant to fulfill the CAPEX requirement. As a safeguard, these key elements in the applications to the TA will be incorporated into the special conditions of the fixed carrier licence. This will ensure that only serious players will be granted a carrier licence for operation of the FTNS services;
- g) The TA maintains that laying of telecommunications lines, operation of network and offering of services should not be allowed before the Moratorium ends on 31 Dec 2002. However other activities which will facilitate the preparation should be allowed, provided that the new entrants are granted with fixed carrier licences to operate local fixed wireline-based networks from 1 January 2003. This includes participation in road opening projects of licensed local fixed wireline-based network operators in 2002 such that the projects would cover the requirements of the new entrants;
- h) The TA decides that applications by new local fixed and/or external fixed wireline-based operators for authorizations to be granted under section 14(1) of the Telecommunications Ordinance for access to building and road opening will be considered on a case-by-case basis. Such section 14(1)

authorizations will be granted on the conditions that the respective work will be carried out and completed before a specified date and the fixed telecommunications services provisioned via these authorizations are to be offered to the public. These authorizations may be withdrawn if the conditions are not met;

- i) The TA concludes that existing local wireless FTNS and external FTNS operators may apply to extend their scope of services to operate local fixed wireline-based networks and other forms of FTNS that they have not been licensed to operate. These applications will be subject to the same licensing criteria set out for the new fixed carrier licence application; and
- j) The TA decides that backhaul should become part of the external network after the Moratorium ends on 31 Dec 2002 and external FTNS operators may, after that date, opt to install their own backhauls or continue to lease from other licensees. Moreover, these external licensees may choose to offer only wholesale services.

Benefits of liberalization and international trend

6. The Government is firmly committed to fully liberalise our telecommunications market in 2003. Competition in an open and liberalized market has been conducive to quality and innovative services whereby prices are set by the market forces. A few notable examples on the benefits of a liberalized market are:

- a) IDD customers have benefited from a tremendous saving of HK\$9.4 billion since the introduction of competition in January 1999;
- b) The prices of international private leased circuits (IPLC) have dropped significantly since the external facilities market was open in January 2000. For instance, the monthly rental of an IPLC with a capacity of 2 Mbps between Hong Kong and the Mainland China has plummeted from HK\$140,000 to HK\$20,000 over the past years, a reduction of 86%;
- c) With ten fixed telecommunications network operators, broadband service has improved and the number of customer has increased from 51 494 in February 2000 to 543 433 in October 2001, more

than 10-fold in less than two years. The average monthly rental is in the region of HK\$200, one of the cheapest in the world; and

d) In the local telephone market, more customers have alternative suppliers which offer monthly rentals ranging from HK\$48 to HK\$88.

7. The decision to open the market with no pre-set limit on the number of licences and no performance commitments is in line with the international trend. Most countries and territories have opened their markets already. Those which have opened earlier do not have requirements now for commitments in the form of a bond. (Annex 3).

8. The Government considers that when the market is fully open there is no need to dictate the rollout and the amount of investment for telecommunications networks. This should best be decided by the market. This is also compatible with our policy of minimising barriers to enter a market.

9. In the course of liberalization it is important that a fair environment is provided. In this respect the Telecommunications Ordinance was amended in 2000 to strengthen provisions for fair competition, interconnection and sharing of bottleneck facilities. The Government will continue to monitor the market, and review and update the regulatory regime where appropriate.

Information Technology and Broadcasting Bureau
11 January 2002

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

**STATEMENT OF
THE TELECOMMUNICATIONS AUTHORITY
HONG KONG**

11 January 2002

INTRODUCTION

On 16 October 2001, the Telecommunications Authority (“TA”) issued an industry consultation paper entitled “Implementation of the Full Liberalization of the Local Fixed Telecommunications Network Services Market from 1 January 2003 - Consultation Paper” (the “Consultation Paper”) which invited comments from the industry and any interested parties on the details of the implementation of the policy for full liberalization of the local fixed telecommunications network services (“FTNS”) market in the following areas:

- (a) measures to facilitate the roll-out of new licensees’ local wireline-based fixed networks as soon as practicable;
 - (b) arrangements for granting authorizations under section 14(1) of the Telecommunications Ordinance (Cap 106) (“the Ordinance”) to the new licensees for access to space in buildings and for road opening; and
 - (c) arrangements for licensing existing local wireless FTNS and external FTNS operators to operate local wireline-based fixed networks.
2. A total of twenty-three submissions were received from:
- (a) Asia Global Crossing Limited and Asia Global Crossing Hong Kong Limited (“AGC”)
 - (b) AT&T Asia/Pacific Group Limited (“AT&T”)
 - (c) CLP Telecommunications Limited (“CLPT”)
 - (d) Consumer Council
 - (e) Galaxy Satellite Broadcasting Limited (“Galaxy”)
 - (f) Hong Kong Broadband Network Limited (“HKBN”)
 - (g) Hong Kong Cable Television Limited (“HKCTV”)
 - (h) Hong Kong CSL Limited (“HKCSL”)
 - (i) Hong Kong Telecommunications Users Group (“HKTUG”)

- (j) Hutchison Global Crossing Limited (“HGC”)
- (k) Hutchison Telephone Company Limited & Hutchison 3G HK Limited (“Hutchison”)
- (l) Mandarin Communications Limited (“SUNDAY”)
- (m) MCI WorldCom Asia Pacific Limited (“MCI”)
- (n) New World Telephone Limited (“NWT”)
- (o) Pacific Century CyberWorks Employees General Union (“PCCW EGU”)
- (p) PCCW-HKT Telephone Limited (“PCCW-HKTC”)
- (q) Peoples Telephone Company Limited (“Peoples”)
- (r) PLDT (HK) Limited (“PLDT”)
- (s) SmarTone Mobile Communications Limited & SmarTone Broadband Services Limited (“SmarTone”)
- (t) Sprint Hong Kong Limited (“SHK”)
- (u) Dr John Ure, Director of the Telecommunications Research Project, University of Hong Kong
- (v) Wharf New T&T Limited (“WNT&T”)
- (w) Dr Xu Yan, Hong Kong University of Science and Technology

The submissions have been posted on the webpage of the Office of the Telecommunications Authority (“OFTA”) at:

http://www.ofta.gov.hk/report-paper-guide/paper/consultation/table_1128.html

SUMMARY

3. Having considered the submissions received, the TA has finalized the details of the implementation of the policy for full liberalization of the local FTNS market. The views and decisions of the TA are set out in this Statement. In summary, the implementation details are as follows:

- As from 1 January 2003, the local and external FTNS market will be fully liberalized. There will be no pre-set limit for the number of licences for the operation of local wireline-based fixed networks¹. The TA will also issue licences for operation from 1 January 2003 of external facilities based on submarine or land cables² to those who may directly invest in cable capacity or acquire capacity through the purchase of Indefeasible Rights of Use (“IRUs”) of cables³;
- The TA considers that the scale of the rollout and investment of the new entrants should best be determined by the market. Therefore no rollout or

¹ There is already no pre-set limit for the number of licences for the operation of external fixed networks.

² There are currently no restrictions for the submission of applications for licences for the operation of non-cable based external facilities.

³ There will be no distinction drawn between “new” cables and “existing” cables as defined in the “Guidelines for the Submission of Proposals Applying for Fixed Carrier Licences for the Operation of External Fixed Telecommunications Network Services in the Hong Kong Special Administration Region” issued on 18 May 2001.

capital expenditure (capex) commitments in the form of performance bonds will be required from licensees that are licensed to operate from 1 January 2003 of local wireline-based fixed networks and/or external facilities. In order to maintain equal treatment between new and existing operators in respect of performance commitments, all performance commitments of existing local and external FTNS operators that will be due on or after 1 January 2003 as initially committed to in the licences granted will be waived;

- The TA has separately issued today a set of guidelines “Guidelines for the Submission of Proposals Applying for Fixed Carrier Licences for the Operation of Fixed Telecommunications Network Services from 1 January 2003 in the Hong Kong Special Administrative Region” (the “Guidelines”) to invite interested parties to submit proposals applying for fixed carrier licences or the extension of scope of services under existing FTNS or fixed carrier licences;
- The TA will not consider granting any fixed carrier licences to operate local wireline-based fixed networks to those applicants who intend to rely primarily on the interconnection with, and access to, the infrastructure of other FTNS or fixed carrier licensees to roll out their networks or provide their services;
- The TA considers that a local wireline-based fixed network licensees should offer services to the public at the wholesale and/or retail level. The TA therefore will not consider granting any fixed carrier licence to applicants who intend to supply transmission facilities primarily to itself or its affiliated companies;
- In considering any proposal applying for fixed carrier licence, the TA will consider, amongst others, the benefit of the proposed network to the community, more specifically the type of services to be offered and the intended coverage areas, the reasonableness of the business plan and the applicant’s financial capability to fulfill the capex requirement. Submissions and representations to the TA in the application will be incorporated into the special conditions and schedules of the fixed carrier licence. Amendments to the scope of the networks and services specified in the schedules will be subject to the approval of the TA;
- The TA maintains that preparatory activities (f), (g) and (h) of the new entrants in 2003 listed in paragraph 15 of the Consultation Paper⁴ should not be allowed before 1 January 2003. However activities other than these three listed in the same paragraph should be allowed in 2002, provided that the new entrants are granted with fixed carrier licences to operate local wireline-based fixed networks from 1 January 2003. When the

⁴ See paragraph 17 of this Statement.

Moratorium ends after 31 December 2002, the restrictions on activities (f), (g) and (h) will be lifted. Whether or not any activities not falling into the scope of activities listed in paragraph 15 of the Consultation Paper can be undertaken by the new entrants within the Moratorium period should be determined on the basis of the same principles and considerations discussed above;

- The TA decides that section 14(1) rights for access to buildings and road opening will be granted to newly licensed local wireline-based fixed network operators on a case-by-case basis. These section 14(1) rights will be granted on the conditions that the respective work will be carried out and completed before a specified date, the extension of which is subject to the approval of the TA. The exercise of the section 14(1) rights are to be for the provision of the services under the licence, which according to the licence conditions, must be offered to the public at the wholesale and/or retail level. The authorization for such rights may be withdrawn if the conditions are not met;
- The TA concludes that local wireless FTNS and external FTNS operators may apply for the extension of the scope of services under their existing licences to operate local wireline-based fixed networks and other forms of FTNS. These applications will be subject to the same licensing criteria set out for applications for new fixed carrier licence;
- The TA also concludes that external FTNS operators may opt to apply for modification of their licences for external facilities for the purpose of constructing and operating their backhaul only. Such a modified external facilities licence does not constitute a licence for the provision of local wireline-based fixed networks. If an external FTNS operator wishes to extend the licence to become a local fixed network operator, it must fulfil the same licensing criteria as for other applications for local fixed network licences;
- The TA considers that mobile network operators should not be licensed to operate local circuits for the operation of their own mobile networks only. They may apply for licences for the operation of local fixed networks for the provision of services to the public in general, and in doing so they must fulfil the same licensing criteria as for other applications.

POLICY OF FULL LIBERALIZATION OF THE LOCAL FTNS MARKET

4. The implementation of the full liberalization of the local FTNS market from 1 January 2003 (the “full liberalization”) follows the liberalization policy announced in May 1999 to license the operation of additional wireline-based fixed networks when the moratorium (the “Moratorium”) ends on 31 December 2002.

Licensing additional local wireline-based fixed networks

5. NWT submitted that the full liberalization should be conditional upon three measures of effective competition: the full re-balancing of local telephony tariff, the establishment of an effective interconnection regime and the capturing of sufficient market share by the “first wave” entrants, namely NWT, HGC and WNT&T. It argued that the latter two have not yet been satisfactorily achieved and hence the licensing of additional local wireline-based fixed networks should be postponed. PCCW EGU submitted that there are already 10 local FTNS operators in Hong Kong. The Government should not license any more operators, otherwise it may lead to fierce competition and cause market disorder, merging and winding-up of companies, salary cuts, layoffs and degradation of telecommunications service quality. PCCW-HKTC, HGC and HKCSL shared similar views that further public consultation and detailed cost-benefit analysis are necessary before the TA should finalize the details in light of the great significance of the liberalization.

6. The full liberalization policy announced in May 1999 was formulated after due consideration of all comments from two rounds of public consultations, namely “1998 Review of Fixed Telecommunications” conducted in April 1998 and September 1998 respectively. This consultation therefore does not and should not seek to re-open the issue of full liberalization in 2003.

Performance Commitment

7. Several submissions commented on the need for performance commitments for the new entrants. SmarTone, MCI, CLPT, AT&T, PLDT and SHK supported the proposal in the Consultation Paper that no performance commitments from the new entrants should be required when the market is fully liberalized. SmarTone further added that the lifting of performance commitment requirements from new entrants would give them advantage over existing FTNS operators who have performance commitments stretching beyond 1 January 2003. To restore the fairness, SmarTone submitted that performance commitment requirements from existing FTNS operators should be waived.

8. On the other hand, PCCW-HKTC alleged that the TA’s plan to require no performance commitments from new entrants appears to have reversed the Government policy of encouraging facilities-based competition for local network development. Both PCCW-HKTC and HGC considered that, without network roll-out performance commitments, new entrants would simply take advantage of existing telecommunications infrastructure, providing network services by resale instead of making investment to roll out their own networks. New entrants without investment commitments would operate to skim revenues from the profitable sectors only, without bringing the benefits of competition to the general public, particularly those outside core areas. AGC submitted that, without performance commitments, new entrants would be given significant advantages over existing FTNS operators who have made substantial

investment in the telecommunications industry in Hong Kong. HKBN foresaw that the lack of performance commitments may attract irresponsible new entrants messing up the in-building access mechanism and engaging in leasing reserved space and in-building infrastructure to other operators without offering genuine telecommunications services. NWT and HKTUG also advocated that performance commitments from new entrants should be required. PCCW-HKTC and HGC pushed this idea further by advocating that the commitments should be of substantial scale or comparable to those of the existing wireline-based FTNS operators. HGC also proposed that operators without such commitments should not be granted fixed carrier status, any privilege to interconnect with fixed carriers, and any rights to gain access to buildings and for road opening to construct telecommunications infrastructure.

9. The TA considers that it is misconceived to equate the proposed policy of requiring no performance commitments from new entrants with giving up the policy to encourage facilities-based competition. The Government's policy is and will continue to be promoting investments in telecommunications infrastructure and facilities-based competition. The TA believes that the development of infrastructure should be market driven when the market is fully open. The requirement for performance commitments is a means to ensure that, when only a limited number of operators can be licensed, those granted with the privilege of a network licence will roll out their networks as proposed in the applications. When the limit on the number of licences is lifted, operators can enter the market freely to capture any market opportunities that are unattended to or not well-addressed. Under this situation, there would be different investment plans targeting different sectors or using different technologies. These investment plans might well have to be modified after licensing to cope with changes in the market. It would be quite impossible for the Government to dictate, through licensing criteria and licence conditions (backed up by performance bonds), the minimum scale of investment of every player. The TA considers that imposing the requirement for performance commitments or dictating the scale of infrastructure investment of new entrants would be arbitrary and in effect create unnecessary barriers to entry.

10. The TA considers that it is important that any artificial and unnecessary barriers to entry should be minimized to allow FTNS operators with a genuine plan to invest in network infrastructure to enter the market freely so as to bring the benefit of enhanced competition to the public. The TA will evaluate the applications for fixed carrier licences and only those meeting the licensing criteria will be approved. The TA will consider the merits of the applications, including the benefit that the proposal would bring to the community. The TA will assess the intended coverage of the network, the services to be offered, the reasonableness of the business plan (including the capex requirement to implement the network coverage and services proposed) and whether or not the applicant has the financial capability available to fulfill such capex demand. Submissions and representations to the TA in the application will be incorporated into the special conditions and schedules of the fixed carrier licence. The services proposed in the application will be incorporated into the schedules to the licence on the scope of service. Amendments to the scope of the networks and services specified in the schedules will be subject to the approval of the TA.

11. Those intending to take the advantage of being a fixed wireline-based network licensee for “self-provision” but not offering service to the public would create unnecessary burden on the limited resources (e.g. space for network rollout) and therefore should be discouraged. Thus the TA would not consider licensing an applicant whose primary purpose of obtaining the fixed carrier licence is to provide circuits to serve itself or its affiliated companies. The licensee will be bound by licence conditions to publish tariffs and make the services under the licence available to the public, at the wholesale level and/or the retail level. For example, a mobile network operator intending to “self-provide” its links between the base stations and mobile switching centres without the intention of offering leased circuit services to the public would not be licensed. Likewise, an external telecommunications service provider or Internet service provider intending to self-provide its own external circuits without offering international capacity to the public would not qualify for the licence.

12. The present five wireless FTNS operators have the milestones under their performance bonds due in February and March 2003 with a minor exception⁵. Some external FTNS operators have milestones under their performance bonds due beyond 1 January 2003. It is worth mentioning that most of the performance commitments under the first batch of licences issued in 2000 are to be fulfilled before 2003. Recently, various wireless FTNS operators have applied to the TA for different extent of relaxation to their performance bonds. The TA agrees that it is justified to treat new entrants and existing FTNS operators equally in respect of performance commitment requirements when the market is fully liberalized. The TA has therefore decided that, along with the decision to have no performance commitments required for new entrants who will enter the FTNS market from 1 January 2003, all performance commitments of existing FTNS operators that will be due on or after 1 January 2003 as initially committed to in the licences granted will be waived. However commitments which will be due on or before 31 December 2002 under the originally issued licences will have to be adhered to and any request for extension or modification of these would only be considered by the TA on a case by case basis depending on the merits of the individual requests.

Interconnection

13. Notwithstanding the absence of requirements for performance bonds under the licence, the TA agrees that the policy of promoting investment in network infrastructure should be reflected in the licensing criteria for the 2003 entrants. The 2003 entrants would be expected to roll out their own infrastructure as far as possible and should not rely primarily on interconnection with, or access to, the infrastructure of other operators to provision their services. The TA will not consider granting any licences to operate local wireline-based networks to those applicants who intend to rely primarily on interconnection with, or access to, other operators’ infrastructure to roll out their networks or provision their services. Having said that, the TA is mindful that some

⁵ except the last milestone under the performance bond of Hua Nan-Teligent Co. Ltd. for the access to buildings which is due in March 2004.

essential facilities are by nature “bottlenecks” given the constraints in duplicating the facilities e.g. local loops and cable landing stations. Interconnection to, or sharing of, such facilities is still required, otherwise competition would be delayed. The right of a licensee to seek a determination on interconnection is given in the law. Section 36A of the Ordinance allows any licensee to seek a determination by the TA on the terms and conditions of interconnection. The TA will follow the published set of principles in deciding whether to accept requests for interconnection determination, and if accepted, in making the determination. The submission of PCCW-HKTC proposing to impose a requirement such that licensees committing to invest less than the current FTNS licensees should not be allowed to seek a determination would amount to pre-empting the TA’s discretion under section 36A of the Ordinance. The TA does not favour this approach.

14. Based on the above considerations, new entrants from 1 January 2003 would not have access to, and co-location at, the incumbent’s exchanges for Type II interconnection as of right, but requests for such access and co-location may be granted on a case-by-case basis, depending on the merits of the requirements and the constraints in the exchanges concerned.

15. Submissions from Consumer Council, Hutchison, Peoples, Dr John Ure and Dr Xu Yan have raised comments in relation to interconnection charging principles between fixed carriers, interconnection principles between fixed and mobile carriers, and furthermore the convergence of fixed and mobile regulatory regime. The TA considers that these submissions are outside the context of this consultation exercise and should be dealt with separately at the appropriate time. As a matter of fact, the TA Statements Nos. 4, 5, 6, 7 (revised) and 8 that relate to fixed carrier interconnection are under review and the industry and the public have supplied valuable comments in response to the consultation paper published in September 2001. A TA Statement concluding this consultation is expected to be published in early 2002.

The Implementation

16. The current telecommunications regulatory framework has already included all the necessary elements to implement the full liberalization of the FTNS market. The TA will adhere to the liberalization policy to license the operation of additional local wireline-based fixed networks from 1 January 2003 and the operation from 1 January 2003 of external facilities based on submarine or land cables. All restrictions relating to the submission of applications for fixed carrier licences effective from 1 January 2003 will be lifted. Thus licences may be granted to those who have directly invested in cable capacity, or acquired capacity through the purchase of IRUs of cables. No distinction between “new” cables and “existing” cables (as defined in the “Guidelines for the Submission of Proposals Applying for Fixed Carrier Licences for the Operation of External Fixed Telecommunications Network Services in Hong Kong Special Administration Region” issued on 18 May 2001) will be drawn. For all fixed carrier licences issued for operation from 1 January 2003, there will be no preset limit of the number of licences and no performance commitments.

PREPARATORY WORK ALLOWED BEFORE 2003

17. In paragraph 15 the Consultation Paper, the TA has identified the following eight types of preparatory activities:

- (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 wireline-based fixed 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 wireline-based fixed 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 wireline-based fixed networks.

18. In the Consultation Paper, the TA put forward his preliminary views that only those activities of (f), (g) and (h), which are activities of construction of ducts and installation of telecommunications cables across public streets or unleased Government

land, and operation of the wireline-based fixed networks, should not be allowed before the Moratorium ends.

19. Submissions responding to the proposed arrangement for preparatory activities, with a few exceptions as stated below, generally agree with the view of the TA. MCI went further by submitting that the TA should allow external FTNS operators to build, but not operate, their backhaul links with immediate effect.

20. AT&T, MCI, Galaxy, CLPT, HKBN, WNT&T & HKCTV welcomed the arrangement to let new entrants undertake the necessary preparatory works for network roll-out so as to facilitate the operation of new competitive local wireline-based fixed networks as soon as practicable when the Moratorium ends. CLPT urges OFTA to facilitate comprehensive preparatory works of new entrants to ensure the speedy realization of customer benefits arising from full liberalization.

21. WNT&T and HKCTV considered that existing licensees could be burdened by incorporating new entrants' requirements in 2002. Therefore they suggested that detailed arrangements should be worked out to avoid such burden. HKCTV further suggested that the new entrants should be required to pay the licence fee for the year 2003 before they are permitted to engage in the allowable preparatory works in 2002.

22. HKBN was concerned that a new entrant who has been granted a franchise for other types of public utility services (such as the franchise to supply power or gas) might make use of the authorization under its existing franchise to construct ducts for telecommunications cables, or even install telecommunications cables, across public streets or unleased Government land. HKBN suggested that the TA should monitor closely the activities of such new entrants.

23. NWT submitted that the most appropriate course is not to allow new entrants to undertake any preparatory work before 1 January 2003. If the TA chooses to allow such work, he should take effective measures to ensure that the new entrants do not abuse the permission provided.

24. HGC objected to the proposal to allow new entrants to participate in road opening projects in 2002 saying that could frustrate the plans of the existing operators to deploy their networks in 2002 by creating gridlock in the current industry processes, and by the time when the existing operators seek regulatory intervention, they would have already suffered irreparable harm and loss of time. PCCW-HKTC shared similar view on this and objected to permitting new entrants to participate in road opening projects in 2002. PCCW-HKTC considered that road opening rights should only be granted to those who have agreed to undertake substantial network roll-out commitments.

25. PCCW-HKTC also considered that to enter into a contract with parties whose "carrier" status is not yet effective in 2002 will impose significant risk on PCCW-HKTC's commercial operations and therefore PCCW-HKTC should not be

required to invest in its network and operational systems to accommodate unlimited numbers of “will be” carriers until post January 2003. PCCW-HKTC had concern that utility companies with franchise for non-telecommunications services may lay ducts for the use of their affiliated carrier licensees but would not provide similar arrangements for other telecommunications licensees. In the event of a determination being required over the provision of duct space or space for laying ducts by a utility company (which is not a licensee under the Ordinance), PCCW-HKTC was doubtful as to whether the TA would have any jurisdiction over the utility company.

26. The TA re-iterates that new entrants’ fixed carrier licences granted in 2002 will not allow them to offer service before 1 January 2003. Accordingly, they should not engage in the construction and operation of telecommunication ducts and cables across public streets and unleased Government land, or operate any wireline-based fixed networks, in 2002.

27. The TA sees general support to allow these preparatory works as listed in paragraphs (a) to (c). Nevertheless, there are two major concerns that need to be addressed here.

28. In respect of the concern that utility companies may make use of their road opening rights to construct cable ducts across public streets or unleased Government land for telecommunications cables, the road opening licences granted to utility companies by the concerned authorities are for the specific purpose of installation or maintenance of utility assets under their respective franchises, but not for telecommunications. The TA is mindful that the utility assets may include optical fibres for signal transmission for the purported purpose of utility service provisioning and monitoring, but the optical fibres may subsequently be deployed from 1 January 2003 for telecommunications services. If the redeployment of the utility assets is just for the affiliated telecommunications carrier of the utility company, the TA will consider if the affiliated licensee would be in breach of any fair competition provisions in the legislation or the licence in accepting the preferential treatment from the utility company. The TA would consider if the preferential treatment would prevent or substantially restrict competition in the telecommunications market before taking a decision. The affiliated licensees are not allowed to enter into any exclusive or restrictive agreement with the utility companies to access any space or facilities of utility assets properly authorized for telecommunications purpose. The affiliated telecommunications licensees will have to take measures directed by the TA to avoid breaches of the fair competition provisions.

29. The TA has also the jurisdiction to direct the sharing of telecommunications facilities used by any licensee under section 36AA of the Ordinance. Thus even when the ducts were built and owned by the utility companies, the TA has the power to direct sharing of those ducts which are used by its affiliated telecommunications operators which are licensees under the Ordinance.

30. With regard to the deployment of utility assets for telecommunications, the TA considers that any deployment should be authorized by the relevant regulators under the appropriate ordinances and regulations. The utility companies should clear the proposed deployment with the relevant regulators before doing so.

31. In the case of leasing or selling dark fibres to licensed carriers where the lessors or the sellers do not engage in any lighting up of (connection of electronics equipment to) the fibres for telecommunications usage (the lighting up being done under licence by the lessors or buyers as carriers), fixed carrier licences are not required for the lessors or the sellers. The lessors or the sellers are treated as contractors to the fixed carrier licensees for the supply of the dark fibres. For the avoidance of doubt, the lighting up of fibres for public telecommunications services do require appropriate licences under the Ordinance depending on the scope of telecommunications services to be offered.

32. Another concern is the entering into contracts with new entrants whose “carrier status” is not yet effective in 2002. The fixed carrier licences to be granted to new entrants in 2002 are carrier licences. The licence will specify that services will not be offered before 1 January 2003, but the licensee will be allowed to proceed with all the activities described in paragraphs (a) to (c). Given such certainty and the known restrictions applicable to them in 2002, the TA considers that proper commercial terms in the contracts would be able to bind the new entrants participating the projects and safeguard the interests of the other parties to the contracts.

33. For preparatory works in paragraphs (d) and (e), i.e. participation in road opening coordination and road opening projects in 2002, the TA considers that no fixed carrier licensee status or road opening right within 2002 is required as long as the new entrants do not take part in any road opening civil works. The TA sees no dispute on this from the comments and the respondents were primarily concerned about the lack of performance commitments to bind the new entrants to undertake their responsibilities seriously in 2003. The matter on performance commitment requirement has been covered earlier. At present there is a road opening coordination procedure administered by OFTA. The OFTA will continue to facilitate efficient operation of the coordination procedures to ensure that the participation of the new entrants in 2002 would not unduly slow down the process.

34. Based on the considerations above, the TA concludes that, other than activities (f), (g) and (h) listed in paragraph 15 of the Consultation Paper which should not be allowed before 1 January 2003, the other activities listed in the same paragraph should all be allowed, provided that the new entrants are granted with fixed carrier licences to operate local wireline-based fixed networks from 1 January 2003. When the Moratorium ends after 31 December 2002, the restrictions on activities (f), (g) and (h) will be lifted. Whether or not any activities not falling into the scope of activities listed in paragraph 15 of the Consultation Paper can be undertaken by the new entrants should be determined based on the same principles and considerations discussed above.

RIGHTS TO ACCESS TO BUILDINGS AND ROAD OPENING

35. Access to common parts in buildings and road opening may be authorized pursuant to section 14(1) of the Ordinance by the TA for the purpose of establishing fixed telecommunications network services. Currently, the five wireline-operators, HGC, HKCTV, NWT, PCCW-HKTC and WNT&T are granted with road opening rights whereas FTNS operators not authorized to operate local wireline-based fixed networks, i.e. the wireless FTNS operators and external FTNS operators, are not granted with road opening rights. In the Consultation Paper, the TA proposed that the section 14(1) rights for access to building and road opening should only be granted to new entrants on a case-by-case basis.

36. NWT, WNT&T and Galaxy supported the granting of section 14(1) rights to new entrants on case-by-case basis. NWT also requested the TA should only permit a “second wave” entrant to deploy facilities for its “private use” where the applicant demonstrates that comparable facilities cannot be obtained, on reasonable prices, from PCCW-HKTC or a “first wave” entrant (i.e. HGC, NWT and WNT&T).

37. HKTUG agreed with the proposed approach for building access but considered that a better approach would be to encourage at least one alternative service provider to develop a blockwiring system for each building. SHK requested the OFTA to clarify the procedures for granting section 14(1) rights.

38. HGC and PCCW-HKTC commented that the granting of section 14(1) rights should be conditional. HGC submitted that new entrants not planning significant infrastructure development that will benefit a good portion of the public should not be given any road opening or building access rights at all. PCCW-HKTC also requested that road opening rights should be granted only to those carrier licensees who have made firm commitments to build network infrastructure on a scale comparable to the existing FTNS operators. PCCW-HKTC acknowledged that there are buildings that lack sufficient space to accommodate all operators’ telecommunications systems. However, in PCCW-HKTC’s view, new entrants should not be encouraged by the TA to compete on a service basis and the TA should urge all operators to build their own in-building facilities, particularly in new buildings.

39. On the contrary, CLPT objected to the proposal and considered that new entrants should not be awarded “second class licences” without the same rights for access to buildings and road opening as HGC, HKCTV, NWT, PCCW-HKTC and WNT&T. In its view, genuine infrastructure competition could not emerge with such an arrangement. HKBN also objected to the proposal, and had concern that case-by-case authorization for in-building access and road opening by the TA would impose unnecessary uncertainty and confusion on new entrants.

40. SmarTone and SUNDAY requested that mobile network operators should be granted same section 14(1) rights as fixed network operators.

41. The TA disagrees that case-by-case authorization would impose uncertainty on new entrants' operation and would adversely affect genuine infrastructure competition. As pointed out in earlier paragraphs, the TA promotes facilities competition and he will exercise his power to facilitate the operators' infrastructure roll-out.

42. At the early stage of market liberalization with a limited number of licences, the Government needed to speed up the pace of infrastructure roll-out to facilitate the earliest possible competition in the FTNS market. Therefore in consideration of the substantial scale of network roll-out and performance commitments, the granting of general section 14(1) rights was necessary. Upon full liberalization of the local FTNS market with no pre-set limit of number of licences to operate local wireline-based fixed networks and with no performance commitments under the licences, general authorization for these licensees would not be reasonable. It is therefore essential for the regulator to manage the public resources in an orderly manner and to ensure the public can ultimately benefit from the utilization of those resources.

43. Given the diversified situations of space availability and utilization within buildings and underneath public streets or unleased Government land in Hong Kong, the TA considers that it would be essential to grant the access authorization on a case-by-case basis in order to achieve the objectives of efficient resource utilization. The case-by-case authorization intends to screen out those infrastructure roll-outs that cause inefficient resources and infrastructure utilization and do not aim to provide genuine fixed telecommunications service to the public. Such mechanism will therefore not affect genuine infrastructure competition.

44. In respect of the comments that only those new entrants committed to building out significant scale of network infrastructure should be granted the section 14(1) rights, the TA considers that it is an artificial barrier to entry which would impede the competition, and is not necessary under the full liberalization.

45. The case-by-case authorization for access to building has been put in place since the issuing of licences for operation of local wireless FTNS in 2000. The access of these FTNS operators to common parts in buildings for the roll-out of their infrastructure is currently subjected to the coordination mechanism facilitated by the OFTA. In the TA's view, the mechanism has in general been operating satisfactorily and the TA is stepping up effort to ensure smooth operation and educate the building owners and management on the benefits and obligations of building access.

46. The TA maintains that section 14(1) rights for access to buildings and road opening should be granted to newly licensed local wireline-based fixed network operators on a case-by-case basis. The authorized operators will be further subjected to any guidelines, regulations and coordination mechanisms imposed by the TA, and any other regulatory requirement under other authorities.

47. In addition the TA finds it essential to impose conditions to any section 14(1) rights to ensure the infrastructure will be rolled out as submitted in the applications and fixed telecommunications services over the infrastructure will be made available to the public. With such, the TA will grant section 14(1) rights to fixed carriers seeking the access rights for the provision of services to the public and on the condition that the installation work relating to the access will be completed on or before specified dates. If the work is not completed before the specified dates, the authorization may be extended at the discretion the TA based on the merits of the request for extension. For the avoidance of doubt, offering services only to affiliated companies or entities does not qualify as offering services to the public. Licence conditions would prevent attempts to avoid or by-pass such requirements, e.g. offering services to the public with prohibitively high prices, or discriminatory pricing schemes between affiliated companies/entities and non-affiliated parties.

48. Whilst the TA promotes facilities competition, the environmental factor may limit the development of in-building infrastructure using the prevailing means and methods of laying telecommunications cables and installation of equipment. Over duplication of infrastructure would also lead to inefficient usage and wastage of valuable space within buildings.

49. To this end, the TA does encourage innovative means that can overcome any space problems for development of in-building infrastructure or wireless means for end customer access. The TA has decided and announced in his Statement of 18 May 2001 to allow local FTNS operators to apply for authorizations to use the band of 5,850 – 5,950 MHz (which is allocated to Fixed Satellite Service) on a shared and uncoordinated basis for fixed wireless access use. The TA will continue to identify and allocate suitable radio spectrum to facilitate fixed wireless access to users in buildings. The TA would also consider granting section 14(1) right for access to buildings for in-building infrastructure roll-out that deploys innovative technology without putting more strain on the limited resources available.

50. For the conventional in-building access networks occupying the usual common parts in buildings, the TA will consider whether there is adequate space in the buildings to accommodate the additional facilities, and the feasibility to interconnect to existing systems. In this regard the TA encourages joint projects for building access to minimize inconvenience caused to residents and for the efficient use of valuable space.

EXTERNAL AND LOCAL WIRELESS FTNS OPERATORS TO OPERATE LOCAL WIRELINE-BASED FIXED NETWORKS

51. The TA sees general support from the submissions to allow existing FTNS operators to apply for the extension of their scope of services to operate local wireline-based fixed networks and other forms of FTNS. However, PCCW-HKTC and HGC objected to the proposal to allow external facilities operator to operate local

wireline-based fixed networks for their own backhaul usage, and AGC objected to the extension of scope of services if no substantial commitment on investment is provided.

52. Mobile operators (HKCSL, Hutchison, Peoples, SmarTone and SUNDAY) submitted that mobile carriers should be given the same statutory right as fixed carriers and be allowed to self-build their own circuits between base stations and mobile switching centres. They also considered that the TA's views in the Consultation Paper that mobile carriers self-building wireline networks would cause environmental concern were contradictory to his views put forward in the same paper that roll-out of additional wireline networks would not cause much environmental problem.

53. The TA has addressed the matter of requirements for performance commitments and minimum scale of network roll-out in earlier paragraphs. The TA maintains that local wireless FTNS and external FTNS operators may apply to extend their scope of services to operate local wireline-based fixed networks and other forms of FTNS. These applications will be subjected to the same licensing criteria set out for the new fixed carrier licence applications.

54. Backhauls of external FTNS operators are the circuits linking the cable landing points or satellite earth stations to the external gateways or Points of Presence ("PoP") normally in the urban areas. At present, external FTNS operators licensed during the Moratorium period are not allowed by licence conditions to construct and operate their own backhauls. They are therefore required to obtain backhauls from licensed local wireline-based fixed network operators. Operation of backhauls is by nature self-provisioning and does not satisfy the criteria of offering the service to the public. Therefore an application to operate backhauls only would not satisfy the licensing criteria for a licence to operate local wireline-based fixed networks. The TA considers that the backhauls may be treated as a continuation of the external circuits which terminate at the external gateways or PoP. Therefore, the TA considers that external FTNS operators may apply to have their external FTNS or fixed carrier licences modified, with effect from 1 January 2003, to include the right of operating backhauls without applying for a full-scale local fixed network licence. If the external FTNS or fixed carrier licensees are granted with such right, they may participate in the activities (a) to (e) listed in paragraph 17 for the purpose of installing and operating the backhauls from 1 January 2003. They may also apply for authorization for road opening under section 14, but such an application, as for other applications, would be considered on its own individual merits, for example, whether the road opening may be avoided by sharing existing ducts along the route concerned. If the external FTNS or fixed carrier licensees wish to apply for the licence for local fixed wireline networks, they have to meet the licensing criteria as for other applicants, including offering local fixed service to the public.

55. In respect of a mobile carrier's need for wireline networks for connection between mobile switching centres and base stations, the TA considers that given the large number of base stations for public mobile services, such use will lead to large-scale requirements for point-to-point wireline installation. This will cause more

uneconomical consumption of public resources, in respect of space underneath public streets or unleased Government land, and more road opening disturbances, than a wireline network for offering fixed telecommunications services to the public. When the local FTNS market is fully liberalized, mobile operators can benefit also from the intensified competition. As pointed out in earlier paragraphs, the TA has to ensure the public can benefit from the further competition while the amount of road opening should be minimised. Therefore, the TA decides that only FTNS and fixed carrier licensees should be allowed to operate wireline-based fixed networks.

56. A mobile network operator may also apply for a licence to operate local wireline-based fixed networks provided that the application meets the licensing criteria as for other applications. In other words, the application must not be primarily for self-provision of the circuits for the operation of the mobile services. To satisfy the licensing criteria, the applicant must be prepared to offer fixed services to the public.

INVITATION FOR PROPOSALS

57. Following the implementation details described above, the TA will invite proposals for applying for fixed carrier licences for the operation of FTNS, including the local wireline-based fixed networks from 1 January 2003. The TA has separately issued today a set of guidelines entitled “Guidelines for the Submission of Proposals Applying for Fixed Carrier Licences for the Operation of Fixed Telecommunications Network Services from 1 January 2003 in the Hong Kong Special Administrative Region” (the “Guidelines”) to invite interested parties to submit proposals applying for fixed carrier licences or extension of scopes of services of existing FTNS or fixed carrier licences for the operation of local wireline-based fixed networks and/or other forms of FTNS from 1 January 2003.

Office of the Telecommunications Authority
11 January 2002

**Guidelines for the Submission of Proposals
Applying for Fixed Carrier Licences
or Modifying Scopes of Services of FTNS or Fixed Carrier Licences
for the Operation of Fixed Telecommunications Network Services
from 1 January 2003
in the Hong Kong Special Administrative Region**

11 January 2002

Section I - Introduction

- 1.1 These Guidelines are issued under section 6D(2)(a) of the Telecommunications Ordinance (Cap. 106) (the “Ordinance”). They indicate the manner in which the Telecommunications Authority (TA) proposes to perform his function of determining applications for fixed carrier licences for the operation of fixed telecommunications network services (“FTNS”), including the local wireline-based fixed networks from 1 January 2003. These Guidelines are designed to assist interested parties in formulating their proposals. They do not bind the TA to grant any licence nor on the terms of any licence to be granted. The TA reserves the right not to accept any proposal submitted. All proposals will be considered on their merits having regard to the relevant factors as they stand at the relevant time. Nothing in these Guidelines should be taken to bind the TA to any particular course of action in relation to the handling of proposals that may be submitted as envisaged in these Guidelines.
- 1.2 Interested parties who intend to operate external FTNS **before** 1 January 2003 should make reference to the “Guidelines for the Submission of Proposals Applying for Fixed Carrier Licences for the Operation of External Fixed Telecommunications Network Services in the Hong Kong Special Administrative Region” dated 18 May 2001 instead.
- 1.3 According to the TA Statement issued on the same date as these Guidelines on the full liberalization of the FTNS market, there will be no pre-set limit on the number of fixed carrier licences for the operation with effect from 1 January 2003 of local wireline-based fixed networks as well as other forms of local and external FTNS. Licensed wireline-based fixed network operators may apply for authorization under section 14(1) of the Ordinance for access to common parts in buildings, public streets and unleased Government land for the rollout of their networks. The TA will consider the applications for section 14(1) authorization on a case-by-case basis as explained in paragraphs 2.21 to 2.23 in Section II below.

- 1.4 All proposals applying for fixed carrier licences will be evaluated on their merits having regard to the information provided as requested in **Section IX** and to the broad licensing criteria outlined in **Section X** of these Guidelines. In considering any proposal applying for fixed carrier licence the TA will also consider the benefit of the proposed network to the community, more specifically the type of services to be offered and the intended coverage areas, the reasonableness of the business plan and the applicant's financial capability to fulfil the capex requirement. Existing FTNS or fixed carrier licensees for wireless-based local FTNS or external facilities may also apply for modifications to the scopes of services under their licences to operate local wireline-based fixed networks and other forms of FTNS and they are required to submit same information specified in these Guidelines as for those who apply for new fixed carrier licences. Existing FTNS or fixed carrier licensees for external facilities who wish to modify the scopes of services under their licences to self-provide backhaul only do not need to submit full information. They are only required to provide information related to locations of their cable landing stations, earth stations and external gateways or the Points of Presence and general information on the proposed routing of the backhaul.
- 1.5 Proposals may be submitted in any format but they should include detailed information as required under **Section IX** of these Guidelines and as much documentary evidence as possible to substantiate the claims made in their proposals.
- 1.6 The applicants should use their best endeavours to ensure that all information contained in their proposals and any other subsequent submissions and representations are correct and accurate in all respects, in reliance upon which the TA will consider the proposals. Any change to the proposal after the submission will require the consent of the TA before it could be accepted.
- 1.7 Proposals should be submitted in triplicate under confidential cover and reach the TA at the following address:
- The Telecommunications Authority
29/F, Wu Chung House
213, Queen's Road East
Wanchai
Hong Kong
(Attn.: Senior Regulatory Affairs Manager,
Economic Regulation 1)
- 1.8 Receipt of proposals by the TA will be acknowledged individually.
- 1.9 The TA may request the applicants to provide additional information to clarify or supplement the proposals submitted.

- 1.10 The TA reserves the right to disclose the names of the parties who have submitted proposals. All other information received will be treated in confidence. Where the TA proposes to disclose any information from the proposals and he considers that the disclosure would result in the release of sensitive information concerning business or commercial or financial affairs of the relevant parties, the TA will give the relevant parties concerned a reasonable opportunity to make representations on the proposed disclosure before the TA makes a final decision on whether or not to disclose the information.
- 1.11 There is no deadline for the submission of proposals. The proposals will be considered as and when they are received.

Section II – The Regulatory Framework for FTNS in General

Fixed Telecommunications Network Services

- 2.1 FTNS refers to the operation of telecommunications facilities for communications between fixed points. It is distinct from the operation of telecommunications services carried over the facilities operated by FTNS or fixed carrier licensees. A fixed point means a network termination point and shall include such area within the immediate vicinity of such a point as the TA may direct in writing, either generally or specifically, to allow limited mobility for access to that point in a certain manner.
- 2.2. Local FTNS is for communications between fixed points within the Hong Kong Special Administrative Region (SAR), whereas external FTNS is for communications (a) between one or more points in the Hong Kong SAR and one or more points outside the Hong Kong SAR; and (b) between two or more points outside the Hong Kong SAR but routed in transit via the Hong Kong SAR.

Market Liberalization

- 2.3 Competition in the local FTNS market was introduced in 1 July 1995 when three new entrants¹ were licensed as FTNS operators in addition to the former monopoly operator, Hong Kong Telephone Company Limited (the “wireline-based FTNS operators”).

2.4 On 5 May 1999, the Government announced that the local and external FTNS market would be further liberalized as from 1 January 2000, whereas the moratorium on the issue of further licences for the construction and operation of new local wireline-based fixed networks (the “Moratorium”) should be extended to 31 December 2002. Along with the decision, the Government has, in 2000, granted five FTNS licences for the operation of wireless-based local FTNS and one FTNS licence for Hong Kong Cable Television Limited to provide local FTNS over its Hybrid Fiber Coaxial Cable Network. FTNS licences or fixed carrier licences were also granted for the operation of external telecommunications facilities based on non-cable means and direct investment in “new” cables defined as cables for which the “Management and Construction Agreement” was signed on or after 5 May 1999. Until 31 December 2002, no licence would be granted for the operation of external facilities based on capacity in submarine or land cables acquired through the purchase of

¹ The three new entrants are New World Telephone Limited, Wharf New T&T Limited and Hutchison Global Crossing Limited.

Indefeasible Right of Use of cables (“IRU”)². There is no pre-set limit for the number of licences for the operation of cable-based or non-cable based external facilities.

- 2.5 The FTNS licences of the three new entrants which entered the market in 1995 were also modified to expand the scope of the services which may be provided to cover, in addition to local FTNS, external services from 1 January 1999 and external facilities from 1 January 2000.
- 2.6 On 31 January 2001, the TA modified the FTNS licence held jointly and severally by PCCW-HKT International Limited (“PCCW-HKTI”), PCCW-HKT Telephone Limited (“PCCW-HKTC”) and PCCW-HKT CAS Limited (“PCCW-HKTCAS”). After the modification, separate FTNS licences are held by PCCW-HKTC and PCCW-HKTI. PCCW-HKTCAS is no longer an FTNS licensee. PCCW-HKTI (now known as Reach Networks Hong Kong Limited (“Reach”)) is authorized under its FTNS licence to operate external facilities and to provide external gateway services on a wholesale basis, whereas PCCW-HKTC is authorized under its FTNS licence to provide all local facilities and services, and to provide external services on a retail and wholesale basis.
- 2.7 A consultation paper was issued on 16 October 2001 to invite comments from the industry and interested parties on the implementation of the full liberalization of the fixed telecommunications network services market from 1 January 2003. Having considered the submissions from the consultation, the TA has finalized the implementation details and decided to invite interested parties to submit their proposals for fixed carrier licences for the operation from 1 January 2003 of local and/or external FTNS, which may include local wireline-based fixed networks, and/or external telecommunications facilities based on non-cable based means and/or cable capacity through direct investment or acquisition of IRU. No further distinction would be drawn between cables with the “Management and Construction Agreement” drawn up before or after 5 May 1999.
- 2.8 The TA does not see any insurmountable technical constraints in implementing the full liberalization of the local fixed telecommunications market. Nevertheless, the TA acknowledges that there may be physical constraints in certain areas within the territory, such as business and densely populated districts, for network rollout using the prevailing technical methods such as laying underground ducts and gaining access to limited space within buildings. However, the TA is mindful that there are likely technical alternatives, available now or upcoming, or administrative arrangements to overcome the constraints. The market players should identify and deploy their own business solutions to

² These IRUs are rights over a certain capacity of the half circuit from Hong Kong to a mid-point and would have to be matched with a similar IRU half-circuit from the distant end to the mid-point. IRUs can be obtained in the secondary market from existing carriers or in the primary market by investing in up-coming submarine cable projects.

overcome the constraints. The licences issue will be technology-neutral, subject to the requirement for authorization for the TA for the use of spectrum.

Fixed Carrier Licence

- 2.9 Before 1 April 2001, the operation of FTNS was regulated under the FTNS licensing regime. With the carrier licence regime coming into force on 1 April 2001, the fixed carrier licence has been used to regulate the operation of FTNS, while the FTNS licences already issued will continue to be in force until expiry. To ensure a level playing field, the existing FTNS licensees and the fixed carrier licensees will be allowed to operate with similar obligations and rights. The licence conditions of a fixed carrier licence are essentially the same as those of an FTNS licence, except some of the general conditions of the FTNS licence now become special conditions in the fixed carrier licence and conditions on matters that have been incorporated in the Ordinance by the Telecommunication (Amendment) Ordinance 2000 are removed from the licence to avoid duplication³. The reason for such restructuring of the licence is that all categories of carrier licences are to possess the same set of general conditions. Therefore, conditions that are suitable for application to a particular category of carrier licences and may not be applicable to other categories of licences have become special conditions.
- 2.10 The fixed carrier licence, like the FTNS licence, provides a framework whereby more stringent conditions are applied to the dominant operator only. The TA may waive the application of certain licence conditions to a licensee if the TA has formed the view that the licensee is not dominant in the relevant market. The licence conditions in question are those requiring the licensee to submit tariffs for the approval of the TA and not to give any discount to customers unless the discount has been included in the tariffs approved by the TA. At present, PCCW-HKT Telephone Limited and Reach Networks Hong Kong Limited are classified by the TA as dominant in the local and external FTNS markets respectively. However, the operators may submit applications to the TA at any time to seek a declaration of non-dominance in the relevant market. The tariffs of non-dominant licensees are only subject to the publication requirements as stipulated in the licence.
- 2.11 A fixed carrier licensee is only permitted to operate the FTNS specified in the relevant Schedule to its licence on “Scope of Service”. The scope of service may include local FTNS and/or external FTNS depending on the scope of services proposed by the operator during the application stage and approved by the TA on a case by case basis.

³ The relevant conditions which are now incorporated into the main legislation include those relating to the inspection and testing of installations (section 7J), anti-competitive conduct (section 7K), abuse of position (section 7L), requirement to furnish information (section 7I), inspection of records, documents and accounts (section 35A), and provision, use and sharing of facilities (section 36AA).

- 2.12 It should be noted that other types of licences may permit a licensee to establish the kind of facilities or services which may overlap with those allowed under a fixed carrier licence, such as:
- 2.12.1 Self-provision of external circuits for the transmission and reception of telecommunications messages is permitted. Such circuits may be licensed under Self-Provided External Telecommunications System (“SPETS”) licence. The form and licence conditions of this licence are determined by the TA and were published in the Gazette on 6 April 2001. The form and general conditions of the licence are also published in the OFTA’s website.
 - 2.12.2 The Satellite Master Antenna Television (“SMATV”) licence allows the licensees to receive telecommunications signals from satellites. The form and licence conditions of this licence are determined by the TA. The form and general conditions of the licence were also published in the Gazette and are posted on OFTA’s website.
 - 2.12.3 Since 1 January 1999, external telecommunications services have been operated by service providers under Public Non-exclusive Telecommunications Service (“PNETS”) licences. There is no pre-set limit on the number of such licences. Currently, the PNETS licensees are required to use the transmission facilities (e.g. switched or leased circuits) supplied by any carrier (FTNS licensees, fixed carrier licensees or mobile carrier licensees) for the operation of their services.
 - 2.12.4 The TA intends to create a class licence in 2002 for the authorization of in-building telecommunications systems operated by persons with interest in the property where the systems are installed. Conditions under the class licence will require non-discriminatory access to the licensed systems by other operators of telecommunications and broadcasting services.

Interconnection

- 2.13 Interconnections between telecommunications networks and services are governed by section 36A of the Ordinance and the licence conditions of the FTNS or fixed carrier licence. The TA has also issued a series of TA Statements (No. 1 to No. 10) during the period 28 March 1995 - 21 June 1995 on “Interconnection and Related Competition Issues”, setting out the principles, including charging principles, for seeking and effecting interconnection. Statement No. 7 dealing with carrier-to-carrier charging principles was revised on 18 November 1997. These Statements may be downloaded from the OFTA’s website. Statement No. 4, 5, 6, 7(revised) and 8 are currently under review. All

TA statements are subject to revision. Notwithstanding the above, newly licensed or modified local wireline-based fixed operator for operation from 1 January 2003 will not have access to, and co-location at, the incumbent's telephone exchanges for Type II interconnection as of right. However, requests for such access and co-location may be considered by the TA on a case-by-case basis, depending on the merits of the requirements and the constraints in the exchanges concerned.

- 2.14 In November 1999 and June 2000, the TA conducted two rounds of consultation on the technical and commercial aspects of "broadband interconnection". These consultation exercises resulted in the issue of the TA Statement on 14 November 2000 on the regulatory framework for broadband interconnection.
- 2.15 A fixed carrier licensee, being a carrier, has the right to seek interconnection with other carriers and the interconnection charges may be negotiated on a "carrier-to-carrier" basis. The TA encourages commercial settlement of interconnection arrangements. If there is no commercial agreement licensees may seek a determination by the TA. According to section 36A of the Ordinance, the TA has the power of determining the terms and conditions, including technical and commercial terms and conditions, of the interconnection.
- 2.16 From 1 January 1999, an arrangement for local access charge ("LAC") and modified delivery fee arrangement has been implemented. The arrangement provides for charges to be payable to the operator of a local fixed network for the provision of access to external services operated by others. Interested parties should refer to the TA Statement of 25 November 1998 and the TA's Determination of 30 December 1998 for the details of this arrangement.

Competition Provisions

- 2.17 Sections 7K, 7L, 7M and 7N of the Ordinance prohibit anti-competitive practices, abuse of dominant position, misleading and deceptive conduct and discriminatory practices respectively. If a licensee is found to be in breach of the sections, the TA may issue directions under section 36B of the Ordinance to require the licensee to stop the breach and/or impose financial penalty under section 36C.

Sharing of Use of Facilities

- 2.18 The sharing of "bottleneck" facilities is governed by section 36AA of the Ordinance. The TA encourages commercial agreements for the sharing of the "bottleneck" facilities. If commercial agreements could not be reached within a reasonable period and subject to passing the "public interest" tests specified in the section, the TA may direct sharing of the "bottleneck" facilities and determine the terms for such sharing.

Numbering Plan

- 2.19 According to section 32F of the Ordinance, the numbering plan of the HKSAR is administered by the TA in consultation with the Telecommunications Numbering Advisory Committee which has representatives from the industry, consumer associations and academics, etc. At present, the four wireline-based FTNS operators are each allocated a short access code “00X” for access to the external services operated by these operators. However, the supply of such short access codes is understandably limited. FTNS operators which enter the market in or after 2000 are being assigned with 4-digit access codes on a need basis.
- 2.20 FTNS operators are required to substantiate their need for numbers for telecommunications services. The numbers are allocated by the TA in accordance with the relevant numbering plan guidelines and certain restrictions or conditions may apply.

Right of Way

- 2.21 A fixed carrier licensee may be authorized under section 14(1) of the Ordinance to open up public roads/streets and unleased Government land to lay underground ducts and telecommunications lines. New fixed carrier licensees entering the market from 1 January 2003 are required to apply to the TA for authorization for specified routes. Such authorization will 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 (which include a road opening coordination procedure) and the Excavation Permit regime administered by the Highways Department. The licensees shall obtain for themselves any such necessary approvals from the relevant government bodies such as Highways Department before commencing any road opening works
- 2.22 A fixed carrier licensee may also be authorized under section 14(1) to gain access to common parts of buildings to install in-building telecommunications systems. Given the limited space in the common parts within buildings, it is highly unlikely that the demand of all licensed FTNS operators can be accommodated, if they all choose to roll-out their own in-building telecommunications systems. As for licensees for wireless fixed networks entering the market in 2000, new fixed carrier licensees entering the market from 1 January 2003 are required to apply to the TA for authorization for access to specified buildings under section 14(1), and the authorization, if so justified and approved by the TA, will be granted on a case-by-case basis.

- 2.23 To ensure the telecommunications infrastructure will be used for provision of FTNS to the public, the rights under section 14(1), either for road opening or access to buildings, will be granted for the installation and operation of facilities for the provision of services to the public and on the condition that the installation works will be completed on or before specified dates. Extension to the specified dates will be subject to the approval by the TA. For the avoidance of doubt, offering services only to the licensee itself or to affiliated companies or entities does not qualify as offering services to the public.

Universal Service Obligation

- 2.24 Under section 35B of the Ordinance, the TA may require that one or more fixed carrier licensees have a Universal Service Obligation (“USO”). The details of the USO in the HKSAR are given in the TA Statement of 14 January 1998. At present, only PCCW-HKTC has the USO. A system of Universal Service Contribution (“USC”) is implemented which requires operators of external services to share the costs of meeting the USO. The details of the USC are also given in the above-mentioned TA Statement. The TA intends to review the USO and USC arrangements to cope with the current and envisaged future market conditions. As a result of this revision, fixed carrier licensees providing local FTNS may be required to share, on an equitable basis, the costs of meeting the USO.

Radio Spectrum

- 2.25 According to section 32H of the Ordinance, the TA is empowered to allocate and manage frequencies and bands of frequencies in all parts of the radio spectrum used in Hong Kong.
- 2.26 Subject to the availability of radio spectrum, fixed carrier licensees may deploy wireless technologies to provide their FTNS using the radio spectrum and radiocommunications installation approved by the TA and incorporated in their fixed carrier licences. The TA has decided and announced in his statement of 18 May 2001 that local FTNS operators may apply for authorization to use the band of 5,850 - 5,950 MHz (which is allocated to Fixed Satellite Service) on a shared and uncoordinated basis for fixed wireless access purpose. The TA will continue to identify and allocate suitable radio spectrum to facilitate wireless access to users in buildings.

Section III - General Information Relating to Local FTNS

- 3.1 The fixed carrier licence for local FTNS may cover all local telecommunications services between fixed points within the HKSAR capable of being provided utilizing the fixed network, wireline-based or wireless-based or a combination of both where applicable, operated by the licensee. An example of detailed scope of service is given in Schedule 1 of the sample fixed carrier licence in Annex 1. The schedule will be drafted to reflect the scope of services proposed by the applicant in its application.
- 3.2 As stated in paragraphs 2.21 to 2.23, wireline-based fixed network operators may apply for authorization to lay telecommunications lines in public roads/streets and unleased Government land under section 14(1) of the Ordinance. Operators that are licensed to operate wireless-based FTNS **only** will not be granted with such rights.
- 3.3 As stated in paragraphs 2.21 to 2.23, local FTNS operators may be granted authorization under section 14 of the Ordinance to gain access to the “common parts” of multi-storey buildings for the installation of radio stations or in-building wiring systems to reach the customers. The “common parts” will include the portion of rooftops which are “common parts”.
- 3.4 All applications for authorization to be granted under section 14(1) will be subject but without limitation to conditions as stated in paragraphs 2.22 to 2.23 in **Section II**.
- 3.5 The local FTNS network may interconnect to the following facilities:
 - 3.5.1 Line transmission facilities (including those for trunk transmission) provided by a local wireline-based FTNS licensee; and
 - 3.5.2 In-building blockwiring systems and coaxial cable facilities provided by a local wireline-based FTNS licensee, subscription television broadcasting licensee, Satellite Master Antenna Television ("SMATV") system operators or building developers, a class licensee referred to in paragraph 2.12.4, which have been licensed, deemed to be licensed, or exempted from licensing, under the Ordinance to provide such facilities within single block of building or multi-blocks of buildings in a self-contained development.
- 3.6 The terms and conditions of interconnection will be subject to commercial negotiation between the licensee and the operators of the above-mentioned facilities. If agreement could not be reached after a reasonable period of

commercial negotiation, the TA may be requested by any one of the licensees to make a determination on the terms and conditions of such interconnection.

Section IV - General Information Relating to External FTNS

- 4.1 The fixed carrier licence for external FTNS is to authorise the licensee to provide external facilities as well as external services operated over external facilities. Access to the external facilities or services provided by a fixed carrier licensee for external FTNS will be through the public switched networks (of local fixed network operators or local mobile network operators) or by leased circuits provided by licensed local FTNS operators or fixed carrier licensees. Generally, the point of interface between the external facilities under a fixed carrier licence for external FTNS and local fixed/mobile networks is the external gateway or Point of Presence (“POP”) of the external fixed carrier licensee.
- 4.2 An external FTNS or fixed carrier licensee may apply for the authorization to lay telecommunications lines in public roads/streets and unleased Government land under section 14(1) of the Ordinance for their backhaul circuits for the purpose of connecting the landing points of external facilities (either cable stations or earth stations) with their external gateways or the PoP. Such applications will be considered on their individual merits taking into account, among other things, whether there are existing ducts that may be shared along the proposed routing.
- 4.3 For the avoidance of doubt, any fixed telecommunications facilities or services connecting the customers in the Hong Kong SAR to the PoP, and the supply of backhauls to other fixed carrier or FTNS licensees for external facilities fall within the scope of services of licensees with authorization to provide local FTNS.
- 4.4 An applicant may in the same application propose to operate any form of external FTNS based on cable or non-cable facilities.

**Section V - Information for Applicants Who Intend
to Provide Non-cable-based External FTNS**

- 5.1 The proposers may wish to explore the feasibility of establishing their satellite earth stations inside the teleport site situated at Chung Hom Kok. The application for such a site is subject to a separate tender exercise, the details of which will be published in Government Gazette Notice from time to time.
- 5.2 The fixed carrier licensees for external FTNS will not be granted access rights under the licence or section 14(1) of the Ordinance for the establishment and maintenance of satellite earth stations on private premises (leased land).

Section VI - Information for Applicants Who Intend to Provide Cable-based External FTNS

- 6.1 The cables may be overland or submarine cables.
- 6.2 The applicant may choose to build its own cable landing stations but there is no obligation on the HKSAR Government to grant a site for such a purpose. Application for a cable landing site will be the subject of a separate exercise and the applicant will need to apply to the Director of Lands and other relevant authorities in accordance with the usual land planning and disposal application procedures.
- 6.3 Currently, there are three cable landing stations operated by Reach Networks. They are situated at Cape D’Aguilar and Deep Water Bay on the southern side of Hong Kong Island, and at Tong Fuk on Lantau Island. The TA may consider proposals for sharing the use of these sites provided that the applicants are able to demonstrate to the TA that the facility on those sites would constitute a bottleneck facility and that it is technically feasible to share the facility. Full details for the sharing of the bottleneck facility should be given in the application. Interested parties are also invited to refer to the TA Statement issued on 19 September 2000 entitled “Access and Co-location at Cable Landing Stations”.
- 6.4 The applicants may wish to explore the feasibility of establishing their cable stations inside the teleport site situated at Chung Hom Kok. The application for such a site is subject to a separate tender exercise, the details of which will be published in Government Gazette Notice from time to time.

Section VII – Preparatory Works Allowed Before Moratorium Ends

- 7.1 In line with the Government's policy to facilitate the operation of new competitive local wireline-based fixed networks as soon as practicable when the Moratorium ends on 31 December 2002, new fixed carrier licences for the operation of local wireline-based fixed networks will be issued as early as possible in 2002. Modification of licences for external facilities to allow the construction and operation of backhauls from 1 January 2003 will also be considered before 1 January 2003. However, the licensees will not be allowed to engage in the following activities before 1 January 2003:
- 7.1.1 Construction of ducts across public streets or unleased Government land;
 - 7.1.2 Installation of telecommunications cables across public streets or unleased Government land; and
 - 7.1.3 Operation of the fixed wireline-based networks or backhauls.
- 7.2 Before 1 January 2003, new fixed carrier licensees for local wireline-based fixed networks and licensees for external facilities with the licences modified to include the right to operate backhauls from 1 January 2003 are, however, permitted to engage in certain preparatory works or activities, including but not limited to the following:
- 7.2.1 Recruitment of staff, planning and design of network, acquisition and taking delivery of cables and equipment;
 - 7.2.2 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 wireline-based fixed network from 1 January 2003; and
 - 7.2.3 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 from 1 January 2003, or leasing the space for laying ducts from 1 January 2003.
- 7.3 In 2002, new fixed carrier licensees for local wireline-based fixed networks and licensees for external facilities with the licences modified to include the right to operate backhauls from 1 January 2003 may apply to the TA for authorization under section 14(1) for road opening for specified routes or, in the case of licensees for local wireline-based fixed networks only, access to specified buildings. The TA will consider the applications on a case by case basis. Authorizations if granted will specify that actual access for laying of ducts or

cables will not be permitted before 1 January 2003. However, they will be allowed to participate in

7.3.1 road opening coordination of the OFTA and Highways Department to coordinate and obtain approval for road opening work after the end of 2002; and

7.3.2 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 shall not be occupied before 1 January 2003.

7.4 The above arrangements will only be necessary in 2002 before the Moratorium ends.

Section VIII - Licensing Arrangement

- 8.1 A fixed carrier licensee for the provision of FTNS shall be a company registered under the Companies Ordinance (Cap. 32) in the HKSAR. There will be no foreign ownership restriction on the licensee.
- 8.2 The provider of the FTNS will be granted a fixed carrier licence with special conditions and schedules suitable for facilities-based fixed telecommunications network services. The licence shall be valid for 15 years from the day on which it is issued and, at the discretion of the TA, may be renewed for a further period not exceeding 15 years as the TA thinks fit.
- 8.3 The basic licence conditions of a fixed carrier licence for FTNS are attached in Annex 1.
- 8.4 Additional special conditions may be imposed on a fixed carrier licence for FTNS. These special conditions will be tailored to the requirements of the licensing of FTNS and may be specific to each licence. They would be specified by the TA upon the issue and subsequent renewal of the licence. The special conditions will be drafted after review of the application proposals, but are expected to cover, though not limited to, the following areas:
- 8.4.1 A requirement to construct a network and provide services in accordance with the licensee's proposal, submissions and representations to the TA;
- 8.4.2 A requirement that the Licensee shall not commence the Service, in whole or in part, before 1 January 2003.
- 8.4.3 Any other conditions, consistent with the Ordinance and not inconsistent with the prescribed general conditions, which the TA considers necessary.
- 8.5 In addition, the fixed carrier licence will contain a number of schedules dealing with the description of the licensed service, the licensed network, the technical particulars of satellite earth stations and terrestrial radio stations and the frequency spectrum used for the provision of the licensed service.
- 8.6 The licence fee for fixed carrier licence is prescribed in the Telecommunications (Carrier Licences) Regulation. The licence fee will include three components: a basic fee, a fee depending on the number of customers connected to the network and a fee depending on the width of the frequency spectrum used for the provision of the licensed service. In the case of shared spectrum, a reduction factor is applied. The current reduction factor for spectrum below 1 GHz is one (1), for spectrum above 1 GHz is six (6), and for 5.8GHz band is fifty (50). No

spectrum width related licence fee, however, is currently payable for spectrum assigned on a shared basis for satellite communications.

- 8.8 The licence fee has to be paid on the date of issue of the fixed carrier licence and each anniversary thereof.

Section IX - Information to be Provided in Proposals

9.1 Applicants for fixed carrier licence or existing FTNS or fixed carrier licensee applying to modify the scopes of services under their licences should specify clearly the scope(s) of service(s) that they propose to operate. Existing external FTNS or fixed carrier licensees for external facilities applying to modify the scope of services of their licences to self-provide backhaul only do not need to submit the full information specified in this Section. They are only required to provide information related to locations of their cable stations, earth stations and external gateways or the PoP and general information on the routing of the proposed backhaul. (Specific information on the routing of the backhaul is required after licensing during the stage of application for authorization under section 14(1) if required.)

9.2 Company Structure

9.2.1 A company which wishes to operate any form of FTNS must be registered in the HKSAR under the Companies Ordinance. The application proposal should contain details of the company, including:

- (a) photocopies of the Certificate of Incorporation and the Business Registration Certificate of the company;
- (b) detailed information on corporate and shareholding structure including relationships with holding or related companies;
- (c) certified copies of the company Memorandum and Articles of Association;
- (d) details on the composition of the company Board of Directors and key officers; and
- (e) the organizational/management structure and staffing levels of the company and any principal contractors to be employed in constructing and maintaining the network.

9.2.2 Successful applicants should be committed to the provision of the proposed service in the HKSAR as detailed in their proposals, submissions and representations, including the part on company structure and shareholding.

9.3 Financial Capability

9.3.1 If the applicant is an established company, the proposal should include copies of audited profit and loss accounts and balance sheets and auditor reports for the last three full years, together with the most recently published interim results.

9.3.2 If the applicant is a newly-formed company, the proposal should include:

- (a) the directors' certificate of the amount of issued and paid-up share capital;
- (b) bankers' confirmation of the amount of its deposits and/or available credit facilities; and
- (c) copies of audited profit and loss accounts and balance sheets and auditor reports for the last three full years, together with the most recently published interim results, of the company's shareholding companies.

9.3.3 Proposals should include a detailed financial plan (with inflation assumptions) for the proposed services and network for the first ten years of operation including:

- (a) a breakdown of the proposed capital expenditure and of working capital requirements for the first ten years of operation;
- (b) projected profit and loss account including details of revenue, fixed and variable costs, balance sheet and budgeted cash flow statements, showing the amount of capital to be invested on an annual basis for ten years;
- (c) method of depreciation of assets;
- (d) projected volume of business and market share for the first ten years of operation;
- (e) the forecast internal rate of return and payback period of the project;
- (f) details of proposed financing structure, debt equity ratio of the project, credit facilities, repayment terms and schedule for loans and bonds, timing or injection of funding, and the level of shareholders' support to satisfy the TA that the applicant has sound financial backing to carry out the project; and

- (g) sensitivity tests on the business plan showing the worst case scenario (the worst case being one beyond which the company would not wish to invest) and a scenario in which the projected revenue level falls to 80% of the basic assumptions, details of contingency financial arrangements, balance sheet, profit and loss account, cash flow statements, capital investment plan, internal rate of return and payback period of the project.

9.4 Economic and Market Study

Proposals should include any economic and market study conducted on the potential demand for the forms of FTNS being proposed to operate, the projected market share that the applicant will be able to acquire in the next 10 years with as much information as possible.

9.5 Technical Details of the Facilities

9.5.1 Proposals should give a detailed description of the proposed facilities. This description should cover:

- (a) technical configuration including network infrastructure and components, the technology to be employed, the likely choice of equipment, system design, capacity, how the network and its ancillary equipment and facilities are planned to meet the proposed capacity, connectivity to destinations outside HKSAR, if applicable, and other technological characteristics;
- (b) the facilities upon launch of service and the facilities expansion plan for the first 10 years of operation;
- (c) the planned location of equipment to be installed;
- (d) the planned facilities and traffic management, signaling, metering and billing arrangements (where applicable) to be adopted; and
- (e) proposed interface for interconnection with other networks.

9.5.2 Proposals should give an indication of the preferred frequency bands and the associated radiation and immunity characteristics of the frequency spectrum, if any, that will be used for the provision of the proposed service. The amount of spectrum that will be made available and the exact limits of the frequency bands will be decided by the TA after review of the proposals received and taking into account the demand for frequency spectrum for other services in the HKSAR and other factors as he considers relevant in the circumstances.

9.5.3 Applicants should provide technical proposals for interconnection with the other fixed telecommunications networks (local and external) and the mobile telecommunications networks in the HKSAR.

9.6 Description of Proposed Services

Proposals should include a detailed description of all services to be provided, the target customers and their intended coverage areas upon the commissioning of the facilities and any plans for the introduction of new services. Proposal should also include a detailed description of the arrangements for offering wholesale and/or retail services to the public, and an explanation on how the applicant is not primarily relying on the interconnection and wholesale services of other operators' infrastructure to roll out their network or provision of their services.

9.7 Technical Support

Proposals should include details of technical support facilities and maintenance centres which the applicants have or intend to set up in the HKSAR, including a description of the technical personnel responsible for the design, construction, day-to-day operation, maintenance of the facilities and the routine maintenance schedule.

9.8 Previous Relevant Experience

9.8.1 Details on the previous experience of the applicant, its shareholders and key personnel in establishing and running fixed telecommunications networks, as well as information on the current status of these networks and services, should be given.

9.8.2 Information should also be provided on the applicant and its shareholders' experience in providing other general telecommunications services in the HKSAR or elsewhere, and experience in running other businesses in the HKSAR.

9.9 Implementation Plan

Proposals should include an implementation plan, giving the timing for significant milestones of implementation for the first three years, starting from the date of grant of the licence including where applicable the network planning, placing of order for equipment, delivery of equipment, acquisition of sites, securing access to buildings, construction of equipment buildings/rooms, earth stations or cable landing stations, conclusion of cable construction and maintenance of agreements, laying of cables, negotiations on interconnection

arrangements, installation of equipment and testing. The applicant will be required to adhere to this plan if a licence is subsequently granted. The TA wishes to see early availability of the proposed services.

9.10 Other Benefits to the Local Telecommunications Industry and Economy

Proposals which can demonstrate that their implementation will offer significant benefits to the HKSAR, for example, employment, manufacturing and wider trading opportunities, introduction of innovation and improvements to the local telecommunications industry and promotion of the HKSAR as an international telecommunications centre will be given special consideration.

9.11 Executive Summary

Proposals should contain an Executive Summary summarizing in a concise manner the significant and salient points of the proposals.

9.12 Other Information

Applicants may submit any other information not specified above which they consider helpful to their applications.

Section X - Broad Licensing Criteria

10.1 The basis for assessment of proposals will be the information supplied in response to the requirements set out in Section IX of this document. The TA reserves all rights not to accept application proposals which are substantially incomplete in this respect.

10.2 In considering any proposal applying for fixed carrier licence the TA will consider the benefit of the proposed network to the community, more specifically the type of services to be offered and the intended coverage areas, the reasonableness of the business plan and the applicant's financial capability to fulfil the capex requirement. The other licensing criteria include the following:

10.2.1 Business plan

The TA will examine the reasonableness of the business plan including in particular, whether estimates of the market and market shares are reasonable and whether the proposed capital expenditure would support the networks and services proposed.

10.2.2 Financial capability

The applicant must possess sufficient financial capability to invest to the level proposed. The proposer must demonstrate that each consortium partner, as appropriate, is financially sound. The applicant must satisfy the TA that it has sufficient financial backing, either by its own capital, the capital of its shareholders or loan capital to carry out the project. The applicant must have sound and detailed business plans with contingency measures to face unexpected down-turn in the business and the worst case scenario.

10.2.3 Technical soundness and a satisfactory quality of service

The proposed network must be technically sound, compatible with the local environment and be capable of delivering the services proposed to give a satisfactory quality of service. In particular, the quality of service should be satisfactory in the expected climatic conditions in HKSAR. Any radio frequency spectrum requirements must be compatible with spectrum allocation plans in HKSAR and the proposed system must use spectrum efficiently.

10.2.4 Proven managerial and technical expertise

The applicant must possess proven managerial and technical expertise to operate a satisfactory service, market the service in HKSAR and provide satisfactory customer support. The TA will consider the knowledge of the applicant or the consortium partners, as appropriate, about the local environment and their experience in the operation of external telecommunications facilities.

10.2.5 Service quality and charges

The TA will consider more favourably proposals which offer a wider range of services and more innovative services at more competitive prices and better quality of service.

10.2.6 Implementation schedule

The TA expects the licensee to determine their rollout plan. However the applicant should demonstrate abilities to manage such plan and the necessary facilities - telecommunications sites (e.g. exchanges, satellite earth stations, cable stations depending on the type of external facilities they plan to operate). The applicant should also demonstrate capability in negotiating and managing interconnection issues.

10.2.7 Quality of proposal

Proposals which are concise, clearly presented with each aspect substantiated by well researched facts and comprehensive independent market survey would receive more favourable consideration by the TA.

10.2.8 Benefit to the local telecommunications industry to customers in the HKSAR and to the economy as a whole.

The TA will consider the benefits that the proposals will bring to the telecommunications industry and the community as a whole. These benefits will include the type of services proposed to be provided, the coverage areas, the level of investment for network infrastructure, creation of new job opportunities, bringing into HKSAR new technological know-how and contribution to the local economy as a result of the investment.

10.2.9 A clearly workable and defined corporate structure which minimizes “deadlocks” and contain sensible dispute resolution procedures.

Proposals would not be favourably considered if there is a lack of clear controlling interest in a consortium (e.g. presence of fragmented shareholdings) or there is a lack of clearly workable and sensible

dispute resolution procedure and efficient mechanisms for deadlock resolution at Board or shareholder levels or there are doubts on the reliability of the proposer or its shareholders.

- 10.3 The licensing criteria set out in these Guidelines are not intended to be a definitive list of criteria. While evaluating whether the criteria have been satisfied, the TA is entitled to determine the weight he will give to the individual matter to which he considers appropriate in the circumstances, after taking the relevant factors into account, and will decide each case on its own merits.

Office of the Telecommunications Authority
11 January 2002

Sample Fixed Carrier Licence

General Conditions

As provided for under the Telecommunications (Carrier Licences) Regulation.

Special Conditions

As explained in paragraph 2.4 of these Guidelines, the general conditions of an FTNS licence which may not be applicable to other categories of carrier licence become special conditions of a fixed carrier licence. Additional special conditions will also be imposed. They will be drafted after review of the proposal of the successful applicant, but are expected to cover, though not limited to, the following areas:

- (a) a requirement to construct a network and provide services in accordance with the licensee's proposal, submissions and representations to the TA;
- (b) A requirement that the Licensee shall not commence the Service, in whole or in part, before 1 Jan 2003.
- (c) any other conditions, consistent with the Ordinance and not inconsistent with the prescribed general conditions, which the TA considers necessary.

Schedule 1 - Scope of Service

1. [for local FTNS]

Subject to General Condition 1.4, all local telecommunication services between fixed points capable of being provided utilizing the Network, other than telecommunication services which are the subject of an exclusive licence issued under the Ordinance, a licence deemed to be granted under the Ordinance, a mobile carrier licence, a public radiocommunication service licence, a radio paging system licence, a fixed carrier (restricted) licence⁴, or a service subject to licensing under any other ordinance or a satellite broadcasting service under a satellite television uplink and downlink licence.

⁴ A fixed carrier (restricted) licence only entitles the licensee to establish or maintain a telecommunications network for carrying television programmes within the meaning of section 2(1) of the Broadcasting Ordinance.

[for external FTNS]

Subject to General Condition 1.4, all external telecommunications services between fixed points capable of being provided utilizing the network, other than telecommunications services which are the subject of an exclusive licence issued under the Ordinance, a licence deemed to be granted under the Ordinance, a mobile carrier licence, a public radiocommunications service licence, a radio paging system licence, a fixed carrier (restricted) licence, a service subject to licensing under any other ordinance, or a satellite broadcasting service under a satellite television uplink and downlink licence.

2. For the purpose of this licence,

a “fixed point” means a network termination point and shall include such area within the immediate vicinity of such a point as the TA may direct in writing, either generally or specifically, to allow limited mobility for access to that point in such manner as the TA may approve in writing not inconsistent with Clause 1 of this Schedule 1;

a “local” telecommunications service means a service for communications between points within the Hong Kong Special Administrative Region; and

an “external” telecommunications service means a service for communications

- (a) between one or more points in the HKSAR and one or more points outside the HKSAR; and/or
- (b) between two or more points outside the HKSAR but routed in transit via the HKSAR.

3. **[for licences for local FTNS only]**

Nothing under this licence authorizes the licensee to establish any means of telecommunications for external telecommunications service.

[for licences for external FTNS only]

Nothing under this licence authorizes the licensee to establish any means of telecommunications for local telecommunications service. Access by customers to the external telecommunications services operated by the licensee shall be through internal telecommunications services lawfully operated in the HKSAR.

Schedule 2 - Description of Network

A description of the network comprising the external facilities operated by the licensee to be drafted after review of the proposal of the successful applicant.

Schedule 3 - Technical Particulars of Radio Stations for the Provision of the Service

To be drafted after review of the proposal of the successful applicant.

- End -

Liberalization of Local Fixed Telecommunications Markets in Selected Countries & Territories

	<i>Australia</i>	<i>Chinese Taipei</i>	<i>Japan</i>	<i>Singapore</i>	<i>South Korea</i>	<i>UK</i>	<i>US</i>
Date to open market	1997	2000	1997	2000	1997	1991	1996
Licences granted as of	79 August 2001	16 August 2001	285 March 2001	30 August 2001	18 December 2000	194 September 2001	251 December 2001
Limit on no. of Licences	No	No	No	No	No	No	No
Performance bond	No	Yes, to cover:- - incorporation of company - network construction - service provision	No	Yes, to cover:- - network rollout - service provision - regulatory compliance	No	No	No